OVERSIGHT OF THE 2000 CENSUS: EXAMINING THE GAO'S CENSUS 2000 OVERSIGHT ACTIVITIES

HEARING

BEFORE THE

SUBCOMMITTEE ON THE CENSUS

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

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OVERSIGHT OF THE 2000 CENSUS: EXAMINING THE GAO'S CENSUS 2000 OVERSIGHT ACTIVITIES

TUESDAY, FEBRUARY 15, 2000

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON THE CENSUS,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:04 p.m., in room 2203, Rayburn House Office Building, Hon. Dan Miller (chairman of the subcommittee) presiding.

Present: Representatives Miller, Maloney, and Davis.

Staff present: Timothy J. Maney, chief investigator; Chip Walker, communications director; Erin Yeatman, press secretary; Lara Chamberlain and Esther Skelley, professional staff members; Jo Powers, assistant press secretary; Amy Althoff, clerk; David McMillen and Mark Stephenson, minority professional staff members; and Earley Green, minority assistant clerk.

Mr. MILLER. Good morning. Mrs. Maloney should be here momentarily, but I think we're ready to begin. And I'll make my opening statement and Mrs. Maloney will be here certainly in time for hers.

Good afternoon. Last week we heard from Census Bureau Director Dr. Kenneth Prewitt. Dr. Prewitt testified that the activities for the 2000 census were on schedule and, at the time, no major problems existed. This included an ad campaign that was running smoothly and hiring that was on schedule.

I want to be clear from the outset about the purpose of this hearing. The purpose of this hearing is to have the nonpartisan General Accounting Office, the investigative arm of the U.S. Congress, give us its professional assessment of where they believe the Census Bureau is with respect to the myriad of tasks that must be carried out successfully in the upcoming months.

I believe it is critical that this Congress not only fully fund the Census, but fully promote it as well. Yet, at the same time, this Congress, and specifically this subcommittee, has a responsibility to conduct oversight of the census and the spending of almost $7 billion in taxpayer dollars. If the nonpartisan GAO fully endorses the Bureau's own assessment of the state of the census 2000, nothing would make me happier. However, if its assessment differs, this subcommittee must know and know quickly. The Members of this body are the ones elected to provide stewardship over the Fed-

eral Government. The elected Members of this body are also the ones ultimately held accountable by the American people.

The mission statement of the nonpartisan GAO, as stated on its website, says the following,

> The GAO's mission is to help the Congress oversee Federal programs and operations to assure accountability to the American people. GAO's evaluators, auditors, lawyers, economists, public policy analysts, information technology specialists, and other multi-disciplinary professionals seek to enhance the economy, efficiency, effectiveness, and credibility of the Federal Government, both in fact and in the eyes of the American people.
>
> GAO accomplishes its mission through a variety of activities including financial audits, program reviews, investigations, legal support and policy/program analyses. GAO is dedicated to good government through its commitment to the values of accountability, integrity, and reliability.

From the outset, this committee has relied on the professionals at the nonpartisan GAO to provide important insight into a number of complex operations within the Census Bureau and elsewhere. Many of those professionals at GAO were involved in reviewing the 1990 census, including Chris Mihm, Associate Director, Federal Management and Workforce Issues, who will be testifying today.

As we get closer and closer to Census Day, April 1, the interest in the census continues to rise tremendously. This is certainly evident in the increased coverage of the census by the news media. Many of these reports are locally oriented, focusing on this community or that one, this county or that town, this reservation or that rural community.

I find these stories important. They help to remind me that to look at the census as a national census, controlled within the beltway, is very wrong. While the census produces a national head-count, that head-count is made up of more than 39,000 local governments that stretch from California to Maine, Alaska to Florida, and beyond.

While Dr. Prewitt, in his testimony last week, said that hiring is on or ahead of schedule, there does seem to be some problems in various pockets throughout the country. And while Dr. Prewitt and Ranking Member Maloney accurately pointed out that there are going to be problems in an operation this large, there is still reason to be concerned. If the Navajo reservation in Arizona is having hiring difficulties, it doesn't much matter that the Bureau is ahead of its hiring goals in Miami. Additional workers in Miami are not going to be flown to Arizona to count the Navajos. Communities that are doing well do not have the ability to help those communities that are doing poorly.

Dr. Prewitt also accurately noted that not all news stories are accurate and not all news stories are highlighting certain Census Bureau shortcomings. As Dr. Prewitt said later in his testimony, one of the ways Congress and the American people would know about a serious problem with the operational plan is through news reports.

So when Congress has conflicting reports on, for example, the success of the employment operation, it rightfully turns to the GAO to shed light on this conflict and, hopefully, reconcile the matter one way or the other or, at a minimum, provide Congress with more information to consider.

Beyond the employment issues, which are at an important stage, the subcommittee will hear today the status of the DCS 2000, the new data capture system. The Bureau expects to capture nearly 1.5 billion pages of data from approximately 119 million households. These pages will be captured at four data capture centers where the handwritten forms will be optically scanned, converted into files, and transmitted to Bureau headquarters for tabulation and analysis.

The GAO has recently released a report on the DCS 2000. The GAO and the Inspector General's Office are very concerned about delays and overestimated productivity regarding the operation of the DCS 2000 system. If the DCS 2000 system does not function properly, there will be serious problems in providing the apportionment data to Congress on time, as required by law.

In December, the nonpartisan GAO released a report outlining its concerns that the Census Bureau was in serious need of a solid contingency plan. Last week, I was encouraged to hear a few details about its contingency planning, such as increasing wages and staying in the field longer than planned doing non-response followups, but more is needed. Today the subcommittee hopes to hear more about these reports as well as future activities of the GAO.

Again, thank you for coming in to testify before the subcommittee. And now I yield to the ranking member from New York, Mrs. Maloney.

[The prepared statement of Hon. Dan Miller follows:]

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STATEMENT OF CHAIRMAN DAN MILLER
GAO 2000 CENSUS STATUS HEARING
FEBRUARY 15, 2000

Good afternoon. Last week, we heard from Census Bureau Director, Dr. Kenneth Prewitt. Dr. Prewitt testified that the activities for the 2000 Census were on schedule and that, at the time, no major problems existed. This included an ad campaign that was running smoothly and hiring that was on schedule. I want to be clear from the outset about the purpose of this hearing. The purpose of this hearing is to have the General Accounting Office, the investigative arm of the United States Congress, give us its professional assessment of the where it believes the Census Bureau is, with respect to the myriad of tasks that must be carried out successfully in the upcoming months.

I believe it is critical that this Congress not only fully fund the Census, but fully promote it as well. Yet, at the same time, this Congress, and specifically this subcommittee, has a responsibility to conduct oversight of the census and the spending of the almost $7 billion in taxpayer dollars. If the GAO fully endorses the Bureau's own assessment of the status of Census 2000, nothing would make me happier. However, if its assessment differs, this subcommittee must know, and know quickly. The Members of this body are the ones elected to provide stewardship over the Federal Government. The elected Members of this body are also the ones, ultimately, held accountable by the American people.

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through its commitment to the values of accountability, integrity and reliability End Quote.

From the outset, this subcommittee has relied on the professionals at the non-partisan GAO to provide important insight into a number of complex operations within the Census Bureau and elsewhere. Many of those professionals at the GAO were actively involved in the 1990 Census, including Chris Mihm, Acting Associate Director, Federal Management and Workforce Issues, who will be testifying today.

As we get closer and closer to Census Day, April 1, the interest in the Census continues to rise exponentially. This is certainly evident in the increased coverage of the census by the news media. Many of these reports are locally oriented, focussing on this community or that one, this county or that town, this reservation or that rural community.

I find these stories important. They help to remind me that to look at the census as a national census, controlled within the beltway, is very wrong. While the Census produces a national headcount, that headcount is made up of more than 39,000 local governments that stretch from California to Maine, Alaska to Florida and beyond.

While Dr. Prewitt, in his testimony last week, said that hiring is on or ahead of schedule, there does seem to be some problems in various pockets throughout the country. And while Dr. Prewitt and Ranking Member Maloney accurately pointed out that there are going to be problems in an operation this large, there is still reason to be concerned. If the Navajo reservation in Arizona is having hiring difficulties, it doesn't much matter that the Bureau is ahead of its hiring goals in Miami. Additional workers in Miami are not going to be flown to Arizona to count the Navajos. Communities that are doing well do not have the ability to help those communities that are doing poorly.

While Dr. Prewitt also accurately pointed out that not all news stories are accurate, not all news stories are highlighting Census Bureau shortcomings. As Dr. Prewitt said later in his testimony, one of the ways Congress and the American people would know about serious problems with the operational plan is through news reports. So when Congress has conflicting reports on, for example, the success of the employment operation, it rightfully turns to the GAO to shed light on this conflict and hopefully reconcile the matter one way or the other or at a minimum, provide Congress with more information to consider.

Beyond the employment issues, which are at an important stage, the subcommittee will hear today the status of the DCS 2000, the new data capture system. The Bureau expects to capture nearly 1.5 billion pages of data from approximately 119 million households. These pages will be captured at four data capture centers where the hand written forms will be optically scanned, converted into files and transmitted to bureau headquarters for tabulation and analysis. The GAO has recently released a report on the DCS 2000 and I ask that it be entered into the record.

Recently, the GAO released a report in December outlining its concerns that the Census Bureau was in serious need of a solid contingency plan. Last week, I was encouraged to hear some details about their contingency planning, such as increasing wages and staying in the field longer during nonresponse follow-up. Today, the subcommittee hopes to hear more about this report, as well as future activities of the GAO.

Again, thank you for coming in to testify before the subcommittee and I now yield to the Ranking Member from NY, Ms Maloney.

Mrs. MALONEY. Thank you, Mr. Chairman, and welcome to the witnesses today.

The GAO is Congress' premiere watchdog, responsible for providing credible, objective, and nonpartisan reports and evaluations of the programs and management of the executive, judicial, and, in some cases, legislative branches of government. Without your work, our jobs as legislators and overseers of the executive would be almost impossible. So thank you for all of your hard work.

As I said last week, things seem to be going fairly well. Recruiting is on track. 520 local census offices are open and operational. The paid advertising campaign is moving smoothly into its most active phase. Additionally, the legislation—wait. I'm ahead of myself. The address list is nearly complete. Some of the data presented in GAO's testimony indicates that there may be some localized hiring problems. Although this is helpful information, the GAO's findings do not affect my overall judgment that all operations for census 2000 seem to be on track.

As I also mentioned last week, I believe we need to be prepared for all contingencies, which is why I've introduced H.R. 3581. And I'd like to make it bipartisan, Mr. Chairman. I hope you'll join me on it. This legislation would create a contingency fund for the 2000 census. If there are problems with the mail response rate or with the hiring program, funds need to be available to respond to glitches in a very quick manner so that the larger job of conducting an accurate 2000 census can be completed on time.

Following on recommendations from the GAO, this legislation would also expand the labor pool to include active duty military personnel and individuals who have received buy-outs from the Federal Government. Additionally, the legislation would allow recipients of Federal assistance to work for the Census without a loss of benefits.

These are common sense preventive measures to ensure a high quality census. I am looking forward to hearing GAO's comments on my legislation since I tried to respond to the issues they raised in their December report.

I am also very interested in hearing from you how GAO is intending to act out its oversight responsibilities, while at the same time being aware of the total number of watchdogs and the demands they will be placing on the census at this very critical time.

As you know, in addition to the GAO, overseeing the census there is the committee and the committee staff, both sides of the Census Monitoring Board, the Commerce Department IG, the National Academy of Sciences Review Panel, and the Commerce Secretary's Advisory Panels. Each of these groups has important jobs and responsibilities. It is my hope that these various oversight bodies have an awareness of each other and their multiple requests and demands for information.

While we need strong oversight of the census, we need to make sure that the oversight doesn't get in the way of allowing the census to do its job. I am very interested in hearing your thoughts on this issue. I believe that the 2000 census will be one of the most accurate in our Nation's history, especially after the raw headcount information is corrected with modern scientific methods. I am

confident that the extensive planning that the Census Bureau has done over the last decade and all the hard work of the Census professionals will pay off with a more accurate count.

Thank you, Mr. Chairman.

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

14th District • New York

Congresswoman

Carolyn Maloney

Reports

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Statement of the Honorable Carolyn B. Maloney
Hearing on Oversight of Census 2000

February 15, 2000

Thank you Mr. Chairman, and welcome to our witnesses today.

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Thank you Mr. Chairman.

Mr. MILLER. Mr. Mihm, if the three of you would stand up and raise your right hands so I can swear you in, we'll begin with the program.

[Witnesses sworn.]

Mr. MILLER. Let the record identify that they all answered in the affirmative. Mr. Mihm, do you have an opening statement?

STATEMENT OF J. CHRISTOPHER MIHM, ASSOCIATE DIRECTOR, FEDERAL MANAGEMENT AND WORKFORCE ISSUES, U.S. GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY RANDOLPH C. HITE, ASSOCIATE DIRECTOR, ACCOUNTING AND INFORMATION DIVISION, U.S. GENERAL ACCOUNTING OFFICE; AND ROBERT GOLDENKOFF, GENERAL ACCOUNTING OFFICE

Mr. MIHM. Thank you very much, Mr. Chairman and Mrs. Maloney. I just want to start out by saying how much I appreciate your very kind words about the work that the GAO has been doing and we look forward to continuing to support the subcommittee in its oversight of the decennial census.

It's a real pleasure to be here to talk about the status of the census. I'm very fortunate that I'm joined by two of my colleagues: Randy Hite, who manages a range of GAO work on Federal technology issues, including technology at the census; and Robert Goldenkoff, who has day-to-day responsibility for much of our work that we're looking at the decennial.

My statement today draws upon two recent reports which we did at the request of the subcommittee in which we discuss some specific operational challenges that have confronted the Census Bureau as it moves into the key operations for the 2000 census. Today I will highlight these challenges. First, achieving the Bureau's mail response rate. Second, collecting accurate and timely data from non-respondents. And, third, conducting data capture operations.

Turning to the first major uncertainty facing the Bureau. The mail response rate has declined in each of the last two censuses and the Bureau expects to receive a 61 percent mail response rate for 2000. To help boost public participation in the census, the Bureau has instituted an outreach and promotion campaign that is as ambitious as it is diverse. As Director Prewitt noted last week, television advertisements already have appeared on a number of programs and print ads have been placed in a wide variety of publications. At the local level, the Bureau has secured partnerships with local governments, community groups, businesses, and non-governmental organizations.

However, the Bureau's aggressive outreach and promotion initiative faces a fundamental challenge. That is bridging the historic gap between public awareness of the census and the motivation to respond. This gap has been evident both during the dress rehearsal taken last year and the 1990 census when the public's high level of awareness was not matched by a high mail response rate. In 1990, the Bureau found that about 93 percent of the population reported being aware of the census, however the mail response rate was just 65 percent. This basic pattern was also repeated during the dress rehearsal.

With respect to partnerships, the Bureau may have overly optimistic expectations concerning the resources and capabilities available at the local level to promote the census. And here, Mr. Chairman, I completely agree with the point that you were making. While the census is a national undertaking, it's implemented locally and, therefore, we have to look locally for some of our most constructive lessons.

A key element of the Bureau's local partnership effort is the Complete Count Committee Program, which consists of local government, religious, media, education, and other community centers coming together to promote the census. Clearly, as was discussed at last week's hearing, a number of communities are aggressively supporting the census. However, the level of activity and support for the census is likely to vary across the country, in part because of a lack of resources.

We found that, during the dress rehearsal, the Complete Count Committees often lacked the money, people, and/or expertise to promote the census. In part to help, the Bureau has hired over 600 partnership specialists. However, based on the dress rehearsal experience, these specialists may be spread too thin to offer meaningful support. Consequently, it is unlikely that the Bureau's local outreach and promotion efforts will be consistently applied across the Nation.

The second major challenge facing the Bureau is the need to quickly and accurately followup on households that do not mail back their census forms. Let me just give a sense of the challenge that the Bureau faces. Let's assume that the Bureau achieves its 61 percent mail response rate. Obviously, we all hope it'll be higher than that, but let's just assume that that's what they get. Census takers will then need to followup on 46 million households. Completing this workload during the Bureau's 10 week schedule will be an enormous challenge.

By comparison, during 1990, it took the Bureau 14 weeks to followup on 34 million households. Thus under the current schedule and response rate that the Bureau has, the Bureau will need to followup on 12 million more households in less time in 2000 than in 1990, using essentially the same methodology. And this is one of the fundamental challenges that the Bureau faces, again, assuming all of its assumptions work out.

Experience from the 1990 census shows that, as field data collection drags on, the accuracy of the information collected tends to decline. This is because people move and others have difficulty remembering who was residing in their household as of April 1. As you discussed with Director Prewitt last week, Mr. Chairman, to complete non-response followup, the Bureau will collect data from second-hand sources, the proxy sources, such as neighbors and mail carriers. Not surprisingly, however, such proxy data are not as reliable as data obtained directly from household residents.

During the dress rehearsal, although non-response followup operations were completed on schedule in Menominee County and Sacramento and 6 days early in South Carolina, the Bureau collected proxy data at a much higher rate than it had hoped. The Bureau's goal was to limit the proportion of the non-response followup universe workload that was proxy to less than 6 percent. Unfortu-

nately, however, in Sacramento, over 20 percent of the occupied non-response followup households was enumerated using proxy data and, in South Carolina, 16.4 percent and in Menominee County, 11.5 percent. Compared to the decennial census in 1990, there was about 6.6 percent of the non-response universe was proxy. So we're looking at, at best, about double, based on the dress rehearsal experience.

The Bureau's ability to recruit a sufficient number of staff is another key challenge. The Bureau plans to fill about 860,000 positions for peak field operations, including 539,000 positions for non-response followup. To fill these positions, as Director Prewitt mentioned, the Bureau wants to have a pool of 2.4 million qualified applicants by April 19. The Bureau's goal was to recruit 45 percent of the 2.4 million qualified applicants, about 1.1 million people, by February 1.

The Bureau data, as of February 9, showed that, nationally, the Bureau appears to be well on-track. It had recruited 1.3 million applicants or just over half of its total target. However, national data masks the fact that the Bureau's progress in recruiting qualified applicants lags in a number of locations. As of February 9, 3 of the Bureau's 12 regions, that's Atlanta, Chicago, and Philadelphia, and 178 of the 511 local census offices, that's about 35 percent, were below the Bureau's 45 percent benchmark. Although some local census offices were just a few percentage points below the goal, about 25 of them fell 20 percentage points or more. On the other hand, and this is the favorable news, of the 333 local census offices that were ahead of the Bureau's February 1 milestone, 163 of those exceeded it by at least 20 percentage points.

We suggested in our December 1999 report that Congress may wish to consider legislative actions to modify labor provisions that could prohibit or financially discourage specific groups of people from seeking census employment. Proposals in this regard, as Mrs. Maloney mentioned, are included in her legislation H.R. 3581.

The third uncertainty I will discuss today is the need for the Bureau to ensure the effective performance of its data capture systems. The uncertainty falls into two basic categories. First, ensuring the operational readiness of the data capture system known as DCS 2000, which is the system that each data capture center will use to check in questionnaires and record census data. And, second, ensuring the readiness of the data capture operations themselves, including the movement in the processing of the paper questionnaires.

As we recently reported, the Bureau has made considerable progress in acquiring and deploying the DCS 2000. However, we noted that the Bureau was still facing a huge challenge in delivering the promised DCS 2000 capabilities on time, primarily because much remained to be done within the very short time remaining before data capture operations were to begin. Under the Bureau's current schedule, it has just 9 days between the conclusion of the last system test and the date the DCS 2000 must be operational in early March.

In addition, the numbers of yet-to-be-resolved defects in the DCS 2000 were not yet showing the clear and sustained downward trend that is expected as systems begin to mature. Finally, of course, yet-

to-be-completed development and testing activities may surface even more problems.

The Bureau and its DCS 2000 development contractor shared our concerns that we laid out in the report about the delivery of the promised DCS 2000 capabilities on time and, in response, were employing a series of important measures to minimize the risk and expedite the completion of DCS 2000. The Bureau is to conduct a final operational test involving all four of its data capture centers on February 22 through 25 and we will be monitoring those closely on behalf of the subcommittee.

Mr. Chairman, as I have discussed, despite intensive efforts, the census still confronts some major operational uncertainties. Because of these uncertainties, we recommended in our report that the Bureau develop a contingency plan of actions that it took to address a lower than expected mail response rate. We suggested that the Bureau's plan address, at a minimum, the budgetary scheduling, staffing, and other logistical implications of collecting data from a larger than expected number of non-responding households.

That contingency plan, which we believe should be shared with Congress, could include options and procedures to balance the pressure to meet census schedules against the need to limit the use of proxy data. The uncertainties facing the Bureau's data capture system make the need for a contingency plan, in our view, even more compelling.

In summary, the Bureau has put forth a tremendous effort to help ensure a complete and accurate count. It has tested and retested its design and made significant modifications where necessary. Nevertheless, substantial challenges to a successful census remain and, as we have done throughout this decade, we look forward to keeping the subcommittee informed of the Bureau's progress and the results. This concludes my statement. My colleagues and I would be pleased to answer any questions that you may have.

[The prepared statement of Mr. Mihm follows:]

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GAO

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Committee on Government Reform
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2000 CENSUS

Status of Key Operations

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Statement

2000 Census: Status of Key Operations

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the status of the 2000 Census. With just over 6 weeks remaining until Census Day, April 1, 2000, the decade-long process of researching, planning, testing, and evaluating procedures for the nation's largest peace-time mobilization has come to a close, and the complex and costly data collection and tabulation phase is now under way. At this critical juncture, it is important to examine the state of the census, taking measure of the progress that has been made toward ensuring a complete and accurate enumeration, and the level of risk that remains.

As you are aware, in two recent reports we discussed specific operational uncertainties that pose a threat to a successful population count. In our December 1999 report, we concluded that the 2000 Census may be less accurate than the 1990 Census, in part because motivating public participation in the census will be a formidable task and field follow-up efforts with nonrespondents will be costly and may produce unreliable data.[1] To address these uncertainties, we recommended that the Director, Bureau of the Census, develop a contingency plan to mitigate the impact of a lower-than-expected mail response rate. Moreover, in early-February, we reported on the challenges facing the Bureau's data capture system.[2] My statement today elaborates on the operational uncertainties addressed in these reports: (1) achieving the Bureau's mail response rate objective, (2) collecting accurate and timely data from nonrespondents, and (3) conducting data capture operations. Where appropriate, I've included information on developments that have occurred since these reports were issued that might affect the conduct of the census.

In discussing these uncertainties, three themes will be highlighted. First, while the census is a national undertaking, it is locally implemented. This is important to keep in mind because successes or problems in one area do not necessarily affect other areas. For example, a higher-than-expected mail response rate or a very successful staff recruitment effort in one city or neighborhood does not compensate for problems in other cities or neighborhoods. Thus, while national data on the status of census operations are important for providing an overall perspective, these data can mask shortcomings at the local level that can affect the success of the census. Indeed, experience from the 1990 Census, as well as from the

[1] 2000 Census: Contingency Planning Needed to Address Risks That Pose a Threat to a Successful Census (GAO/GGD-00-6, Dec. 14, 1999).

[2] 2000 Census: New Data Capture System Progress and Risks (GAO/AIMD-00-61, Feb. 4, 2000).

Bureau's preparations for 2000—including the 1998 dress rehearsal census[3]—suggest that public and institutional cooperation will be inconsistent, and that pockets of problems are likely to occur that may not be captured by examining the census from a national perspective.

Second, many of the risks to a complete and accurate census the Bureau faces are interrelated. Mail response rates determine follow-up workload. Follow-up workload drives staffing needs, which in turn can affect the Bureau's operational schedule and the quality of data. The cumulative and interrelated effect of these challenges is the fundamental risk facing the Bureau.

Third, the census is a shared national undertaking. The Bureau of the Census, other federal agencies, state and local governments, a vast network of public and private organizations, and ultimately the American public, all play vital roles in making the census a success.

Background

We have been tracking the Bureau's progress in designing and implementing the 2000 Census throughout this past decade. A consistent theme of our work has been that despite the Bureau's unprecedented efforts to achieve maximum accuracy in the most cost-effective way possible, formidable challenges surround such key census-taking operations as building a complete and accurate address list, securing an acceptable level of public participation, hiring a sufficient number of temporary workers, and gathering accurate and complete data. These challenges have raised concerns that the 2000 Census may be less accurate than the 1990 Census.

The cost of the 2000 Census has already far surpassed that of the 1990 Census in real terms. The Bureau estimates that the 2000 Census will cost at least $6.8 billion, which is more than double the $3.2 billion cost of the 1990 Census in 1999 dollars. To be sure, the nation's population—and thus the Bureau's workload—has also increased over the past 10 years, but even when measured on a per housing unit basis, the price tag for enumerating each household has risen dramatically. It will cost an estimated $57 to enumerate each housing unit in 2000 compared to about $31 in 1990, an increase of 84 percent in 1999 dollars.

[3] The dress rehearsal for the 2000 Census was held at three sites: Sacramento, CA; 11 counties in the Columbia, SC, area; and Menominee County in Wisconsin, including the Menominee American Indian Reservation. The dress rehearsal tested the Bureau's operations and procedures planned for the 2000 Census, and was conducted in April 1998.

The scale and complexity of the Bureau's task is enormous. For the 2000 Census, the Bureau will need to properly locate and collect information from about 274 million people residing in over 119 million housing units. To do this, the Bureau opened 520 local census offices, and has plans to fill about 1.35 million temporary positions and process about 1.5 billion pages of data.

The Census Faces Significant Risks

For the 2000 Census, the Bureau will be challenged to boost the declining level of public participation in the census and collect timely and accurate data from initial nonrespondents. A high mail response rate is key to a successful census because it helps the Bureau obtain more accurate data and reduce what has been an error-prone and costly nonresponse follow-up workload.

Achieving the Bureau's Mail Response Rate Objective Will Be Difficult

The Bureau is anticipating a mail response rate of 61 percent; however, achieving this level of public participation will be a formidable task. The mail response rate has declined with each decennial census since the Bureau first initiated a national mailout/mailback approach in 1970. In 1970, the Bureau achieved a 78-percent response rate. The response rate declined to 70 percent in 1980, and 65 percent in 1990. This declining trend is due, in part, to various demographic, attitudinal, and other factors, such as concerns over privacy, mistrust of government, more complex living arrangements, and a proliferation of unsolicited mail and surveys.

To help boost public participation in the census, the Bureau has instituted an outreach and promotion campaign that is as ambitious as it is diverse. At the national level, the Bureau hired a consortium of private-sector advertising agencies, led by Young & Rubicam, to develop an extensive paid advertising program for the 2000 Census. To date, television advertisements stressing the theme that participating in the census benefits one's community have been aired during daytime soap operas and game shows, as well as during the Super Bowl and a number of programs targeted to specific racial and ethnic groups. As for print media, advertisements have appeared in such diverse publications as TV Guide, Ebony, Korea Times, and India Today. The Bureau estimates it will spend about $167 million on the paid advertising campaign in fiscal years 1998 through 2000, of which $102.8 million was allocated for media buys in fiscal years 1999 and 2000.

At the local level, the Bureau has secured partnerships with local governments, community groups, businesses, and nongovernmental organizations to promote the census at the grassroots level. The Bureau reports that it has secured around 55,000 such agreements to date.

The Bureau's aggressive outreach and promotion initiatives face several hurdles. First, rather than simply raising the public's awareness of the census, the Bureau must actually motivate people to complete a census questionnaire and return it on time. This gap between awareness of the census, on the one hand, and actually responding, on the other, was evident during the 1990 Census when the public's high level of awareness was not matched by a similarly high mail response rate. In fact, the Bureau found that although 93 percent of the population reported being aware of the census, the mail response rate was just 65 percent.

Unfortunately, data from the 1998 dress rehearsal suggest that the Bureau's promotional efforts did not bridge this motivational gap. Although a Bureau evaluation found that about 90 percent of the residents in the South Carolina and Sacramento dress rehearsal sites were aware of the census, the mail response rate at both sites was around 55 percent.

Second, the Bureau expanded and enhanced the paid advertising campaign following the dress rehearsal (the most intensive phase of the campaign began earlier this month). However, the impact that this additional advertising might have on people's willingness to respond to the census is difficult to predict. According to the Bureau, there did not appear to be a direct relationship between exposure to advertising during the dress rehearsal and the likelihood of returning a census form.[4] However, the Bureau suspects that the campaign had an "indirect effect" on public response to the census in that the campaign may have made people expect the census form in the mail, which in turn increased the likelihood that they would return it.

With respect to local outreach and promotion, we are concerned that the Bureau may have overly optimistic expectations concerning the resources and capabilities available at the local level to promote the census. For example, a key element of the Bureau's local partnership effort is the Complete Count Committee program. The committees, which are to consist of local government, religious, media, education, and other community leaders, are to promote the census by sponsoring events, placing articles in local newspapers, and holding press conferences that convey the importance of the census. The Bureau hopes that local people who are trusted by members of the community can more effectively market the census to those who are difficult to convince through

[4] See Census 2000 Dress Rehearsal Evaluation Results Memorandum E1b, Effectiveness of the Paid Advertising Campaign: Reported Exposure to Advertising and Likelihood of Returning a Census Form, U.S. Census Bureau, April 1999.

traditional advertising media. Thus, while the Bureau has formed partnerships with a number of religious, service, community, and other organizations, the Bureau believes that Complete Count Committees are key to persuading everyone to respond.

To date, based on our recent interviews with officials from several regional census offices, a number of communities appear to be aggressively supporting the census. For example, some health clinics in rural Kentucky are showing census videos in waiting rooms, and some state and local governments have allocated money for partnerships and advertising in local media, while others have set up web sites containing information on the census and census employment opportunities. However, the level of activity and support for the census is likely to vary across the country, in part because of a lack of resources. We found that during the dress rehearsal the committees often lacked the money, people, and/or expertise to launch an adequate marketing effort. With respect to money, officials representing 9 of the 14 local governments participating in the dress rehearsal told us that they were unable or unwilling to fund promotional activities. Some local governments also had difficulty getting staff to volunteer to help plan and organize promotional activities, while others lacked the experience and knowledge to market the census.

The Bureau has also hired 613 partnership specialists to help local groups initiate and sustain grassroots marketing activities, such as the Complete Count Committees. However, based on the dress rehearsal experience, these partnership specialists may be spread too thin to offer meaningful support. According to the Bureau, there are now about 12,000 Complete Count Committees. Thus, on average, each partnership specialist is responsible for assisting approximately 20 committees. By comparison, during the South Carolina dress rehearsal, some committees never formed, while others became inactive, partly because the Bureau's two partnership specialists were responsible for assisting an average of six local governments. Initiating and maintaining the efforts of the Bureau's thousands of additional local partners will stretch the partnership specialists' workload still further. Consequently, it is likely that the results of the Bureau's local outreach and promotion efforts will be inconsistent.

Field Follow-up Efforts Will Be Costly and May Produce Unreliable Data

To count those individuals who do not mail back their census questionnaires, the Bureau conducts a nationwide field follow-up operation in which temporary employees called enumerators visit and collect census information from each nonresponding housing unit. However, past experience has shown that following up with nonrespondents is one of the most error-prone and costly of all census

operations. The Bureau will be challenged to complete nonresponse follow-up on schedule without compromising data quality, and to adequately staff nonresponse follow-up operations.

Workload and Schedule

With regard to completing nonresponse follow-up on schedule, if the Bureau achieves its anticipated 61-percent mail response rate, enumerators will need to follow up on about 46 million of the more than 119 million housing units estimated to be in the nation. However, completing this workload in the 10-week time frame the Bureau has allotted for nonresponse follow-up could prove extremely difficult since the Bureau will need to complete an average of more than 657,000 cases each day for the entire 10-week period. In addition, the Bureau's quality assurance procedures, which call for enumerators to revisit certain households to identify and correct enumeration errors, will add more than 17,000 cases to the Bureau's average daily workload. Sustaining this pace could prove challenging for a variety of reasons, ranging from nonrespondents' unwillingness to open their doors to enumerators to adverse local weather conditions. By comparison, during the 1990 Census, it took the Bureau 14 weeks to follow up with 34 million households using essentially the same approach to nonresponse follow-up.

Moreover, if the response rate proves to be less than 61 percent, past experience has shown that a lower-than-expected mail response rate can trigger a chain of events that can have significant implications for the accuracy and cost of the census. This was demonstrated during the 1990 Census. The Bureau had budgeted for a nonresponse follow-up workload of about 31 million cases, but because of an unexpectedly sharp decline in the mail response rate, the Bureau had to follow up on an additional 3 million cases. The higher than expected workloads aggravated an already difficult staffing situation in which some census offices had difficulty filling all positions and enumerator productivity was lower than anticipated. As a result, 14 weeks were required to complete the nonresponse follow-up operation, which was 8 weeks longer than the Bureau's initial estimate.

Proxy Data

As the data collection period dragged on, the accuracy of the information collected declined as some people moved and others had difficulty remembering who was residing in their households on April 1. To complete nonresponse follow-up, enumerators collected data from secondhand sources, such as neighbors and mail carriers. However, such "proxy" data are not as reliable as data obtained directly from household residents. According to Bureau officials, a mail response rate as little as 2

or 3 percentage points less than the Bureau's 61-percent goal could cause serious problems.

During the dress rehearsal, although nonresponse follow-up operations were completed on schedule in both Menominee County and Sacramento, and 6 days early in South Carolina, the Bureau found that securing interviews with household members proved to be more difficult than it had anticipated. The Bureau hoped to limit the portion of the nonresponse follow-up universe workload that was proxy data to less than 6 percent; however, the Bureau did not achieve this objective at any of the three dress rehearsal sites. In Sacramento, 20.1 percent of the occupied nonresponse follow-up universe was proxy data; in South Carolina, the proportion was 16.4 percent; and in Menominee County, it was 11.5 percent.

Census Costs

Nonresponse follow-up is also expensive. Each percentage point drop in the mail response rate in this census would increase the nonresponse follow-up workload by about 1.2 million households. In 1995, the Bureau estimated that a 1-percentage point increase in workload could add approximately $25 million to the cost of the census. On the basis of our current analysis of fiscal year 2000 budget estimates, we project that a 1-percentage point increase in workload could add at least $34 million in direct salary, benefits, and travel costs to the $1.5 billion budgeted for nonresponse follow-up.[5] The extent to which the Bureau would be able to absorb these additional costs will be a function of the actual outcome of other assumptions, such as enumerator productivity.

Staffing

In addition to the challenge of completing nonresponse follow-up on schedule with minimal use of proxy data, uncertainties exist concerning the Bureau's ability to staff nonresponse follow-up. The Bureau plans to fill about 860,000 positions for peak field operations, including 539,000 positions for nonresponse follow-up. Because the Bureau anticipates that a number of applicants will not qualify for census employment, and to cover for the possibility of high turnover rates, the Bureau estimates it will need to recruit over 3 million people to apply for census employment. The Bureau wants to have a pool of 2.4 million qualified applicants by April 19, 2000. To quality for census employment, candidates have to meet the Bureau's employment requirements, which include passing a basic skills test and a personal background check.

[5] 2000 Census: Analysis of Fiscal Year 2000 Amended Budget Request (GAO/AIMD/GGD-99-291, Sept. 22, 1999).

Nationally, the Bureau's goal was to recruit 45 percent of the 2.4 million qualified applicants—about 1.1 million people—by February 1, 2000. Bureau data as of February 9, 2000, showed that the Bureau had recruited 1.3 million qualified applicants, or just over half of its 2.4 million target. However, these national data mask the fact that the Bureau's progress in recruiting qualified candidates is lagging in a number of locations. As of February 9, 2000, 3 of the Bureau's 12 regions[6] and 178 (35 percent) of 511 local census offices[7] were below the Bureau's 45-percent benchmark. Although some local census offices were just a few percentage points below the Bureau's 45-percent goal, 25 fell short by 20 percentage points or more. Of the 333 local census offices that were ahead of the Bureau's February 1st milestone, 163 exceeded it by at least 20 percentage points.

The Bureau is aggressively recruiting candidates, and thus applicant levels will change on a daily basis. Recruitment needs vary by local census office, depending on their specific operational requirements, and the Bureau seeks to hire local people who are familiar with their communities and committed to a successful count in their own neighborhoods. Thus, as a number of local census offices appear to be falling short of the Bureau's interim milestones, it is important for the Bureau to closely monitor progress at the local levels.

To help ensure it meets its recruitment goals, the Bureau has a number of initiatives in place. Key among these are (1) the hiring of a private firm to develop a recruitment advertising campaign; (2) a geographic pay scale with wages set at 65 to 75 percent of local prevailing wages (from about $8.25 to $18.50 per hour for enumerators); and (3) partnerships with government agencies, community groups, and other organizations. However, as the Bureau fully appreciates, it is recruiting workers in an unusually tight labor market, and census jobs may not be as attractive as other employment opportunities because they do not offer benefits, such as health or life insurance, sick or annual leave, retirement plans, and childcare.

Thus, as we stated in our December 1999 report, to help expand the census applicant pool still further, Congress may wish to consider legislative actions to modify legal provisions that could prohibit or financially discourage specific groups of people from seeking census employment. For example, Congress may want to consider allowing active duty military

[6] The Atlanta, Chicago, and Philadelphia census regions fell short of the Bureau's interim milestones.

[7] Our analysis did not include nine local census offices in Puerto Rico.

personnel to hold temporary census employment. (Currently, such individuals are generally prohibited from holding outside federal employment.) These proposals were included as part of H.R. 3581, introduced by Representative Maloney on February 7, 2000.

The Bureau Faces Formidable Challenges in Conducting Data Capture Operations

In addition to the uncertainties and risks surrounding the outreach and promotion program and nonresponse follow-up operation, the Bureau also faces formidable challenges in performing critical data capture operations. These challenges fall into two basic categories: (1) ensuring the operational readiness of the Data Capture System (DCS) 2000—which is the system that each data capture center (DCC)[8] will use to check-in questionnaires and determine which households have responded, scan the questionnaires to produce an electronic image, optically read handwritten marks and writings from the imaged questionnaires, and convert the data into files that will be transmitted to Bureau headquarters for tabulation and analysis—and (2) ensuring the readiness of DCC operations, including the movement and processing of paper questionnaires.

DCS 2000 Progress and Risks

The Bureau has made considerable progress in acquiring and deploying DCS 2000. However, we reported earlier this month that its prospects for delivering full system capability on time were still mixed.[9] As of January 7, 2000, when we concluded our review of the DCS 2000 system, hardware had been installed at all four data capture centers; 21 of the system's 23 planned application software releases had been completed; and 6 of 10 major test events had been performed. Additionally, results from system-level tests performed thus far showed that key DCS 2000 performance targets were being met, and the Bureau was reporting that remaining DCS 2000 tasks were on schedule.

Despite this progress, the Bureau was still facing a huge challenge in delivering promised DCS 2000 capabilities on time, primarily because much remained to be done within the very short time remaining before data capture operations were to begin. In particular, the Bureau had extended the system's schedule by 4 months due largely to requirements changes—from October 15, 1999, to February 25, 2000—leaving just 9 days between the conclusion of the last test event and the date that DCS 2000 must be operational. Moreover, at the time of our review, the Bureau still needed to complete many important system development and testing activities, including the completion of the final two software releases as

[8] The data capture centers are located in Baltimore, MD; Jeffersonville, IN; Pomona, CA; and Phoenix, AZ.

[9] GAO/AIMD-00-61.

well as system acceptance, site acceptance, and operational tests. Furthermore, the numbers of yet-to-be resolved defects in DCS 2000 were not yet showing the clear and sustained downward trend that is expected as a system begins to mature, and the yet-to-be completed development and testing activities may surface more problems.

The Bureau and its DCS 2000 development contractor shared our concerns about the delivery of promised DCS 2000 capabilities on time, and in response, they were employing measures to minimize risks and to expedite the completion of DCS 2000. For example, they implemented a formal risk management program to address risks proactively, and they defined and were following processes to ensure that only those changes that were justified on the basis of costs, benefits, and risks were approved and made. Also, they added a test event scheduled for February 22–25, just prior to the system's operational date, to evaluate, among other things, the system's capabilities in a true operational setting. Another factor strongly in the Bureau's favor is that its development contractor has been independently assessed as having highly effective software development capabilities in such important areas as software project planning, tracking and oversight, configuration management, software quality management, and defect resolution. Lastly, partly in response to our review, the Bureau and its development contractor initiated proactive and appropriate risk management steps, such as strengthening oversight of the resolution of system defects and requirements changes. While these steps do not guarantee success, they should help mitigate risk and its potential impact on the program.

Data Capture Center Operations

As previously mentioned, the Bureau is to conduct a final operational test involving all four DCCs during the period February 22-25, 2000. This final operational test is to include assessments of the centers' ability to process a workload equivalent to that expected during actual data capture operations, including operational testing of the final DCS 2000 software release. As part of this test, the Bureau will asses its ability to achieve desired production rates for checking-in and scanning questionnaires, among others. During an operational test at the Pomona, CA, DCC in October and November 1999, the Bureau's production goals were not met in these and other critical areas. More recently, however, an operational test was completed in early February at the Phoenix DCC. According to Bureau officials, preliminary results show that the Phoenix DCC exceeded its productivity goals for checking-in and scanning forms. Bureau officials attribute the improvements in part to better crew training and increased practice time, two issues identified during the Pomona operational test. We will review the results of the forthcoming test and continue to monitor

the Bureau's progress in getting its data capture processes fully operational.

Contingency Plans Could Help Mitigate the Risks That Pose a Threat to a Successful Census

To help ensure an accurate and cost-effective census, we recommended in our December 1999 report[16] that the Director, Bureau of the Census, develop a contingency plan of actions the Bureau could take to address the operational challenges that would result from a questionnaire mail response rate that was lower than anticipated. We noted that the Bureau's plan should address, at a minimum, the budgetary, scheduling, staffing, and other logistical implications of collecting data from a larger number of nonresponding households.

For example, the contingency plan could include options and procedures to balance the pressure to meet census schedules against the need to limit the use of proxy data, and should be shared with Congress. The uncertainties facing the Bureau's data capture system make the need for a contingency plan even more compelling.

In response to our recommendation, the Bureau has noted that the only serious contingency plan would be to request a supplemental appropriation from Congress. However, we continue to believe that a more fully developed and publicly disclosed plan would be helpful.

Moreover, as previously noted, a margin of just 2–3 percentage points separates a response rate that is consistent with the Bureau's goal, from one that could trigger a host of operational problems. Thus, by focusing on the critical challenges and trade-offs that the Bureau will face if it falls short of its response rate goals, events that helped compromise the success of the 1990 Census could be addressed more effectively and possibly avoided.

In summary, Mr. Chairman, the Bureau has put forth a tremendous effort to help ensure as complete and accurate a count of the population as possible, testing and retesting its design, and making significant modifications when necessary. Nevertheless, substantial challenges to a successful census remain, and as we have done throughout the decade, we look forward to keeping the Subcommittee informed of the Bureau's progress and the results of the census.

[16] GAO/GGD-00-6.

Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions you or other Members of the Subcommittee may have.

Contact and Acknowledgements

For further information regarding this testimony, please contact J. Christopher Mihm at (202) 512-8676. Individuals making key contributions to this testimony included Robert Goldenkoff, Mark Bird, Christina Chaplain, Richard Hung, Ty Mitchell, and Lynn Wasielewski.

Mr. MILLER. Thank you very much for the statement. Let me start. You were involved with the 1990 census, I believe. Right?

Mr. MIHM. Yes, sir.

Mr. MILLER. What are your impressions of the overall condition and maturity of the operations planned for 2000, as compared to the situation that existed prior to April 1, 1990? Are we better off? Worse off? Where do we stand? How does it compare?

Mr. MIHM. In important ways, we are better off and in other ways we're about the same. And let me start off in the ways in which I think we're a little bit better off.

Certainly, it appears that, at the national level, the Bureau's recruitment is going better than it did in 1990. They have a paid advertising campaign this time around. Last time, they were relying on pro bono, which was a bit of a challenge because they were showing public service announcements at 2 a.m., when people wouldn't be seeing them. And, as you discussed with Director Prewitt at the last hearing, the advertising campaign, as a result, since it's paid, is far more sophisticated this time around.

They also have extended the number of partnerships this time around. They have about 55,000 different partnerships. Of course, not all of them are as important as those that they have with local governments.

Where they are about in the same state, however, is that they are still showing pockets of areas where they have problems in recruiting. And that was an issue that we saw in 1990 and what that lesson told us is that it is very difficult, once you get behind the eight-ball, to sufficiently recover. That is, the recruitment problems build on each other and you end up having staffing problems during the census. We also saw during 1990 that the use of partnerships, while important, was also inconsistent across the country and it's something that, as our work now suggests, they're going to have a similar problem with this time.

And, finally, I guess a third area where they still have a challenge is that while the quality and the placement of the ads is far better this time, in my sense, than it was last time, we still don't know and the Bureau doesn't know, whether we have made the critical link between people being aware of the census and actually being motivated to respond. And those are the key challenges that the Bureau faced going into peak operations in 1990. And I see they're pretty much the key challenges this time around, as well.

Mr. MILLER. The hiring process is going fairly well, reasonably well. I recognize, of course, there are pockets of problems. That's probably because it was paid advertising, we think. One of the things you're not too sure of is what will the overall $100 million of ad buys, you know, do. I'm a big supporter of the advertising plans. I'm optimistic that's going to be a big help. But, at any rate, that's kind of encouraging, to some extent, that it's helping with our hiring in a full employment economy. I know 1990 was fairly close to a full employment economy, but not as full as it is right now.

Mr. MIHM. But not like right now.

Mr. MILLER. So that's encouraging.

You heard Dr. Prewitt testify that he could not come up with a contingency plan until he saw which census operations do not meet

expectations. Is this legitimate? Or do you think a contingency plan for every major obstacle is truly feasible? And they really do have a contingency plan, don't you think? That they don't want to make public?

Mr. MIHM. Let me start with the first one and then, hopefully, I'll be able to dodge the second. [Laughter.]

The first question about the feasibility of a contingency plan, we would take a different perspective than the director on that. We think it is important and it's also publicly shared this with Congress. We saw during 1990, we saw during the dress rehearsal, that limiting the amount of proxy data is very, very difficult for the Bureau. And that it becomes an enormous challenge as operations are going on, just the natural pressure of "let's get out into the field and get on with subsequent operations," that they need to step back now and think about how they're going to control the amount of proxy information, how they're going to look at the relationships between mail response and staffing needs and workloads at a localized level rather than at the national level.

So we think that there is a real need for a looking at a contingency plan.

Now I didn't mean to be flip about the second part of your question, Mr. Chairman. I don't know if they have something in-house. I agree with your opening statement that it was important. Director Prewitt's statement last week was the first time that I had heard a public statement from the Bureau that they would be willing to extend non-response followup operations if they weren't completed in time. In the past, some senior people have been quite adamant with us that they would be done in the 10 weeks and that was it.

Mr. MILLER. What assurances does GAO have that the Census Bureau will stay in the field as long as prudent to get non-response followup work done? I mean, if he said 10 weeks, we can finish in 10 weeks by just using more proxy data.

Mr. MIHM. Yes, sir.

Mr. MILLER. Is the expectation to use more proxy data because they are committed to that 10 weeks? If you use 14 weeks, there will be a much smaller non-response number. Is that going to be their intention? Is that your impression, that they're going to just use more proxy data, which is not as accurate, we all agree?

Mr. MIHM. We hope that the experience of the dress rehearsal is not instructive in this case, in which they got out of the field on time or even early, but it appears at the expense of having much higher rates of proxy information than they had wanted.

One of the critical elements that they need to look at, and then hopefully would be informing the Congress and keeping the Congress aware of, is that as they are in the field longer, there is more of a tendency to use proxy data. There is also more of a tendency for people who they get from the households to either be forgetful or to not give the correct information. So just being in the field a long time is not good. The use of proxy information is not good, in terms of data quality. A careful balance needs to be made and they need to be looking at that right now rather than waiting until everything is really going on in the census and then on a case-by-case basis be making those decisions.

Mr. MILLER. Thank you. Mrs. Maloney.

Mrs. MALONEY. Thank you, Mr. Chairman. I'm a little confused about the workload for non-response followups that you talk about in your report. According to your report, with the expected mail-back response at 61 percent, the Census Bureau will have to visit 46 million addresses. You go on to point out that they have to complete interviews with roughly 650,000 households each day. That does sound like an overwhelming task, but with 500,000 interviewers in the field, that is only 1.3 households a day or 9 a week. That sounds much easier and very doable. It's my understanding that the Census Bureau's assumptions about productivity is that each interviewer will complete about 1 household an hour or about 25 interviews a week.

Can you explain to me and to the panel why you believe that it will be difficult for Census interviewers to complete 9 households a month and why that is so different from the 25 households a week in the budget assumptions?

Mr. MIHM. Yes, Ma'am. The point we were making in our report is just that the very scope of the Bureau's efforts are enormous. We're actually making two points.

Mrs. MALONEY. The greatest peacetime mobilization ever.

Mr. MIHM. That's our mantra. And if there's ever a bigger one, "the second greatest peacetime" will not ring as well.

The point we were making was that, just as the greatest peacetime operation ever, it's an enormous challenge and, as you're pointing out, that if they make their assumptions on mail response, if they make their assumptions on workload, if they make their assumptions on staffing, we're talking 670,000 cases and it will not be undoable for them. They'll be able to finish on time or at least the math works that they'll be able to finish on time.

However, the second point that we were making is that that is fraught with a whole series of difficult assumptions or, as we call them, challenges and uncertainties about whether they'll make the mail response; whether they will get the enumerator staffing that they need; whether people will be willing to cooperate with them on a sufficient level. Those are all the things that, in our view, at least raise the concern of risk with the census.

But I quite agree with the point that you were making that the math, in a sense, works out. That is, if they make their assumptions, they should be able to finish on schedule.

Mrs. MALONEY. You've certainly reviewed the Bureau's assumptions about recruitment, retention, and productivity of enumerators. If you feel the 10 schedule is too short, where are these assumptions in error?

Mr. MIHM. The biggest problem that I think the Bureau will face, and it gets back to the difference between a national and local examination of the census, is that we know in a percentage of district offices, that it will take the Bureau much longer than the 10 weeks in order to finish non-response followup. The last offices to close, I regret to report, were in the New York regional office in New York City. Some of them took 14 weeks.

And the challenge, and I know this won't be news to you, Ma'am, is that these are also the areas where it is among the hardest to enumerate. And so you have a snowball, in effect, of interrelated

challenges for the census: poor mail response rate, hiring difficulties, high workload, large proxy data, schedule problems. All of those come together in, not nationally, but in hard-to-enumerate areas and in enough areas to matter that hamper the overall success of the census.

Mrs. MALONEY. Well, I read your report carefully. And, based on your report, I introduced legislation that would create a contingency fund of $100 million for census 2000. And I am hoping that you've had an opportunity to review this legislation and I'd like your comments. The fund could be accessed if you run into serious problems. For example, if the mail response rate dropped significantly, a point that you continue to raise. My bill also expands the labor pool for 2000 census among certain specific groups, another recommendation you put forward that I followed up on, along with many of my colleagues, including active-duty members of the military, those receiving certain Federal benefits, and Federal retirees who have received buy-outs.

Mr. MIHM. Yes, Ma'am.

Mrs. MALONEY. So I really tried to respond to the contingency that you felt needed to be there by offering this legislation and I'm wondering about your comments on it. Does GAO endorse legislation? [Laughter.]

Mr. MIHM. Generally not.

Mrs. MALONEY. Even if it's written mirroring your report?

Mr. MIHM. Well, in this case, the language in the report based on the staffing was worded, and we were quite careful on this, is that we understand that there are a series of competing policy issues with staffing and that's why we offered it as a matter for consideration for the Congress.

Similarly, with the part dealing with the contingency fund. Clearly a lower than expected mail response rate has cost implications for the Bureau. The Bureau has estimated about $25 million per percentage point. We've actually estimated it's about $34 million per percentage point in direct costs.

Mrs. MALONEY. It all has cost implications.

Mr. MIHM. Yes, Ma'am.

Mrs. MALONEY. Even if you go past the 10 weeks, there are cost implications.

Mr. MIHM. Yes, Ma'am.

Mrs. MALONEY. So any way you look at it, there are cost implications.

Mr. MIHM. And the Bureau has needed supplementals in the past during the decennial census. The best mechanism for getting them that money, though, is a policy determination, that is, whether it's a contingency fund, whether it's a quick supplemental if they need it. It is a policy call that we'll leave to the Congress rather than engage in.

Mrs. MALONEY. Well, I have quite a few more questions, but my time is up.

Mr. MILLER. Mr. Davis.

Mr. DAVIS. Thank you very much, Mr. Chairman. Mr. Mihm, let me ask, if you had to give the Census Bureau a letter grade in planning and preparation for this undertaking, what would it be?

Mr. MIHM. I think that I would give them a firm "B." I think that it is unquestioned that they have worked very, very hard throughout the decade. And I know there's been quite a contention that we've been involved in as well on the issue of sampling and the rest, but they've worked very hard throughout the decade and certainly since the court decision to implement the best census that they can.

One of our continuing concerns is that the census is a national undertaking under the Bureau's leadership, but all of us in other organizations have key roles in making the census successful. That is a point that Dr. Prewitt made last week. And so, in many cases, they're dependent upon local governments. They're certainly most fundamentally dependent on citizens to step up. And so, while we have had and will continue to have, no doubt, some criticisms of, operationally, how the Bureau is doing, fundamentally, our concerns and the issues that we raise are about things that are really beyond the Bureau's control.

The economy, as we've been discussing is very, very strong. And, to the extent that they can get people to work on the census in this sort of economy, that's really to their credit. So it's issues such as that. So that's why we can be very concerned about the census and call it high-risk while, at the same time, I'd give them a firm "B."

Mr. DAVIS. That they've done a good job and that the other things are difficult to really handle.

Let me ask, 10 years ago there were allegations after we finished that there were people who had been counted twice. Are you satisfied that the likelihood of that happening, in terms of the preparation this time, has seriously diminished?

Mr. MIHM. We know for a fact that there were people counted twice, as you mentioned, in 1990. It's every expectation that there will certainly be a percentage of the people that are counted twice. It's what the Bureau technically calls "erroneous enumerations," that is people included twice, this time around.

I think the key to reducing the level of double-counting is to limit proxy and get out of the field, as soon as possible. And let me give you just one number that kind of underscores the issue. People in 1990, people enumerated between January and April, who are basically people that mailed back their census forms and other early census operations, had an erroneous enumeration rate of about 5 percent. That is about 5 percent of those were double-counted. By the time you got through August to December 1990, the erroneous enumeration rate climbed to almost 30 percent.

So, basically, toward the latter part of the year, for every three people you add, you add one person in error. And that is a real challenge for the Bureau to control that. So, in direct answer to your question, we have not looked in detail at the procedures they have in place to guard against erroneous enumerations this time, other than to urge them to control proxy data and to get out of the field as soon as appropriate.

Mr. DAVIS. Would you consider that to be one of the big concerns? I mean, if there are errors made and especially if those errors are made in such a way that some advantage might be given to populations that really don't need the advantage, would that not be a great concern?

Mr. MIHM. Certainly. Everything we've seen is that the Bureau does try and limit the level of erroneous enumeration. We join the Bureau and most others, though, in focusing more often on the differential undercount, rather than the rate of erroneous enumeration, if, for no other reason, because it's higher and more politically at issue.

Mr. DAVIS. Let me make sure that I understand that. The double-counting, basically, were individuals who may have owned two homes or had two residences and may have been counted at each?

Mr. MIHM. That is certainly a part of it. We can certainly get for the record, to the extent that the evaluation data is available—the precise breakdown on this, but it would also include people who did not have a usual residence and may have been captured on two different census forms. The Bureau during 1990 had a coverage improvement program dealing with individuals on parole or probation that had a very high erroneous enumeration rate as well. But it certainly includes the group, sir, that you're talking about.

Mr. DAVIS. And, finally, if there were ways to better handle the external influences. That is, early on we talked about those influences that the Bureau was not in control of or could not project as much control of, would you have any recommendations on how to improve that?

Mr. MIHM. I'm sorry, sir. I'm not capturing, I think, the essence of your question.

Mr. DAVIS. I mean, for example, the extent of local government participation. The extent of other agencies being involved in assisting to help make sure that the effort is as widespread, as broadly based, as we could make it.

Mr. MIHM. Certainly one of the recommendations that we have made to the Bureau is to have realistic expectations for what local governments are able to supply. Many of the largest cities have very ambitious complete count efforts and are really working very hard and have people with one or two censuses of expertise in this and know at least as much as the people in Suitland.

However, in other cases, and I think the dress rehearsal experience bore this out, some of the smaller governments, more rural governments, don't have individuals with the time or the expertise or don't have the resources that they can really devote to the census. Now the Bureau has a longstanding policy that it doesn't fund these local efforts, however it hires additional partnership specialists to help out.

We've looked at the spans of controls of these partnership specialists, compared to what they were in the dress rehearsal and they weren't able to give adequate support in the dress rehearsal and there are even much greater spans of control now. And so I think what we're going to see is, again, it's this local versus national. We're going to see a very uneven application of local support and the Bureau's ability to get local governments and local communities to support the census, just based on the resources available at a local level.

Mr. DAVIS. I'm not attempting to put words into your mouth, but it sounds like you're saying that, in some instances, if there had been resources to assist the local entity, in all likelihood, that

would have increased the level of participation, which could have helped to increase, overall, the level of effectiveness.

Mr. MIHM. I think, sir, at a minimum, what the Bureau could have done is have more of an outreach effort to these local governments. We looked at the notebook that it gave to some of these local governments and it listed page after page what local governments could do to support the census. There is virtually nothing on what the Bureau was going to do to support the local governments.

When we were down in South Carolina during the dress rehearsal, some representatives of local governments told us the Bureau came in, they gave us the hats, the T-shirts, and the coffee mugs. And then went away. And, we need more support than that, folks. We need the tangible support that you talk about and we need knowledge. We need to know how to do this sort of stuff.

So more facilitation and hand-holding would have helped, as well.

Mr. DAVIS. Well, I thank you very much. And I'm pleased to know that I think at least somewhat like the GAO, because I'm in absolute agreement with you and I appreciate your response.

Mr. MIHM. Thank you, Mr. Davis.

Mr. MILLER. We'll have another round, too. I was reading the newspaper on my way back, flying back on Monday, I think it was in the Washington Journal, about how the city of Detroit is putting a lot of the resources of the city into it, but I think the city of Chicago is making a specific effort to put their own resources into making sure of that good count. They're doing advertising and all that. So, you're right, it's going to be spotty throughout the country, but those that recognize the critical importance, such as Chicago and Detroit in particular, they are putting the effort in there.

I was interested about Mr. Davis' first question about grading the Bureau. I'm glad to see the grade. How would you grade the contingency plan?

Mr. MIHM. Oh, well. [Laughter.]

If I was being charitable, it would incomplete. But that's just because I haven't seen it, and so I have no basis to judge at this point. I mean, the importance of this I can't stress enough—the importance of making it available or making sure that Congress gets an opportunity to see what's going on. Because we know that, as data collection drags on, there will be enormous pressure to close out offices and move on to subsequent operations. There needs to be an understanding of what sort of controls the Bureau has in place so that we don't close out prematurely, that is, don't go to the proxy data prematurely. We need to understand the tradeoffs between going to proxy data versus staying in the field, both the tradeoffs in cost and in quality and in schedule.

These are all the things that we think that the Census Bureau should be willing to talk about and not just say, well, we'll come to you if we need more money.

Mr. MILLER. I know that somewhere out there there's a point of diminishing returns for census enumerators to stay out in the field and continuously pound away at non-response followup. I am just concerned that the Census Bureau may decide to prematurely put valuable resources into their ACE survey instead of exhausting

every available alternative in the field. Would you comment some more on that?

Mr. MIHM. That is a concern. And, it's not just a concern in the sense of ACE, but it's a concern in terms of any subsequent operation that they would do any of the other additional coverage improvement operations. This would be part of the contingency plan that I think that they ought to be willing to discuss with the Congress: If we stay an extra couple of weeks in any particular area, here's what the cost is in terms of getting in and starting ACE or it may well be that there is no cost. Certainly there is no magic requirement that the field work on ACE has to start nationally at any one period. Just like the census, the ACE is done locally as well.

So this is the type of issue that they should be talking to the Congress about and letting you know what are some of the challenges and tradeoffs that they face. And they should be doing this ahead of time, rather than tell us later that the census is in real trouble.

Mr. MILLER. I agree. I'm concerned that they haven't shared with us a contingency plan. I feel there is a contingency plan. And, as Dr. Prewitt talked about yesterday—about possibly staying in the field longer or putting more money into this or how much you pay enumerators, it's part of that process. I think as far as money since it's over twice as much as the 1990 census, as you point out in your report, I think there's a lot of cushion in that money to be able to move around and shift it to those areas that may need the additional resources to complete them.

But I do have a concern that ACE is driving the close-out procedures, which would sacrifice a full-enumeration census, which would be unfortunate. And you share that concern, I guess, yes?

Mr. MIHM. It is something that we are going to be looking at very closely as non-response followup operations get underway, as to what controls the Bureau has in place when they close out, what the level of proxy information is that they're collecting in these last offices. During 1990, the areas that were the hardest to enumerate for them, large urban offices, it was not uncommon for them to average 20 percent or more proxy data of their non-response universe and this is a real concern when you're getting that percentage of the population that's based on proxy.

Mr. MILLER. And the later you get in the field for ACE, the less accurate ACE can be. If you have to wait 14, 18 weeks, you know, or whatever——

Mr. MIHM. Yes, sir. They're asking people also, just like with non-response, you're asking them to recall April 1, in ACE you're asking them to recall April 1 as well.

Mr. MILLER. Right. Despite the Bureau's efforts, the data capture system may still be at risk. Do you have any suggestions as to anything more the Bureau can do to diminish that risk at this late date?

Mr. MIHM. Randy's really the expert on that and I'll ask him to.

Mr. HITE. I have two responses to that. The first deals with, at the time that we were looking at DCS 2000, we identified the high probability that, given the significance of the events that remained and the nature of the events that remained, relative to developing

and deploying DCS 2000, there was considerable risk that everything was not going to get done on time. And, at that time, we spoke to the Census and its development contractor about how they could address this and the type of risk mitigation strategies that would be effective. Both the Census and the contractor were very responsive to this and, in fact, as we note in our report, put mitigation strategies in place.

What has happened since we've done our evaluation has borne out one of our concerns, which is the type of events that remained, test events, are events intended to identify problems. That's what tests are designed to do; they identify problems. They don't demonstrate the absence of problems, but the presence of them. And what has happened as a result of the problems that have surfaced recently and that we just became aware of this past Friday, is that in order to address the problems, they've decided that they need to modify the system.

And so here we are at the late stage in the development and implementation process where Census will need to modify the system, where Census will need to release the software changes, and then Census will have to test them in the field. And so what they've done is exasperated a risky situation, because the test event will occur I believe the 22nd through the 25th, when these changes will be tested. And that will leave you 9 days to address any problems that the test will surface. And, as I mentioned before, tests are designed to identify problems. Nine days is not a whole lot of time to deal with problems.

Mr. MILLER. Is there a better data capture project, 119 million forms, in any other Federal program that can capture that much data in such a quick period of time?

Mr. HITE. The similar application that comes to mind is the tax processing systems, because the forms come in within a certain timeframe and they have to be processed within a timeframe. It's heavily manual, but it is also heavily automated, too. That tax processing infrastructure has been in place for a long time and it's really done, as you know, year after year. So, in that sense, it is a different situation.

But census data capture, in some ways, is analogous to the Y2K problem because there, too, we had an immutable deadline that we had to deal with. And what happened was agency efforts were pushing further and further back up against the deadline. And any system development, any system maintenance effort, unless you change requirements and thus reduce the magnitude of the task that you're trying to accomplish, the only thing that can give is the testing process. And what we have here is where testing is the end of the process, but if problems surface, they will have to be corrected and then retested, again, to make sure that they, in fact, the system is performing correctly.

Mr. MILLER. Thank you. Mrs. Maloney.

Mrs. MALONEY. You said that the Bureau needs to, "limit the use of proxy data and get out of the field as quickly as possible." So if the response rate drops below the expectation, would it be better to keep enumerators in the field beyond the planned 10 weeks or would it make more sense to put more enumerators in early in an

attempt to get the total out there quickly and to get out of the field as soon as possible? What would be better?

Mr. MIHM. Mrs. Maloney, it would always make more sense for the Bureau to put as many enumerators in the field as early as they possibly can. They are going to try and hire well over 500,000. If they can get 600,000, that's better. If they can get more than that, that's always better. And this has been the Bureau's traditional position, is that they will say this is how many positions we have, but if they get two applicants who are qualified, pass the test, pass the background check, they'll split a position into two positions in order to get people in there. However, that often does not happen because of the hiring problems that they have. But, nevertheless, it is always better for them to get as many people in as possible so that they can get out of the field with as complete data as possible.

Mrs. MALONEY. Following up on the labor market, you noted in your testimony that 25 LCOs fell short of their recruitment goals by 20 percentage points or more. You also note that 163 offices exceeded the 45 percent goal by 20 percent or more. To me, that sounds pretty good.

I'm curious about two or three things, though. Are there generally any similarities about the offices with recruitment problems? Are there procedures in place to address the shortfall areas, like intensified promotion or maybe sharing recruits among different LCOs, if they are close enough? Finally, are there any recruiting problems in New York City? [Laughter.]

And, I might add, Chicago or Florida? [Laughter.]

Are we 1 of those 25 LCOs, any of us?

Mr. MIHM. Well, Chicago is one of the three regions that is having the most problems. 25 of its district offices, to each region there's usually 40 to 45 district offices, so 25 of its LCOs did not make the February 1, 45 percent threshold. While New York City as a region made the threshold, it has had some problems. Eleven of its LCOs were below the 45 percent threshold. The Atlanta region, which was another one of those regions, unfortunately covers Florida as well, and there are pockets of problems in Florida.

You asked if there is a consistent lesson, which is a tendency that urban areas are the ones that have, typically, the hardest problems recruiting. We saw that in 1990. We saw it in dress rehearsal. We're seeing it again in 2000.

Among the things that the Bureau is doing is that they are intensifying recruitment efforts. In some locations, they are studying the possibility of raising some wage rates. Dallas is the region that has done among the very best in terms of its recruitment. And while the census is always local, there are some real lessons learned there going on in trying to replicate some of the lessons that Dallas has done in terms of its recruitment effort. Apparently one of the things that a number of the regions have learned from Dallas is how important it is to really support the regional recruiters and the local recruiters to give them some additional training and help. And so there is that leverage that's going back and forth.

Robert, you're closest to the field. Do you have anything that you want to add in particular?

Mr. GOLDENKOFF. Yes, we can talk specifically about this issue. Let's first mention some things that are specifically being done in the Dallas region. Postcard mailings they said have been very helpful. Extensive training of recruiting assistants who enhance the message of the importance of the census. There's a lot of activity going on with the partners. There have been websites set up and State and local governments have put up websites to assist in recruiting. There's a 1–800 recruiting hotline. So there have been a number of procedures put into place to facilitate the recruiting.

Mrs. MALONEY. OK. Your report, Mr. Mihm, also says that the dress rehearsal data suggests that the Bureau's outreach and promotion program may have only a modest impact on the mail response rate—that the advertising that was done during the dress rehearsal was extremely minimal and really not very professional—certainly nothing like the very professional program in so many different languages and nationalities and ethnic groups that the $100 million-plus campaign now has going. Don't you think that this nationwide campaign may have more of an impact than it did on the dress rehearsal?

Also the activity that I'm hearing from my colleagues, some of them are organizing marches and handing out literature. One has developed her own contract that she's handing out to every constituent: I pledge I'll fill out my form. My own personal favorite is the census in the schools. I am convinced if we could meet with each superintendent and get them to put that into the schools that that would increase dramatically.

One member had a great idea they shared with me the other day. The whole CHIP program, the enrollment of children in the health care plan that is way behind expectations, partnering with them as they're enrolling these young people, also enrolling and reminding their parents about the importance of filling out the census form.

Maybe it's because I'm living it every day. I see all this activity and all these ideas and I'm more optimistic of generating knowledge and a desire to fill out that form and send it back. But you are not particularly optimistic in your report, based on the dress rehearsal. But I don't think that's very indicative of what we have going on in the field now.

Mr. MIHM. We're hopeful, with you, that all of these additional efforts will make a difference. And I completely agree. We tried to capture this in the report, that there is a lot going on for the 2000 census that obviously was not going on for the dress rehearsal.

Mrs. MALONEY. Even an ad during the Super Bowl.

Mr. MIHM. Yes.

Mrs. MALONEY. The test that everybody remembered. Fill out your form. Don't leave it blank. So, I mean, I think there's a tremendous amount of effort out there.

Mr. MIHM. I happened to be watching the Super Bowl with my daughter who's 9 and she picked on why are they having classrooms in the janitor's closet. Will we have to do this, Dad? We're in Fairfax and I said, no, honey, they put you all in trailers out back. That's the Fairfax issue. [Laughter.]

Mrs. MALONEY. Your daughter said that?

Mr. MIHM. No, I was the one who told her they put them in trailers. [Laughter.]

But she was very concerned. So they've hooked into 9-year-olds at least on this. And so it's clearly a larger, more persuasive ad campaign. The unknown, and this was the point that we were trying to make in the report and I think the Bureau is wise in not saying that, oh, the paid advertising campaign is going to give us this much of a bump in the mail response rate. What is unknown is whether we've broken that big historical pattern, the difference between awareness and motivation. We're certainly hopeful, as is everyone else, that as people get more aware, this time around they will be motivated.

But in the dress rehearsal, we had very, very high levels of awareness in 1990—very, very high levels of awareness—it just didn't translate into a mail response. And that's going to be the critical juncture.

Now the Bureau's ad campaign is moving into its second phase. The first phase that Dr. Prewitt talked about last week was just awareness, letting us all know that the Census is there. And now we're really getting into the intensive motivational part. You noticed the kick-off yesterday and I didn't get a chance to see the TV this morning, but I understood there was going to be something this morning in New York and elsewhere on this.

Mrs. MALONEY. You can't walk down the streets in New York and not see a sign to apply for a census job. I mean, it is literally everywhere. They have it up in stores. They have it everywhere.

Mr. MIHM. That's great news.

Mrs. MALONEY. I'm really impressed. Maybe they're doing it just around my home and my neighborhood. [Laughter.]

Because they know I'm on the case. But, believe me——

Mr. MIHM. We'll check for you. [Laughter.]

Mrs. MALONEY. I'm really, really impressed. I mean, you see, if we don't make it through this next election, we'll have a job out there. [Laughter.]

But my colleague has a lot of important questions to ask.

Mr. MILLER. Well have another round, too. Mr. Davis.

Mr. DAVIS. Only one. Actually, I want to get back to the individuals who are homeless, who have no stability in terms of addresses to followup with. And, given the fact that we're going to be into spring, which means the weather will hopefully be good, it really increases the numbers of people who move about without any place that they call home or where you can go looking for them to actually find them. Have you seen any evidence of the Bureau's ability to reach those people to find them?

Mr. MIHM. Certainly, sir, the Bureau is undertaking a far more serious effort in 2000 than in 1990. That's not the right word. I don't mean to imply it wasn't serious in 1990. It's a far better designed effort this time around. In 1990, they had a single night that they called S Night in which they went out and they attempted to count people on streets and they went to shelters and attempted to count people here. This time it is a far more intensive effort covering a couple of nights in which they're going to be out looking for people. We plan to be monitoring that and be prepared to report back to the subcommittee on how it's going.

But, as you know, the thesis behind your question is right on about how difficult it is to get these people because the challenge the Bureau faces is that, especially people on the street, is that many of them don't want to be enumerated. And, you know, as we hear each year when, unfortunately, when some people freeze to death because they won't even go to a shelter, you can imagine how difficult it gets, then, to get them to be willing to talk to an enumerator.

And so the Bureau really faces a very, very difficult task in getting the people without traditional housing.

Mr. DAVIS. Well, I'm really pleased to know that because, while the numbers in many instances may not appear to be that great, and in some instances they're not, but in others I think that they're quite substantial. And that every effort has got to be made to try and reach those individuals. Because even when we start talking about the return of resources, obviously these are the communities and these are the people who need those resources the most, trying to help them out of the situations that they're currently in. And so I'm very pleased to know that and I thank you very much.

Mr. MIHM. One thing that it's important that we all keep in mind, Mr. Davis, is that the Bureau does not release a count of the homeless population. They release a count of people where they happen to reside. Some people live in streets. Some people live in shelters. Some people live in other housing. And they leave it up to others to, if they wish, to come up with a homeless count on that.

And the point there is that it is important that we not just take the number of individuals enumerated in streets or shelters and automatically assume that that is the total of the Nation's homeless population. It could be quite larger.

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

Mr. MILLER. We'll continue the questions. I have a short one. The 61 percent, what is your projection?

Mr. MIHM. Well, we don't have an actual projection, Mr. Chairman, but let me tell you about the source of a little bit of our concern on that. The Bureau met its mail response rate goals during the dress rehearsal. They're always lower for a dress rehearsal. It's usually in the 50's, about 55 percent.

But they met that using a second questionnaire, which, for a variety of reasons, primarily because of public confusion and matching problems, they decided not to pursue for the 2000 census. Now what they did is that led them to reduce their expected mail response rate for 2000 from 65 percent to 61 percent.

Our point is, and we try to make this clear in the December report, that the bump that they got from this second questionnaire during the dress rehearsal was actually much greater than 4 percentage points. They got in some cases I think it was between 4.5 or a minimum of 4.5 but it went up to as much as 15 percentage points in some locations.

And so it's a real concern to us and we haven't seen from the Bureau an articulation of: we understand we got a huge hit out of the second questionnaire. We're not using the questionnaire. Here's how we think we're going to make up the difference between what that second questionnaire would have given us.

Mr. MILLER. Compared to 1990, how many enumerators are they projecting? Do you know?

Mr. MIHM. They are projecting to hire 500,000——

Mr. MILLER. But in 1990, what was it?

Mr. MIHM. In 1990, they ended up, I think they had positions for 370,000 or thereabouts and ended up hiring, because of turnover, well over 500,000. I'll have to get you precise numbers on that, sir.

Mr. MILLER. One more quick question, a question to followup Mr. Davis on the double-counting issue, is the DCS capable of reducing that and minimizing that compared to 1990? The computer, as far as the double-counting? If a college student is counted twice, we want to avoid that, of course. I think they're better prepared to do that. How would you rate their ability?

Mr. MIHM. The reason we were kind of passing the microphone back here is that it's not so much a DCS issue. It's an issue dealing with their match rules. We have not looked at the match rules this time around, but we'd certainly be willing to take a look at those and get back to you with that information.

Mr. MILLER. I was just thinking in terms of being a little more sophisticated, computerwise, for 2000. They should have a better ability, I would hope——

Mr. MIHM. They should have.

Mr. MILLER [continuing]. To catch——

Mr. MIHM. One would hope, but we'll have to report back to you on that one.

Mr. MILLER. Would the GAO be investigating and evaluating the Bureau's ACE plans?

Mr. MIHM. Your office has made it clear that, as has Mrs. Maloney's, once this hearing is over, they want to sit down with us and continue discussions that we have begun about what we're going to be doing for 2000 and beyond. That is certainly something that we expect that you and Mrs. Maloney will ask us to look at.

Mr. MILLER. Do you have any idea how far along the Bureau is in planning for the ACE? And have you any indication as to when they will have a complete operational plan? And do you feel they are where they should be on a preparation timeline for ACE?

Mr. MIHM. We haven't looked at ACE directly in quite some time. I can report that a couple of weeks ago, the National Academy of Sciences held a fairly major symposium. I think Dr. Prewitt mentioned it in his last hearing, I know there were members of your office that were there. The NAS brought in just about anyone who is anyone on the issues of statistical adjustment, both pro and con.

One of the common themes that I heard coming out of that was that the Bureau really does need to start locking down some of the procedures that it's going to use for the ACE and for adjustment. I detected a bit of a tone of frustration from some of the experts there that it's time for the Bureau to start to move beyond. "Well, here's one option, here's another option," and actually get into, here's what we think we're going to do.

Mr. MILLER. Please outline the GAO's plans for future field investigations into the decennial census activity.

Mr. MIHM. I obviously want to stress, sir, that this is subject to your approval and Mrs. Maloney's approval. I mean, we work at the behest of this subcommittee.

What we have planned to do is to look at—well, we've made contacts with people in the regional offices. We're then going to be looking at a subset of local census offices, probably in the neighborhood of 20 to 30, somewhere in there. It depends on resources. It depends on where our colleagues in the Inspector General's Office are going to be to make sure that we minimize any disruption and any overlap and appropriately leverage off of what they're doing. And we're hoping to be——

Mr. MILLER. Does that mean you'll get to different places or will you try to go to the same places?

Mr. MIHM. We're hoping that we can ask a consistent set of questions in different places. We are also sensitive, though, that we also have different reporting requirements. And this is one of the issues that we get into with the monitoring board and others is that we report directly to the Congress. They have other constituencies or other things that they have to report to.

What we're going to be doing is looking to get into the field and visit these local census offices at two points. One within the next couple of weeks before peak census operations begin. And, second, as I alluded earlier, toward the end of non-response followup to get a real sense on how are we doing on close-out; what sort of pressure, if any, is being applied to let's get out of the field early; are we doing everything we can to get full enumeration with the final cases or are we closing up prematurely.

Mr. MILLER. How many people do you have, approximately, assigned or will have assigned to the census issue over these next couple of weeks?

Mr. MIHM. We're very fortunate in GAO that we operate using an approach to matrix management and so it's, directly, working full-time on census work, we probably have about eight people, as well as a couple of—Randy is very kind to devote a lot of his time and his staff on information technology issues. Colleagues in a different part of the office did the report for you and Mrs. Maloney on the budget scrub last year and they've devoted resources as well. We're quite confident that we will be able to meet any requests that you give us.

Mr. MILLER. Let me ask one more question and then I'll be finished. The 2010 census, are you all looking at—I meant to ask Dr. Prewitt this—preparing for 2010, running some tests? Are you looking at that at all or do you have any comments about it?

Mr. MIHM. We will be looking at it. One of the things that I learned coming out of the 1990 census—or there's actually a couple of things. One is the importance of conducting appropriate tests during a live census that point to the next census. And then the second thing is the importance of starting early with your census planning effort. There was a big problem of some controversy here in that the Bureau's planning efforts for the 2000 census really didn't tee up for Congress a lot of the key issues until relatively late in the decade, causing the Census Bureau to have to rethink its approach.

One of the things that the Bureau is exploring—and we're certainly going to encourage them in this regard. We encouraged them last time as they were preparing for 2000—is looking at the use of administrative records. Either to, at the broadest extreme, to help

with the basic enumeration and to even its subsets, to help with some of the coverage improvements, to programs to try and look for missing elements.

One of the highest undercounted groups are children under 5. And so there are opportunities to use administrative records, whether it be school records or anything or Head Start records. There are all sorts of policy and privacy concerns in there. There are all sorts of technical issues and records matching. But this is the time in the decade to start thinking toward 2010 for issues such as these.

Mr. MILLER. I agree. I think, you know, whether it's the WIC program—there are a lot of programs—or the Indian reservations in undercounted areas, there are a lot of administrative records that I would think could be useful and I know they don't use them now except for our military and such. But I am hopeful for that.

Mrs. Maloney.

Mrs. MALONEY. Certainly. Thank you. Thank you, Mr. Chairman.

One of the conclusions you've reached in this report is that the Bureau's estimated 61 percent mail response rate in 2000 may be optimistic for two reasons. The first is the decision not to employ a second mailing as was done in the dress rehearsals. And let's clarify this please, you're not suggesting that the Bureau change its operational plan to include a second mailing, are you?

Mr. MIHM. No, Ma'am. Not at this point, no.

Mrs. MALONEY. But in your report, you suggest that the 6 percentage point reduction and the estimated mail response rate from 67 percent to 61 percent may not have been large enough since evaluations of the dress rehearsal indicate that it may have been responsible for a greater percentage of responses than that.

Mr. MIHM. Yes, Ma'am. We are not advocating that they go back to a second questionnaire, in part because we didn't have the time to fully evaluate whether or not there was the matching issue in the scope that they said it would be. But what we were pointing out in this report is that the second questionnaire gave them a sizable bump in the mail response rate during dress rehearsal. They took some reduction in the anticipated mail response for 2000. It doesn't appear, though, that they took as much as they should have.

And so our question for the Bureau is, where are we going to make up the difference? During the dress rehearsal, it gave you 8 or more percentage points. You reduced your 2000 expected much less than that. Where are you going to make up the difference? And that's what our concern is.

The only thing that, and I don't want to waste your time here, but the other thing that we wanted to point out is that, for the Census, it's only a 1 or 2 percentage point difference that can be a real challenge. You heard Dr. Prewitt mention that last week, that he can probably handle 60, 61, but if he starts getting to 59 percent, he gets in a heap of trouble in a hurry. Each percentage point is another 1.2 million cases. And so we don't need a catastrophic event, which certainly nobody wants, in order to be in a very difficult place in a hurry.

Mrs. MALONEY. But, please, you compared results from the nationwide testing which the Bureau conducted into a second mailing

with the results from the dress rehearsal. Explain how it affected your analysis.

Mr. MIHM. I'm sorry, Ma'am. The nationwide test?

Mrs. MALONEY. Yes. The nationwide testing which the Bureau conducted, you put that into the second mailing with the results from the dress rehearsal. Can you put those two numbers together?

Mr. MIHM. What we did is we took it—no, we took the second mailing—the percentage of households that responded during the second mailing in the two principal locations, that is the Sacramento and South Carolina. We subtracted out of that, out of there overall mail response rate, the people that responded due to a second mailing and got another mail response rate. And rather than it being in the 50's, it was typically, therefore, down in the 40's mail response rate. Again, comparisons between the dress rehearsal and the census must be made with caution.

We got down to a mail response rate in the 40's and said we saw where the Bureau had taken a reduction in the anticipated 2000 mail response rate. It was just not equivalent to the percentage point increase that they got from the second mailing in the dress rehearsal. Our question for the Bureau was, and remains, is how are we going to make up the difference? Where does that difference come from? And, you know, it's hoped that it will be through the ambitious and national ad campaign.

Mrs. MALONEY. OK. You mentioned in your testimony that the contractor for the development of the software is Lockheed Martin and it has been independently rated very highly. Would you elaborate on that, please?

Mr. MIHM. Yes, Ma'am. That's Randy.

Mr. HITE. The rating that we're referring to is the Carnegie Mellon Software Engineering Institute's capability maturity model, which lays out effective practices that a mature software development organization would possess. It rates organizations on a scale of 1 to 5, with 5 being the highest level of maturity. In this case, Lockheed Martin's mission systems division, in particular, has recently been rated as a level 5 organization. So it's a very mature, very capable, very effective software development organization, which is a huge plus that the census is doing business with an organization like that.

Mrs. MALONEY. Are many software companies rated as 5? Or is it unusual to have the higher rating?

Mr. HITE. That's a lofty group of companies. It is not a large number of organizations that I am aware of that have obtained that level of maturity.

Mrs. MALONEY. And how was the contractor selected? Was it done through competitive bidding or only stage 5 could apply? How was it done?

Mr. HITE. I do not have that information. I would be happy to provide that for the record.

[The information referred to follows:]

The DCS 2000 contractor was selected through a competitive RFP. A public notice was published in the Commerce Business Daily. There was no specific mention of a minimum CMM accreditation level in the RFP.

Mrs. MALONEY. Thank you.

You also said that the results from system level tests show that the DCS 2000 performance targets are being met. What are some of those targets? Let's get something positive out here. The positive things that have been met.

Mr. HITE. There are a number of performance measures that are used to measure how well the system is performing. There are throughput numbers in terms of the number of forms that are being moved through the sorters and the scanners, for example. And while the numbers from the tests that were performed at Pomona were below the target levels, and I can provide the precise numbers for the record, if you're interested, these tests were also repeated in the Phoenix test, which was completed recently. The Census Bureau has informed us that they have exceeded the goals with regard to both the sorters and the scanners, in terms of throughput of the number of forms that moved through the system.

Mrs. MALONEY. In your discussion of the data capture system, you also indicated that the productivity rates observed during operational testing in California, Pomona, CA, were below expectations. Have you examined the data from the other test sites? And, if so, what were your results?

Mr. HITE. The numbers for the key from image productivity rates on the part of keyers were below the model numbers that were expected. And, what has happened as a result of that, is that changes to the DCS 2000 system have ensued. So, in fact, what they're doing is modifying the system so that the workloads that the key from image keyers would be receiving will be reduced. So here was a case where, not the system, but the human element of operating the system was not performing up to expectations. And, to respond to this problem, the solution has been to modify the system so that Census will conduct a two-pass read of the forms. And, initially, they'll just extract the 100 percent data from the forms and then the sample data will be collected at a later point in time.

Mrs. MALONEY. I understand that there will be a four-site full-load test of the data capture system next week. Would you explain what is involved in that test and exactly what you're looking for?

Mr. HITE. At this test, they will be operating all four centers at the production levels that they expect during the actual data capture operations. All software, all releases, all hardware will be in place at all the centers. That's the plan. Census will be able to simulate actual operations, that is, post March 6 environment when the data capture centers are to be operational. They will be operating centers simultaneously.

So not only will it be able to test the performance of the data capture centers, but also, for example, how well the centers are transmitting data to headquarters so they can monitor how well data capture operations are proceeding. So it will allow them to test the full operation of the system in a real-live operational environment as we will have to do during the actual data capture operations.

Mrs. MALONEY. What remains to be tested before everything is fully operational?

Mr. HITE. As recently as Friday, and I believe actually it was over the weekend, the final software release, which was software release 23, was sent out to the field. This software release, along

with the releases that preceded it, will be tested as an integrated set, along with some hardware that has been added recently, associated with additional disk drives for storage. These will be tested from February 22 to February 25 as part of this operational test.

So what remains to be tested is not only the capability that has been deployed here recently, but also the correction of the problems that have surfaced as part of the Pomona test. We don't yet have all the information from the Phoenix tests or the Jeffersonville tests to find out what kind of problems surfaced.

But what happens is you do these tests, then you identify a problem and you fix the problem. Then you send out the patches to the software to correct those problems. Then you test them to make sure they're operating correctly. This last test of all four sites will be testing, hopefully, the completed system in a real-live operational environment.

Mrs. MALONEY. My last question: Where will you be on census day? [Laughter.]

Will you make sure you're counted?

Mr. MIHM. Well, we're going to enumerate before census day. We're going to send it as soon as we get the form, Ma'am. [Laughter.]

Mr. MILLER. Two more questions. You tell me the data capture system is—apparently they're going to do a two-path system now. What are the ramifications of that? That the first path will be the seven questions is my understanding, and then they're going to have to rerun all of the long form? Is that right? What are the ramifications for doing that?

Mr. HITE. You are correct. What they will do is they will still run the forms through and create the digital image of the short forms and the long forms. What they'll do differently concerns the optical scanning of the marks on the forms and the characters on the forms. They'll only run the seven questions, the 100 percent data. That's all they will extract. The images, then, will be stored on some hardware that they've recently acquired. And then, later on, once they've completed the data capture of 100 percent data, they will retrieve the digital images from disk storage and they will extract the sample data from the long forms. That will be submitted to census headquarters.

There are issues associated with this, one of which is the changes to the system associated with the retrieval from disk storage, rerunning the images and extracting the data. Those changes have not yet been made to the DCS 2000. Those are going to have to be made over the ensuing months. So that's an issue.

There are also downstream issues in terms of how the two pass, if at all, affects the processing operations at headquarters. I don't know that they do or don't, but that's a potential issue. What I suspect is that there could be other issues.

Mr. MILLER. What about the delayed release of all that information? Is that a factor or not?

Mr. MIHM. We're going to be looking into that, sir. Certainly much of the information on the long form is required to be collected by separate statute. And we have our attorneys back at GAO right now going through that and trying to figure out when that information, by statute, has to be available.

Mr. MILLER. Let me ask one more clarification on this second mailing issue. There's no question that it's too late to consider a second mailing now or even months ago. But 2 or 3 years ago, with what you know today would your recommendation have been to do a second mailing if they could have planned for it 2 years ago?

Mr. MIHM. It certainly would have been worth more investigation on their part. The initial argument that the Bureau made in rejecting a second mailing is they said the public, and they had some data in South Carolina, was confused by the second questionnaire. And they held up press articles of people saying they got two census forms. It's difficult for me to imagine that given as sophisticated as their ad campaign is, they couldn't have designed a component that says, you're going to get two census forms. You know, if you've already filled in the first, don't fill out the second. We all subscribe to many magazines and the bills say, if your payment crossed this bill in the mail neglect this.

It was then, later on, though, they began to raise the issue that they would have trouble matching, because they would just be completely overwhelmed with these second questionnaires. Again, perhaps a sophisticated ad campaign could have reduced the number of duplicate questionnaires that they would have gotten in and maybe the matching could have taken care of it. That is certainly something in the type of the thing that they need to be studying early in the decade for 2010 and not wait until the dress rehearsal, which is supposed to be the final operational test, to be rejecting such a major element of the census.

Mr. MILLER. Thank you. Let me thank you very much for being here today. And, as we've asked Dr. Prewitt to come and brief us on a regular basis, I hope you will come back on a regular basis in these next few months that are critical. So let me thank you again for everything you've been doing on the census.

I ask unanimous consent that all Members and witnesses written opening statements be included in the record. Without objection, so ordered. In case there are additional questions the Members may have for our witnesses, I ask unanimous consent for the record to remain open for 2 weeks for Members to submit questions for the record and that the witnesses submit written answers as soon as practicable. Without objection, so ordered.

Thank you very much.

Mr. MIHM. Thank you, Mr. Chairman.

Mr. MILLER. Adjourned.

[Whereupon, at 3:29 p.m., the subcommittee was adjourned.]

[The prepared statement of Hon. Danny K. Davis and additional information submitted for the hearing record follow:]

STATEMENT OF REPRESENTATIVE DANNY K. DAVIS
"Examining the GAO's Census 2000 Oversight Activities"
Tuesday, February 15, 2000

Mr. Chairman, I would like to commend you for holding this oversight hearing to examine the General Accounting Office (GAO), oversight plans for the 2000 Census and ongoing investigations relative to the Census.

As Census Day rapidly approaches it is crucial that we continue to focus on ways

to ensure accuracy, increase participation and keep cost down. In order to be effective in accomplishing the aforementioned goals GAO has a significant role to play. GAO has been actively engaged in reviewing the Census Bureau plans for the 2000 Census and making recommendations relative to improvements.

I am interested in hearing how well GAO has been able

to work with the Census Bureau in terms of ensuring accuracy, and raising public awareness with respect to the 2000 Census. In addition, I am interested in hearing the latest predictions with respect to accuracy for the upcoming Census. Lastly, I would be interested in hearing some of the challenges that currently exist in preparation for the Census.

I would like to thank GAO for taking time to share with us today, regarding the 2000 Census. We have an opportunity perhaps to make this the most accurate Census in our history. We can do this if we all work together towards the common goal of counting all of America.

Thank you

United States General Accounting Office
Washington, D.C. 20548

General Government Division

B-285273

May 31, 2000

The Honorable Dan Miller
Chairman, Subcommittee on the Census
Committee on Government Reform
House of Representatives

Subject: 2000 Census: Answers to Hearing Questions on the Status of Key Operations

Dear Mr. Chairman:

This letter responds to your request for additional information on census operational issues following the Subcommittee on the Census' February 15 hearing on the status of key census-taking activities. The enclosure contains our response to questions that we received from the Subcommittee. Because our response is based primarily on our previous work, we did not obtain comments from the Department of Commerce on a draft of this letter. However, we asked senior Bureau of the Census officials to review the letter's technical accuracy. In their May 24, 2000, reply, Bureau officials provided us with additional information on problems that occurred during the 1990 nonresponse follow-up operation and the steps the Bureau took to avoid similar difficulties for the 2000 Census. The Bureau also gave us further perspective on its use of proxy data. We incorporated this information as appropriate in our response to questions 6 and 7.

We are sending copies of this letter to the Honorable Carolyn B. Maloney, Ranking Minority Member, Subcommittee on the Census; the Honorable William M. Daley, Secretary of Commerce; and the Honorable Kenneth Prewitt, Director of the Bureau of the Census. We will make copies available to others upon request. If you have any questions concerning this letter, please contact me on (202) 512-8676.

Sincerely yours,

J. Christopher Mihm
Associate Director, Federal Management
and Workforce Issues

Enclosure

Enclosure

Responses to Subcommittee Questions Following the February 15, 2000, Hearing on Key Census-Taking Operations

1. The General Accounting Office (GAO) has suggested that the Census Bureau adopt some alternate form of contingency planning instead of relying on the Congress for a supplemental appropriation. Have you received any correspondence from the Census Bureau regarding your requests and have you been asked to make any recommendations?

In our December 1999 report, we recommended that the Director, Bureau of the Census, develop a contingency plan of actions the Bureau can take to address the operational challenges that would result from a questionnaire response rate that is lower than anticipated.[1] We also noted that the Bureau's plan should (1) address the budgetary, scheduling, staffing, and other logistical implications of collecting data from a larger number of nonresponding households and (2) include options and procedures to balance the pressure to complete nonresponse follow-up on schedule without comprising the quality of census data.

The national, initial response rate to the 2000 Census was 65 percent—4 percentage points above the 61-percent response rate that the Bureau had anticipated. However, not surprisingly, several local census offices are facing lower-than-expected response rates and, therefore, a larger than expected follow-up workload. Thus, at certain local census offices, completing nonresponse follow-up on schedule, without compromising the quality of census data, could be a concern.

In his written response to our recommendation, the Secretary of the Department of Commerce noted that Bureau officials share our "awareness of the challenges inherent in conducting a complete and thorough nonresponse follow-up operation." However, the Secretary added that the current plan for the 2000 Census will produce the most accurate enumeration possible, and that the Bureau must devote its full attention to carrying out each component of that plan. The Secretary's comments echo those that the Bureau made on a draft of our December report. The Bureau noted that the only serious contingency would be to request a supplemental appropriation.

[1] 2000 Census: Contingency Planning Needed to Address Risks That Pose a Threat to a Successful Census (GAO/GGD-00-6, Dec. 14, 1999).

2. Please explain why the census is such a local endeavor, as I predominately hear reports from the Census Bureau of how the census is progressing on the national scale.

The census is in many respects a local endeavor because the key ingredients of a successful population count, such as a complete and accurate address list and timely and accurate field data collection, are carried out by locally recruited census employees going from one neighborhood to the next, often door-to-door. Moreover, critical tasks, such as building public awareness of the census and motivating people to respond as well as locating pockets of hard-to-count population groups, are accomplished in large part by partnerships between the Bureau and local governments and community groups. As a result, national-level data, although useful for providing an overall perspective on the census, tends to obscure operational challenges and successes at the local level that can affect the quality of the census.

3. In Mr. Mihm's testimony he talked about the difference between public awareness of the census and motivating the public to actually participate. Based on data from the 1990 Census and the dismal results from the 1998 dress rehearsal, do you have any reason to believe that the Census Bureau will be able to translate the high level of public awareness into participation for Census 2000? Do you have any other recommendations?

As we previously noted, the response rate to the 2000 Census was 65 percent—4 percentage points higher than what the Bureau had anticipated and equal to the 1990 Census response rate. The Bureau's accomplishment in this regard is particularly noteworthy given various attitudinal and demographic trends, including concerns over privacy and a larger non-English-speaking population, that act against a high response rate.

Still, preliminary data suggest that the Bureau was unable to translate high levels of census awareness into census participation. Indeed, although the response rate was 65 percent, various polls have suggested that the public's awareness of the census was significantly higher.

We will continue our assessment of the Bureau's outreach and promotion program and examine possible refinements and recommendations as data on the impact of the program become available.

4. Mr. Mihm also stated that the Census 2000 "Partnership Specialists," the "Media Coordinators," and the interaction of the Complete Count Committees are key to the success of Census 2000. Past experience from the 1998 dress rehearsal tells us that the partnership specialists were stretched too thin to make any sort of difference. Do you have any reason to believe that things will work better in this regard for Census 2000?

Bureau partnership specialists appear to be more thinly stretched, on average, for the 2000 Census, than they were for the dress rehearsal.[2] The Bureau hired over 600 partnership specialists to initiate and sustain local outreach and promotion initiatives, including Complete Count Committee activities. According to the Bureau, there are around 12,000 Complete Count Committees; thus, on average, each partnership specialist is responsible for assisting approximately 20 committees. During the South Carolina dress rehearsal, the Bureau's two partnership specialists were each responsible for assisting an average of six Complete Count Committees. However, some committees never formed, while others became inactive, partly because the Bureau's two partnership specialists were spread too thin to provide meaningful assistance.

We are assessing the impact that partnership specialists and Complete Count Committees had on the census as part of our longer-term review of the Bureau's outreach and promotion program, and will report back to the Subcommittee as data are available.

5. Mr. Mihm testified that the Census Bureau could be challenged to complete nonresponse follow-up on schedule without compromising data quality. Please explain this further. What are the immovable deadlines?

Nonresponse follow-up began as scheduled on April 27, 2000, and is to be completed 10 weeks later on July 7, 2000. Completing the nonresponse follow-up workload within this time frame will be critical to collecting quality data because the census is progressing on a very tight schedule and the Bureau needs time to complete other census operations, including coverage evaluations that will be used to estimate census undercounts and overcounts.

[2] The dress rehearsal for the 2000 Census was held at three sites: Sacramento, CA; 11 South Carolina county governments and the city of Columbia; and Menominee County, WI, including the Menominee American Indian Reservation. The dress rehearsal tested the Bureau's operations and procedures planned for the 2000 Census and was conducted in April 1998.

Moreover, the Bureau has found that the quality of data collected during its field follow-up efforts declines over time in part because people move or tend to forget who was residing at their households on Census Day. Further, to complete nonresponse follow-up on schedule, the Bureau may need to rely more heavily on data collected from secondhand sources, such as neighbors. Such data are not as reliable as data collected directly from household members.

6. As I understand it, the Census Bureau has to follow-up on roughly 46 million nonresponding households during the nonresponse follow-up stage of Census 2000. They plan to do all of this in 10 weeks. On the other hand, it took the Census Bureau 14 weeks to finish nonresponse follow-up for 34 million households in 1990. That seems like an unreasonable time frame to do considerably more work. Please discuss how the Census Bureau could intentionally or unintentionally cut corners to get this larger workload done in a shorter period of time.

During the 1990 Census, the nonresponse follow-up operation was scheduled to last for 6 weeks—from April 26 through June 6. However, because of an unexpectedly sharp decline in the mail response rate, many local census offices had to cope with follow-up workloads greater than those offices originally planned to handle. High turnover and other staffing difficulties also hampered the timely completion of nonresponse follow-up in 1990. Thus, according to the Bureau, by June 4, 1990, the Bureau had finished just 70 percent of its 34 million housing unit follow-up workload, and did not fully complete the operation until July 30, about 14 weeks after it began.

The Bureau's nonresponse follow-up workload for 2000 is about 42 million housing units, and it has scheduled 10 weeks to complete the operation. Thus, compared to 1990, the Bureau has less time to complete a larger workload. However, in planning the 2000 nonresponse follow-up operation, the Bureau took steps to avoid the problems it encountered in 1990. For example, to address expected turnover, the Bureau planned to hire two people for each of its 146,000 enumerator positions. Most local census offices met this goal.

In addition, the Bureau's nonresponse follow-up operation was helped by a higher-than-expected response rate. Indeed, because the response rate was 65 percent as opposed to the anticipated 61 percent, the Bureau needs to collect data from about 4 million fewer households than initially planned.

Nevertheless, with a follow-up workload of 42 million households, the Bureau still faces a tremendous task. Therefore, as the 10-week time frame allotted for nonresponse follow-up winds down, it will be important for the Bureau to monitor proxy data use to ensure that enumerators are complying with proper procedures so as not to reduce data quality.

7. We have recently learned that there were alarmingly high levels of proxy data collected during the nonresponse follow-up stage of the dress rehearsals for all three of the sites. Why did the Census Bureau have to cut corners and collect proxy data to get out of the field so early to finish nonresponse follow-up?

During the dress rehearsal, nonresponse follow-up operations were completed on schedule in both Menominee and Sacramento and 6 days ahead of schedule in South Carolina. However, the Bureau relied more heavily on proxy data than it had planned. As shown in table 1, although the Bureau hoped to limit the portion of the nonresponse follow-up universe enumerated by proxy to less than 6 percent, the Bureau did not achieve this objective at any of the three dress rehearsal sites.

Table 1: Dress Rehearsal Households Enumerated by Proxy

Dress rehearsal site	Percentage of the occupied nonresponse follow-up universe enumerated by proxy
Sacramento	20.1%
South Carolina	16.4
Menominee	11.5

Source: U.S. Bureau of the Census.

According to the Bureau, one reason for the comparatively high use of proxy data was that obtaining interviews with household members proved to be more difficult than the Bureau had anticipated.

The Bureau has not set a specific goal for the level of proxy data for the 2000 Census because, according to the Bureau, data from the dress rehearsal and other census experience were insufficient to determine what a reasonable proxy rate should be. However, the Bureau wants to minimize the use of proxy data as much as possible.

8. Mr. Mihm stated in his testimony that it may cost at least $57 to enumerate each housing unit for 2000 compared to about $31 in 1990. This is an increase of 84 percent in 1999 dollars. Do you agree that the Census Bureau could have planned better to help mitigate this tremendous cost increase?

We have not reviewed the extent to which better planning could have mitigated the substantial increase in census costs that the Bureau experienced. However, this issue will be examined as part of our ongoing review of the 2000 Census and lessons learned for 2010.

9. Mr. Mihm testified during a recent data processing test in Pomona, CA, Census 2000 employees were only able to check-in 54 percent of their goal for census short forms. Short form questionnaires go to 5 out of 6 households across the country. If this situation is not remedied do you foresee any significant risks that could jeopardize the release of timely data?

Checking-in census forms, both short and long, is one of a series of interrelated steps in the Bureau's process for capturing census data; thus, any material delay in checking-in forms could adversely affect the timeliness of downstream activities, such as determining nonrespondents and tabulating final results. To correct the problems that surfaced during the Pomona site operational test, the Bureau's contractor provided additional training and practice time for the personnel who perform the check-in activities. Subsequently, during the actual census, the operations at the Pomona data capture center, as well as at the Bureau's three other data capture centers, have received and checked-in the required number of forms. For example, according to Bureau data, as of May 14, the Pomona data capture center received and checked-in over 24 million questionnaires, which is about 2 million more than planned.