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PREPARING FOR 2010: IS THE CENSUS BUREAU READY FOR THE JOB AHEAD?

HEARING

BEFORE THE

FEDERAL FINANCIAL MANAGEMENT, GOVERNMENT INFORMATION, FEDERAL SERVICES, AND INTERNATIONAL SECURITY SUBCOMMITTEE

OF THE

COMMITTEE ON
HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

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PREPARING FOR 2010: IS THE CENSUS BUREAU READY FOR THE JOB AHEAD?

TUESDAY, JULY 17, 2007

U.S. SENATE,
SUBCOMMITTEE ON FEDERAL FINANCIAL MANAGEMENT,
GOVERNMENT INFORMATION, FEDERAL SERVICES,
AND INTERNATIONAL SECURITY,
OF THE COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:33 p.m., in Room SD–342, Dirksen Senate Office Building, Hon. Thomas R. Carper, Chairman of the Subcommittee, presiding.

Present: Senators Carper and Coburn.

OPENING STATEMENT OF SENATOR CARPER

Senator CARPER. The hearing will come to order. Welcome, everyone. Mr. Kincannon, thank you for being our lead-off witness. We are going to be joined shortly by Senator Coburn, but I am going to go ahead and start.

We have a vote scheduled for 2:45, and my hope is that we may be able to have opening statements and to actually get through your statement, Mr. Kincannon, and then break, go vote, and then come back and just grill you for about the next 5 hours.

No, I am just kidding. We will not. It will seem like 5 hours, but it will not be, I promise you. Thanks for coming.

The hearing today is not our first on the census, but it is one that we hope will be the beginning of our efforts to exercise effective oversight with respect to the Census Bureau's preparations for the 2010 census.

My thanks to our Ranking Member, Senator Coburn, for his commitment to this oversight work and for making it clear that the arrival of the latest decennial census does not mean that American taxpayers should write out a blank check. And I agree with Dr. Coburn on that score.

The requirement that the Federal Government conduct a census every 10 years is enshrined in Article 1, Section 2 of our Constitution. It is something that we have to do and we have to do it right. Innumerable programs at all levels of government depend on an accurate census, as does the work of a number of academics and others out side of government. The make-up of the U.S. House of Representatives also depends on its outcome—except in States like Delaware where we only have one Representative. But in a lot of

other States, especially States like California, where I think they have 53, it is real important.

So I would count myself among those who would tell the Census Bureau to do what they need to do to get it right. But getting it right should not be an excuse to break the bank.

According to data provided by the Census Bureau and listed on the chart that we have on display.[1] We can look at the cost of conducting the census all the way back to 1790, and we find that the cost of the first census was about a penny per capita. For 2010, we are looking for the cost of that census to be right around $11 billion, and the per capita cost of conducting the count will surge to something like $36.

Now, I will grant that counting every man, woman, and child in our country is a bigger and more complicated task in 2010 than it was in 1790—or a bigger task than it was even in 2000 or 1990. But with the advances in technology that we have had over time, I personally do not understand why the price tag for the 2010 count is so high. Maybe we will get some answers to that today.

I am also concerned that the price tag could go higher at the end of the day, perhaps significantly higher. I think that was the case with the 2000 census, so we look with some concern at the estimate for 2010 as a result.

The cost of the 2010 census is now projected, as I said, at about $11.5 billion. GAO has said, however, that this number may be based on outdated projections that do not take into account the results of testing that is currently ongoing.

I am also concerned that the handheld computers that census takers will be using to count these households that do not return their census forms right away have not always worked as well as expected. These computers are a big part of the Census Bureau's projected cost savings this time around. If they do not work as well as they should, I can see us spending more money than we planned between now and 2010 on staff, on paper, and on office space.

Finally, we will hear from GAO today that some key systems that the Census Bureau will be heavily relying on in the coming years are not being tested now during the so-called dress rehearsal that is traditionally used to troubleshoot before the decennial census actually begins.

I mention all of this because it sounds a lot like what happened 10 years ago. The cost of the 2000 census ultimately hit $6.5 billion; that was 30 percent higher than originally projected, according to GAO. This increase was due in part to some of the same kinds of problems that we see today as the preparations for 2010 ramp up. I believe we need to work hard in the coming months to ensure that the mistakes and cost overruns of the past are not repeated this time around. And I suspect that most of us in this room and on this panel agree with that.

Dr. Coburn is apparently at another meeting, and we will offer him the opportunity, once he arrives, to offer whatever opening statement he wishes to make. But rather than to delay, why don't we just go ahead and I am going to ask our first witness to just

[1] Charts submitted for the Record appears in the Appendix on page 84.

hold your horses for just a moment because I want to give you a little bit of an introduction here.

Mr. Kincannon was confirmed in his current job in March 2002, a little over 5 years ago. He began his career as a statistician at the Census Bureau in 1963—at the age of 4.

[Laughter.]

In 1963, after graduating from the University of Texas in Austin. He held a number of positions in the Census Bureau before leaving in 1975 during the Ford Administration to join the staff of OMB, where he worked on statistical and regulatory policy. He also served as the statistical liaison to Vice President Nelson Rockefeller's office.

Mr. Kincannon returned to the Census Bureau in September 1981. He was appointed Deputy Director and Chief Operating Officer in January 1982 by President Reagan's first Director of the Census Bureau, Bruce Chapman. Mr. Kincannon has served as Deputy Director to John Keane in the Reagan Administration and Barbara Everitt Bryant in the George H.W. Bush Administration.

Mr. Kincannon, you have probably a longer bio than almost anybody I have ever introduced. This is pretty impressive.

Mr. Kincannon also served as Acting Director of the Census Bureau from July 1983 to March 1984 and again from January to December 1989, during which time he directed the final preparation for the 1990 census. So you have had a chance to do this before.

In October 1992, Mr. Kincannon was appointed as the first chief statistician in the Organization for Economic Cooperation and Development in Paris. That sounds like a pretty good job. He coordinated the Organization's statistical programs and advised the OECD Secretary General on statistical policy and he left this post in June 2000 to return to the United States.

I might add he is one of the few witnesses we have ever had before this panel who knows where Flower Bluff, Texas, is, which is where I lived when I was stationed in the Navy at Corpus Christi Naval Air Station.

Mr. Kincannon, we are delighted that you are here. We look forward to your testimony and the opportunity to ask some questions. You may proceed. Your entire statement will be entered in the record, and I will ask you to summarize as you deem appropriate.

TESTIMONY OF LOUIS I. KINCANNON,[1] DIRECTOR, U.S. CENSUS BUREAU

Mr. KINCANNON. Thank you very much, Mr. Chairman. It is a pleasure to be here, and I am sorry. I thought you got the concise C.V., and I could have shortened your time a little bit by leaving out some of the repeat kind of assignments.

Thank you for the opportunity to discuss the progress of the 2010 census, the reengineered decennial census. Census Day is now less than 3 years away. As we look forward, we should note that the success of the short-form census in 2010 also depends on the success of all other components of the reengineered decennial census program. And even though Delaware does not have to go through redistricting, there are a lot of people in Delaware, State govern-

[1] The prepared statement of Mr. Kincannon appears in the Appendix on page 39.

ment and businesses alike, who are hungering after the detailed data from the ACS and the update for benchmarks from the census.

The Census Bureau's overall request for discretionary funding in 2008 totals $1.2 billion. The request for $797 million for the decennial census, our highest priority, accounts for nearly two-thirds of the budget. The overall cost of the decennial census, its life-cycle costs, is $11.5 billion. That has changed a little bit from that chart, but it is the right ballpark. And that includes the cost of the annual American Community Survey and the MAF/TIGER Enhancements Program, both key to a successful short-form-only census in 2010.

This figure represents a slight saving to the American taxpayer based on if we had started out on the pathway of repeating the 2000 census with the same methods, almost the same cost envelope, but somewhat different, and giving 10 times the information coming from the American Community Survey. Furthermore, at this point of the decade, if we were forced to replicate the design of the 2010 census, it would cost us $1.4 billion more than the current decennial program that includes the American Community Survey.

To examine the progress we have made, it may be useful to describe briefly the status of key activities, including the MAF/TIGER Enhancements Program.

The MAF/TIGER Enhancements Program is a multi-year effort to collect and correct the locations of streets and other geographic information. We are working with the Harris Corporation to realign street centerlines for every one of the 3,232 counties in this country. This initiative is on schedule and within budget. The Census Bureau's budget request for next year includes $59 million to complete the final 367 counties in time to conduct Address Canvassing Operations, which is the first major field activity nationwide for the decennial census.

During this operation, listers will canvass blocks and conduct brief interviews to verify or update address information against the address information on the Census Bureau's lists and maps, including the information provided by tribal, State, and local governments as part of the Local Update of Census Addresses (LUCA), program. The LUCA program provides every tribal, State, and local government the opportunity to review our address list and to submit either corrections or additions. It is the most important single role that State and local governments can play in improving the results of the census in their areas.

The accuracy of the census address list and the map are vital because the census must fulfill two principal requirements: To count every person living in America, once and only once, we hope, and to count every person at the correct address because the statistics are only useful in their detail, not in their totality. Therefore, the accuracy and ultimate success of the census—our constitutional obligation—depend upon the accuracy of the MAF and TIGER systems.

Our plans for 2008 demonstrate our commitment to achieving this constitutional responsibility, and we are requesting $551 mil-

lion to sustain the continuing activities associated with the short-term census, including the 2008 dress rehearsal.

The sites for the dress rehearsal are in San Joaquin County, California, and Fayetteville and surrounding counties in eastern North Carolina near Fort Bragg. In April, we opened Local Census Offices (LCOs), in both locations and started hiring approximately 1,300 people in preparation for address canvassing, which began in May.

The dress rehearsal is our last opportunity before the census to ensure planned procedures and operations will function as designed once they are integrated. While it is still too early to evaluate the dress rehearsal, we completed the address canvassing operation on June 26, 2007, on schedule and can report its success, as well as some challenges with the software on the handhelds used for this. However, it is important to note that these challenges are being addressed and corrected and do not pose serious challenges to the use of handheld computers in the 2010 census.

We are pleased in general with the performance of the handheld computers whose overall durability and usability were affirmed during the address canvassing operation. In fact, out of almost 1,400 handheld computers, only five had problems out of the box, and two were dropped and broken in the course of the exercise, and all of those were replaced under warranty.

Based on the dress rehearsal experience, as well as our ongoing planning efforts, we are confident that we can and will effectively implement the use of handheld computers for the 2010 census as well as other planned improvements.

Finally, we will implement the planned improvements we have tested throughout the decade through the short-form-only census, ranging from improved questionnaire content to a replacement second mailing, which could well increase the census response rates as much as 7 to 10 percent, and dramatically, therefore, increase the efficiency of our field operations.

We believe these planned and tested improvements are vitally important to the accuracy of the 2010 census.

Thank you for your support in the past and in the future. I will be happy to answer questions when the time comes. Thank you, sir.

Senator CARPER. The time has come. Let us just start off by going back almost 220 years, and we mentioned earlier that the cost of the 1790 census was, I think, about a penny per person. And I realize we are a far different country today and we are looking for a different kind of information. But why did it cost so little?

Mr. KINCANNON. Well, I am not sure, Mr. Chairman. I know the $6.4 billion in the 2000 census was in 2000 dollars, and if the 1790 census is in 1790 dollars, then it is hard to make a good comparison. But a penny went a good deal farther, I think. I do not know what the marshals were paid and gasoline costs were extremely modest.

In all seriousness, we did not really collect as much information. We only collected the name of the householder and the number of other people in the household, by free and slave. There was very little detail on that questionnaire, and that makes it easier.

In addition, we were not concerned about confidentiality in those days, and the results were posted in local areas to see if anyone had been missed. So it was a collaborative effort. There were not so many people, apparently, as we perceive today less enthusiastic about being reported to the government. And we used U.S. Marshals to collect the census results, which may have added a more urgent tone to their visits.

Senator CARPER. OK. Correct me if I am wrong, but let us go back to 2000, and I think I said in my opening statement that there was a cost estimate for the census in 2000, and as it turned out—and you may have still been in your previous job over in Paris at the time. But I think I indicated that the actual cost of the census exceeded the forecast by some 20 or 30 percent. And that sort of has us uneasy, looking to the 2010 census.

Just go back with us in time to 2000 and tell us what happened. I can understand missing the estimate by 2 percent, 4 percent, 6 percent, but not by 20 or 30 percent. What happened?

Mr. KINCANNON. Well, you are correct. I was still in Paris at that time, and I remember reading in the last 1990s, even in the *Herald Tribune*—it made news, the change, the revision in cost estimates. The principal reason, I believe, was a court decision in 1999 which required the Census Bureau to redesign major elements of the plans for the enumeration in 2000. That was very costly——

Senator CARPER. Wait a minute. Can you just sort of flesh that out for us a little bit?

Mr. KINCANNON. The plan was to conduct something—I believe it was called a "single-number census," and that required using a sample non-response follow-up in order to estimate those still outstanding. That would compress the amount of time needed and, of course, save costs.

A lawsuit was brought. I believe it was by one of the political parties, but I don't remember which. I was not paying such close attention to it at that time. At any rate, the Supreme Court said that sample-based figures could not be used in the enumeration in order to apportion seats of Congress. This was based on a law passed, I believe, in 1975 that was to have facilitated a mid-decade census, really a sample exercise, and the Congress at that time did not want to undergo reapportionment throughout the decade, so they put a prohibition specifically against using sample-based figures to do that.

Senator CARPER. Now, let us fast forward to today and then on to 2010. Given what happened to the costs that ultimately were incurred on the 2000 census as compared to what was anticipated, what costs are we looking at for 2010? And can you give us some comfort as to why we should not be concerned that those costs might be exceeded by some substantial amount 2 years hence, 3 years hence?

Mr. KINCANNON. Well, I do not see that in the forecast, and I would be very concerned if I did, and I would tell you that. Of course, I will not be held accountable, and you, with the good will of the people of Delaware, will be around to try to understand that and explain it.

There is a big difference in this past decade in that we were strongly advised following the 2000 census by the GAO and the In-

spector General to plan and test the operations we were going to use in the census, to decide on that plan as early as we could, to test it at various phases, to incorporate the findings from tests in a revised plan for the census, test it again and so on until we got to the census time and had a thoroughly tested plan.

We were, by and large, more successful in doing that than certainly in the 2000 census cycle, and my own recollection of the 1990 census cycle was that we were less successful than in this decade.

As a result, we are going forward with a plan for 2010 that has been pretty carefully tested and evaluated. The plans for use of technology have proven very successful. We have just used the handheld computers in the address canvass part of the dress rehearsal for 2010, and they worked very well. So we are quite confident that our plans for questionnaire design, for short-form-only census, and for the automation that we have planned will work well. And I think the variation is probably at the lower or middle limit of the range that you said you found tolerable. Of course, that is uncertain but that is what I see.

Senator CARPER. Talk to us a little bit about these handheld computers. A good deal has been said about them, and recently we have heard—I think in the media this week—some cause for concern. What do they do? Just in simple terms, what do these computers do for us?

Mr. KINCANNON. These computers do a great deal.

Senator CARPER. And give us some idea about what they cost, if you would.

Mr. KINCANNON. I think they cost about $400 for each one. We will buy a half a million or more of those.

Senator CARPER. What do we do with them when we have finished with them? Sell them on eBay?

Mr. KINCANNON. Well, they will not have any data in them. The data are encapsulated and separated and destroyed. So we could sell them on eBay or maybe GSA would have to sell them on eBay. But we may find other things to do with them. I am not aware of plans. That has not been my focus. It should be a focus of somebody, but not me.

Senator CARPER. I ask the question only half seriously. But is it possible that other countries facing a census of their own might want to buy the computers from us without the information they have collected?

Mr. KINCANNON. It is possible. The experience of the contractor that did the DRIS contract work for us in 2000 went on to do that same kind of work in at least two other countries, and the same contractor won the award for us this time. So whether this breakthrough will prove appealing to other countries is a question that I cannot answer, but I am sure that the contractor's business agents are considering whether there is an after-market for their skills and equipment.

What these handheld computers will do is to collect the information from households that have not returned their census questionnaire. They will do much more than that, though, because they will be used in the address canvass. They will receive the maps and address lists that we have, their work assignments for the day, by

wireless signal or land signal, depending on the part of the country where they are working. They will carry out that work and return their updated changes that same way.

They will use the handheld computers to convey their information about hours worked and units of work completed and their travel, and that will be the basis for calculating their weekly compensation.

The same thing when they start out on non-response follow-up, they will receive their assignments on the handheld computers. Those assignments will be grouped in a way that is orderly for them to follow geographically, and they will be updated on a continual basis, based on late receipts in the office. This is a major cost-saving effect because when we are doing it with paper, there is a big gap between when we have to shut down and print an assignment to go to all the non-response enumerators in the field, and a number of late questionnaires are received. And this costs us about $75 million for every one percentage point that we follow up on when we did not have to, and it irritates a lot of citizens as well.

When they collect their information, it will be each day, or even a part of a day, relayed back to the data processing center by wireless, all encrypted and protected properly, or over land line if they are in a part of the country without cell phone service.

As soon as this receipt is verified as complete, then the data remaining on the handheld will be blanked out and will not be susceptible to somebody intercepting it or using it in some way.

So it handles guidance to where they are going, their assignments both for address canvassing and for non-response follow-up, and payrolling and other administrative work—all handled by paper before.

Senator CARPER. Alright. Thank you. I want to focus a bit on the dress rehearsal that is underway. Did you say in North Carolina and in California? Or is it in several counties of each of those States?

Mr. KINCANNON. It is in San Joaquin, California, one county in California, and in several counties around Fayetteville, North Carolina.

Senator CARPER. Roughly how many people are involved in the population that is being serviced there?

Mr. KINCANNON. I do not know. Tens of thousands.

Senator CARPER. OK. Fair enough. Thank you.

Staying for a moment on the dress rehearsal, so far you spoke a little bit to this, but let me ask you to come back and I will ask you this directly. What problems are you running into so far during the dress rehearsal? How do you plan to manage your risks going into 2010, especially since some of your systems may not be tested as rigorously or in as timely a manner as you might initially have hoped?

Mr. KINCANNON. Well, first, let me go through both successes and problems in the dress rehearsal. We completed the address canvassing operation on time. We started on time and we ended on time. The performance of the handhelds, I have mentioned that they were durable and so forth and so on. They were physically very good.

The biometric identification and replacing passwords—that is, a fingerprint is used for the enumerator to open and access the services of the handheld—that worked very well. In the 2006 test, done with a handheld that required a password, 40 percent of the Help Desk calls were to unlock a forgotten password. We did not have that incidence. We had a very small percentage of people where there was a malfunction. It was less than 2 percent, if I recall correctly. So that works very well, and except under strange circumstances you cannot leave your fingerprints at home. So that is a great gain.

We did have some software problems, operating software problems with the handheld relating to particularly the capacity for handling a large number of addresses where we perhaps had not explained carefully enough to the contractor how wide the scope of addresses could be in a single day's assignment. That is going to have to be modified.

There were other software problems as well, some of them remedied by transmitting patches to the handhelds in the field, and others that will require some more detailed changes before we go out for the data collection in the dress rehearsal even.

So the significance of that is it is relatively easy to make software corrections from a central point and apply it to all users. If we had significant hardware problems, it is a much more difficult problem to solve. So I think that—I do not like to have any problems, but I am glad we found them in the dress rehearsal, and we will meet them.

Another problem we had was in the Help Desk function, which is also handled by the contractor.

Senator CARPER. Mr. Kincannon, I am going to ask you to hold up for a moment, if you will, and we have less than 5 minutes to go on this vote. I am not as fast as I used to be, so I need to head over to the floor quickly to vote.

I would say to our staffs, if Dr. Coburn arrives while I am away, he is welcome to reconvene the hearing and offer whatever statement he wants and to begin to ask questions, and I will finish up on this question with you when I return.

But for now, let's just stand in recess until either Dr. Coburn or I return. Thank you very much.

[Recess.]

OPENING STATEMENT OF SENATOR COBURN

Senator COBURN [presiding]. In the hope for some efficiency in Congress, which is rare, we will start again, and I will hold the gavel until Senator Carper comes back. I appreciate you, Mr. Kincannon, coming before our Subcommittee again. We have expressed to you some serious concerns and reservations that we have. That is not to belittle or demean anybody that works for your agency or you. We just have realistic concerns.

You have a trial run starting next year, and I still think we have 2½ years until you are really into this full thing, and my hope is that we help make the appropriate—or ask the appropriate questions so that we can be as successful as we need to be concerning the census.

I am deeply worried about this new cost estimate, which is $200 million more than what we had the last time we had this conversation, and I am worried that is an underestimate. I hope you can reassure me today that it is not. That figures out, I believe—and you can correct me if I am wrong—to about $90 a household in this country for doing the census. I think that is on individuals rather than per household, which to me seems extremely high.

I also continue to believe now, with almost 70 percent of the American people online, 60 percent paying their taxes online, 50 percent banking online, that we are missing a great opportunity in terms of not doing some type of online census. And I understand your position on that, and although I disagree with it, I take your position. And I know that you are trying to use some technology in terms of handheld devices that are going to be doing it. My hope is that they work very well and that the $90 is not anywhere close to what we think it was going to be.

I guess the other thing is I would just like to hear from you on the problems that you see in front of you and how they have changed since the last time we had the hearing and what you think needs to happen between now and 2008 when you do your test runs and where we can be of assistance, either in terms of appropriations or in terms of oversight.

So with that, I will let you comment.

Mr. KINCANNON. Well, maybe this is the statement I really wish I had made but did not have a chance to with all the clearance process and so on. I would say I appreciate your view. I know you disagree with us about the view of the Internet. We are cautious about change at this stage and have concerns that I think are well based. I hope you keep raising it in the future, including for my successor and for out-years. But I think that we have made the right decision.

What do I see as problems ahead? I recognize that you and other Members of Congress have not been as closely associated with the process of testing and evaluating as I have been over the last 5 years and some months. And no wonder you do not feel as comfortable as I do because of the experience in 2010 with the sudden, sharp increase in cost. But I do feel comfortable, seeing how we have planned, tested, evaluated, modified, and moved forward, that we have a process that is working well.

Two big dangers are significant changes in methodology at this stage. This is what caused the big 30-percent increase in cost of the 2000 census because of a court decision that ruled the Census Bureau could not use sample-based non-response follow-up for figures that would be used for apportionment. Then a different and significant change had to be made, and it cost about $1.7 billion.

A late change is very inefficient and costly, and I know it is frustrating to Members of Congress when some of them may not have been elected when we were formulating these basic plans, and they see something that they think would be an improvement, and it might be, and we do not want to make that change because we cannot keep it under control.

A second danger that I think is quite important and it has been a real problem in the past years, and that is the continuing resolution. Continuing resolutions present a problem for programs that

are irregular in the government. If you have a constantly funded program, a continuing resolution keeps that work going on very well. We have a lot of that kind of work at the Census Bureau. But the census, neither the economic census, which will be taken covering this year, nor the census of population and housing are evenly funded. So that when we are going up the scale, failing to get an appropriation for 2 or 3 months or more is quite destructive. If you miss 3 months' work, 3 months' hiring, you cannot hire 25 percent more people than you plan, or actually a third in that case, and catch up and then fire the people at the end of the fiscal year or something of that sort. So it is just lost time, and that would be a major concern on my part.

I am not concerned—our experience in the dress rehearsal which began this past spring, when we were conducting the address canvass portion of that, convinced me that our handhelds are working. There are problems in the software, but not with the hardware. And the problems with the software, some were remedied by patches transmitted to the handhelds, which worked very well. Others will be remedied before we start the non-response follow-up phase next spring.

The handhelds themselves, out of about 1,400, only five were flawed coming out of the box, and two more were damaged in the course of rather rugged operation in the field. And those are tolerable levels of shortcoming. I am very pleased with that and feel quite confident about the technology moving into the future.

Senator COBURN. We are, what economists would say, at full employment with a fairly low unemployment rate, and I know as you gear up for the census, you are going to be hiring a significant additional number of people. Have you all anticipated the degree of difficulty that you will have now versus 2000 in terms of the difference in terms of employment levels and underemployment that might not be out there today that you utilized in 2000?

Mr. KINCANNON. The employment levels were pretty high in 2000, actually, and if I could tell you now what they would be in 2010, I would be probably making some money on——

Senator COBURN. Have you anticipated that it is going to be much more difficult to find part-time work and full-time workers for the census in 2010 given the employment level that we have today?

Mr. KINCANNON. I am not sure that it will be more difficult, but we have flexibility in setting wage rates by local area, which helps us respond to that difficulty. There are large areas of the country where the labor market is not tight.

Senator COBURN. Where is that?

Mr. KINCANNON. In some of the Midwestern States, the employment is not particularly tight. There are people looking for work and available for work, and there are other areas of the country as well. But labor markets are very localized——

Senator COBURN. I do not want to debate that issue with you. The fact is that we are at an all-time high employment, we are at an all-time low unemployment statistics. We are at an all-time low in terms of underemployment statistics. If that persists, will you have time and will that change your cost numbers significantly if you are going to have to pay a significant increase over what you

might think today? Will that significantly change this $11.2 billion or $11.4 billion?

Mr. KINCANNON. It is important also to factor in the fact that the baby-boom generation is coming to retirement now and will be in many cases quite interested in short-term temporary employment, and a lot of them are very well qualified, not just to use the handhelds, which actually have seemed quite usable by people that are not particularly trained in technology.

I am not particularly worried about that. We have to keep our eye on it.

Senator COBURN. Do you have a planned strategy in place in the department now if, in fact, you were to run into those type of problems?

Mr. KINCANNON. Yes. We are prepared to recruit more than a million workers to meet our half a million required workforce.

Senator COBURN. Alright. And have you tested the phone system yet?

Mr. KINCANNON. Tested the phone system? I am not sure I understand.

Senator COBURN. In terms of the census and how you are going to do that.

Mr. KINCANNON. Certain phone functions will be the same as we have used in the past, the caddy interviewing of people who telephone in and want to report on the phone to us. We will take those down with caddy type reporting that we use month in and month out and have used even in recent censuses. So those have not been tested. Again, they are based on technology that is proven.

The interactive voice response method has been tested. It is not being tested in the dress rehearsal, but it has been tested in other means, and we are prepared, I think, to go with the telephone systems that we have, the voice-based telephone systems. And, of course, the telephone systems used to relay the information, the encrypted information, from the handheld computers have been tested.

Senator COBURN. Well, the GAO had commented that certain parts of the phone system have not yet been tested. That was the purpose for my question based on their testimony.

Mr. KINCANNON. I think they may have been referring to testing in the dress rehearsal, but I am not sure.

Senator COBURN. Mr. Chairman, I would like to put into the record a letter from former Senator Don Nickles dated May 18, 2007, and also put a copy of a June 18, 1982, Congressional Record as to Senator Nickles' amendment in terms of English well as limited English proficient, and I would like to quote it.[1] "I appreciate you bringing me up to date with the current interpretation by the Census Bureau, which includes mandating a bilingual assistance for people who say they speak English well. This is a direct contradiction of the amendment I offered and that was passed to include persons who say they speak English well as limited English proficient is a needless waste of time and resources."

[1] The letter from Senator Don Nickles and copy of a June 18, 1982 Congressional Record appear in the Appendix on pages 82 and 83 respectively.

I will quote further from his letter. "It is embarrassing to see that the Director of the Census Bureau state in your letter to change the definition of limited English proficient would need to pass an amendment similar to my amendment, which passed in 1982."

Senator CARPER [presiding]. Without objection.

Senator COBURN. The reason I bring that up is that the very intent of Senator Nickles' amendment is what you say needs to happen to change what you are doing, and here is the author of the amendment saying you have totally misread what he said in his amendment. And I think the record needs to reflect that because that was not his intention. That was not the amendment that was passed. And the Congressional Record which I introduced will support that with the statements on the floor.

And with that, I will limit my questioning, and we will go on.

Senator CARPER. Thank you, Dr. Coburn.

Senator COBURN. Mr. Chairman, could we have one of your staff stay for the next session just so they can hear what we are doing, if you wouldn't mind?

Senator CARPER. That would be good. I would appreciate that too.

I was asking a question and had to run off for the vote, and I did not give you a chance to fully answer it. But the question that I was asking was: What problems are you running into so far during your dress rehearsal? And the dress rehearsal is actually next year, isn't it, in those two areas?

Mr. KINCANNON. It began in May with the address canvass portion of the dress rehearsal in those dress rehearsal areas. So we are in the middle of it. The most exciting and well-known part of the dress rehearsal is non-response follow-up, but there is a lot more——

Senator CARPER. What problems are you running into so far during the dress rehearsal? Which I guess we are, what, 2 months into now?

Mr. KINCANNON. The address canvass portion began in May and was completed at the end of June, on schedule. I went through some of these items, problems that we had encountered. There were some software problems which were being—some of them were being corrected by patches transmitted from the Harris Corporation to the handhelds. That worked very well. Others problems will need different kinds of fixes than those we worked on before. We have to go out in the field for the non-response follow-up portion of the dress rehearsal late next spring.

There were some problems and challenges in the contractor's Help Desk process. They had envisioned a different flow of concerns partly because of those software problems. And they are now readjusting to make sure up front there is enough people to respond to that. That is critical that workers not be discouraged by hanging on the line or getting a busy signal.

But there have been a lot of successes as well. I mentioned that we replaced the password protection of the security of the data on the handhelds with a biometric measure, a fingerprint. And whereas 40 percent of the calls to the Help Desk during the 2006 test census were about people that had forgotten their password and

needed to have it unlocked, that dropped to near zero because you cannot forget your fingers mostly. That was very good.

The handhelds I mentioned, I think to both of you, proved quite durable. Only a handful, 5 out of 1,400, were defective and 2 more were damaged, and all were immediately replaced out of adequate reserves.

We completed 100 percent of the address canvass and on time, so that went pretty well. Those are the main problems that I think we encountered with the handhelds.

Senator CARPER. Alright.

Senator COBURN. Just a couple other questions. My staff showed me an article that was in Government Executive yesterday where they talked about some of the older employees having trouble with the technology on the handheld. Is that a big problem or a small problem? This is from Government Executive yesterday: ". . . one of the leaders she trained—an older woman—quit because the technology was too intimidating." Is that a small problem or is that a bigger problem?

Mr. KINCANNON. I think it is a small problem. That is our experience in the test in New York in 2004, and in Texas and in the other test——

Senator COBURN. And it was tested with older individuals who are not necessarily computer savvy.

Mr. KINCANNON. Yes, it was tested with people who applied for jobs and got them.

Senator COBURN. Yes, OK. And then one other thing. The cost of these handhelds is about $400, correct?

Mr. KINCANNON. Yes. I have an exact figure here, $411.43.

Senator COBURN. And you are also paying for a wire service on top of that, Internet service?

Mr. KINCANNON. Yes, that is correct.

Senator COBURN. Just by comparison, an iPhone costs $400, and we bought how many thousands of these?

Mr. KINCANNON. We will buy at least half a million.

Senator COBURN. So we are going to buy 500,000 at $410. It ought to be great.

Mr. KINCANNON. It ought to fit its need perfectly and yet not be desirable for anybody else because it will not have any other use than collecting census information.

Senator COBURN. Alright. Thank you very much.

Mr. KINCANNON. If we had 500,000 iPhones, if we could get them, I am not sure how long they would stay in our hands, frankly.

Senator CARPER. Mr. Kincannon, in 2004, GAO recommended that the Census Bureau develop a comprehensive, integrated project plan for managing decennial operations complete with milestones, complete with, I think, itemized cost estimates and risk and mitigation plans. I understand that this document has yet to be produced despite the fact that Census Day is less than 3 years away and we are in the middle, as you said, of the 2010 dress rehearsal as we speak.

When do you expect the Bureau's strategic plan will be finalized? And what are the impediments to completing this plan?

Mr. KINCANNON. We did submit to GAO in December of last year our research and development management plan, and they have found that useful, I believe. They can corroborate that or deny——

Senator CARPER. When you say "they," what does that mean?

Mr. KINCANNON. The General Accounting Office, yes. Let the record show I pointed to my friends and colleagues over there. And there are plans in order to develop other versions and next levels. They understand that and have, as I believe, agreed that we are proceeding in the proper manner to get that done.

Some of that is supposed to be August. It is not another version of this research plan, but it is the next layer of planning that will be available toward the end of August.

Senator CARPER. What are the impediments to completing the plan?

Mr. KINCANNON. Well, there is a lot of work to get it completed, and we are working on that diligently and we will complete it.

Senator CARPER. By when?

Mr. KINCANNON. End of August.

Senator CARPER. OK. Thank you.

Mr. KINCANNON. I answered somewhat speculatively about the population in the areas covered by the dress rehearsal.

Senator CARPER. Oh, yes.

Mr. KINCANNON. I said several tens of thousands. Actually, in the Fayetteville area, it is 334,000 households, and in San Joaquin County, California, 231,000 households. So it is a much more substantial area.

Senator CARPER. What is the rationale for having chosen those particular locales with that kind of population?

Mr. KINCANNON. The areas were selected based on having some language diversity, some group quarters, and some military bases and personnel who present unique kinds of enumeration problems.

Senator CARPER. Alright. As you know, there are segments of the population that are always harder or easier to count than others. What are some of the reasons for that problem? What is the Census Bureau planning for 2010 to make it easier to capture those who have been difficult to reach in the past?

Mr. KINCANNON. We have found over the years that difficulty to count or reluctance to respond correlates with low-income levels, low education levels, and youthfulness. Older people, those with an education, and those with higher incomes——

Senator CARPER. When you say "youthfulness," just describe what you mean by "youthfulness"?

Mr. KINCANNON. Say up to 25, maybe younger than that. Rather young people. I have a very broad spectrum of what I see as young nowadays, but there would be a few young people in the second row up there. Some of them are not quite so young as that, I guess.

Senator CARPER. They look pretty young to me.

Mr. KINCANNON. Yes. I find it difficult adapting to the age of my own children, but now that they have children themselves, I have to face up to their adulthood.

So it is very young people, teenagers, maybe early 20s, people who have lower incomes, people who have less educational attainment. That often in our society, but not always, correlates with minority group status. But poorer white people also do not always

have good response cooperation. It has to do with your involvement in society, your comfort with society, and the stakes you have in society, I suppose.

What are we doing to address this? Of course, we have a large and growing immigrant population, legal and illegal. That is not a technical use of the term "illegal," but you know what I mean. This means that we have much more language diversity, and we pay close attention to that. This year, or this census, because we have a short-form-only census, we will be able to mail in certain areas a bilingual, side-by-side, English-Spanish questionnaire. That is going to be very helpful with the largest language minority group in the country.

We will target the neighborhoods where we send that based on the results from the American Community Survey, which tells us where there are neighborhoods with people who do not speak English very well. It is the same standard we use with the Voting Rights Act. And there we will mail bilingual questionnaires. That has tested very well, and we believe it will have a positive effect on response.

Other languages will be provided. There will be some translated questionnaires for the five largest other languages than English and Spanish, and then we will have questionnaire guides, that is, a translation of the questionnaire but not a full questionnaire, so that you will have to look at an English questionnaire and look at the number on the translation guide and understand it and be able to fill it out that way. That will be for about 30 other languages.

There are other things, too, of course. We have a partnership program planned. This was very successful in the 2000 census. We formed partnerships with national organizations like NALEO and the NAACP and so forth, as well as groups that are not concerned particularly with minority groups but with other parts of society.

We also have a cadre of partnership workers in the regions working with grass-roots leaders in their area. This raises the awareness of people who are leaders in all the communities in our country and who have, let's face it, more credibility than someone coming out from the regional office, and certainly from Washington, to say this is important to you and it is safe to report because we hold it confidential. And these groups not only convey a sense of confirmation about the importance and safety of responding to the census. They also are able to secure the cooperation of these local groups in providing space for our use for recruiting, for training, and for promoting the census. And an evaluation in 2000 indicated that the value of space provision alone more than paid for the partnership program. And we are quite confident that GAO is positive about this, too, that the partnership program did improve the cooperation and turnout of people who otherwise might not have answered the census.

We will have a promotion, an advertising campaign. The advertising will be paid advertising, as it was so very successful in 2000. We will have a private contractor. That contract will be awarded probably at the end of August, early September, for a single integrated plan for all of our promotional activities—advertising, partnership, other kinds of promotional things.

Senator COBURN. Will that be competitively bid?

Mr. KINCANNON. Yes, sir. It has been competitively bid. It has been out for some time, and as I say, we are in the stage of approaching the award decision now. That contractor will produce a plan for all these activities in consultation with us by February of next year. Then we will be able to get moving on all this.

Senator COBURN. Is that a fixed-price contract?

Mr. KINCANNON. I think they have bid, and we look at the bid made and the value we get in return.

Senator COBURN. Is it a fixed-price or a cost-plus contract?

Mr. KINCANNON. Cost plus.

Senator COBURN. OK.

Senator CARPER. I have just one more issue to raise, and I think Senator Coburn raised this while I was voting. The issue deals with the option that we have chosen not to pursue, at least this time, and that is the option of doing at least a portion of the census on the Internet, an online approach. Apparently, you looked at it, you thought about it, and decided, at least this time, not to do it.

What would have had to be different for you to have come to a different conclusion?

Mr. KINCANNON. What we would have to have is some test results that showed we gained from it, that we increased the response rate overall, that some people replied that otherwise would not; or a large enough proportion of the population replied that we would not have to print so many questionnaires; or could otherwise save on processing costs. And we would have to have a comfortable feeling in our anatomy about the security of that and the control of risk of phishing and other kinds of dangers that occur on the Web.

The nature of the census is such that you have a very limited period to get things in. And if a rumor starts about identity theft through the census response, we are concerned about that.

Senator CARPER. In Delaware, our State slogan in the First State of Delaware is "It is good being first." I can tell you from experience there are some things you do not want to be first in.

Mr. KINCANNON. Yes, sir.

Senator CARPER. But there are other countries, as I recall, that have actually done an online census. In fact, has Canada done—what are some other——

Mr. KINCANNON. They offer an online option in their census, as did Australia and New Zealand.

Senator CARPER. Those are countries with which we have actually a fair amount in common and a lot of affinity for. Canada is our neighbor to the north and we have a lot of interaction with that country, especially.

Why do you suppose they found value in and decided to use the Internet as an option and we have not? Why does it seem to work for them but not for us?

Mr. KINCANNON. Why did the Canadians try it? I think their law requires them to try it, requires all government services to have a Web-based way of using that service. I do not want to suggest that at this stage of the decade, but I think that is a fact.

There are a number of differences in the Canadian census. These are people that we work with closely, we admire them very much, but they have different requirements laid on them. They do not

have any statutory deadline by which they produce results, so that if some failure occurs, they can take the time to recoup. We have to report the results by December 2010. I am sure we could suggest a change in that, but we would not like to have to do that.

Also, Canada does not produce nearly the geographic detail, so you can also take more leisure and have less demanding requirements. They produce data for the provinces and for around 45 metropolitan areas and about 5,000 census subdivisions. They produce track data in the metropolitan areas only. They have about 5,000 tracks, I think it is. California alone has 7,000 tracks, and in the country as a whole, we have over 8 million tracks. So there is quite—I am sorry, 8 million blocks and a large number of tracks as well. So we produce a lot more geographic detail, and it may be that our population is—I do not know. Our response rate was in between New Zealand and Australia. One of those was at 9; we had a test at 6, 7, and one at 7.2, and the second of those was at a little over 6, I believe.

Senator CARPER. I am sorry. Just a clarification. What is the significance of——

Mr. KINCANNON. The percentage of the population replying by Internet. In Canada it was higher, about 18 percent, and so although they did not save any money in 2000—I am sorry, their 2006 census it would have been. They believe they have confidence that they can print somewhat fewer questionnaires in their 2011 census.

Senator CARPER. I do not know how long in this country we have had the option of filing our taxes online, but my guess is that the first time we did it, the number or the percentage of people who elected to do so was not so great. I think now it is probably over half.

Senator COBURN. Sixty percent.

Senator CARPER. Yes, about 60 percent.

Your successor has been nominated, and so there is, I would say, a fair chance that you will not hold the same position 10 years from now that you hold today. Senator Coburn will probably still be around. I am not sure where I will be in 10 years.

But looking down the line 10 years from now, somebody else will be sitting in your seat. Do you think 10 years from now we will still be debating whether or not it makes sense to do a portion or have as an option an Internet alternative as part of the census?

Mr. KINCANNON. I do not know any way to answer that. I cannot tell whether we will have a more secure Internet with less cyber crime than we do now. I do not know whether there will be broader uses by the Census Bureau in household surveys with the Internet and whether that will justify the investment in a very secure system that might be robust under those circumstances. Trying to foresee what will happen with technology is difficult.

There was a film 20 years or so ago called "A Clockwork Orange," and it looked into the future, and the future of sound reproduction was a very fancy tape cassette. Even by the time the film came out, CDs had replaced that, and now we see CDs have been replaced by DVDs and super DVDs and HD DVDs and all kinds of things so that one's head almost spins at the evolution of technology.

We will continue exploring and testing the Internet, not for 2010, but to see how it evolves and whether we can make use of it. It is very attractive in theory, and if we can make it work for us, then that will be——

Senator COBURN. I am just appalled. If the Internal Revenue Service that has 10 million pages worth of regulations can have a secure Internet service where 60 percent of the people in this country can file online, all the businesses have to file online, to tell me that we are waiting on technology to be able to catch up in the census, I just do not buy that, Mr. Kincannon. I am sorry. But that technology is out there today. It is the fact that we have not had the vision to go get it, and it does not sound like we are going to have the vision to do it in 2010.

I would just say—and I told you this at the last hearing. I am going to do everything I can to force Internet census down your throat, and I am going to do it with amendments on the floor. They may lose, but the American people are going to say—when 70 percent of the people in this country are online and the head of the Census Bureau is saying we do not think we can do this safely or appropriately, they will not buy that either.

And so I think you all are living in the past instead of the future, and I would recommend heartily to you that you get on board so that when we are doing this in 2020 that we are online and that everything has been planned now to make sure we get there. It is appalling that we are not doing the American Community Survey online right now. I spent 30 minutes on the phone with one of your people answering questions that I did not want to answer just out of the American Community Survey. I could have done the whole thing on the Internet in 10 minutes. But I spent 20 minutes filling it out on paper and then another 30 minutes with your agent. It is impossibly inefficient, and it needs to change.

And so I am just offering a challenge to you today that I am going to be there—you know it. I am very plain-spoken. I am very forthright in what I am going to do. It is unconscionable that we are not doing some of this on the Internet, and it does not have anything to do with security, and it does not have anything to do with technology that is out there today. It has everything to do with the lack of vision of getting it done. And I know you have run a test and you were not happy with the test. But nobody gets to see that test.

One other thing. Why in the world are you doing a cost-plus contract on the promotion for the census rather than a fixed-price contract?

Mr. KINCANNON. Well, I do not know the answer to that.

Senator COBURN. Well, you are in charge of it. Why are we not doing a fixed-price contract for something you know what is going to do, rather than have a cost-plus contract that people are—whatever it costs, we are going to pay it plus. You cannot manage that at the same time you manage the census. Why is there not a fixed-price contract so that the American people know what we are going to get, here is the value of what we are going to get, and here is what we are going to pay? Because we have a terrible record on cost-plus contracts throughout this government. So why would we not have a fixed-price contract?

Mr. KINCANNON. I will send you an answer about that. I am not sure I agree with you, but I appreciate your point.

Senator COBURN. Well, I tell you, this Subcommittee has looked at a ton of cost-plus contracts, and we have not seen many that have been very beneficial to the American taxpayer. Most of them have been very beneficial to the contractor. Most businesses would not do it in a cost-plus. They would do it with a fixed price. Why aren't we? And I would be happy to have your answer. And I have three other questions to submit for the record.

Mr. KINCANNON. Well, I did not exactly answer some of your implied questions about that.

On the IRS—and I do not manage the IRS. I am a taxpayer. I have once filed online and once not filed online and had the option to do so. The IRS does not operate a secure website that 60 million people can file on. You buy software from a private company, send it to them, and they relay it to the——

Senator COBURN. Why couldn't the Census do that? The technology is out there. As I said, the technology is there. It is the vision of using the technology to get us to where we want to go.

Senator CARPER. Mr. Kincannon, you may want to have a chat with your nominated successor to say to get ready to answer that question when we have our hearing for his or her nomination.

Mr. KINCANNON. I think my nominated successor is familiar with the Senator from Oklahoma's views on this matter, and I do not know what his views are, and I do not intend to discuss them with him prior to his confirmation.

Senator CARPER. Alright. I think that pretty well wraps it up for today with respect to your testimony. Anything you want to add before you——

Mr. KINCANNON. I defer to the authority of the Subcommittee and the full Committee, but I hope that you are assiduous in conducting hearings on my successor and free me to maybe do one of these cost-plus contracts with——

Senator COBURN. Fixed price.

Mr. KINCANNON. Oh, OK. Fixed price. that would be alright.

Senator CARPER. I will say on that subject, we had a full Homeland Security and Governmental Affairs Committee hearing today on, among other things, contracting out. And one of the questions I asked of our panel was: Give us some examples of where cost-plus or no-bid contracts make sense. They struggled to come up with the answers.

How many years of service do you have to the people of this country?

Mr. KINCANNON. Thirty-five years of Federal service and 8 years at the OECD, so that is enough, I think.

Senator CARPER. That is a lifetime. And while we may have some disagreement with you with respect to our use of the Internet as an option in regard to the 2010 census, I think I speak for all of us in thanking you for your service to the people of our country. We will try not to prolong too long the consideration of your successor and to give you the opportunity to head on to the rest of your life. Thank you very much.

Mr. KINCANNON. Thank you both.

Senator CARPER. You bet. With that, let me invite our second panel to join us, please.

Senator Coburn, you are recognized.

Senator COBURN. While you are coming forward, I just wanted to put a couple of things up that we have looked at. First, the one that is up there now shows per capita cost of the census in terms of individuals. With technology, we are getting behind. The next sign is after inflation cost of the census, which I think is very telling. These are in 2000 dollars, I believe. In 1970, we spent $900 million, 1980, $2.2 billion; 1993, $3.3 billion; 2000, $6.6 million; and in constant dollars, we are going to spend $9.3 billion this year on census, which is essentially 6 percent more people. So we are going to have at least a minimum, in constant dollars, 50-percent increase in dollars for a 6-percent increase in the number of people.

The cost of the census shows the absolute total cost in thousands and increase percentage from 40 percent—from 2000 to 2010, we are anywhere from 79 percent or above, 2000 was 152 percent above the one in 1990, 120 percent, 1980, 350 percent. The point is we cannot afford to keep growing as a population because we are going to go bankrupt counting it.

Finally, to make my point, 74 percent of the American public adults are online right now; 60 percent of the people and 100 percent of business pays their taxes online. So I have a challenge, and the challenge is to the American public. Help us make the census better. Take the challenge. Can you beat Uncle Sam? Figure it out. Less than $90 for a household to get all the counts that we need. And Mr. Kincannon is not here anymore, but he missed my point on the piece of equipment. For $400, you can get an iPhone that does 20 things. And we got a piece of equipment that is going to be good for one census, $220 million, and then we are going to throw it away. It is not going to be good for anything.

So, first of all, we have overpaid for what we have bought in terms of technology, which was probably another cost-plus contract instead of a fixed-price contract. And those are the kind of things that we need to be paying attention to here.

I again will say—and I said this to Mr. Kincannon—the American public will not buy the fact that we are not doing this online. There is no excuse for us not to do a portion of it online, even at this late date. I know they are risk averse because of the criticisms they get from this body. But this is not a hard thing to do, and the technology is out there, and we just need the leadership and vision to do it.

I thank the Chairman.

Senator CARPER. You bet. Thank you, Dr. Coburn.

We have our four witnesses here. I am not going to give a full introduction, but I would like to just mention that Mathew Sciŕe, who I understand will be delivering the oral statement for both of our GAO witnesses, is Director of GAO's Strategic Issues team. Welcome, or as we say in Delaware, "Bienvenue."

Mr. Powner is Director of GAO's Information Technology team. I believe you are here to respond to questions but not to testify. Is that right? Welcome. Thank you.

Mr. Reamer, a fellow at The Brookings Institution, Metropolitan Policy Program, thanks for joining us.

And, finally, Mr. McTigue comes to us from the Mercatus Center at George Mason University, where he works as Vice President of the Center and Director of the Government Accountability Project. Welcome.

We are delighted that you are all here. Your entire testimonies will be entered into the record, and we will recognize each of you for roughly 5 minutes. If you go a little bit long, we will not make a big deal of it, but try to keep pretty close to 5 minutes. Thank you.

Mr. Sciŕe, you are on.

TESTIMONY OF MATHEW J. SCIŔE,[1] DIRECTOR, STRATEGIC ISSUES, AND DAVID A. POWNER, DIRECTOR, INFORMATION TECHNOLOGY, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. SCIŔE. Mr. Chairman, Senator Coburn, my colleague and I thank you for the opportunity to be here today to discuss preparations for the 2010 census. Thorough planning is important to the success of any large, long-term project. To enhance the Census Bureau's performance and accountability, we recommended that it develop a comprehensive project plan and annually updated life-cycle cost estimates. The Bureau is now developing such a plan and has updated its cost estimates. However, more robust information on the likelihood of key assumptions and their impact on life-cycle costs could help inform the Congress not only what the census is likely to cost, but also the confidence of that estimate. One key assumption is the productivity of field workers.

Mr. Chairman, Census 2010 relies as never before on the use of contractor-developed automation and technology. At the request of this Subcommittee, we are assessing four key technology investments. Thus far, we see mixed progress. For example, while the Decennial Response Integration System is expected to meet cost targets during the dress rehearsal, the Field Data Collection Automation program is projected to experience cost overruns. Also, the Bureau has delayed some key functionality that was expected to be part of the dress rehearsal and did not complete plans for end-to-end testing that is critical to understanding the performance of interrelated systems. Finally, we believe project teams could do more to identify risks, establish mitigation plans, and report risk status to higher-level officials.

It is important today for the Bureau to monitor closely the costs, schedule, and performance of its IT acquisitions and aggressively manage the risks that they face. Mr. Chairman, we have entered a new and critical stage in the planning and operations of the decennial census. Dress rehearsal operations are well underway, and the very first operation of Census 2010 in which the Bureau enlists the help of local governments has been launched. More recently, we observed the first use of the handheld computers by field workers in the address canvassing operation of the dress rehearsal. These devices are keystone to the reengineered census. We observed technical difficulties with the devices, however. Without correction,

[1] The prepared joint statement of Mr. Sciŕe and Mr. Powner appears in the Appendix on page 43.

these inefficiencies can affect worker productivity and ultimately the cost of the census.

Finally, I would like to draw attention to Bureau plans for enumeration in the Gulf Coast region. The effects of Hurricanes Katrina and Rita are still visible today, and numerous housing units have been or will be lost. Conversely, in some jurisdictions, there is new development. This continuing change in housing stock may affect census operations. For example, the productivity of Bureau field staff conducting address canvassing could be affected as they potentially face challenges of distinguishing between occupied, uninhabitable, as well as temporary housing units doubled up on lots. On the other hand, non-response workload could be increased if the Bureau mails questionnaires to housing units that are vacant on Census Day.

In summary, we believe that the challenges highlighted today require careful monitoring and oversight. More transparent planning and cost reporting will help. Likewise, the costs, schedule, and performance of key technology investments demand greater attention. As in the past, we look forward to supporting the Subcommittee's oversight efforts to promote a timely, complete, accurate, and cost-effective census.

This concludes my opening remarks. Thank you again for the opportunity to speak today. My colleague and I would be glad to take any questions that you may have.

Senator CARPER. Thank you, Mr. Sciŕe.

Mr. Reamer, you are recognized. Your full statement will be entered into the record.

TESTIMONY OF ANDREW REAMER,[1] FELLOW, METROPOLITAN POLICY PROGRAM, THE BROOKINGS INSTITUTION

Mr. REAMER. Chairman Carper, Senator Coburn, I am pleased to be here. My role today is twofold: First, I will describe the extraordinary return on investment the Nation gets from the decennial census; and, second, I will review key issues with regard to the Census Bureau's readiness to conduct the census.

The census is fundamentally important to the Nation in terms of our democracy and conducting public policy, as well as to the functioning of our $13.6 trillion economy. The architecture of our representative democracy rests on the foundation provided by the census. The House is apportioned according to the census. The Electoral College votes, therefore, are based on the census. And because the President is selected by the Electoral College, the judiciary is, in fact, affected by the census as well. So every Federal branch is affected by the census.

State legislatures rely on the census to redraw congressional and State districts. Local governments use the census to create county council districts and school board districts and voting precincts.

The decennial census is also critically important for the effective performance of government. When I discuss the value of the decennial census, by extension I am including two additional census programs: One is the Annual Population Estimates Program, which uses the decennial census counts as a basis to provide annually up-

[1] The prepared statement of Mr. Reamer appears in the Appendix on page 65.

dated population estimates; and the second is the American Community Survey, which provides on an annual basis detailed characteristics of population down to the neighborhood level.

The Federal Government relies on the census data in three ways.

First, the census data guide the distribution of hundreds of billions in Federal financial assistance. In fiscal year 2004, I estimate that at least $287 billion across 75 grant programs were allocated across the country on the basis of census numbers or census-derived numbers. That is about 62 percent of the total, and I have given each of you a packet that has the figures for your State.

Second, census data provide key benchmarks for Federal enforcement of civil rights and anti-discrimination laws and court decisions in voting and in the workplace.

Third, census data play an important role in informing the design, implementation, and evaluation of a variety of Federal efforts beyond financial assistance and regulation, including, for instance, adult education, small business development, veterans' health, affordable housing, transportation planning, disabled students, and even groundwater contamination.

And the census provides the basis for giving Members of Congress up-to-date profiles of their constituent population through the American Community Survey.

State and local governments rely heavily on census data to make on-the-ground investment decisions across all domains of government, including education, highway transportation, affordable housing, access to health care, workforce training, criminal justice, and, very importantly, responses to and planning for natural and manmade disasters.

The influence of the census is also pervasive across the private sector. Businesses of all types—retail, manufacturing, services—and all sizes—from J.C. Penney, Wal-Mart, and Target, down to sole proprietorships—use census data to identify markets, select business locations, make investment decisions in plant and equipment and new product development, determine goods and services offered, and assess labor markets. Nonprofits such as hospitals and community service organizations use them, and the public and private sector work together in local economic development using census data to create jobs and expand the tax base.

Fundamentally, then, in my view, census data are essential for the effective operation of the entire $13.6 trillion economy.

Now, with regard to preparedness for 2010, clearly we need a complete and accurate census for all these public purposes. Achieving such a census requires an accurate Master Address File. We need to know every address in the country, we need to get a questionnaire to each address, have them return it, and capture the information provided accurately.

There are several issues in this regard. One is the Census Bureau needs adequate funding. It is the largest peacetime operation that the Nation undertakes, and it is important—whatever the appropriate cost is, it is important for Congress to recognize that preparations take several years in advance before the count and that the count does not start in 2010.

The second issue is the management of the Local Update of Census Addresses program (LUCA). This program is critical to having

an accurate Master Address File (MAF). This Census Bureau program gives States and localities the list of addresses currently in the MAF, and the localities can update it. Clearly, LUCA is important because it affects the flow of Federal funds, apportionment, and business investment decisions. In 2000, New York City added over a third of a million households through the LUCA process, so it is vital to localities. The 2010 program seems to be designed very well. However, there seem to have been some problems in the implementation in the 2008 dress rehearsal, and also in terms of actually getting OMB approval and asking for public comment. I encourage the Subcommittee to look into these issues of implementation.

The third issue, mentioned earlier in your conversation with Mr. Kincannon, is the community partnership program. It is one thing to know where people live. It is another thing to get them to answer. And it is important that the Bureau have the funding it needs in a timely way to create a community outreach program to reach the hard-to-count.

For fiscal year 2008, the Administration did not provide the Census Bureau with money for a community partnership program. The House Appropriations Committee added those funds, and I encourage this Subcommittee to support your colleagues in the conference committee to see that those funds are provided.

There are several other issues listed in my testimony: An important way to count people called "Update Enumerate," which I would be happy to talk about in the Q&A period; the process of training half a million temporary workers; managing technology contracts; back-up and contingency plans; and then, last, as Mr. Kincannon mentioned, a lot of people with senior experience are retiring, and how does the Census Bureau capture the knowledge that they have regarding the proper conduct of a census.

I hope you have found my remarks of value, and I would be happy to answer any questions.

Senator CARPER. I think we did. Thank you very much. Dr. Coburn.

Senator COBURN. I just might note for our audience that Mr. McTigue is a former Minister of Labor from New Zealand and a Member of the Parliament of New Zealand.

Senator CARPER. Is that right? Which island are you from?

Mr. MCTIGUE. I am from the south.

Senator CARPER. One of my favorite places on Earth is the South Island of New Zealand, especially Queenstown.

Mr. MCTIGUE. Thank you very much, Senator.

Senator CARPER. What a great place.

Mr. MCTIGUE. We are still accepting migrants.

[Laughter.]

Senator CARPER. In a couple of years, I might be tempted. Every now and then, I think the voters of Delaware would probably like for me to look in that direction.

Well, we are delighted that you are here. You come from a beautiful place.

TESTIMONY OF MAURICE P. McTIGUE,[1] VICE PRESIDENT OF THE MERCATUS CENTER, AND DIRECTOR, GOVERNMENT ACCOUNTABILITY PROJECT, GEORGE MASON UNIVERSITY

Mr. MCTIGUE. Thank you very much, Mr. Chairman, and thank you for the invitation to present testimony in front of this Subcommittee again.

My expertise is not as a statistician but, rather, in organizational performance, and in that organizational performance work, trying to understand how organizations might be able to improve their level of performance. So my comments are really couched in those terms.

While it is a constitutional requirement to gather the census each 10 years, it should not be considered to be a bureaucratic process. In my view, it should be considered to be a dynamic process, because its real function is to enable better decisionmaking by decisionmakers at the level of Congress and right down through the private sector and the public sector. That means that there are two criteria that become very important for the Census Bureau in conducting the census. The first, of course, is accuracy, but the second is the utility of the information. How useful is this information going to the parties that use it in decisionmaking? And, of course, if you look at utility, one of the questions then is timeliness. And timeliness, of course, is something that we have become much more critically aware of as we move into the information revolution. So improving the quality of information and improving the access to it would indeed improve the quality of decisionmaking.

Electronic measures are the best way to do that, and some of the experience that I have had with the IRS here in the early stages of their online work was that response rates were low. It might come as a surprise to both of you that the public are not normally very happy about responding to government requests. In fact, from time to time they are even suspicious about it, and they need some encouragement.

The early response rates for the IRS were quite low, but they did a lot of work on identifying those who did not file online and trying to find ways of encouraging them to do just that. It is wrong for the Census Bureau to think that you just offer the option and it will be taken up. You have to do something to quell the concerns of those people who are currently non-responsive. And I think that is one of the challenges for the Census Bureau going through to 2020.

Even at this late stage, with the quality of technology today, an option is something that, in my view, could easily be provided or manufactured. It is also, in my view, wrong to consider that the security issues are too difficult. The short census form this time contains very little information that is sensitive. Well, maybe some people care a lot about their age, but the rest of it really just identifies our name, our birth date, where we reside, and our background in terms of ethnicity—not things that are very sensitive. It was different when you had the long form. So I think that some of the arguments put up by the Census Bureau do not really hold water as far as that is concerned.

[1] The prepared statement of Mr. McTigue appears in the Appendix on page 78.

The last comment that I want to make in that area, though, was that one of the discoveries of revenue organizations around the world as they move to online filing was not just the huge cost reduction of online filing, but it was the dramatic improvement in accuracy. The error rate for the IRS went down to 1/20 of what it was before. With the best will in the world, all of those people who voluntarily respond to the census are not going to get it right. More of them would get it right if they were doing it online, and that would improve the quality of that information for decisionmakers.

Another point that I picked up in my research was this: There seems to be an undue concentration of the efforts of the whole process on the non-responders. One of the things that the IRS did very well was recognize that the more people that they could get to respond online, the more effective their tax collection process was. So they put a lot of effort into trying to get voluntary compliance and voluntary filing. There does not seem to be the same effort going on in the strategy for the census to encourage people to respond first so you have a lower cohort or a smaller cohort of people that you have to follow up with the very expensive non-response process. And concentrating on that, in my view, would reduce costs; it would also improve accuracy.

I hope these comments are helpful to the Subcommittee, and I would be very happy to answer questions. Thank you.

Senator CARPER. Thanks very much to all of you.

I want to stick with this idea, for at least a little bit, of an online option. When was the first time New Zealand used it?

Mr. MCTIGUE. New Zealand conducts census every 5 years, even though I know that is an incorrect interpretation of the word, but it does it every 5 years because that also matches up with Boundary Review Commissions for setting electoral boundaries. I think that they have done one census.

There would also be some differences in making comparisons. If you look at Dr. Coburn's figures here, the percentage of adults online in New Zealand is probably closer to 50 percent, and the saturation of broadband access on the Internet would be even lower than it is in the United States, and some of these things require broadband access to be able to conduct the returns online effectively. So those might be two of the criteria.

But I would expect that the first time you do something, you have to expect a low response and gradually build confidence in people being able to trust the process and to use it.

Senator CARPER. Mr. Powner, let me ask you a question, and this requires really some judgment, and I know you cannot answer this definitively. But if you were running the census, if you were our nominee for—and I do not think you are going to be, but if the President should call you tonight and say, "I want you to run the census for 2010. Can I submit your name to Coburn and Carper and that crew?" and for some reason you would say yes and you got confirmed, do you think you would have time to alter the game plan for 2010 so that at least we would have some mechanism that would help inform the process going forward to suggest—to learn from the experience, to see if it is a total disaster or if there is some virtue to it so that when we approach 2020 we will at least have had a head start?

Mr. POWNER. Well, a couple of key points. I think that when you look at the feedback so far with all the testing that has occurred, the dress rehearsal is what is key. So we really want to look at the dress rehearsal, and you will be able to determine whether the handhelds are going to be successful at this point in time.

As my colleague here mentioned, we are very concerned about the performance of those handhelds based on our observations to date. So I think going forward what we would want to do is place a lot of faith in that dress rehearsal.

Now, here are some concerns with the acquisitions. Some of those acquisitions we have backed off in terms of including them in that dress rehearsal. There is a dissemination system referred to as DADS II. The contract was delayed one year. That will not be part of the dress rehearsal. The system that integrates Internet, phone—was to include Internet, phone, and the paper responses, there is some functionality that is being deferred, and that will not be included.

So one of the key things is when we have this dress rehearsal, that will inform us a fair amount, but we also have to look at what is being deferred, and that raises the level of importance of future testing between 2008 and 2010, especially when you look at interfaces and all the interactions with the systems and the business processes.

So dress rehearsal will give us a fairly informed position at that point in time, but that is not the end game, and we have got to look at that testing and take that very seriously going forward.

Senator CARPER. Alright. You may have answered my question. I am not sure that you did. Is there some way to modify over the next year or so, as we approach the 2010 census, to include in the process at least a demonstration that would help inform us going forward as to whether or not the idea of doing an online census is something that we should consider expanding in 2020?

Mr. POWNER. Well, in terms of the online census, if we were going to reconsider that, I think a key point—if you recall, the DRIS contract, which included the Internet response, was let—I believe it was October 2005. It included the Internet response at that point in time, and it was somewhere around spring of 2006 that we got word that the Internet was now not included.

I think a key question, if you want to revisit the online response, is to go back to the contractor who has that contract—at one time it was in the contract, and they were planning for it: Internet, mail, phone. How easy or how difficult would that be to reinsert that, and what are the associated costs? That has been kind of a blind spot to us because usually when there is a contract modification, even pulling things out, I am not aware that the cost actually went down when we took the Internet response out.

Senator COBURN. Twenty-two million dollars is the cost of that contract.

Senator CARPER. Anybody else want to respond to the same question?

Mr. SCIŔE. Well, I think I would just add that it is a little bit unclear what the process was in terms of deciding whether or not to include or exclude the Internet——

Senator COBURN. Is your microphone on? I am not sure I can hear you.

Mr. SCIŔE. It is not clear what the process was for the Bureau as it went through and made the decision on the exclusion of the Internet. I think that is part of the point that Mr. Powner was trying to make here. And so it is tough to say what the analysis was at that point in time. The analysis that they have done most recently, which is about a month old, they look at the $22.5 million cost, and they look at various potential savings and conclude that the savings do not come anywhere near the cost. But part of the assumptions here have to do with the conditions under which they test what the Internet response would be, but these tests did not include advertising, for example. In a real use of the Internet, you would have advertising, which would promote the use of the Internet and so forth.

So I do not believe that we really know what the Internet response would really be if it were offered.

Senator COBURN. One of the things they could do is you could run the Internet census first, advertise and promote it, and then re-engage all your address book and everything else to lessen that cost.

Can I follow up with a question or do you want to finish?

Senator CARPER. Let me ask one more question, and then I will pass it over to you.

Mr. Scíre, I gather from your testimony that you are not entirely confident that the 2010 census will actually cost $11.5 billion, as Mr. Kincannon said that he expects that it will. What were some of the factors that led to the last-minute cost increases that we saw in 2000? I asked Mr. Kincannon that question. Have you seen anything in your oversight that tells you that we are not about to see the same kind of escalation this time? And what, if anything, can we do to prevent the cost rise in 2010 that we experienced a decade or so earlier?

Mr. SCIŔE. OK. Part of the explanation for the change in cost, the actual cost in 2000 was the late change in the form of the census, that they had the Supreme Court decision which took sampling off the table, and so they had to go to complete enumeration. So I think that is a major cost driver for the increase that they experienced in 2000.

You asked about the $11.5 billion and the confidence that we have in the $11.5 billion estimate for 2010, and I would say that the Census Bureau does not know what confidence it has in the $11.5 billion estimate. One of the things that we had recommended is that the Bureau in its life-cycle cost estimation do sensitivity analysis, which would take a look at the factors that drive costs and to describe what the likelihood is of those particular assumptions.

So productivity, for example, is a major assumption and driver for cost. If productivity is not what you would expect and the cost is going to increase, the Bureau could be reporting to the Congress what a 1-percent difference in productivity might translate into in terms of the ultimate life-cycle cost. And by doing that and looking at all the different factors that go into the estimate of cost, it could provide you an estimate of $11.5 billion, plus or minus the range

of whatever they think it might actually be. So you can get sort of a range.

I heard Mr. Kincannon talking about not seeing a forecast of large cost increases. He is not worried about wage rates. I think we would say we are more interested in an objective fact-based assessment of the likelihood of those various outcomes, and how a percentage difference in what they assume might translate into the ultimate cost.

Senator CARPER. Alright. I am going to go back—and you may have answered this but I missed it. What, if anything, can we do in our oversight role and the Census Bureau in their role as the operational manager, what can we do to prevent costs in 2010 from going up dramatically, as they did a decade earlier?

Mr. SCIŔE. Well, the one thing that I wanted to mention in part of my response was the census could provide better information to you about what these cost drivers are. So, for example, if the performance of the handheld computers really is what is going to ultimately drive the cost of the census, then the focus of oversight should really be on that. If it is wage rates—you talked about that earlier—then focus on that.

But that is something that I do not see, is information that would permit you to identify the areas where there is the greatest sensitivity and the greatest influence on cost. That I think would help with oversight.

Mr. POWNER. Chairman Carper, if I could also add from a technology point of view that we are spending $3 billion of the $11.5 billion on new technologies. And if you look historically at what has happened, a major cost driver is requirements creep. This is nothing new. We testified before you on the high-risk list and watchlist. That is a big reason for cost growth on many programs throughout the Federal Government.

There is a concern about requirements creep. On the FDCA contract, which includes the handhelds and some of the other contracts, we are seeing evidence of requirements creep, and this is not anything new. Several years ago, we recommended to the Census Bureau that they ought to define those requirements as completely as possible up front so that there is not this ambiguity going forward. And sure enough, that is coming back to bite them at this time.

Senator CARPER. OK.

Senator CARPER. I believe its $220 million?

Senator COBURN. Yes.

Senator CARPER. We are doing our math up here on how much of the $11.5 billion is going to be spent for these handheld devices, and Senator Coburn says it is about $220 million, which is actually a fairly small percentage of the overall cost. It is, what, about 2 percent or something, I think.

Senator COBURN. But the whole contract is $600 million.

Senator CARPER. Alright. OK, Dr. Coburn, you are on.

Senator COBURN. Thank you. A couple of things. Mr. Sciŕe, you were talking about field data and cost overruns. Would you describe that a little bit more for me? In your opening statement you talked about you were worried about cost overruns on field data. Please go into a little more depth on that.

Mr. SCIŔE. Yes, there are a couple of things, and I will ask my colleague to join in.

First, what we observed at the dress rehearsal and the reason that we went out to do this was we realized that the handhelds are a keystone to the reengineered census, and so we are very interested in seeing how they perform. And, again, our observations are preliminary. I have to stress that. But what we did see is the inefficiencies in terms of being able to link multiple addresses to a single map spot, a slowness of the devices when it had a large assignment area or data for large assignment areas. Those affect efficiency. That affects productivity. And so the advantages that you would get—or part of the cost advantages that you would get from the introduction of this technology would be lost. So that is why we looked at that.

We are working with the Bureau and with Harris Corporation to understand——

Senator COBURN. Mr. Kincannon says that is all software, not hardware. Is that right?

Mr. SCIŔE. I would say we are still working to figure out what are the explanations for these.

Senator COBURN. You do not know the answer to that. OK.

Mr. SCIŔE. I also want to raise another point. Mr. Kincannon said that the address canvassing dress rehearsal started and finished on time. I think what we are interested in looking at is the productivity. How did these devices perform? Did the Bureau have to bring in additional resources in order to complete the address canvassing on time? So it is not just the starting and completing. It is also the conduct and——

Senator COBURN. What was the cost per contact?

Mr. SCIŔE. We are looking at all those, but we also in the statement talk about cost overruns in the FDCA contract and the dress rehearsal, and I think my colleague can add to that, if you would like.

Mr. POWNER. Yes, Dr. Coburn, we actually look at earned value data. I think you are familiar with that——

Senator COBURN. Yes.

Mr. POWNER [continuing]. Where it is a requirement of the Administration; all contractors are required to provide that on major IT acquisitions. You can actually take that earned value data and project trends based on historically what has happened. And we are starting to see increases with the field data contract. It is projected right now only about $20 million, but there is still a ways to go. And given the uncertainty with requirements, as our written statement mentions, we are concerned about additional requirements growth and even more increases with that contract.

The other thing to keep in mind, too, the DRIS contract, that is on schedule and within cost right now, but they are delaying functionality. So sometimes when you start delaying that functionality, it will catch up to you eventually. You will start seeing those.

Senator COBURN. Does that belie the fact that it is supposedly on schedule and—that they are delaying the functionality, is there a problem?

Mr. POWNER. Then it is not really on full schedule, correct.

Senator COBURN. That is what I am saying. So you are saying opposite things with the same statement: Yes, we are on schedule and under budget, but we are delaying functionality, which means it is not working.

Mr. POWNER. Yes, exactly. And that is why that earned value data—I mean, that is a common technique where you can say, hey, we are on schedule and budget. But with that earned value data, you get that third leg on whether you are on track with the delivery of functionality. And so that is the criticality, and we will continue to review that for your Subcommittee going forward.

Senator COBURN. Your observations of the question Senator Carper asked about this plan from the census and contingency plan and here is what we are going to be and he said it was going to be available by, I believe, August. Do they have the planning in place and ready to go for options and contingencies that are not expected today but they have sat down and talked about what they are going to do? Do they have that plan? Is that there? Are they working toward what if this happens? Do they have the plans in—or are they going to have to spend a ton more money to throw money at it because they have not planned? And I know that is general, so——

Mr. POWNER. Historically, what has happened is because we have the immovable deadline, you throw more money at it. Historically, that is what has happened.

Senator COBURN. If you go back to this number from the 2000 census—did you say it was $1 billion, the reformatting because of the Supreme Court decision cost, a portion of that $1.4 billion or——

Mr. SCIŔE. The total additional cost is $1.5 billion, I think.

Senator COBURN. OK. So you take $1.5 billion away from $6.3 billion, you have $4.8 billion. So we are talking about almost—that is not going to happen this time. We know what is out there. So what you are really talking about is a 300-percent increase for this census over the one from 2000. And that is in spite of advanced technology in this country.

By canceling the Lockheed Martin Internet contract, that is the reverse of requirement creep. That goes the opposite. Yet we did not see any savings from it. We are seeing increased costs; whereas, we save money here.

I am going to go back to Senator Carper's question. Can you perceive—kind of like our challenge to the American public, can you come up with a way to collect the census for less than $90? Go to my website, coburn.senate.gov/ffm, sign on, and we will give you the instructions on how you help us do oversight in the Federal Government.

Can you perceive of a way where we could interject, either in a pilot study or another study, where we could have secure, advanced Internet responses to the census that is promoted prior to 2010? Can you imagine that in the realm of possibilities?

Mr. POWNER. Absolutely. I mean, security, that is not an issue. There are various methods of encrypting that——

Senator COBURN. Technology is not a——

Mr. POWNER. The technology is there. How much time do you need to set it up, to test various interfaces and those types of

things that will need to be put in place, especially with integrating that with the other data. But, sure, that is a possibility.

Senator COBURN. All these firms that Mr. Reamer talked about who use census data to make business and economic decisions also employ a slew of private contractors who do exactly the same thing as the census. In other words, they are data collectors, they are screeners, they are survey takers. And, Mr. McTigue, you might respond to this. Is it off the wall to think that we couldn't do this in the private sector more efficiently, cheaper, and better, and in an accurate way if, in fact, it was legal to do so?

Mr. MCTIGUE. Well, certainly I am prepared to respond and say yes, of course, there are many organizations in the private sector that gather large quantities of highly secure data and handle it very securely. We would all be very unhappy if our banking information went astray, but much of it is handled online. Insurance information is handled online. A lot of medical information is sent around electronically, and it is done very securely.

But there are other functions as well. For example, credit rating agencies gather huge quantities of information, and they send that product on to others who use it, and it is done in a very secure way. And that is information that we would be very unhappy if it became public, and it is very rare that it actually does. So the capability is out there. Do they actually do censuses? No. But they do lots of other counting.

Even if you looked at a major grocery chain, every night they take the information from the cash registers, which supplies the information to restock all of the chain the following day, and that is extremely precise.

So there are systems and capabilities out there and the experience to be able to do it. Can you do it between now and 2010 if you are allowed to? I think the answer is no, it is getting too close. But certainly that capability would exist in the private sector.

Senator COBURN. Let me ask our GAO panelists, given what you are looking at, given the canvassing, the runs that we have seen, when should we look at this again as a Subcommittee, your recommendation, to be able to have the most impact on the Census Bureau, knowing that we are going to look at it? In other words, when would you recommend we come back up and have this discussion again to see if we are meeting any of the earmarks that you all see as deficit now?

Mr. SCIŔE. Well, I think that Mr. Kincannon mentioned this upcoming August operational plan. What we had seen back in December was a research and development plan, and that had detailed milestones. It went through, I think, 2006, actually, not beyond. And that is why I have been looking forward to this kind of operational plan that would lay out the interrelationships among the operations. Looking at that might provide a baseline for understanding what are the key points, what are the key risks that the Bureau faces in Census 2010. And so that might help provide a road map, and looking at that road map itself I think would be a valuable oversight exercise.

Senator COBURN. Thank you, Mr. Chairman.

Senator CARPER. You bet.

Mr. Powner, let me just go back and ask you a question, and maybe a question or two for Mr. Reamer.

Mr. Powner, correct me if I am wrong, but I believe you worked in the private sector and have some experience managing large procurements. Is that a fair statement?

Mr. POWNER. Yes, Mr. Chairman.

Senator CARPER. I also believe you have spent some time examining large IT projects in the Federal Government. Is that correct?

Mr. POWNER. Correct.

Senator CARPER. OK. Thinking back on some of that experience, some of what you have seen elsewhere, what mistakes—when you look at what the Census Bureau is doing as we approach the 2010 census, any mistakes that—even if we have already talked about them, or if we have not—some mistakes that you think they may be making that we just ought to stop for a moment and say, "This is a mistake"?

Mr. POWNER. Well, I have mentioned five areas that we would like to see greater rigor. One is requirements. We still have moving baselines and requirements creep. We need to solidify those requirements as soon as possible on these major acquisitions. That is one.

The other item is there are many interfaces involved with all of these systems. It is going to be very important that we identify all these interfaces and ensure that those interfaces are tested adequately. And then from a testing perspective, because not everything is going to be tested in the dress rehearsal, we still do not see some of the post-dress rehearsal test plans in place. It is not only—I mean, we are concerned about the execution of the plans, but we ought to have those plans in place now.

Executive level involvement, one of the major issues where IT projects go awry is the executives are not as engaged in mitigating risks. And as you well know, we are looking at risk management of these major acquisitions for you, and there are a couple items with risk management that we are concerned about. One is, are all the risks clearly identified? I can tell you right now on the FDCA contract, the performance issues on the handhelds.

Senator CARPER. Which contract?

Mr. POWNER. This is the Field Data Collection, which includes the handhelds. If you look at the risk logs, the software problems associated with the handhelds are not listed on their risk log. So there is a concern about the completeness of those risks. There is a concern about having the appropriate mitigation plans in place. And, finally, getting those key risks reported to the executives, we do not see evidence on all the projects that the executives are going through the appropriate reviews.

Senator CARPER. Alright. Thank you.

Mr. Reamer, are you satisfied with the steps that the Census Bureau has taken to address some of the problems in the account that showed up in 2000? Do you think they are doing what they need to do to make the 2010 census more accurate and more inclusive of those segments of our population that are historically undercounted? Any ideas where they might need to make some improvement in this regard?

Mr. REAMER. I am not a methodological expert in terms of the collection process, but from what I have read and what I understand, yes, I think they are making some improvements.

In any census there is an undercount and a double count, and I think they are taking steps now to remove the double count where people can be counted in two——

Senator CARPER. How do they do that?

Mr. REAMER. I am actually not familiar with the details. I think a different approach in terms of the application of residence rules to help people understand who they are and who they are not to include as they fill out the form. The Bureau can give you great detail on this.

Senator CARPER. OK.

Mr. REAMER. So that leaves the undercount. I think the Community Partnership Program was quite successful in trying to reduce the undercount. There is a need for that program going forward.

Senator CARPER. OK.

Mr. REAMER. Sorry. One other thing.

Senator CARPER. Go ahead.

Mr. REAMER. Which is improvements in the LUCA program. The first time the Census Bureau was required to do LUCA was in 2000, and it was an uneven process. You needed a lot of resources as a city or a town to actually comply with the Census Bureau process. You could not call in the State government to help you out, and so I think the participation in LUCA was lower than it could have been. Places like New York—I mentioned New York added a third of million plus households through the LUCA process—were able to do it. They have the resources. But towns of 10,000 could not.

This time around, I think, the Bureau has learned from its experience and has significantly improved the LUCA process, opened up the options that localities can use. State governments can come in and help. State governments have lots of resources, such as drivers' records, that can help augment the review of addresses. And the Bureau I think has improved training, as I understand it, and lengthened the time. So my expectation—and I think the expectation of observers—is that LUCA will do better this time around. This is an instance where the Bureau has learned a lot from its first experience and so should provide a more accurate Master Address File.

Senator CARPER. OK. Let me just say to each of our witnesses, if anybody has a short closing thought you would like to leave with us, that would be fine. Anybody at all?

Mr. MCTIGUE. Mr. Chairman, if I could just make one additional comment, and it would be that it would be nice if some entrepreneurial thinking at the Census Bureau looked either at the Community Survey or at the 2010 census on the presumption that in 2020 most of us will be filling in our census forms online, and using that as an experimental basis, either to run in parallel, the experiment would identify these are the things that we need to answer between now and 2020 if we are going to do that. But even more importantly, being able to get better responses from the Community Survey, which is conducted every month online, would be a

good harbinger of having the potential capacity to do all of the census on line in 2020.

Senator CARPER. Thank you for that thought.

Anyone else a closing thought?

Mr. SCIŔE. Yes, if I might add, part of what we are seeing is that the introduction of technology also introduces risks, and it is not enough to identify those risks. It is also necessary to develop risk mitigation strategies and alternatives should that technology not perform as expected.

The other is that in terms of oversight, it is important to make more transparent what the plans are and what the costs are and how sensitive they are to underlying assumptions.

Senator CARPER. Alright. Anyone else? Mr. Reamer.

Mr. REAMER. Just a suggestion, that a lot of the conversation here has focused on cost, and it is appropriate to focus on cost. I believe one of my roles here today was to place cost in the context of return on the Nation's investment—to encourage people to think about that return in terms of political governance of the country and in terms of the entire economy. It is quite remarkable the return we get on the census, and clearly the cost should be appropriate, but I want to suggest keeping the ROI in mind as well.

Senator CARPER. Alright. Thank you. Mr. Powner.

Mr. POWNER. I will just further comment on what Mr. Sciŕe said. I think it is about risk mitigation at this point and really managing and tracking those costs down to fine details, so that when we see little blips in the process that we effectively jump on those risks and attempt to move them in the other direction.

Senator CARPER. To my colleague, Dr. Coburn, any closing thought?

Senator COBURN. No. I just would submit for the record that the $600 million contract for the handheld device, it was another cost-plus contract, which I think we are going to see—I hate to be the prophet of doom in terms of success or increased cost, but had we had one out there where we said here is the performance, you get paid when it works, and here is the fixed price you get paid, we would have seen faster response, better quality, rather than on the concept of cost-plus, because people do not have to be responsible when it is cost-plus.

Senator CARPER. Well, I hope experience proves you wrong. I will be delighted—and I am sure you will be, too—if that does not turn out to be the case.

Let me again thank our witnesses. I have been calling Dr. Kincannon, Mr. Kincannon, most of the afternoon. Who is here from the Census Bureau? Somebody is still here? Which is it—Dr. Kincannon or Mr. Kincannon? Mister. So I was right? Everybody else was wrong. That is a first. Mister or Doctor—we are glad he was here.

Our thanks to each and every one of you for being here with us today and for your testimony, actually quite helpful testimony, and for your responses to our questions. The census is a big deal, and we are reminded of that every 10 years that it is important to our country, not just for the folks in the U.S. House of Representatives or those who might want to run for the U.S. House of Representatives, not only for governors and legislators, State legislators, that

are trying to figure out how to apportion their State's voting districts, but also for our Nation's economy and for a whole host of other reasons. It is important we get it right. It costs a lot of money, and it is important that we spend that money wisely.

This Subcommittee has a number of responsibilities, but one of them is to try to make sure that we get it right, and we appreciate your help in enabling us to meet our responsibilities in that regard.

There may be a question or two that will follow in writing, and if there is, we would appreciate very much your timely response to those questions.

Good to be with all of you this afternoon. Thank you for joining us, and with that, this hearing is adjourned.

[Whereupon, at 4:44 p.m., the Subcommittee was adjourned.]

APPENDIX

PREPARED STATEMENT OF
CHARLES LOUIS KINCANNON
DIRECTOR, U.S. CENSUS BUREAU

The 2010 Census

Before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security U.S. Senate

17 July 2007

Mr. Chairman, thank you for the opportunity to discuss the progress of the 2010 reengineered decennial census. Census Day is now less than three years away. As we look forward, we should note that the success of the short-form census in 2010 also depends on the success of all the components of the reengineered decennial census program. This program includes:

1. ***The American Community Survey***: the replacement for the decennial census long form.
2. ***The MAF/TIGER Enhancements Program***: the comprehensive modernization of the census address list, known as the Master Address File (MAF), and the digital mapping system, the Topologically Integrated Geographic Encoding and Reference System—better known as TIGER.
3. ***The 2010 Short-Form Census***: a wide-ranging planning and testing program, which encompasses not only technological, but questionnaire, content, and language testing, to improve the accuracy and coverage of the short-form 2010 Census.

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

The decennial census is the U.S. Census Bureau's highest priority as well as a constitutional responsibility, as outlined in Article 1, Section 2 of the Constitution, permitting the fair distribution of representation as well as resources. The Census Bureau's overall request for discretionary funding in FY 2008 totals $1.2 billion. The request for $797 million for the decennial census, including all of the components, accounts for nearly two-thirds of the budget. The overall cost of the decennial census (its lifecycle costs) is $11.5 billion.

It is important to note this figure also includes the cost of the American Community Survey, which delivers yearly, accurate information for every local community in the country, and the MAF/TIGER Enhancements Program, which updates a national resource and helps ensure the accuracy of the short-form census. Moreover, this figure represents a savings to the American taxpayer. If the Census Bureau were forced to replicate the design of the traditional census, the overall cost of the census would be $1.4 billion more than the current decennial program, which includes the American Community Survey.

To examine the progress we have made, it may be useful to briefly describe the status of each component of the 2010 reengineered decennial census program. The President's funding request for FY 2008 maintains and supports the progress achieved thus far through the reengineered 2010 Decennial Census Program, including the American Community Survey, the MAF/TIGER Enhancements Program, and the short-form only decennial census.

The success of the 2010 Decennial Census Program depends upon the American Community Survey, the nation's largest household survey collected with an overall sample of approximately three million households per year or 250,000 households per month, including group quarters. The Census Bureau's budget request for FY 2008 includes $187 million to conduct the American Community Survey, which replaces the traditional decennial long-form data collection and will provide annual detailed socio-economic information for every state, tribal government, county, city, and neighborhood throughout the United States. In 2005, we began full implementation for the survey; and in 2006, we incorporated group quarters, such as nursing homes, college dormitories, and jails, into the survey—fulfilling our commitment to replace the long form in 2010. The third annual release of data for areas of populations of 65,000 or more is next month. In 2008, we will release the first information for areas with populations of 20,000 or more.

Just as the American Community Survey is implemented and underway, so are the important structural improvements and enhancements to the nation's road map, which are the primary goals of the MAF/TIGER Enhancements Program. The MAF/TIGER Enhancements Program is a multi-year effort to collect and correct the locations of streets and other geographic information. Key objectives of the program include realigning the TIGER map in order to take advantage of GPS capabilities, modernizing the processing system, and expanding geographic partnerships. To fulfill these objectives, we are partnering with the private and public sectors. We are working with the Harris Corporation to realign the street-centerlines for every one of the 3,232 counties in the U.S. This initiative is on schedule and on budget. By the end of FY 2007, we will have completed 2,865 counties. The Census Bureau's budget request for FY 2008 includes $59 million to complete the final 367 counties in time to conduct Address Canvassing Operations, the first major field activity of the decennial census.

During this operation census listers will canvass census blocks and conduct brief interviews to verify or update address information against the address information on the Census Bureau's address lists and maps, including the information provided by tribal, state, and local governments as part of Local Update of Census Addresses (LUCA) program. LUCA is also an important effort in helping to ensure the accuracy of the census address list. The LUCA program provides every tribal, state, and local government the opportunity to review the Census Bureau's address list and to submit either corrections or additions. The LUCA program for the 2010 Census includes several improvements, including a longer review period and three participation options. In January, we sent advance notification letters to approximately 39,000 governments in anticipation of sending the invitation letters later this summer. The advance notification letters described the LUCA program, as well as the options for participation. Beginning in March and concluding in June, we conducted nearly 1,000 pre-invitation promotional workshops to encourage participation by tribal, state, and local governments. Approximately 10,000 governments took part in these workshops. In August, we will mail the official invitations. Governments will be allowed, starting this fall, 120 days to review and update the Census Bureau's address materials.

The accuracy of the census address list and the map are vital because the census must fulfill two principal requirements: to count every person living in America, once and only once, and to count every person at the correct address. Therefore, the accuracy and the ultimate success of the census—our constitutional obligation—depend upon the accuracy of the MAF and TIGER systems.

Our plans for FY 2008 demonstrate our commitment to achieving this constitutional responsibility, and we are requesting $551 million to sustain the testing, planning, and early implementation activities associated with the short-form census, including the 2008 Dress Rehearsal. As with any stage production, the Dress Rehearsal brings together the components of the production in one final rehearsal before the curtain goes up. Throughout the decade, we have tested various components—including the use of handheld computers for non-response follow-up, and the English-Spanish bilingual questionnaire we intend to use in neighborhoods with higher proportions of people who need assistance provided in Spanish. In 2004 and 2006, we conducted field tests in both rural and urban communities, and national census tests in 2003 and 2005. These mail-out and mail-back tests were designed to assess questionnaire design, including response options and the race and Hispanic origin questions.

We believe these efforts will help us improve the accuracy of the responses and, thereby, census coverage. We will take these experiences and the research conducted thus far into the field with the 2008 Dress Rehearsal. The sites for the Dress Rehearsal are in San Joaquin County, California, and Fayetteville and surrounding counties in eastern North Carolina, near Fort Bragg. In April, we opened Local Census Offices (LCO) in both locations and started hiring approximately 1300 people in preparation for address canvassing, which began in May.

The Dress Rehearsal is our last opportunity before the census to ensure planned procedures and operations will function as designed once they are integrated. While it is still too early to evaluate the Dress Rehearsal, we completed the address canvassing operation on June 26th and can report its success, as well as some challenges with the software. For instance, we noted software performance issues in processing information for large census blocks. There were also issues concerning technical support, and the contractor, the Harris Corporation, is reevaluating its help desk strategy. It is important to note that these concerns are being addressed and corrected and do not pose serious challenges to the use of the handheld computers for the 2010 Census. We are, in general, pleased with the performance of the handheld computers, whose overall durability and usability were affirmed during the addressing canvassing operation. In fact, out of 1,388 handheld computers, only five had problems out of the box. Based on the Dress Rehearsal experience, as well as our ongoing planning efforts, we are confident that we can and will effectively implement the use of handheld computers for the 2010 Census. The handheld computers, as well as other innovations, have created new opportunities to improve the accuracy and coverage of the census.

The American Community Survey is one of the most important innovations. It is revolutionizing the federal statistical system and improving our nation's data infrastructure by filling the 10-year census data gap and providing yearly data to local communities. The enhancement and modernization of the census address list and the map, using GPS technologies, will also result in improved census accuracy and coverage. Finally, we will implement the planned improvements we have tested throughout this decade to the short-form only census—ranging from improved questionnaire content to a replacement second mailing, which could increase the census response rates as much as seven to ten percent, to the handheld computers which will dramatically increase the efficiency of our field operations.

The Census Bureau believes these planned and tested improvements are vitally important to the accuracy of the 2010 census. Every community from New Castle, Delaware, to Newcastle, Oklahoma, will have a stake in our success, and we are committed to giving taxpayers a good return on their investment.

Mr. Chairman, I hope you support this investment and I would be happy to answer any questions.

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

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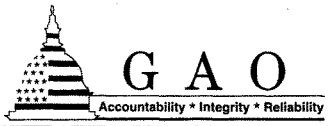
2010 CENSUS

Preparations for the 2010 Census Underway, but Continued Oversight and Risk Management Are Critical

Statement of Mathew J. Scirè, Director,
Strategic Issues

and

David A. Powner, Director,
Information Technology



GAO-07-1106T

July 17, 2007

GAO
Accountability·Integrity·Reliability

Highlights

Highlights of GAO-07-1106T, testimony before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

2010 CENSUS

Preparations for the 2010 Census Underway, but Continued Oversight and Risk Management Are Critical

Why GAO Did This Study

The decennial census is a Constitutionally-mandated activity that produces critical data used to apportion congressional seats, redraw congressional districts, and allocate billions of dollars in federal assistance. The Census Bureau (Bureau) estimates the 2010 Census will cost $11.5 billion, making it the most expensive in the nation's history after adjusting for inflation. This testimony, based primarily on GAO's issued reports and preliminary observations from our ongoing work, discusses the extent to which the Bureau has (1) developed a comprehensive project plan with the most current cost data; (2) incorporated lessons learned from Dress Rehearsal activities; (3) managed automation and technology for the reengineered census; and (4) planned for an accurate census in areas affected by Hurricanes Katrina and Rita.

What GAO Recommends

At this time, GAO is not making new recommendations, but past reports recommended that the Bureau take steps to develop a project plan for the 2010 Census, further test software for the Local Update of Census Addresses (LUCA) program, and promote an accurate census in areas affected by hurricanes Katrina and Rita. The Bureau generally agreed with these recommendations and has begun to implement some of them.

www.gao.gov/cgi-bin/getrpt?GAO-07-1106T.

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

What GAO Found

The Bureau is conducting its Dress Rehearsal of the 2010 Census, the last opportunity it will have to test its design under census-like conditions. Given the importance of a successful enumeration and the complexities of enumerating a hard-to-count population in a more technology-dependent census, our message remains that the risks associated with the decennial must be closely monitored, evaluated, and managed. GAO found that the Bureau is developing but has not yet completed a comprehensive project plan that includes milestones, itemized costs, and measurable goals, nor has it updated the 2010 life-cycle cost estimate to reflect current information from testing. Having a comprehensive project plan and updated cost information will allow the Bureau to manage the operations and cost of the decennial census. Moreover, GAO observed technical problems with the handheld computing devices used in the Dress Rehearsal by field staff for address canvassing (in which the Bureau verifies addresses). If the device does not function as expected or needed, little time will be left for the Bureau to take corrective action. In addition, during the LUCA Dress Rehearsal, the Bureau did not fully test software tools intended to reduce burden on participants. Also, the Bureau's level of reliance on automation and technology for the 2010 Census, at an estimated cost of $3 billion, makes effective contractor oversight (of cost, schedule, and technical performance) and risk management activities imperative. Finally, in the Gulf Coast Region, the condition of the changing housing stock is likely to present additional challenges for the address canvassing operation and subsequent operations. However, the Bureau has not finalized plans for modifying the address canvassing operation or subsequent operations in the Gulf Coast region.

Timeline of Selected Key Decennial Events

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

Source: GAO summary of Census Bureau data.

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

Thank you for the opportunity to be here today to discuss the status of the Census Bureau's (Bureau) preparations for the 2010 Census. Our testimony today is based on issued and ongoing work and addresses the Bureau's efforts to prepare for the next decennial census by (1) having a strategic plan in place to help control costs; (2) incorporating lessons learned from the 2008 Dress Rehearsal operation underway, including the use of handheld computing devices; (3) managing automation and technology that are an integral part of the reengineered census; and (4) planning how to ensure an accurate population count in areas affected by Hurricanes Katrina and Rita.

As you know, Mr. Chairman, the decennial census is a critical national effort mandated by the Constitution. Census data are used to apportion seats in the Congress, redraw congressional districts, allocate billions of dollars in federal assistance to state and local governments, and for numerous other public and private sector purposes. In addition, the census is a complicated undertaking and a substantial investment, requiring careful planning, risk management, and oversight to ensure its ultimate success. The Bureau estimates the 2010 Census will cost $11.5 billion over its life cycle, making it the most expensive census in our country's history, even after adjusting for inflation. For example, the average cost per housing unit for 2010 is expected to increase by about 29 percent from 2000 levels (from $56 per housing unit to $72 per housing unit in 2000 inflation-adjusted dollars). Since Census 2000, we have been examining how the Bureau is preparing for the 2010 Census, including incorporating lessons learned from the 2000 Census into its planning for the 2010 decennial. Given the importance of a successful enumeration and the complexities of enumerating a hard-to-count population in a more technology-dependent census, our message remains that the risks associated with the decennial must be closely monitored, evaluated, and managed. We have long supported an approach to oversight that is timely, rigorous, constructive, and holds the Bureau accountable to help ensure that accurate results are delivered within projected costs.

Today's hearing is particularly timely, as the Bureau has begun 2008 Dress Rehearsal activities in California and North Carolina. Census Day for the Dress Rehearsal is April 1, 2008. In concept, a Dress Rehearsal should be a dry run of the full enumeration planned for 2010, and include the testing of operations and procedures planned for the decennial census under as close to census-like procedures as possible. If properly executed, the

Dress Rehearsal should serve as a tool to help the Bureau identify and mitigate risk associated with the 2010 Census.

Thus, the Bureau is at an important point in planning and conducting the 2010 Census, as it begins the first operations for 2010 while continuing its dry run of other operations. 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. We would like to highlight several areas of risk that the Bureau needs to manage to ensure its success. For example:

- To provide the Congress, stakeholders, and others a clear picture of the status of the 2010 Census operations and the likely cost, the Bureau needs to complete its 2010 Census comprehensive project plan and update the 2010 life-cycle cost estimate to reflect current information from testing.
- During recent Dress Rehearsal operations, we observed technical problems with the handheld mobile computers the Bureau expects to use for the 2010 Census. If the device does not function as expected or needed, little time will be left for the Bureau to take corrective action. Further, in the first operation of the Dress Rehearsal—the Local Update of Census Addresses (LUCA)—the Bureau made some improvements over the Census 2000 program; however, it did not fully test certain tools, such as computer-based training and other new software, with potential users. It will be important for the Bureau to complete such software testing.
- Greater reliance on contractor-developed automation and technology for the 2010 Census requires the Bureau to focus on sound acquisition and management of these key investments.
- Finally, because the changing housing stock may affect the Bureau's ability to effectively conduct address canvassing and other operations in the Gulf Coast region, it is important for the Bureau to complete its planning for addressing the challenges that the Bureau's temporary field staff would likely face in such hurricane-affected geographic areas.

Our remarks today are based primarily on reports that GAO issued from 2002 through June 2007 on the planning and development of the 2010 Census, as well as observations from our ongoing work on the performance of the handheld mobile computing devices and the Bureau's acquisition of monitoring of key automation and technology investments. (Please see Related GAO Products page for a list of relevant reports.) In addition to the Dress Rehearsal, the Bureau conducted several field tests for its reengineered 2010 Census—including deployment of earlier prototypes of handheld mobile computing devices. For the 2004 field test, we visited Queens, New York, and several counties in rural south-central

Georgia. We visited the Texas and South Dakota test sites during the Bureau's 2006 field test. During these visits we observed several operations including address canvassing and the nonresponse follow-up operation. During the autumn of 2006, we observed the Local Update of Census Addresses (LUCA) phase of the 2008 Dress Rehearsal in sites located in North Carolina and California. In January 2007, we visited areas in Louisiana, Mississippi, and Texas affected by Hurricanes Katrina and Rita, and in June 2007 we observed the Bureau's address canvassing operation using the handheld devices at both of the Dress Rehearsal sites. In regard to technology acquisition and contracts, we analyzed current project and acquisition documents, including earned value management data, and we interviewed Bureau officials and contractors. To determine the status of risks and whether the Bureau is adequately managing risks, we identified sound IT risk management processes from those developed by the Software Engineering Institute and compared them to the Bureau's risk management practices for the selected projects. The areas examined included risk preparation, risk identification and analyses, and risk mitigation. We conducted our work in accordance with generally accepted government auditing standards.

Background

The decennial census is the nation's largest, most complex survey. To conduct its decennial activities, the Bureau recruits, hires, and trains over half a million field staff based out of local census offices nationwide, temporarily making it one of the nation's largest employers. The first operation for the 2010 Census has already begun. Starting in January 2007, the Bureau notified state and local governments that it would seek their help in developing a complete address file through the Bureau's LUCA program. Address canvassing—a field operation to build a complete and accurate address list in which census field workers go door to door verifying and correcting addresses for all households and street features contained on decennial maps—will begin in April 2009. One year later, the Bureau will mail census questionnaires to the majority of the population in anticipation of Census Day, April 1, 2010. Those households that do not return their questionnaire will be contacted by census field workers during the nonresponse follow-up operation to determine the number of people living in the housing unit on Census Day, among other information.

In addition to these operations, the Bureau conducts other operations, including gathering data from residents in group quarters such as prisons or military bases. The Bureau also employs different enumeration methods in certain settings, such as remote Alaska enumeration, in which people living in inaccessible communities must be contacted in January 2010 in

anticipation of the spring thaw, which makes travel difficult, or update/enumerate, a data collection method involving personal interviews that is used in communities where many housing units may not have typical house number–street name mailing addresses.

The decennial census is conducted against a backdrop of immutable deadlines. The census's elaborate chain of interrelated pre- and post-Census Day activities is predicated upon those dates. To meet these mandated reporting requirements, census activities must occur at specific times and in the proper sequence. The Secretary of Commerce is legally required to (1) conduct the census on April 1 of the decennial year, (2) report the state population counts to the President for purposes of congressional apportionment by December 31 of the decennial year, and (3) send population tabulations to the states for purposes of redistricting no later than 1 year after the April 1 census date. (See table 1 for dates of selected key decennial activities.)

Table 1: Timeline of Selected Key Decennial Events

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

Source: GAO summary of Census Bureau data.

The Bureau estimates that it will spend about $3 billion in information technology investments to support collections, processing and dissemination of census data and will be undertaking four major systems

acquisitions—totaling about $2 billion. The major acquisitions include the Decennial Response Integration System (DRIS); Field Data Collection Automation (FDCA) program, which includes the handheld mobile computing devices to be used by the Bureau's temporary field staff; Data Access and Dissemination System (DADS II); and Master Address File/Topologically Integrated Geographic Encoding and Referencing Accuracy Improvement Project (MTAIP) system. The four systems were planned to be available for the Dress Rehearsal so that their functionality could be tested in an operational environment. (See table 2.)

Table 2: Major Information Technology Contracts

Contract	Contractor	Contract purpose	Estimated contract cost (dollars in millions)	Award dates
DRIS	Lockheed Martin Corporation	Providing a solution for data capture and respondent assistance	More than $500	October 2005
FDCA	Harris Corporation	Providing automated resources for supporting field data collection, including the provision of mobile computing devices used by enumerators	$600	March 2006
DADS II	To be determined	Develop a replacement for legacy tabulation and dissemination system	To be determined	Delayed by 1 year to September 2007
MTAIP	Harris Corporation	Modernizing the system which provides the address list, maps, and other geographic support services for the Census and other Bureau surveys.	$209	June 2002

Source: GAO analysis of Census Bureau documents.

In June 2005, we reported on the Bureau's progress in five information technology (IT) areas—investment management, systems development/management, enterprise architecture management, information security, and human capital.[1] These areas are important because they have substantial influence on the effectiveness of organizational operations and, if applied effectively, can reduce the risk of cost and schedule overruns, and performance shortfalls. We reported that, while the Bureau had many practices in place, much remained to be done to fully implement effective IT management capabilities. We made several recommendations to improve the Bureau's management.

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

Subsequently, in March 2006, we testified on the Bureau's acquisition and management of two key information technology system acquisitions for the 2010 Census—FDCA and DRIS.[2] We reported on the Bureau's progress in implementing acquisitions and management capabilities for these initiatives. To effectively manage major IT programs, organizations should use sound acquisition and management processes, minimize risk, and thereby maximize chances for success. Such processes include project and acquisition planning, solicitation, requirement development and management, and risk management. We reported that, while the project offices responsible for these two contracts have carried out initial acquisition management activities, neither office had the full set of capabilities they needed to effectively manage the acquisitions, including a full risk management process. We also made recommendations for the Bureau to implement key activities needed to effectively manage acquisitions. The Bureau agreed with the recommendations but is still in the process of implementing them.

2010 Comprehensive Project Plan with Updated Cost Information Still Not Firm

Careful planning and monitoring are key to successfully managing a complex undertaking such as the decennial census. In January 2004, we recommended that the Bureau develop a comprehensive integrated project plan. Specifically, we recommended that such a project plan be updated as needed and include: (1) detailed milestones that identify all significant interrelationships; (2) itemized estimated costs of each component, including a sensitivity analysis, and an explanation of significant changes in the assumptions on which these costs are based; (3) key goals translated into measurable, operational terms to provide meaningful guidance for planning and measuring progress; and (4) risk and mitigation plans that fully address all significant potential risks. We reported that although some of this information is available piecemeal, to facilitate a thorough, independent review of the Bureau's plans and hold the agency accountable for results, having a single, comprehensive document would be important. In May 2007, we met with Bureau officials to discuss the status of the 2010 project plan. At that time officials indicated that they planned to finalize the project plan over the next several months. We look forward to reviewing the 2010 Census project

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

plan once it becomes available, and we will continue to monitor the Bureau's planning efforts.

Among the elements of that plan, we specifically recommended that the Bureau itemize the then-estimated $11.3 billion in costs for completing key activities for the upcoming decennial census. However, in June 2006 before this subcommittee, we testified that the Bureau's $11.3 billion life-cycle cost estimate for the 2010 Census lacked timely and complete supporting data. Specifically, the supporting data of the estimate were not timely because the data did not contain the most current information from testing and evaluation, and were not complete because sufficient information on how changing assumptions could affect cost was not provided.

In its Fiscal Year 2008 Budget Estimates, the Bureau updated its estimate to about $11.5 billion. According to Bureau documents, the estimated life-cycle cost for the entire 2010 Census remained relatively unchanged between 2001, when the $11.3 billion estimate first was released, and 2006.

In our testimony last year, we noted that the September 2005 estimate was based on assumptions made in 2001 that had not been borne out by testing. One such assumption pertained to the testing of a new handheld mobile computing device that is intended to automate and streamline address canvassing, nonresponse follow-up, coverage measurement, and payroll operations. After its 2004 Census Test the Bureau found that local office space and staff savings of 50 percent as a result of using the handheld computers were not realized. Nonetheless, the 2005 estimate continued to assume the 50 percent savings. In our view, revising cost estimates with the most current information allows the Bureau to better manage the cost of the census and make necessary resource trade-offs. Most recently, the Bureau tested a new prototype of the handheld mobile computing devices during the address canvassing operation of the 2008 Dress Rehearsal. This experience should provide the Bureau additional data on productivity and space needs when using the new devices.

Table 3 shows the Bureau's cost estimate released in June 2006. Based on the table, most spending will occur between fiscal years 2008 through 2013.

Table 3: Bureau's Revised June 2006 Estimate of Life-cycle Costs for the 2010 Decennial Census Program (nominal year dollars, in millions)

Program Component	FY 2001 Enacted	FY 2002 Enacted	FY 2003 Enacted	FY 2004 Enacted	FY 2005 Enacted	FY 2006 Enacted	FY 2007 Request	Subtotal FY01-07	FY 2008-FY 2013 (est.)	Total (est.)
American Community Survey	$23.6	$29.0	$56.8	$64.1	$144.1	$167.8	$179.8	$665.2	$1,036.7	**$1,701.9**
MAF/TIGER Enhancements Program	$0	$15.0	$47.0	$82.4	$81.2	$78.8	$73.7	$378.1	$156.2	**$534.3**
2010 Census	$0	$21.0	$41.6	$106.0	$163.0	$201.2	$258.3	$791.1	$8,227.3	**$9,018.4**
Total	**$23.6**	**$65.0**	**$145.4**	**$252.5**	**$388.3**	**$447.8**	**$511.8**	**$1,834.4**	**$9,420.2**	**$11,254.6**

Source: U.S. Census Bureau.

Note: These figures have not been audited by GAO. Moreover, the Bureau's updated $11.525 billion life-cycle cost estimate, as contained in the agency's Fiscal Year 2008 Budget Estimates to the Congress, assumes cost increases in the American Community Survey, Data Access and Dissemination System, and Field Data Collection Automation.

Mr. Chairman, as you can see, given the projected increase in spending, it will be imperative that the Bureau effectively manage the 2010 Census, as the risk exists that the actual, final cost of the census could be considerably higher than anticipated. Indeed, this was the case for the 2000 Census, when the Bureau's initial cost projections proved to be too low because of such factors as unforeseen operational problems or changes to the fundamental design. For example, the Bureau estimated that the 2000 Census would cost around $4 billion if sampling was used, and a traditional census without sampling would cost around $5 billion. However, the final price tag for the 2000 Census (without sampling) was over $6.5 billion, a 30 percent increase in cost. Large federal deficits and other fiscal challenges underscore the importance of managing the cost of the census, while promoting an accurate, timely census.

At the request of the House Committee on Appropriations, Subcommittee on Commerce, Justice, Science and Related Agencies, we are reviewing the life-cycle cost estimate of the 2010 Census to determine whether it is comprehensive, credible, accurate, and adequately supported.

2008 Dress Rehearsal Experience Points to Further Testing of Software for LUCA Operations

During the address canvassing phase of the 2008 Dress Rehearsal, the Bureau tested a prototype of the handheld computers that it intends to use for 2010. The devices are a keystone to the reengineered census because they allow the Bureau to automate operations, and eliminate the need to print millions of paper questionnaires and maps used by temporary field staff to conduct address canvassing and nonresponse follow-up as well as to manage the payroll for field staff. Automating operations allows the Bureau to reduce the cost of operations; thus, it is critical that the risks surrounding the use of the handheld devices be closely monitored and effectively managed to ensure their success.

However, during the address canvassing phase of the 2008 Dress Rehearsal, we observed some technical difficulties with the handheld mobile computing device. We observed that it took an inordinate amount of time for field staff using the handheld devices to link multiple units to one mapspot, which occurs when listing units within apartment buildings. In North Carolina, for example, we observed a field staffer take 2 hours to verify 16 addresses in one apartment building. The device was also slow to process addresses that were a part of a large assignment area. These inefficiencies affect productivity and ultimately the cost of the census. Over the next several weeks, we will be working with the Bureau to understand the root cause of the problems we observed. Given the lateness in the testing cycle, the Bureau now runs the risk that if problems do emerge, little time will be left to develop, test, and incorporate refinements to the handheld devices before 2010.

To date, the Bureau, in its 2008 Dress Rehearsal, has completed nearly all LUCA activities, and while the Bureau has taken many steps to improve LUCA since 2000, additional steps could be taken to address possible new challenges. To reduce participant workload and burden, the Bureau provided a longer period for reviewing and updating LUCA materials; provided options for submitting materials for the LUCA program; and created MAF/TIGER[3] Partnership Software (MTPS), which is designed to assist LUCA program participants in reviewing and updating address and map data. This software will enable users to import address lists and maps for comparison to the Bureau's data and participate at the same time in both the LUCA and another geographic program, the Boundary and

[3]The Bureau's address list is known as the Master Address File (MAF); its associated geographic information system is called the Topologically Integrated Geographic Encoding and Referencing (TIGER) database. TIGER is a registered trademark of the U.S. Census Bureau.

Annexation Survey.[4] However, during the Dress Rehearsal, the Bureau tested MTPS with only one local government. The Bureau also planned improvements to LUCA by offering specialized workshops for informational and technical training and supplementing the workshops with new computer-based training. However, the Bureau did not test its computer-based training software in the Dress Rehearsal.[5] Properly executed user-based methods for software testing can give the truest estimate of the extent to which real users can employ a software application effectively, efficiently, and satisfactorily. In June 2007, we recommended the Bureau better assess the usability of the MTPS and test the computer-based training software with local governments. The Bureau has agreed to do so, and in August 2007 is expected to provide an action plan for how it will implement this recommendation.

Additionally, not all participants will rely on the MTPS. For these participants, the Bureau could do more to help them use their own software. We found that participants in the LUCA Dress Rehearsal experienced problems converting files from the Bureau's format to their respective applications; our survey of participants in the LUCA Dress Rehearsal showed that the majority of respondents had, to some extent, problems with file conversions to appropriate formats. For example, one local official noted that it took him 2 days to determine how to convert the Bureau's files. At present, the Bureau does not know how many localities that participate in LUCA will opt not to use MTPS, but those localities may face the same challenges faced by participants in the LUCA Dress Rehearsal. In response to our recommendations, the Bureau agreed to disseminate instructions on file conversion on its Web site and provide instructions to help-desk callers.

[4]The Bureau conducts the Boundary and Annexation Survey annually to collect information about selected defined geographic areas. This survey is used to update information about the legal boundaries and names of all governmental units in the United States.

[5]Respondents to our survey ranked computer-based training higher than classroom training, in terms of being "extremely" or "very" useful. Additionally, local officials told us that this training was more convenient for them because they need not leave their offices or adjust their schedules to learn how the LUCA program works.

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

The Bureau's reengineered approach for the 2010 Census involves greater use of automation, which offers the prospect of greater efficiency and effectiveness; however, these actions also introduce new risks. The automation of key census processes involves an extensive reliance on contractors. Consequently, contract oversight and management become a key challenge to a successful census. We are (1) determining the status and plans for DRIS, FDCA, MTAIP, and DADS II (including cost, schedule, and performance); and (2) assessing whether the bureau is adequately managing risks associated with these key contracts including efforts to integrate systems. We are scheduled to report the results of our work by September 2007. Effective risk management includes identifying and analyzing risks, assigning resources, and developing risk mitigation plans and milestones for key mitigation deliverables, briefing senior-level managers on high-priority risks, and tracking risks to closure. Risk management is an important project management discipline to ensure that among other things, key technologies are delivered on time, within budget, and with the promised functionality.

The Bureau has awarded three of four 2010 decennial census contracts: MTAIP (June 2002), DRIS (October 2005), and FDCA (March 2006). For DADS II, the Bureau delayed the contract award by 1 year (the contract is now scheduled to be awarded in September 2007). In March 2006, Bureau officials said that this 1-year delay occurred to gain a clearer sense of budget priorities before initiating the request for proposal process.

Our preliminary results on the status and plans for the three awarded 2010 decennial census system contracts show that the contractors are making mixed progress in meeting cost, schedule, and functional performance. Specifically, the DRIS, FDCA, and MTAIP contractors are delivering products on schedule. For example, as of March 2007, the MTAIP contractor delivered 2,513 of the 3,232 improved county map files to the Bureau's repository of the location of every street, boundary, and other map features (known as the TIGER database). In addition, the DRIS contractor has delivered certain program management documents on schedule, including the External Interface Control document, which documents the interfaces between DRIS and the other 2010 Census systems, such as FDCA. Also, the FDCA contractors provided the 1,400 handheld mobile computing devices on schedule for conducting the May 2007 address canvassing for the Dress Rehearsal sites in North Carolina and California.

Concerning costs, two projects—DRIS and MTAIP—are in line with the projected budget. For example, as of March 2007, of the $66 million

planned for DRIS during this period, the Bureau has obligated $37 million and disbursed $19 million with the project 36 percent completed. Further, our analyses of cost performance reports show no projected cost overrun for DRIS by the 2008 Dress Rehearsal. However, the FDCA project is projected to experience cost overruns by the 2008 Dress Rehearsal. Our analyses of earned value management (EVM)[6] data show a projected FDCA cost overrun by between $17 million and $22 million, with the most likely cost overrun being about $18 million. According to the contractor, the overrun is occurring primarily due to the increase in system requirements. We are concerned that this is an indication of additional cost increases that are forthcoming, given requirements growth associated with FDCA.

The Bureau has delayed delivering some key functionality that was expected to be delivered for the Dress Rehearsal. For example, some key functionality expected to be delivered with DRIS contract including the 2010 Census telephone assistance system has been delayed until fiscal year 2009. The Bureau has stated that it will not have a robust telephone assistance system in place for the Dress Rehearsal. The Bureau has also delayed selecting data capture center sites for the 2010 Census, building-out data capture facilities (including physical security, hardware, furniture, and telecommunications), and recruiting and hiring data capture center staff. According to the Bureau, this delay will affect areas, such as hardware installation and staffing training. Further, the Dress Rehearsal will not include all collection forms for the 2010 Census. According to project team officials, changes to the DRIS original functionality were due to the Bureau's fiscal year 2006 budget constraints, and therefore changed their priorities for the 2008 Dress Rehearsal.

The importance of testing is particularly important, since systems and functionality planned for the 2010 Census will not be available for the 2008 Dress Rehearsal. The Bureau has plans to conduct system tests, such as the interfaces between FDCA and DRIS. The Bureau has not finalized plans for other tests to be performed for the 2010 Census, such as end-to-end testing. End-to-end testing is performed to verify that a defined set of

[6]EVM is a project management tool that integrates the investment scope of work with schedule and cost elements for investment planning and control. The method compares the value of work accomplished during a given period with that of work expected in the period. Differences in expectations are measured in both cost and schedule variances. OMB requires agencies to use EVM as part of their performance-based management system for any investment under development or with system improvements under way.

interrelated systems that collectively support an organizational core business function interoperate as intended in an operational environment. The failure to conduct end-to-end testing increases the risks of systems performance failure occurring during the 2010 Census operations.

Our preliminary results also show that the Bureau's project teams have made progress in risk management activities, but weaknesses remain. According to the Software Engineering Institute's (SEI) Capability Maturity Model® Integration (CMMI℠), the purpose of risk management is to identify potential problems before they occur so that risk-handling activities can be executed as needed to mitigate adverse impacts.[7] Risk management activities can be divided into key areas, including identifying and analyzing risks, mitigating risks, and executive oversight. The discipline of risk management is important to help ensure that projects are delivered on time, within budget, and with the promised functionality. It is especially important for the 2010 Census, given the immovable deadline.

Our preliminary results on the Bureau's risk management processes show that the project teams have performed many practices associated with establishing sound and capable risk management processes. Specifically, most of the projects (DRIS, FDCA, and DADS II) had developed a risk management strategy to identify the methods or tools to be used for risk identification, risk analysis and prioritization, and risk mitigation. However, some projects did not fully identify risks, establish mitigation plans that identified planned actions and milestones, and report risk status to higher level officials.

- All four projects were identifying and analyzing risks, but one project team was not adequately performing this activity. As of May 2007, the most significant risks for DRIS included the possibility of a continuing budget resolution for fiscal year 2008, new system security regulations, and disagreement between the Bureau and contractor on functionality implementation. For FDCA, as of May 2007, the most significant risks included insufficient funding, late development of training materials, and untimely completion of IT Security Certification and Accreditation. However, as part of our ongoing work, we question the completeness of the reported risks. For example, although the FDCA project had experienced a major increase in the number of requirements, the project team did not identify this as a significant risk. In addition, the project

[7]The CMMI is SEI's process model, which describes how to develop processes needed for software development and specific practices that organizations should follow.

office did not identify any risks associated with using the handheld mobile computing devices.

- All four projects are developing risk mitigation plans as a response strategy for the handling of risks, but three project teams (DADS II, FDCA, and MTAIP) developed mitigation plans that were often untimely or had incomplete activities and milestones. For example, although mitigation plans were developed for all high-level risks, they did not always identify milestones for implementing mitigating activities. In addition, the FDCA project has yet to provide any evidence of mitigation plans to handle their medium-level risks as described in their risk management strategy.
- Two projects (MTAIP and FDCA) have yet to provide evidence that risks were reported regularly to higher-level Department of Commerce and Bureau officials. For example, although both project teams had met with Commerce and Bureau officials to discuss the status of the projects, the meetings did not include discussions about the status of risks.

The failure to develop timely and complete mitigation plans increases the project's exposure to risks and reduces the project team's ability to effectively control and manage risks during the work effort. Further, failure to report a project's risks to higher level officials reduces the visibility of risks to executives that should be playing a role in mitigating them. Until the project teams implement effective and consistent risk management processes, the Bureau faces increased risks that system acquisition projects will incur cost overruns, schedule delays, and performance shortfalls.

Bureau Is Designing Decennial Activities in the Geographic Area Affected by Hurricanes Katrina and Rita, but Needs to Finalize Plans and Related Milestones

As part of our evaluation of the Bureau's LUCA Dress Rehearsal, we visited the localities along the Gulf Coast to assess the effect that Hurricanes Katrina and Rita might have on decennial activities in these geographic areas, and we found that the damage and devastation of these hurricanes will likely affect the Bureau's LUCA program and possibly other operations. The Bureau has begun to take steps toward addressing these issues by developing proposed actions. However, the Bureau has not yet finalized plans and milestones related to changes in actions for modifying address canvassing or subsequent operations in hurricane-affected areas.

In visiting localities along the Gulf Coast earlier this year, we observed that the effects of the hurricanes are still visible throughout the Gulf Coast region. Hurricane Katrina alone destroyed or made uninhabitable an estimated 300,000 homes; in New Orleans, local officials reported that Hurricane Katrina damaged an estimated 123,000 housing units. Such

changes in housing unit stock continue to present challenges to the implementation of the 2010 LUCA Program and address canvassing operations in the Gulf Coast region. Many officials of local governments we visited in hurricane-affected areas said they have identified numerous housing units that have been or will be demolished as a result of Hurricanes Katrina and Rita and subsequent deterioration. Conversely, many local governments estimate that there is new development of housing units in their respective jurisdictions. The localities we interviewed in the Gulf Coast region indicated that such changes in the housing stock of their jurisdictions are unlikely to subside before local governments begin reviewing and updating materials for the Bureau's 2010 LUCA Program—in August 2007.[8] As a result, local governments in hurricane-affected areas may be unable to fully capture reliable information about their address lists before the beginning of LUCA.

The mixed condition of the housing stock in the Gulf Coast could decrease productivity rates during address canvassing. We observed that hurricane-affected areas have many neighborhoods with abandoned and vacant properties mixed in with occupied housing units. Bureau field staff conducting address canvassing in these areas may have decreased productivity due to the additional time necessary to distinguish between abandoned, vacant, and occupied housing units. We also observed many areas where lots included a permanent structure with undetermined occupancy as well as a trailer. Bureau field staff may be presented with the challenge of determining whether a residence or a trailer (see fig. 1), or both, are occupied. Another potential issue is that, due to continuing changes in the condition in the housing stock, housing units that are deemed uninhabitable during address canvassing may be occupied on Census Day, April 1, 2010. Bureau officials said that they recognize there are issues with identifying uninhabitable structures in hurricane-affected zones. Further, workforce shortages may also pose significant problems for the Bureau's hiring efforts for address canvassing. The effects of Hurricanes Katrina and Rita caused a major shift in population away from the hurricane-affected areas, especially in Louisiana. This migration displaced many low-wage workers. Should this continue, it could affect the availability of such workers for address canvassing and other decennial census operations.

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

Figure 1: Trailers in Front of Damaged Housing Units in New Orleans, Louisiana

Source: GAO (January 2007).

In June 2006, we recommended that the Bureau develop plans (prior to the start of the 2010 LUCA Program in August 2007) to assess whether new procedures, additional resources, or local partnerships, may be required to update the MAF/TIGER database along the Gulf Coast—in the areas affected by Hurricanes Katrina and Rita.[9] The Bureau consulted with state and regional officials from the Gulf Coast on how to make LUCA as successful as possible, and held additional promotional workshops for geographic areas identified by the Bureau as needing additional assistance.

The Bureau has also considered changes to address canvassing and subsequent operations in the Gulf Coast region. For example, Bureau officials stated that they recognize issues with identifying uninhabitable structures in hurricane-affected zones and, as a result, that they may need to change procedures for address canvassing. The Bureau is still brainstorming ideas, including the possibility of using its "Update/Enumerate"[10] operation in areas along the Gulf Coast. Bureau

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

[10]In an "Update/Enumerate" operation, interviewers enumerate a housing unit and update address registers and census maps at the time of their visit.

officials also said that they may adjust training for field staff conducting address canvassing in hurricane-affected areas to help them distinguish between abandoned, vacant, and occupied housing units. Without proper training, field staff can make errors and will not operate as efficiently.[11]

The Bureau's plans for how it may adjust address canvassing operations in the Gulf Coast region can also have implications for subsequent operations. For example, instructing its field staff to be as inclusive as possible in completing address canvassing could cause increased efforts to contact nonrespondents because the Bureau could send questionnaires to housing units that could be vacant on Census Day. In terms of the Bureau's workforce in the Gulf Coast region, Bureau officials also recognize the potential difficulty of attracting field staff, and have recommended that the Bureau be prepared to pay hourly wage rates for future decennial field staff that are considerably higher than usual. However, Bureau officials stated that there are "no concrete plans" to implement changes to address canvassing or subsequent decennial operations in the Gulf Coast region.

Mr. Chairman, the Bureau faces formidable challenges in successfully implementing a redesigned decennial. It must also overcome significant challenges of a demographic and socioeconomic nature due to the nation's increasing diversity in language, ethnicity, households, and housing type, as well a reluctance of the population to participate in the census. The need to enumerate in the areas devastated by Hurricanes Katrina and Rita is one more significant difficulty the Bureau faces. We have stated in the past, and believe still, that the Bureau's reengineering effort, if effectively implemented, can help control costs and improve cost effectiveness and efficiency. Yet, there is more that the Bureau can do in managing risks for the 2010 Census.

The Dress Rehearsal represents a critical stage in preparing for Census 2010—a time when the Bureau's plans will be tested as close to census-like conditions as is possible. This is a time when the Congress, the Department of Commerce, and others should have the information needed to know how well the design is working. This is a time for making transparent the risks that the Bureau must manage to ensure a successful census. We have highlighted some of these risks today.

[11]GAO, *2010 Census: Census Bureau Should Refine Recruiting and Hiring Efforts and Enhance Training of Temporary Field Staff*, GAO-07-361 (Washington, D.C.: Apr. 27, 2007).

First, the Bureau's planning and reporting of milestones and estimated costs could be made more useful. Second, the performance of key contractors needs more oversight. Third, the Bureau can build on lessons learned early in the Dress Rehearsal by further testing new software that will help localities participating in the LUCA program. The functionality and usability of the handheld computing device—a key piece of hardware in the reengineered census—also bears watching. If, after the 2008 Dress Rehearsal, the handheld computers are found to not be reliable, the Bureau could be faced with the remote but daunting possibility of having to revert, in whole or in part, to the costly, paper-based census used in 2000. Finally, the Bureau must complete plans for ensuring an accurate population count in areas affected by Hurricanes Katrina and Rita. All told, these areas continue to call for risk mitigation plans by the Bureau and careful monitoring and oversight by the Commerce Department, Office of Management and Budget, the Congress, GAO, and other key stakeholders. As in the past, we look forward to supporting this subcommittee's oversight efforts to promote a timely, complete, accurate, and cost-effective census.

Mr. Chairman that concludes our statement. We would be glad to answer any questions you and the committee members may have.

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Preparations for 2010: Is the Census Bureau Ready for the Job Ahead?

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Senate Committee on Homeland Security and Governmental Affairs
Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security

July 17, 2007

Chairman Carper, Senator Coburn, Members of the Subcommittee, I am pleased to appear before you and very much appreciate your invitation. My role today is to twofold. First, I will describe the extraordinary importance of the decennial census to the nation—to our representative democracy, to public policy at all levels of government, and to our economy. Second, I will review key issues with regard to the Census Bureau's readiness to conduct the census, that is, its capacity to ensure that the census will be complete, accurate, and able to fulfill its essential public roles.

The Fundamental Importance of the Census to American Government and Economy

The architecture of our ***representative democracy*** rests on the foundation provided by the decennial census.

Office holders in each branch of the federal government are chosen, directly or indirectly, on the basis of the census. Article 1, Section 2 of the Constitution requires that the number of seats in the House of Representatives shall be apportioned according to the enumeration of the nation's population, which is to be conducted once every ten years. By extension, the election of the President also depends upon the census, as the number of votes allocated each state in the Electoral College is equal to the sum of their

Representatives and Senators. As the President chooses the members of the federal judiciary, the census influences the third branch of government as well, and, as we know, that influence can extend for quite some time.

After each census is conducted, state legislatures rely on the census population data to redraw Congressional and state legislative district boundaries. Local governments use these data to determine the size and shape of county and city council districts, school board districts, and voting precincts. In order to enable state and local governments to create legislative districts that comply with standards for population equity ("one person, one vote") and racial and ethnic balance (Voting Rights Act, Sections 2 and 5), the Census Bureau provides a special tabulation of census data organized by voting districts as specified by each state.

Clearly, the collection and use of census data have a critical influence on political outcomes. While this relationship usually is uncontroversial and the outcomes typically go unchallenged, recent incidents demonstrate the power of the census and how small differences can have dramatic effects:

- After Census 2000, the state of Utah missed gaining a fourth Congressional seat and sixth electoral vote by 856 residents; the 435th seat and 538th electoral vote went to North Carolina instead.[1] Utah's experience has been highly instructive to states with regard to the 2010 Census. Realizing that apportionment is a zero sum game, more states will be working aggressively to bring about a full count.
- The result of the 2000 presidential election turned on the accuracy of the 1990 census. The election was so close that a slightly more or less accurate census could have produced another pattern of Congressional apportionment and so a different outcome.

[1] Utah, believing that Mormon missionaries temporarily overseas should be counted as residents, went to the Supreme Court, where it lost.

- In 2003, the Texas state legislature's redrawing of Congressional Districts produced quite a commotion, as some legislators in the minority left the state in the hopes of blocking approval of the new boundaries.

Our Founding Fathers' notion of using population count as the basis for our representative democracy, rather than physical might or divine right, was, in its time, a remarkable innovation. As history shows, the decennial census has been essential to the success of the American democratic experiment. Consequently, the conduct of the census, enshrined in the Constitution, represents a sacred duty of a sort. Therefore, we cannot take the census—its completeness, its accuracy—for granted; to do so is a step towards diminishing our democracy.

The decennial census is essential not only for determining the allocation of power within government, but the ***effective performance of the duties of government*** as well. The impact of the decennial census on public policy is pervasive and profound.

When I discuss the importance of census data to government performance, I include by extension data from two other Congressionally mandated Census Bureau programs. The first is the population estimates program, which provides annual population estimates (by age, sex, race, and Hispanic origin) for states and local areas based on decennial numbers, administrative records, and other surveys.[2] The second is the new American Community Survey (ACS), the replacement for the decennial long form that will provide us with an annual detailed picture of population characteristics (such as educational attainment, occupation, income and poverty, housing conditions, and journey-to-work) down to the neighborhood level.[3] The ACS significantly increases the efficacy of the decennial census, as its updates data for states and localities every year rather than once a decade.

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[2] The population estimates program uses the components of change method. The year ending in "1," it takes the decennial figure, adds births, subtracts deaths, and adds net domestic and international migration; each succeeding year adds and subtracts components of change to the prior year's estimate.

[3] Surveying 3 million households annually, the ACS is considered part of the "reengineered" 2010 Census. Its purpose is not to estimate population size, but the percent distribution of population characteristics; it

Each question in the decennial census and the ACS is crafted to fulfill a set of federal purposes.[4] The federal government relies on census data in three ways. First, through use in eligibility criteria and allocation formulas established by law, regulation, and directive, census data guide the distribution of hundreds of billions in federal financial assistance to state and local governments, nonprofits, businesses, and individuals. I estimate that, in FY2004, the distribution of at least $287 billion in federal funds from 75 grant programs (62 percent of $460 billion in total grants) relied on numbers derived from the decennial census.[5] The largest programs (totaling $259 billion) include Medicaid, the Federal-Aid Highway Program, Section 8 Housing Choice Vouchers, Head Start, the State Children's Health Insurance Program, Federal Transit Formula Grants, Department of Agriculture Low Income Housing Loans, and the Community Development Block Grant Program.[6] The appropriate and fair distribution of federal funds—and the return of precious tax dollars to states and communities—depend upon an accurate census.

Second, census data provide key benchmarks for federal enforcement of civil rights and antidiscrimination laws and court decisions. Small area census data on the occupational distribution by gender, race, and ethnicity are used by federal legal and regulatory agencies to enforce laws against discrimination in the workplace.[7] Population estimates and ACS data on race, Hispanic ethnicity, and language spoken at home are used to enforce the Voting Rights Act. Housing-related ACS data are used in the regulation of lending practices and homeowner insurance procedures under the Fair Housing Act.

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relies on population estimates from decennial census and the annual population estimates program as the bases on which to estimate how the count of people by characteristics.

[4] U.S. Census Bureau, "Subjects Planned for the 2010 Census and the American Community Survey: Federal Legislative and Program Uses." http://www.census.gov/Press-Release/www/2007/subjects_notebook.pdf.

[5] These include figures from the decennial census, annual population estimates, the ACS, and agencies other than the Census Bureau. Examples of the latter include per capita income from the Bureau of Economic Analysis and median household income and fair market rent from the Department of Housing and Urban Development. My estimate of the total amount of federal grants allocated on the basis of census data is preliminary and reflects a work in progress.

[6] In addition, census data are used to determine eligibility for the Federal Housing Authority's mortgage insurance program.

[7] See http://www.census.gov/Press-Release/www/releases/archives/census_2000/001633.html. The Equal Employment Opportunity Commission, the Department of Justice, the Department of Labor's Office of

Third, census data play an important role informing the design, implementation, and evaluation of a variety of federal efforts other than financial assistance and regulation. For example, the data are used with regard to programs and policies concerned with adult education, small business development, veteran and senior citizen health, affordable housing, overcrowded housing, transportation planning, women in the labor force, farm workers, immigrants, disabled students, and groundwater contamination. With the release of the 2008 ACS data, programs that promote increased health insurance coverage and seek to influence marriage- and divorce-related behavior (for example, TANF) will benefit as well.

In particular, census data are used to develop estimates and projections for a variety of federal programs. Examples of estimates include the measures of personal income at the metropolitan and county levels (Bureau of Economic Analysis), adult literacy rates (Department of Education), local travel patterns (Federal Highway Administration), the number of children in single-parent homes (Department of Health and Human Services), and residential and motor vehicle energy consumption (Department of Energy). Examples of forecasts include the number of people who will be eligible for Social Security and Medicare, the number of children who will need adoptive homes under the Child Welfare Act, and future tax revenue (Department of Treasury). In addition, census data are used by OMB to reset the boundaries of the nation's metropolitan areas.

The census also provides the basis for giving Members of Congress detailed, up-to-date profiles of constituent population through the ACS.[8]

State and local governments heavily rely on census data to make real, on-the-ground investment decisions across all domains of government. For example, these governments use census data to assess the needs for school buildings, affordable housing, workforce training, and access to health care. In addition:

Federal Contract Compliance Program and the Office of Personnel Management use these data to enforce workplace antidiscrimination laws.

[8] The Census Bureau provides data profiles by state and Congressional District at http://fastfacts.census.gov/home/cws/main.html.

- States and local governments rely on census data to determine how best to deploy criminal justice resources.[9] For example, relating the demographic profile of methamphetamine users to census long form data by place, the Illinois State Police were able to identify and focus on likely meth lab locations ("hot spots") around the state.
- These governments also depend on census data to plan for and respond to natural and manmade disasters.[10] The ACS is used to identify large swaths of the population with needs that must be addressed in evacuation plans, including the carless (9 percent of U.S. households), those with a physical or mental disability (13 percent of residents) or language barrier (8 percent), the elderly (40 percent have a disability), and those living in group quarters such as nursing homes and assisted living facilities (2 percent of residents). Our nation's recent experience with 9/11 and Hurricane Katrina make quite clear the importance to adequate emergency planning.
- State and local transportation planners rely on the Census Transportation Planning Package (CTPP) commissioned by the Federal Highway Administration. Transportation planners use CTPP data—such as journey-to-work and vehicle ownership data—to evaluate existing conditions, develop and update travel demand models, and analyze demographic and travel trends.[11]

Governments at all levels contribute $2.6 trillion to our $13.6 trillion economy. In one way or another, decennial census data guides the use of nearly all of those funds.

The influence of census data on the operations of the $11 trillion ***private sector economy*** is equally pervasive. Businesses of all types (such as retail, manufacturing, services) and sizes (from Target and J.C. Penney to sole proprietorships) use census data (either

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[9] Andrew Reamer, "To Take a Bite Out of Crime: Safeguard the Census," The Brookings Institution, June 26, 2006. http://www.brookings.edu/views/op-ed/reamer/20060626.htm

[10] Andrew Reamer, "Anticipating the Unimaginable: The Crucial Role of the Census in Disaster Planning and Recovery," The Brookings Institution, July 10, 2006. http://www.brookings.edu/views/op-ed/reamer/20060710.htm

[11] http://www.fhwa.dot.gov/ctpp/

directly from the Census Bureau or through value-added commercial vendors) to identify markets, select business locations, make investment decisions in plant, equipment and new product development, determine goods and services to be offered, and assess labor markets. At a Brookings briefing held on Capitol Hill last year, a representative of the National Retail Federation walked through the various essential uses of census data for retail decision-making.[12]

Nonprofit organizations such as hospitals and community service organizations rely on census data to better understand and serve the needs of their constituencies. Firms and nonprofits throughout the housing and real estate industry—including home builders, real estate firms, mortgage bankers, home improvement firms, and community development corporations—use census data to ascertain needs and opportunities and guide investment and action.

One realm in which public and private sectors work in tandem is regional economic and workforce development. Census data are essential to efforts by state and local governments, chambers of commerce, and public-private partnerships to promote business attraction, expansions, and startups that lead to job creation and a larger tax base.[13] ACS figures on median household income, wage levels, educational attainment, industry and occupational distribution, self-employment, and journey-to-work help assess economic performance, industry structure, and workforce resources. Moreover, ACS data on workforce characteristics are important inputs in determining needs for workforce development efforts by community colleges, universities, for-profit schools, and other training institutions. Thus, census data are a key ingredient to regional economic competitiveness, improved workforce skills, job creation, and tax base expansion.

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[12] Brooking Briefings on the Census , "Better Data for Better Decisions: The Value of the American Community Survey to the Nation," June 23, 2006. http://www.brookings.edu/metro/umi/events/20060623_acs.htm In 2006, Brookings provided three briefings to Congressional staff on the 2010 Census and the ACS.

[13] Joseph Cortright and Andrew Reamer, "Socioeconomic Data for Understanding Your Regional Economy: A User's Guide," 1998, for the U.S. Economic Development Administration. http://www.econdata.net/pdf/uguide.pdf

Fundamentally, then, census data are essential for the effective operation of the entire $13.6 trillion U.S. economy. Among the various public policy tools available to the federal government (such as grants, tax credits, regulation), statistical programs are among the least expensive and give the greatest return on taxpayer investment. The total annual federal investment in the nation's principal statistical agencies is less than $3 billion (a figure that varies with nearness to decennial year). And no statistical program has a greater return than the decennial census. If I were talking about economic returns alone, we might have an argument (even then I think the assertion might be true). However, as I noted in the beginning, the census provides the foundation for the functioning of our democracy, and on that we cannot put a price.

Key Issues in Census Bureau Preparedness for 2010

To fulfill the role the census plays in sustaining the quality of our democracy and the health of our economy, we need a complete and accurate census. Achieving such a census in turn requires a complete and accurate Master Address File (MAF), the list of every known household address in the nation; a highest possible level of household response to the census questionnaire (by mail, preferably, if not, then by phone or in-person); and the capture of complete and accurate responses to the questionnaire.

The Census Bureau faces a series of key issues with regards to its ability to meet these requirements. The first is ***adequate funding***. The decennial census is the largest peacetime operation this nation undertakes. It is important for Congress to appreciate how essential decennial census preparations are in the several years before the count and to understand why the Census Bureau needs such a significant ramp-up in funding, especially starting in the year ending in "7." The 2008 dress rehearsal is the only opportunity the Census Bureau has to integrate, deploy, and evaluate all planned operations and systems in a census-like environment. We have one chance to get it right in 2010; we do not want 2010 to be a test-bed for the integrated census design.

The Administration has been requesting an appropriate magnitude of funds for census preparations. While it is tempting to shift funds from this rapidly growing budget—one

with a relatively weak constituency—for more politically pressing uses, as was done last week in the House Appropriations Committee, the costs to the nation of doing so are large, in terms of wasted federal funds, unfair political outcomes, less effective public policy, and a less robust economy.

The second issue is the proper Census Bureau management of the ***Local Update of Census Addresses (LUCA)*** to ensure we have a complete MAF so that a mailed survey can reach each household. The MAF is based largely on U.S. Postal Service address listings. However, experience shows, the MAF can miss new construction, building conversions from non-residential to residential use, garages converted to residential use, and apartment subdivisions. LUCA, first carried out for Census 2000, allows localities and states to review the MAF and suggest additions and changes in address listings. Communities make use of alternative address listings such utility accounts, real property records, construction and demolition permits, and "911" records, as well as field visits.

LUCA, then, is a mechanism that allows states and localities to get their fair share of political representation and federal funds and create a more accurate picture for local government and business investment decisions. The potential value of LUCA is reflected in the fact that New York City was able to add nearly 370,000 addresses to the MAF in Census 2000.

However, the Census 2000 LUCA experience was uneven; many localities, particularly small ones, found it difficult to participate. The Census Bureau learned much from its first LUCA experience, and the program design this time around is quite improved.[14] In particular, the Census Bureau has expanded options for participation, added training for localities, increased review time, and, very importantly, allowed state governments to assist localities. This last point is particularly valuable for smaller communities that do not have the internal resources to participate in LUCA on their own.

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[14] For an overview of the 2010 Census LUCA Program, see http://www.census.gov/geo/www/luca2010/luca.html.

In March, Brookings sponsored a briefing for state and local governments about preparing for the census; an effective LUCA program was of significant interest, understandably. However, subsequent to our session, we see that the LUCA process for the 2008 Dress Rehearsal and the Census Bureau's ramp-up to the full LUCA for 2010 give some cause for concern regarding implementation. At a hearing held by the House Information Policy, Census and National Archives Subcommittee on June 26, 2007, officials from the two 2008 Dress Rehearsal states, North Carolina and California, identified several Dress Rehearsal LUCA issues, including inaccurate TIGER maps, limited Census Bureau outreach (to encourage localities to participate), and problems regarding training and technical support. The Census Bureau needs to address these issues so that they do not diminish the quality of the upcoming full-scale LUCA effort.

In August, the Census Bureau plans to send out letters to the highest elected and other officials in thousands of state, local, and tribal governments across the U.S. inviting them to participate in LUCA. This invitation will have been delayed by several weeks due to a combination of miscommunication and inadequate planning. The Census Bureau did not realize until late that it required OMB review and approval of the LUCA effort and related forms. Consequently, on June 15, 2007, it requested an emergency temporary (six-month) approval.[15] Then, on June 22, 2007, it issued a call for public comments on the proposed new LUCA process, with a due date of August 6, 2007.[16] Given the tight timelines for LUCA and the fixed Census Day of April 1, 2010, the Census Bureau plans to send out the letters immediately after August 6, leaving little time for meaningful response to comments. It would have been far better if the Census Bureau had issued its call for comments six months ago. Hopefully, these ramp-up timing issues are not consequential and do not foreshadow additional management problems going forward. I encourage the Subcommittee to ask the Census Bureau to explain the difficulties with regard to seeking OMB review and calls for public comment.

[15] http://www.census.gov/geo/www/luca2010/e7-11601.pdf
[16] http://www.census.gov/geo/www/luca2010/e7-12160.pdf

The third important issue in Census Bureau readiness is having a ***community outreach program*** in place to promote "getting out the count." A wide range of stakeholders want to work with the Census Bureau to ensure an accurate count of an increasingly diverse population that presents numerous counting challenges. Such stakeholders include state, local, and tribal governments, community-based organizations, rural community groups, inner city neighborhood associations, small businesses, media organizations, and faith-based organizations. The Census Bureau needs to take advantage of the substantial presence these stakeholders have in local communities, and continue a dialogue with stakeholders about what works best and how the Census Bureau can help them be effective in reaching hard-to-count populations.

By all accounts, the Census Bureau managed an effective partnership program for Census 2000, involving over 140,000 partners.[17] Experience indicates that for a 2010 census partnership program to be effective, it must get underway in the coming fiscal year. However, the Administration denied the Census Bureau's request for FY08 funding for the program; while Secretary Gutierrez indicated funds will be sought for FY2009, this will be too late to build the necessary foundation for outreach. In consequence, the House Appropriations Subcommittee added $13,000,000 to the FY08 Census Bureau budget for community outreach. The Senate mark has no comparable provision. I ask that Members of this Subcommittee encourage their colleagues who will serve on the bill's conference committee to support dedicated funding for such an important task.

As valuable as LUCA and the community partnership program are, they are not sufficient to ensure that the Census Bureau can generate an accurate count in every community. For many residences, particularly in multi-unit buildings and converted and subdivided dwellings, mailed questionnaires cannot find their destinations because unit numbers are confusing or non-existent. Census fieldworkers following up on non-responding households cannot sort out who answered and who did not answer via mail. As a result, communities with a high proportion of such residences are at risk of an undercount.

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[17] http://www.census.gov/dmd/www/partner.html

To address this problem, the Census Bureau has at its disposal a method called ***Update/Enumerate*** (U/E), which it used to good effect in Census 2000 in 35 states (on Indian reservations, colonias, and resort communities). In the U/E process, census fieldworkers walk blocks believed to have a high percentage of problematic units, with addresses in hand, knock on doors, update addresses, and count residents.[18]

While the Census Bureau says it is knowledgeable about and comfortable with the U/E method, at present it does not have concrete plans for incorporating U/E as part of the 2010 Census. We know that the Census Bureau is exploring possible uses of U/E, but the time is getting late. In light of U/E's demonstrated high value and success, I suggest that this Subcommittee encourage the Census Bureau to make effective use of U/E and ask for plans to do so. To the extent possible, it would be valuable to have the Census Bureau employ U/E as part of the 2008 Dress Rehearsal.

Readiness for the 2010 Census requires that the Census Bureau successfully:

- recruit, hire, and train over a ***half million temporary workers***;
- properly manage its significant ***technology contracts*** (including for handheld computers), to ensure that all systems will perform well during the census; and
- develop ***back-up/contingency plans*** should any of the technological innovations not work as planned.

Recently, the Government Accountability Office (GAO) provided a series of reports and testimony on these topics. I concur with the GAO findings, and encourage this Subcommittee to use them as guides in overseeing Census Bureau preparations regarding staffing and technology.

As you well understand, designing, planning, and conducting a decennial census is an enormous, complex endeavor. As a consequence, the Census Bureau highly values staff

[18] U.S. Census Bureau, "Update/Enumerate: Final Report," Census 2000 Evaluation F.12, December 2000. http://www.census.gov/pred/www/rpts/F.12.pdf

who have participated in prior efforts. However, as is true throughout the federal government, numerous Census Bureau staff with ***substantial decennial experience*** have recently retired or soon will do so. I suggest that the Subcommittee ask the Census Bureau about the extent to which it has been or expects to be losing experienced decennial hands, and its plans for retaining institutional knowledge and minimizing any knowledge gaps.

Addressing the various issues that I have identified are essential to the ability of the census to fulfill the demands we place on it to sustain our democracy and our economy. I hope you have found my remarks of value as you ascertain the readiness of the Census Bureau for 2010. I very much appreciate the opportunity to appear before you, and would be pleased to answer any questions you might have.

MERCATUS CENTER
GEORGE MASON UNIVERSITY

TESTIMONY

From

The Hon. Maurice P. McTigue, Q.S.O.
Vice President of the Mercatus Center
Director, Government Accountability Project

For

Senate Homeland Security and Governmental Affairs Committee's Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security

July 17, 2007

On

"Preparations for 2010: Is the Census Bureau Ready for the Job Ahead?"

Mr. Chairman, I am honored to have been invited to testify before you on the current state of readiness of the Census Bureau for the Decennial Census in 2010.

My expertise is not in statistics or survey research methods, but rather in the field of organizational performance and understanding organizations' potential to improve their performance measured in terms of increased benefits to the public.[1]

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[1]See Annual Performance Report Scorecard
http://www.mercatus.org/repository/docLib/20070403_Scorecard_FY_2006.pdf

The requirement to enumerate the American population every 10 years is enshrined in the American Constitution. So, there is no question as to whether or not the census is still relevant; however, over the time since the first census to the current day, the process and procedure has seen remarkable change—from the first census being conducted on horseback to the 2010 census using handheld computers.

When assessing the performance of organizations, one of the first considerations is to define the product and then identify the primary utility of that product to its users. The Census Bureau's product is information, and its users fall mainly into the category of decision makers or researchers. What the Census Bureau does might be described as gathering market intelligence for decision makers.

Therefore, the Census Bureau is what I would describe as an enabling organization. It enables decision makers—whether they are members of Congress, electoral boundary commissions, state and local government, or the business community—to make better decisions.

The Census Bureau is not the only information-gathering organization in the federal government. The Central Intelligence Agency, the Federal Bureau of Investigations, the National Security Administration, the Government Accountability Office, and many other organizations gather information the government uses to improve the quality of decisions made on a wide range of topics.

What the Census Bureau and all these organizations have in common is the constant battle over the utility of the information. That means that there is a constant conflict between the values of accuracy, timeliness, reliability, and the processing of the raw data into usable products. These values are not constant and at various times one may demand a heavier weighting than others. For example, accuracy may have to give ground to timeliness if 100 percent accurate information only becomes available after the information being provided no longer has any utility. In that situation the information has zero value.

Our research has shown that some of the data gathered by the Census Bureau relating to state government is normally two years away from real time. In circumstances like this, questions need to be raised about whether improved timeliness outweighs accuracy.

In the ongoing efforts to maximize utility to its users, the Census Bureau's decision to introduce the American Community Survey is to be applauded, as it should provide a more dynamic and up-to-date picture of change in American society.

However, over time it will be important to evaluate whether the continuous random sampling taking place in the American Community Survey is providing a sufficiently accurate and timely macro-level picture of American society. For example, the sample may be too small or the mix may not pick up significant information on particular populations or particular societal trends.

To this extent, it will be important for the Census Bureau to develop an entrepreneurial focus that researches the utility of its products and upgrades them to best serve the needs of a rapidly changing society. It is therefore disappointing that the Bureau has so far decided against online information gathering when many other countries like Canada, Australia, and New Zealand already have considerable experience with online census responses.

The "dress rehearsal" experiment is also a worthy undertaking, but questions have to be asked about whether there is sufficient time after the dress rehearsal to remedy any significant problems that may arise. If the timeline is too short, significant problems will only be resolved by Congress throwing large quantities of money at the problem, which history indicates has been the practice in the past. In my view, it is a shame that the opportunity was not taken for comprehensive experimentation with online census responses at some time during the 10 years since the last census.

This is particularly disappointing when compared with the remarkable productivity gains, accuracy improvements, and cost reductions that have been experienced everywhere where tax collection has allowed online filing. There is no doubt that the complexity of tax filing far exceeds that of filling out a census form, particularly now that the long census form has been removed from the process. Last year more than 80 million Americans filed tax returns online.[2] More than 54 percent of all individual tax returns were

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[2] Internal Revenue Service. *Internal Revenue Service Data Book: 2006.* Publication 55B, Washington, DC, March 2007.

filed online in 2006.[3] With 73 percent of the population, or 173 million adult Americans, having internet access, there is the potential for between 50 and 60 percent of census forms to be filed online.

As a conservative estimate—presuming that the Census Bureau will not exceed its budget estimate—the $72 per household cost to conduct the census compares very unfavorably with the $0.56 cost to the IRS for handling an online tax filing.[4] In addition to the cost reduction, the IRS experienced a significant reduction in errors through online filing from 20 percent to one percent, or one-twentieth of the errors of paper filings. When taking all of these factors into consideration it seems a significant benefit has been forgone by the Census Bureau. One would have to conclude that the Census Bureau has been extremely conservative in its approach to technology in conducting this census.[5]

As I was doing the research for this testimony, one small but interesting fact stuck in my memory: By the time the census is completed, the process will have consumed 1.5 billion pieces of paper.[6] That equals over 125,000 trees and maybe a quarter or a half of that paper usage could have been avoided and forty or sixty thousand trees saved.[7] Perhaps an interesting challenge for the Census Bureau would be to reduce the process' paper consumption 50 percent.

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[3] Ibid.
[4] Trudy Walsh. "The E-government payoff: Where finance acquisition and HR converge, e-gov projects deliver," The Government Leader, November 2005.
[5] Jennifer K. Nii, "IRS suggests most people e-file tax forms," *Desert News,* 7 April 2006.
[6] U.S. Census Bureau, "Reengineering the Census of Population and Housing" (paper presented at the UNECE Seminar on New Methods for Population Censuses, Geneva, Switzerland, November 22, 2004).
[7] The Resourceful Schools Project, "Resources for Recycling Coordinators", Resourceful Schools Project. http://resourcefulschools.org/coordinators.html

Don Nickles
Chairman & CEO

Stacey Hughes
Partner

Hazen Marshall
Partner

Cynthia Merifield Tripodi
Partner

May 18, 2007

Senator Jim Inhofe
Senator Tom Coburn
United States Senate
Washington, DC 20510

Dear Senators Inhofe and Coburn,

Thank you for your letter dated May 2, 2007, which requested my intention in offering an amendment on the Voting Rights Act Reauthorization Bill on June 18, 1982. I sponsored the amendment because I found out the Census Bureau was requiring interpreters in areas where clearly the primary language used was English. We were paying for interpreters in Native American Indian languages where almost no one spoke the native language and almost everyone was proficient in English, which is their primary language. No one was even using the services of the interpreters. We were supported by leaders of the largest tribes in the state as well.

I appreciate your bringing me up to date with the current interpretation by the Census Bureau which includes mandating bilingual assistance for people who say they speak English well. This is a direct contradiction of my amendment. To include persons who say they speak English well as "limited English proficient" is a needless waste of time and resources.

It is embarrassing to see that the Director of Census Bureau state in your letter to change the definition of "Limited English Proficient" would need to pass an amendment similar to my amendment which Congress passed in 1982. By my floor statement, legislative history clearly shows that someone who states they speak English well is not in need of bilingual assistance. Thank you for your leadership and efforts to interpret the Voting Rights Act with common sense. Hopefully the Census Bureau and Commerce Department will concur.

Sincerely,

Don Nickles

cc: Director, U.S. Census Bureau, Charles Kincannon
Secretary of Commerce, Carlos Gutierrez

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Several Senators addressed the Chair.

Mr. MATHIAS. Mr. President, I ask unanimous consent that notwithstanding the provisions of the order, Senator NICKLES may be permitted to call up his amendment, which is agreeable to the managers.

The PRESIDING OFFICER. Is there objection?

Mr. THURMOND. Mr. President, I inquire whether there will be an opportunity to make a final statement.

The PRESIDING OFFICER. Does the Senator from South Carolina object to the unanimous-consent request of the Senator from Maryland?

Mr. GOLDWATER. What is the unanimous-consent request?

Mr. MATHIAS. It is a technical amendment that Senator NICKLES wants to bring up.

Mr. THURMOND. I should like to ask the manager of the bill a question.

Mr. BUMPERS. I object.

The PRESIDING OFFICER. Objection is heard.

Mr. KENNEDY. Mr. President, I ask unanimous consent that the Senator from Oklahoma be recognized to call up a technical amendment.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

UP AMENDMENT NO. 1035

(Purpose: To apply the extension of bilingual election requirements only to members of a single language minority who do not speak English)

Mr. NICKLES. Mr. President, I call up an unprinted amendment which I have at the desk.

The PRESIDING OFFICER. The amendment will be stated.

The legislative clerk read as follows:

The Senator from Oklahoma (Mr. NICKLES) proposes an unprinted amendment numbered 1035

Mr. NICKLES. Mr. President, I ask unanimous consent that reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 17, line 16, before the period insert a comma and the following: "and the extension made by this section shall apply only to determinations made by the Director of the Census under clause (i) of section 203(b) for members of a single language minority who do not speak or understand English adequately enough to participate in the electoral process when such a determination can be made by the Director of the Census based on the 1980 and subsequent Census data.

Mr. NICKLES. Mr. President, the amendment I offer would more accurately target bilingual assistance to those who are truly in need of such assistance. Section 203 requires that those areas which have a single language minority population 5 percent or greater and which also have an illiteracy rate higher than the national average provide bilingual election information and assistance.

The problem in implementing this act has been in identifying which minorities of the Alaskan Native, American Indian, Asian American, and Spanish heritage population are really a "single language minority." *Obviously*, just because one is a part of a minority population does not automatically place one in a single-language-minority category. However, this, in fact, is just what has happened with this section of the Voting Rights Act. Because there was no information available in the 1970 census that told which people in these minority populations spoke only their mother tongue, "single language minority" was defined as those areas which simply had 5 percent or greater of the minority population.

As might be expected, the result of this interpretation included large areas where the affected population was perfectly capable of speaking English. Oklahoma is one such State. Twenty-five counties in my State are covered under section 203 of the Voting Rights Act. Twenty-three are covered because of their Indian populations, and two are covered because of their Indian populations, and two are covered because of their Spanish populations. In contacting the State election board of my State and each of the county elections boards involved, I found that the interpreters provided in each of these counties are, almost without exception, never used. In fact, in taking with Ross D. Swimmer, the chief of the largest tribe in Oklahoma, the Cherokee Nation of Oklahoma, I was told that the entire bilingual provision, as it effects Indians in Oklahoma, is ridiculous. He pointed to Adair County in Oklahoma, where though 33 percent of the population is Cherokee, probably less than 1 percent of the population actually speaks Cherokee.

The Choctaw Nation took a census in 1975 which showed that less than 1 percent of the Choctaw population did not speak English. Those who did not were in one county and were over 65 years old.

The bottom line with the Indians in my State is that not only is English their predominant language, almost all of them do not even speak their native tongue. Tribal elections, for instance, are conducted completely in English. But right now, the way this act is being interpreted and implemented, if we have a county over 5 percent Indian, they have to have translators.

I could give more examples to support my point that in Oklahoma this bilingual coverage is, almost without exception unnecessary and unneeded. My predecessor, Henry Bellmon, argued this same point on the Senate floor in 1977. Many of you agreed with him, with Senators from other States covered by this section voicing the same concerns. There is only one difference between then and now: In 1977, we still did not have the information required to effectively target ballots and assistance to those who really need such assistance. We did not know *which minority members spoke* and understood English and which did not. Today, as a result of the 1980 census, we have this information being compiled and analyzed.

The 1980 census asked, in a series of questions, about the responder's ability to speak English. It asked for a rating on how well English is spoken, with the available answers ranging from "very well," "well," "not well," to "not at all." In addition, it asked what language, if not English, is spoken.

I would like to suggest that with this new census information, it is now within the realm of possibility for us to target voting assistance to those who really need it. My amendment would define "single language minority" as it really was intended to be defined: Members of a single language minority who cannot speak English. This would be determined by the Director of the Census as is now possible with the new 1980 census data.

I propose that we now update this entire section to allow its implementation to truly reflect the intention of this body: That of assisting non-English-speaking people in their ability to participate in the voting process. By defining "single language minority" as those within the single language minority who cannot speak English as determined by the Director of the Census, we are utilizing the information now available to us to truly assist those who are in need of such assistance. And, we would stop the "insult," as one Indian I talked with described it, of assuming that if one is a member of the designated minority, then one cannot speak English and is in need of assistance to vote.

I would be very happy to answer any questions which the Members may have on this amendment.

Mr. EAST and Mr. WARNER addressed the Chair.

The PRESIDING OFFICER. The question is on agreeing to the amendment.

Mr. MATHIAS. It is agreeable to this side, Mr. President.

The PRESIDING OFFICER. The question is on agreeing to the amendment offered by the Senator from Oklahoma.

The amendment (UP No. 1035) was agreed to.

Mr. WARNER. Mr. President, I ask unanimous consent that the letter to which the distinguished Senator from Massachusetts was referring in the colloquy with me, the letter addressed to me, dated May 19, 1982, from the

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Cost of the Decennial Census: 1790-2010

Census	Cost*	Population	Per Capita Cost
1790	$44,377	3,929,214	$0.01
1800	$66,109	5,308,483	$0.01
1810	$178,445	7,239,881	$0.02
1820	$208,526	9,633,822	$0.02
1830	$378,545	12,866,020	$0.03
1840	$833,371	17,069,458	$0.05
1850	$1,423,351	23,191,876	$0.06
1860	$1,969,377	31,433,321	$0.06
1870	$3,421,198	38,558,371	$0.09
1880	$5,790,678	50,155,783	$0.12
1890	$11,547,127	62,979,766	$0.18
1900	$11,854,000	76,303,387	$0.16
1910	$15,968,000	91,972,266	$0.17
1920	$25,117,000	105,710,620	$0.24
1930	$40,156,000	122,775,046	$0.33
1940	$67,527,000	131,669,275	$0.51
1950	$91,462,000	151,325,798	$0.60
1960	$127,934,000	179,323,175	$0.71
1970	$247,653,000	203,302,031	$1.22
1980	$1,078,488,000	226,542,199	$4.76
1990	$2,493,400,000	248,718,301	$10.02
2000	$6,384,887,000	281,421,906	$22.69
2010 (est.)	$11,254,600,000	308,936,000	$36.43

* Actual (nominal) cost -- not adjusted for inflation

Source: U.S. Census Bureau