United States Government Accountability Office

GAO

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

For Release on Delivery
Expected at 1:30 p.m. EDT
Wednesday, April 6, 2011

2010 CENSUS

Preliminary Lessons Learned Highlight the Need for Fundamental Reforms

Statement of Robert Goldenkoff
Director
Strategic Issues

GAO

Accountability * Integrity * Reliability

GAO-11-496T

April 6, 2011

2010 CENSUS

Preliminary Lessons Learned Highlight the Need for Fundamental Reforms

GAO
Accountability • Integrity • Reliability

Highlights

Highlights of GAO-11-496T, a testimony before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

GAO added the 2010 Census to its list of high-risk programs in 2008 in part because of (1) long-standing weaknesses in the Census Bureau's (Bureau) information technology (IT) acquisition and contract management function, (2) difficulties in developing reliable life-cycle cost estimates, and (3) key operations that were not tested under operational conditions. These issues jeopardized the Bureau's readiness for the count. Moreover, societal trends, such as concerns over privacy, have made a cost-effective census an increasingly difficult challenge. At about $13 billion, 2010 was the costliest U.S. Census in history. As requested, this testimony focuses on lessons learned from the 2010 Census, and initiatives that show promise for producing a more cost-effective population count in 2020. This testimony is based on completed and ongoing work, including an analysis of Bureau documents, interviews with Bureau officials, and field observations of census operations in urban and rural locations across the country.

What GAO Recommends

GAO is not making new recommendations in this testimony, but past reports recommended that the Bureau strengthen its testing of key IT systems, better document and update its cost estimates, and develop an operational plan that integrates performance, budget, and other information. The Bureau generally agreed with GAO's findings and recommendations and is taking steps to implement them.

View GAO-11-496T or key components. For more information, contact Robert Goldenkoff at (202) 512-2757 or goldenkoffr@gao.gov

What GAO Found

In February 2011, GAO removed the 2010 Census from its High-Risk List because the Bureau generally completed its peak enumeration activities and released congressional apportionment and redistricting data consistent with its operational plans. The Bureau improved its readiness for the census by strengthening its risk management activities, enhancing systems testing, and meeting regularly with executives from its parent agency, the Department of Commerce. Strong congressional oversight was also critical. Still, the 2010 Census required an unprecedented commitment of resources, and the cost of enumerating each housing unit has escalated from around $16 in 1970, to around $98 in 2010, in constant 2010 dollars. Based on the results of the 2010 and prior censuses, the following four early lessons learned could help secure a more cost-effective enumeration in 2020:

1. Reexamine the Nation's Approach to Taking the Census: The Bureau has used a similar approach to count most of the population since 1970. However, the approach has not kept pace with changes to society. Moving forward, it will be important for the Bureau to rethink its approach to planning, testing, implementing, and monitoring the census to address long-standing challenges.

2. Assess and Refine Existing Operations Focusing on Tailoring Them to Specific Locations and Population Groups: The Bureau plans to complete over 70 studies of the 2010 Census covering such topics as the Bureau's publicity efforts and field operations. As this research is completed, it will be important for it to assess the value-added of a particular operation in order for it to determine how best to allocate its resources for 2020.

3. Institutionalize Efforts to Address High-Risk Areas: Focus areas include incorporating best practices for IT acquisition management; developing reliable cost estimates; and ensuring key operations are fully tested, in part by developing clearly stated research objectives, a thoroughly documented data collection strategy, and methods for determining the extent to which specific activities contributed to controlling costs and enhancing quality.

4. Ensure that the Bureau's Management, Culture, and Business Practices Align with a Cost-Effective Enumeration: The Bureau will need to ensure that its organizational culture and structure, as well as its approach to strategic planning, human capital management, collaboration, and other internal functions are focused on delivering more cost-effective outcomes.

The Bureau has launched an ambitious planning program for 2020. As these actions gain momentum, it will be important that they enhance the Bureau's capacity to control costs, ensure quality, and adapt to future technological and societal changes.

Chairman Carper, Ranking Member Brown, and Members of the Subcommittee:

I am pleased to be here today to discuss planning efforts for the 2020 Census. The next enumeration might seem far over the horizon, but our reviews of the 1990, 2000, and now 2010 Censuses have shown that early planning and strong congressional oversight can help reduce the costs and risks of the national headcount. As you know, because of societal trends, including an increasingly diverse population and concerns over personal privacy, a cost-effective census has become inherently difficult. Going forward, the singular challenge facing the U.S. Census Bureau (Bureau) is how best to control the cost of future enumerations while maintaining their accuracy.

This afternoon's hearing is especially timely. Just one year after Census Day 2010, and with Census Day 2020 still 9 years down the road, today's session provides an early and important opportunity to look back on the lessons learned from the recent enumeration while simultaneously kicking off the congressional oversight necessary to help ensure the reforms needed for the next enumeration proceed on track. Indeed, past experience has shown that strong and continuing congressional involvement—especially while there is still time to make decisions and influence the direction of the census—is essential to the decennial's ultimate success.

Moreover, the fundamental design of the enumeration—mail out and mail back of the census form with in-person follow-up for nonrespondents—has been in use since 1970, and suffers from declining response rates. In short, this approach is no longer capable of cost-effectively counting a population that is growing steadily larger, more diverse, increasingly difficult to find, and reluctant to participate in the census. Much like going up a down escalator, over the past 40 years, the Bureau has been investing substantially more resources each decade in an effort to keep pace with key results from prior enumerations. The 2010 Census, at around $13 billion, was the most expensive headcount in our nation's history. Meanwhile, the cost of conducting the census has, on average, nearly doubled each decade since 1970 in constant 2010 dollars. If that growth rate continues unchecked, we could be looking at spending more than $25 billion on the 2020 Census.

Early and focused attention is also needed because the census—a constitutionally mandated effort—is critical to our nation, as the results are used to apportion seats in Congress, redraw congressional districts,

help allocate more than $400 billion in federal aid to state and local governments each year, and remake local political boundaries. Census data are also used for investment decisions by the public and private sectors. Unfortunately, the Bureau's planning efforts for the last 3 decennials fell short, which resulted in operational challenges that jeopardized a successful census. The magnitude of these problems led us to add the 2000 and 2010 Censuses to our list of high-risk federal programs in 1997 and 2008.[1]

In 2008, for example, we designated the 2010 Census a GAO high-risk area because (1) long-standing weaknesses in the Bureau's information technology (IT) acquisition and contract management function, (2) difficulties in developing reliable life-cycle cost estimates, and (3) key operations that were not tested under operational conditions, all jeopardized a cost-effective enumeration.[2]

In February 2011, we removed the 2010 Census from the High-Risk List because the Bureau generally completed its peak census data collection activities consistent with its operational plans; released the state population counts used to apportion Congress on December 21, 2010, several days ahead of the legally mandated end-of-year deadline; and remaining activities appeared to be on track. More recently, on March 24, 2011, the Bureau announced it had completed the release of data that states use to redraw federal, state, and local legislative districts.

In removing the 2010 Census from our High-Risk List we noted that the Bureau improved its readiness for the census by taking such steps as strengthening its risk management activities, enhancing systems testing, bringing in experienced personnel to key positions, implementing our prior recommendations, and meeting regularly with executives from its parent agency, the Department of Commerce.[3] Importantly, we removed the high-risk designation because of the Bureau's strong commitment to, and top leadership support for addressing problems; boosting its capacity

[1]GAO, *High Risk Series: Quick Reference Guide,* GAO/HR-97-2 (Washington, D.C.: Feb. 1, 1997), and GAO, *Information Technology: Significant Problems of Critical Automation Program Contribute to Risks Facing 2010 Census,* GAO-08-550T (Washington, D.C.: Mar. 5, 2008).

[2]High-risk areas are areas GAO has called special attention to because of their vulnerability to mismanagement or their broad need for reform. GAO-08-550T.

[3]GAO, *High-Risk Series: An Update,* GAO-11-278 (Washington, D.C.: February 2011).

to address shortcomings; and developing a corrective action plan, among other actions, and not simply because the census was coming to a close. Moreover, active congressional oversight—including 12 hearings convened by the House and Senate since we first named the 2010 Census a high-risk area—helped ensure the Bureau effectively designed and managed operations and kept the enumeration on schedule. The operational success of the 2010 Census is also a tremendous credit to the hundreds of thousands of career and temporary Bureau employees who diligently implemented a vast array of census-taking activities, often under difficult circumstances; and to the public, private, tribal, and nonprofit organizations of all sizes that voluntarily partnered with the Bureau and raised awareness of the census.

Going forward, while 2020 might seem distant, several issues suggest that it is not too early for stakeholders to start considering the improvements necessary to make the next national headcount as cost-effective as possible. These issues include: (1) the scope of the reforms needed, (2) the amount of taxpayer dollars at stake, (3) the criticality of a successful count, and (4) the Bureau's past planning difficulties. As requested, my remarks today will focus on lessons learned from the 2010 Census, and initiatives that show promise for producing an accurate and cost-effective population count in 2020.

In summary, while still assessing its conduct of the 2010 Census, as the Bureau continues its planning efforts for 2020, it will be essential for it to address the following four lessons learned:

- reexamine and perhaps fundamentally transform the way the Bureau plans, tests, implements, monitors, and evaluates future enumerations;
- assess and refine existing census-taking operations with an eye toward tailoring them to specific geographic areas and population groups;
- continue to address those shortcomings that led us to designate the 2010 Census a high-risk area including following key practices important for managing IT and strengthening its ability to develop reliable life-cycle cost estimates; and
- ensure that the Bureau's management, culture, business practices, and automated systems are all aligned with a cost-effective enumeration.

While the Bureau needs to do all of this and more, an additional lesson learned is that the Bureau cannot achieve a successful census on its own.

Rather, the enumeration is a shared national undertaking where federal agencies, state, local, and tribal governments, nonprofit and private organizations, and ultimately the public at large, all have vital roles to play. Congress too, has an essential responsibility. As was underscored by the 2010 experience, House and Senate involvement was essential for obtaining regular updates on the Bureau's progress in addressing the operational challenges it was facing, helping to hold the agency accountable for results, and providing the Bureau with resources needed to conduct a successful population count. Today's hearing, Mr. Chairman, builds on these past efforts, and will help ensure that lessons learned are documented and acted upon in the years ahead, raise Congress's confidence that the Bureau has learned from 2010, and that the journey toward 2020 continues in the right direction.

My testimony today is based on our completed work related to key 2010 operations and the Bureau's planning efforts for 2020,[4] as well as, ongoing work that is focused on 2010 Census cost drivers and the 2020 life-cycle cost estimate. For both completed and ongoing work we analyzed key documents such as, budgets, plans, procedures, and guidance for the selected activities; and interviewed cognizant Bureau officials at headquarters and local census offices. In addition, for our completed work, we made on-site observations of key census-taking activities across the country including such urban locations as Los Angeles, California; Atlanta, Georgia; Philadelphia, Pennsylvania; Brooklyn, New York; New Orleans, Louisiana; and Washington, D.C., as well as such less populated areas as Meridian, Mississippi, and New Castle, Delaware. We selected these locations because of their geographic and demographic diversity, among other factors. To obtain information on various management and organizational reforms that could help the Bureau become more accountable and results oriented, we reviewed our prior work on governmentwide reexamination, as well as leading practices and attributes in the areas of IT management, organizational performance, collaboration,

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

stewardship, and human capital.[5] More detail on our scope and methodology is provided in each issued product.

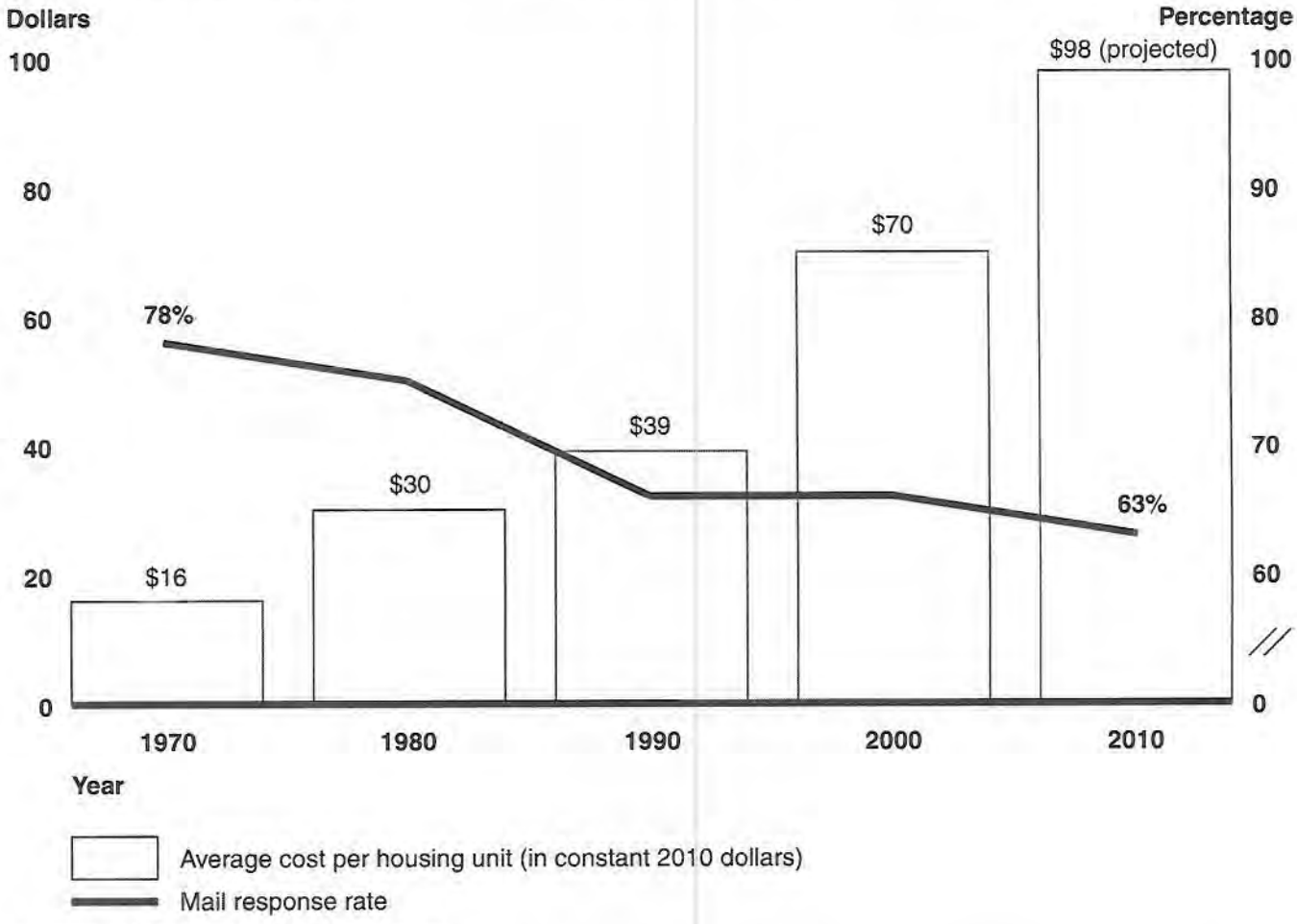
On March 18, 2011, we provided the Bureau with a statement of facts related to the information included in this statement, and Bureau officials provided technical comments, which we included as appropriate. We conducted our work in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

In conducting the 2010 Census, the Bureau encountered two sets of challenges: internal management challenges that affected the Bureau's overall readiness and led us to designate the 2010 Census as a high-risk area, as well as external sociodemographic challenges such as more non-English speakers and people residing in makeshift and other nontraditional living arrangements. As shown in figure 1, the cost of enumerating each housing unit has escalated from around $16 in 1970, to around $98 in 2010, in constant 2010 dollars (an increase of over 500 percent). At the same time, the mail response rate—a key indicator of a cost-effective census—has declined from 78 percent in 1970 to 63 percent in 2010. In many ways, the Bureau has been investing substantially more resources each decade just to try and match the results of prior enumerations.

[5]See for example: GAO, *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity*, GAO-04-394G (Washington, D.C.: March 2004); Comptroller General's Forum, *High-Performing Organizations: Metrics, Means, and Mechanisms for Achieving High Performance in the 21st Century Public Management Environment*, GAO-04-343SP (Washington, D.C.: Feb. 13, 2004); *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, GAO-06-15, (Washington, D.C.: Oct. 21, 2005); *21st Century Challenges: Reexamining the Base of the Federal Government*, GAO-05-325SP (Washington, D.C.: February 2005); and *Human Capital: Key Principles for Effective Strategic Workforce Planning*, GAO-04-39 (Washington, D.C.: Dec. 11, 2003).

Figure 1: The Average Cost of Counting Each Housing Unit (in Constant 2010 Dollars) Has Escalated Each Decade, While Mail Response Rates Have Declined



Source: GAO analysis of Census Bureau data.

Note: In the 2010 Census the Bureau used only a short-form questionnaire. For this statement, we use the 1990 and 2000 Census short-form mail response rate when comparing 1990, 2000, and 2010 mail-back response rates. Census short-form mail response rates are unavailable for 1970 and 1980, so we use the overall response rate.

Beginning in 1990, we reported that rising costs, difficulties in securing public participation, and other long-standing challenges required a revised census methodology—a view that was shared by other stakeholders.[6] Achieving acceptable results using these conventional methods has required an increasingly larger investment of fiscal resources, which in the coming years will likely become scarcer.

Indeed, the 2010 Census required an unprecedented commitment of resources, including recruiting more than 3.8 million total applicants—roughly equivalent to the entire population of Oklahoma—for its temporary workforce; and rose in cost from an initial estimate of $11.3 billion in 2001 to around $13 billion. According to the Bureau, several factors were largely behind the escalating costs of the 2010 Census including (1) a flawed acquisition strategy, (2) the need to hire a large number of field staff to enumerate people who did not mail back their census forms, and (3) substantial investments in updating the Bureau's address list just prior to the start of the enumeration.

Lesson Learned #1: Reexamine the Nation's Approach to Taking the Census

The results of prior enumerations underscore the fact that simply refining current methods—some of which have been in place for decades—will not bring about the reforms needed to control costs while maintaining accuracy given ongoing and newly emerging societal trends. Since 1970, the Bureau has used a similar approach to count the vast majority of the population. For example, the Bureau develops an address list of the nation's housing units and mails census forms to each one for occupants to complete and send back. Over time, because of demographic and attitudinal trends, securing an acceptable response rate has become an increasing challenge. Our concerns about the rising cost and diminishing returns of the census are not new. In the mid-1990s, for example, we and others concluded that the established approach for taking the census had exhausted its potential for counting the population cost-effectively and that fundamental design changes were needed to reduce census costs and improve the quality of data collected.[7]

[6]See for example, GAO, *Decennial Census: Preliminary 1990 Lessons Learned Indicate Need to Rethink Census Approach,* GAO/T-GGD-90-18 (Washington, D.C.: Aug. 8, 1990); and *2000 Census: Progress Made on Design, but Risks Remain,* GAO/GGD-97-142 (Washington, D.C.: July 14, 1997).

[7]GAO/GGD-97-142.

A fundamental reexamination of the nation's approach to the census will require the Bureau to rethink its approach to planning, testing, implementing, monitoring, and evaluating the census, and addressing such questions as: Why was a certain program initiated? What was the intended goal? Have significant changes occurred that affect its purpose? Does it use prevailing leading practices?

Our December 2010 report noted potential focus areas for such a reexamination. These include better leveraging innovations in technology and social media to more fully engage census stakeholders and the general public on census issues; and reaching agreement on a set of criteria that could be used to weigh the trade-offs associated with the need for high levels of accuracy on the one hand, and the increasing cost of achieving that accuracy on the other hand.[8]

One of the areas that the Bureau would like to leverage for the 2020 Census is the use of an Internet response option. The Bureau provided the opportunity for respondents to complete the 2000 Census short forms on the Internet—protected by a 22-digit identification number. According to Bureau officials, for the 2000 Census, about 60,000 short forms were completed via the Internet. The Bureau originally planned to include the Internet in the 2010 Census, but then decided not to, because the benefits gained through processing less paper, as well as improvements to the quality of data, were outweighed by the cost of developing the Internet response option and the risks associated with the security of census data. To examine its use for the 2020 decennial census, the Bureau will need to review many of those same issues and address the following questions:

- To what extent could an Internet response option lower data collection costs for the Bureau?
- To what extent could an Internet response option increase the quality of data collected?
- To what extent does the use of an Internet response option pose a risk to the confidentiality of census data?

[8]GAO, *2010 Census: Data Collection Operations Were Generally Completed as Planned, but Long-standing Challenges Suggest Need for Fundamental Reforms,* GAO-11-193 (Washington, D.C.: Dec. 14, 2010).

Moreover, given that the research, development, and testing efforts for 2020 will play out over the decade-long census life-cycle, what is the optimal way to ensure continuity and accountability for an enterprise that takes years to complete and extends beyond the tenure of many elected political leaders? The Director of the Census Bureau can, in concept, provide a measure of continuity, but of the 11 census directors who have served since July 1969 (not including the current director), the average tenure was around 3 years, and only 1 director has served more than 5 years. Further, in the decade leading up to the 2010 Census, the Bureau was led by 4 different directors and several acting directors. The turnover in the Bureau's chief executive officer position makes it difficult to develop and sustain efforts that foster change, produce results, mitigate risks, and control costs over the long term.

The heads of a number of executive agencies serve fixed appointments, based on Presidential nomination and Senate confirmation, including the Director of the Office of Personnel Management (4 years), the Commissioner of Labor Statistics (4 years), and the Commissioner of Internal Revenue (5 years). We believe that the continuity resulting from a fixed-term appointment could provide the following benefits to the Bureau:

- **Strategic vision.** The director needs to build a long-term vision for the Bureau that extends beyond the current decennial census. Strategic planning, human-capital succession planning, and life-cycle cost estimates for the Bureau all span the decade.

- **Sustaining stakeholder relationships.** The director needs to continually expand and develop working relationships and partnerships with governmental, political, and other professional officials in both the public and private sectors to obtain their input, support, and participation in the Bureau's activities.

- **Accountability.** The life-cycle cost for a decennial census spans a decade, and decisions made early in the decade about the next decennial census guide the research, investments, and tests carried out throughout the entire 10-year period. Institutionalizing accountability over an extended period may help long-term decennial initiatives provide meaningful and sustainable results.

Lesson Learned #2: Assess and Refine Existing Operations Focusing on Opportunities to Tailor Census-Taking Activities to Specific Locations and Population Groups

As noted earlier, a key indicator of a cost-effective census is the mail response rate, which is the percentage of all housing units in the mail-back universe, including those that are later found to be nonexistent or unoccupied. High response rates are essential because they save taxpayer dollars and ensure a more accurate enumeration. According to the Bureau, for every percentage point increase in mail response in 2010, the Bureau saved $85 million that would otherwise have been spent on in-person follow-up efforts. Also, according to the Bureau, it costs 42 cents to mail back each census form in a postage-paid envelope, compared with an average estimate of $57 for field activities necessary to enumerate each home in person. Moreover, mail returns tend to have better quality data, in part because as time goes on after Census Day (April 1), people move, or may have difficulty recalling who was residing with them.

For the 2010 Census, the Bureau expected a response rate of 59 percent to 65 percent. The actual mail response rate on April 19 when the Bureau initially determined the universe of houses to visit for nonresponse follow-up (NRFU)[9] was just over 63 percent, well within the Bureau's range of estimates. Achieving this response rate was an important accomplishment given the nation's increasing diversity.

As illustrated in figure 2, the Bureau met its expected response rate in all but 11 states. The highest response rate (71.7 percent) was in Minnesota, while the lowest response rate (51 percent) was in Alaska. At the same time, response rates in all but 2 states—Hawaii and South Carolina—as well as the District of Columbia, declined anywhere from 0.8 to 8.2 percentage points when compared to 2000, thus underscoring the difficulty the Bureau will face in the future in trying to sustain response rates.[10]

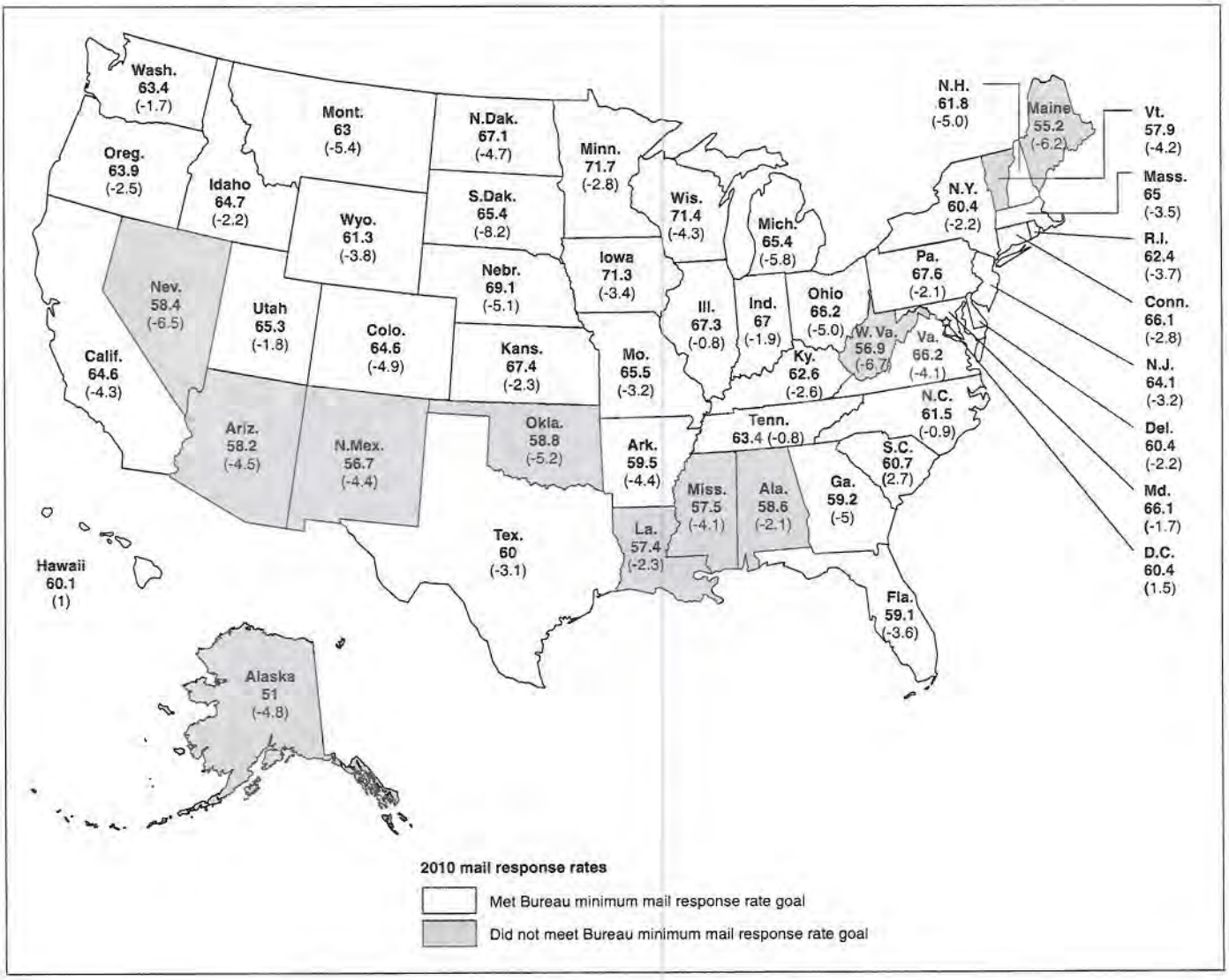
Key factors aimed at improving the mail response rate included the mailing of an advance letter and a reminder postcard, and an aggressive marketing and outreach program. In addition, this was the first census the Bureau sent a second or "replacement" questionnaire to households.

[9]NRFU is the largest and most costly census field operation, where the Bureau sends enumerators to collect data from households that did not mail back their census forms.

[10]In the 2000 Census, the Bureau used both long- and short-form questionnaires. The short-form questionnaire had a higher response rate because it had fewer questions. For the 2010 Census, the Bureau used only a short-form questionnaire. For this report we use the 2000 Census short-form mail response rate when comparing 2000 and 2010 mail-back response rates.

Replacement questionnaires were sent to around 25 million households in census tracts that had the lowest response rates in the 2000 Census, and 10 million replacement questionnaires were sent to nonresponding households in other census tracts that had low-to-moderate response rates in 2000.

Figure 2: The Bureau Met Its Minimum Mail Response Rate Goal of 59 Percent in All but 11 States, but Rates Generally Declined Compared to 2000



Source: GAO analysis of preliminary Census Bureau data; Map Resources (map).

Note: Number in bold reflects the 2010 response rate as of April 19, 2010. Number below in parentheses reflects the percentage change in response rate from 2000 to 2010. The 2000 Census response rate is as of April 18, 2000.

To determine if these and other census-taking activities were effective, the Bureau plans to complete over 70 studies covering such topics as marketing and publicity, field operations, privacy and confidentiality, and language barriers. Moreover, in July 2010, the Bureau developed a database for cataloging all recommendations from these 2010 studies, as well as recommendations from our office, the Department of Commerce Inspector General's Office, and the National Academy of Sciences, among others. According to a Bureau official, this database will allow the Bureau to link 2010 recommendations to 2020 research and testing, in an attempt to ensure that all recommendations coming out of 2010 are incorporated into 2020 research.

These studies of the 2010 Census are extremely important for informing decisions on the design of the 2020 Census. However, some will not be completed by fiscal year 2012, when the Bureau plans to start research and testing for the 2020 Census. Bureau officials said they will give priority to studies that align with the 2020 Census strategic plan.[11] In moving forward, it will be important for the Bureau to complete 2010 Census studies and stay on track to ensure that study results, where appropriate, are incorporated into 2020 research. As such, until all studies from the 2010 Census are finished, the Bureau will not have a complete picture of what worked well, or know what improvements are needed for 2020.

Moreover, in several of the programs we reviewed, assessments were not always focused on the value-added of a particular operation, such as the extent to which it reduced costs and/or enhanced data quality. This information would be useful for improving operations, identifying possible duplicative efforts, and identifying potential cost savings for 2020.

As one illustration, a complete and accurate address list, along with precise maps are the fundamental building blocks of a successful census. If the Bureau's address list, known as the Master Address File (MAF) and maps are inaccurate, people can be missed, counted more than once, or included in the wrong location. To build an accurate address list and maps, the Bureau conducted a number of operations throughout the decade, some of which were extremely labor-intensive. For example, the Bureau partnered with the U.S. Postal Service and other federal agencies; state, local, and tribal governments; local planning organizations; the

[11]The strategic plan for the 2020 Census defines the Census Bureau's mission and vision for 2020 and discusses the goals the Bureau will need to accomplish its mission.

private sector; and nongovernmental entities. Moreover, the Bureau employed thousands of temporary census workers to walk every street in the country to locate and verify places where people could live, in an operation called address canvassing. Three additional activities were aimed at properly identifying and locating dormitories, nursing homes, prisons, and other group living arrangements known as "group quarters."

In a 2009 testimony, we noted that with the cost of counting each housing unit growing at a staggering rate, it is important for the Bureau to determine which of its multiple MAF-building operations provide the best return on investment in terms of contributing to accuracy and coverage.[12] A number of operations might be needed to help locate people residing in different types of living arrangements, as well as to ensure housing units missed in one operation get included in a subsequent operation. However, the extent to which each individual operation contributes to the overall accuracy of the MAF is uncertain. This in turn makes it difficult for the Bureau to fully assess the extent to which potential reforms such as reducing or consolidating the number of address-building operations, might affect the quality of the address list. As one example, while the Bureau plans study options for targeted address canvassing as an alternative to canvassing every street in the country, the Bureau's evaluation plan does not specify whether the Bureau will look across MAF-building activities and compare how each individual operation contributes to the overall accuracy and completeness of the address list and at what cost.

Leveraging such data as local response rates, census sociodemographic information, as well as other data sources and empirical evidence, might also help control costs and improve accuracy by providing information on ways the Bureau could more efficiently allocate its resources. For example, some neighborhoods might require a greater level of effort to achieve acceptable results, while in other areas, those same results might be accomplished with fewer resources.

To the extent the Bureau targeted various activities during the 2010 Census, initial indications suggest that those efforts went well. For example, the Bureau developed job aids to address location-specific training challenges. In one example, partly in response to our

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

recommendations, to help ensure the Bureau would develop an accurate address list in those areas affected by Hurricanes Katrina, Rita, and Ike, the Bureau developed supplemental training materials for natural disaster areas to help census workers identify less conventional places where people might be living such as homes marked for demolition, converted buses and recreational vehicles, and nonresidential space such as storage areas above restaurants.[13]

As another example, the Bureau budgeted around $297 million on paid media to raise awareness and encourage public participation in the census, about $57 million (24 percent) more than in 2000 in constant 2010 dollars. To determine where paid media efforts might have the greatest impact, the Bureau developed predictive models based on 2000 Census data and the evaluations of other efforts used for 2000. By better targeting paid media buys by area and message, the Bureau expected to more effectively reach those who have historically been the hardest to count. However, according to the Bureau, this modeling could have been more robust had the data from 2000 done a better job of isolating the impact of paid media from other components of the Bureau's outreach efforts, among other factors.

Simply put, the Bureau made important progress in using data to determine where to spend its resources. It will be important for the Bureau to expand on those efforts in 2020, as well as to develop information on the return on investment of key census operations.

Lesson #3: Institutionalize Efforts to Address High-Risk Areas

A key priority for the Bureau will be to fully address those areas that led us to designate the 2010 Census a high-risk program. The problems the Bureau encountered in managing its IT systems, developing reliable life-cycle cost estimates, and testing key operations under census-like conditions were cross-cutting in that they affected a number of different activities, and thus threatened the Bureau's readiness for the census. The Bureau has taken steps to address these vulnerabilities. In the years ahead, it will be important for the Bureau to continue the progress it has made to date, and ensure that any changes are fully integrated into its basic business practices.

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

Incorporate Best Practices for IT Acquisition Management

IT is critical to a successful census because it helps support the Bureau's data collection, analysis, and dissemination activities. However, the Bureau has had long-standing difficulties with the development and acquisition of automated systems. For example, during the 2000 Census, the Bureau had to grapple with untimely and inaccurate management information, a lack of mature and effective software and systems development processes, inadequate testing of key systems, inadequate security controls, and an insufficient number of experienced staff to manage expensive and complex system projects. Both we and the Department of Commerce Inspector General made a series of recommendations to address these issues, and the Bureau took steps to implement them. Still, problems reemerged during the run-up to the 2010 Census. For example, while the Bureau planned to use automation and technology to improve the coverage, accuracy, and efficiency of the 2010 Census, in June 2005, we noted that the Bureau had not fully implemented key practices important to managing IT, including investment management, system development and management, and enterprise architecture[14] management.[15] As a result, we concluded that the Bureau's IT investments were at increased risk of mismanagement, and were more likely to experience cost and schedule overruns and performance shortfalls.

As development of the IT systems progressed, these problems were realized. For example, the Field Data Collection Automation program, which included the development of handheld computers to collect information for address canvassing and NRFU, experienced substantial schedule delays and cost increases.[16] As a result, the Bureau later decided to abandon the planned use of handheld data-collection devices for NRFU

[14]A well-defined enterprise architecture provides a clear and comprehensive picture of an entity, whether it is an organization (e.g., a federal department) or a functional or mission area that cuts across more than one organization (e.g., personnel management). This picture consists of snapshots of both the enterprise's current or "As Is" environment and its target or "To Be" environment, as well as a capital-investment road map for transitioning from the current to the target environment.

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

[16]GAO, *Census 2010: Census at Critical Juncture for Implementing Risk Reduction Strategies*, GAO-08-659T (Washington, D.C.: Apr. 9, 2008); *Information Technology: Census Bureau Needs to Improve Its Risk Management of Decennial Systems*, GAO-08-259T (Washington, D.C.: Dec. 11, 2007); and GAO-08-550T.

and reverted to paper questionnaires. According to the Bureau, this change added between $2.2 and $3 billion to the total cost of the census.

The Bureau developed a new automated system to manage the paper-based approach, but the system experienced outages, slow performance, and problems generating and maintaining timely progress reports. Workarounds ultimately enabled the Bureau to successfully implement NRFU. However, the Bureau was still limited in its ability to effectively monitor productivity or implement quality-assurance procedures as documented in its operational plans.

Therefore, as the Bureau prepares for 2020, among other actions it will be important for it to continue to improve its ability to manage its IT investments. Leading up to the 2010 Census, we made numerous recommendations to the Bureau to improve its IT management procedures by implementing best practices in risk management, requirements development, and testing.[17] The Bureau implemented many of our recommendations, but not our broader recommendation to institutionalize these practices at the organizational level. The challenges experienced by the Bureau in acquiring and developing IT systems during the 2010 Census further demonstrate the importance of establishing and enforcing a rigorous IT acquisition management policy Bureau-wide. In addition, it will be important for the Bureau to improve its ability to consistently perform key IT management practices, such as IT investment management, system development and management, and enterprise architecture management. The effective use of these practices can better ensure that future IT investments will be pursued in a way that optimizes mission performance.

Develop More Reliable Life-Cycle Cost Estimates

Accurate cost estimates are essential for a successful census because they help ensure that the Bureau has adequate funds and that Congress, the Administration, and the Bureau itself can have reliable information on which to base decisions. However, we noted in our 2008 report that the Bureau's cost estimate for the 2010 Census lacked detailed documentation on data sources and significant assumptions, and was not comprehensive

[17]See, for example, GAO-05-661; GAO, *Census Bureau: Important Activities for Improving Management of Key 2010 Decennial Acquisitions Remain to be Done*, GAO-06-444T (Washington, D.C.: Mar. 1, 2006); *Information Technology: Census Bureau Needs to Improve Its Risk Management of Decennial Systems*, GAO-08-79 (Washington, D.C.: Oct. 5, 2007); and *Information Technology: Census Bureau Testing of 2010 Decennial Systems Can Be Strengthened*, GAO-09-262 (Washington, D.C.: Mar. 5, 2009).

because it did not include all costs.[18] We noted that the Bureau had insufficient policies and procedures, and inadequately trained staff for conducting high-quality cost estimation for the decennial census, and therefore recommended that the Bureau take a variety of steps to improve the credibility and accuracy of its cost estimates. Moreover, following best practices from our Cost Estimating and Assessment Guide, such as defining necessary resources and tasks, could have helped the Bureau generate more reliable cost estimates.[19]

Partly as a result of these issues, some operations had substantial variances between their initial cost estimates and their actual costs. For example, the Bureau initially estimated that NRFU would cost around $2.25 billion. However, by the end of the operation, the Bureau reported using approximately $1.59 billion, which was 29 percent lower than budgeted. At the same time, another operation—address canvassing—was around $88 million (25 percent) more than its initial budget of $356 million, according to a preliminary Bureau estimate.

Moving forward, it will be important for the Bureau to ensure the reliability of the 2020 cost estimate, and the Bureau has already taken several actions in that regard. For example, based on recommendations from our June 2008 report, Bureau officials have stated that some of their budget staff have been trained and certified in cost estimation. The Bureau also has started using the Decennial Budget Integration Tool (DBiT). According to the Bureau, once it has completed entering all needed budget data, DBiT will consolidate budget information and enable the Bureau to better document its cost estimates.

Further, as a part of its planning for 2020, Bureau officials said that they have developed and provided to the Office of Management and Budget (OMB) for its review a rough order of magnitude estimate for the 2020 Census—based on information at this early stage of 2020 planning. In addition, the Bureau plans to develop a range of full life-cycle cost estimates in fiscal year 2013. As noted in our cost estimating guide, a life-cycle cost estimate can be thought of as a "cradle to grave" approach to

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

[19]GAO, *GAO Cost Estimating And Assessment Guide: Best Practices for Developing and Managing Capital Program Costs,* GAO-09-3SP (Washington, D.C.: March 2009).

managing a program throughout its useful life. Life-cycle costing enhances decision making, especially in early planning and concept formulation. Therefore, as the Bureau develops its estimates for 2020, it will be important for the Bureau to identify all cost elements that pertain to the program from initial concept all the way through operations and support.

Providing reliable cost estimates that are developed early in a project's life-cycle and accompanied by sound justification will be important in order for Congress to make informed decisions about the levels at which to fund future decennial censuses. More specifically, greater fiscal transparency, before committing to a final design and a particular level of spending, could help inform deliberations on the extent to which (1) the cost of the census is reasonable, (2) trade-offs will need to be made with competing national priorities, and (3) additional dollars spent on the census yield better results.

Ensure Key Census-Taking Activities Are Fully Tested

The census can be seen as a large, complex, yet inherently fragile machine comprised of thousands of moving parts, all of which must function in concert with one another in order to secure a cost-effective count. In short, while the census is under way, the tolerance for any breakdowns is quite small. Given this difficult operating environment, rigorous testing is a critical risk mitigation strategy because it provides information on the feasibility and performance of individual census-taking activities, their potential for achieving desired results, and the extent to which they are able to function together under full operational conditions.

As the Bureau geared up for 2010, we expressed our concern about the testing of key IT systems and other census-taking activities. For example, partly because of the performance problems with the handheld computers noted earlier, the Bureau decided not to include two census operations (NRFU and Vacant/Delete Check) in the full dress rehearsal for the census that was scheduled for 2008.[20] In lieu of a full dress rehearsal, the Bureau tested individual components of the census in isolation. However, without a full dress rehearsal, the Bureau was unable to demonstrate that various enumeration activities could function under near-census-like conditions. Although the Bureau had performed many of these activities in previous censuses, some operations—such as mailing a second questionnaire to

[20]Vacant/Delete Check is an operation the Bureau conducts to verify the status of housing units flagged earlier in the census as being unoccupied or nonexistent.

households that did not complete their census forms by a certain date, the removal of late mail returns, and fingerprinting hundreds of thousands of temporary census workers—were new for 2010 and introduced new operational risks. While the actual enumeration generally proceeded according to expectations, some operations, most notably the automated system that the Bureau developed to manage the paper-based NRFU operation noted earlier, were unable to function under operational loads in part because of a compressed testing schedule.

Moving forward, as the Bureau refines and implements its testing plans, our past work on census testing has shown that it will be important for its strategy to include, but not be limited to, these key components of a sound study:

- clearly stated objectives with accompanying performance measures;
- research questions linked to test objectives and, as appropriate, a clear rationale for why sites were selected for field tests;
- a thoroughly documented data collection strategy;
- input from stakeholders and lessons learned considered in developing test objectives; and
- a data analysis plan including, as appropriate, methods for determining the extent to which specific activities contribute to controlling costs and enhancing quality.[21]

While the Bureau does not plan to conduct its first major census test until April 2014, as part of its research and testing for 2020 the Bureau plans to conduct 26 tests in support of six different design alternatives between fiscal years 2012 and 2014. These design alternatives include, for example, improving the existing 2010 design, using administrative records for nonresponse follow-up, or increasing the number of available response options such as the Internet or cell phones. Key elements of the Bureau's research and testing strategy include:

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

- performing many small, focused field tests in lieu of a few large field tests as was the case for the 2010 Census;
- setting up a virtual Local Census Office at Census Bureau headquarters to test new census methods; and
- using the American Community Survey—an ongoing Bureau survey of population and housing characteristics that is administered throughout the decade—as a vehicle to test specific census methods.

These tests will be important for determining the feasibility of different design alternatives. We believe that given the number of tests and design alternatives that the Bureau plans to evaluate, it will be important to have a management structure in place for essential functions such as coordinating the tests; determining priorities; tracking the results; assessing their implications; weighing cost, accuracy, and other trade-offs; and ensuring that findings and recommendations are funneled to appropriate senior Bureau leadership for action.

Lesson Learned #4: Ensure That the Bureau's Management, Culture, and Business Practices Are Aligned with a Cost-Effective Enumeration

On the basis of our earlier work on high-performing organizations, fundamental reforms will mean ensuring that the Bureau's organizational culture and structure, as well as its approach to strategic planning, human-capital management, internal collaboration, knowledge sharing, capital decision making, risk and change management, and other internal functions are aligned toward delivering more cost-effective outcomes.[22] Indeed, some of the operational problems that occurred during the 2010 and prior censuses are symptomatic of deeper organizational issues. For example, the lack of staff skilled in cost estimation during the 2010 Census points to inadequate human-capital planning, while, as noted above, IT problems stemmed from not fully and consistently performing certain functions including IT investment management.

Moreover, the Bureau's own assessment of its organization found that it has a number of strengths including a culture that is committed to accuracy, precision, objectivity, and the overall mission of the census, as well as a workforce that understands decennial operations, procedures, and critical subject matter. At the same time, the Bureau's assessment noted there were several areas for improvement. For example:

[22]See for example: GAO-04-394G, GAO-04-39, GAO-04-343SP, GAO-05-325SP, and GAO-06-15.

- the Bureau is an insular organization and does not always embrace open communications, transparency, innovation, and change;
- there were difficulties in drawing on assets and methods from across the agency;
- the organizational structure makes it difficult to oversee a large program and hampers accountability, succession planning, and personal development, among other factors; and
- staff with core skills and experience were lacking in such areas as management of large programs and projects; cost estimating; and sophisticated technology, systems, and development.

While reforms will be needed along a number of fronts, our recent work on governmentwide strategic human capital management highlights some key steps—some of which the Bureau is already taking—to help ensure it identifies and closes current and emerging skill gaps to ensure the Bureau has the workforce needed to effectively and efficiently design and execute a successful census. These steps include:

- developing workforce plans that fully support the Bureau's need for highly skilled talent, including defining the root causes of skills gaps, identifying effective solutions to any shortages, and taking action to implement those solutions;
- ensuring recruitment, hiring, and development strategies are responsive to changing applicant and workforce needs; and
- evaluating the performance of initiatives to address critical skill gaps and make appropriate adjustments.[23]

The Bureau Has Launched an Ambitious Planning Program for 2020

The Bureau, recognizing that it cannot afford to continue operating the way it does unless it fundamentally changes its method of doing business, has already taken some important first steps in addressing these questions, as well as other areas. For example, the Bureau is looking to reform certain aspects of its IT systems planning, in part to ensure that the technical infrastructure needed for 2020 will be tested many times before operations begin. The Bureau also is rebuilding its research directorate to

[23]GAO-11-278.

lead early planning efforts, and has plans to assess and monitor the skills and competencies needed for the 2020 headcount.

Further, the Bureau already has developed a strategic plan for 2020 and other related documents that, among other things, lay out the structure of planning efforts; outline the mission and goals for 2020; and describe the research and testing phase of the next enumeration. For example, to address major cost drivers such as field infrastructure, labor, and IT systems, as well as, the quality of data collected, the Bureau has identified the following four research tracks that focus on a(n):

- *Expanded, Automated, and Tailored Response,* which attempts to reduce paper, make it easier for the population to be counted, and tailor response options, such as the Internet.
- *Reengineered Field Structure,* including a Bureau-wide integrated IT infrastructure that, for example, will allow for a real-time, Web-based system to manage data collection in the field.
- *Continual Address Frame Updating and Targeting,* which, for example, expands the sources of data, to include commercial databases and administrative records, in the Master Address File so that a full address canvassing may not be required at the end of the decade.
- *Using Administrative Records for Nonresponse,* which includes a major study to determine to what extent administrative records can be used for nonrespondents.

The Bureau's early planning efforts are noteworthy given the Bureau's long-standing challenges in this area. For example, in 1988, just prior to the 1990 Census, we noted that the Bureau's past planning efforts generally started late, experienced delays, were incomplete, and failed to fully explore innovative approaches.[24] Planning for the 2000 Census also had its shortcomings, including, as we noted in our 2004 report, a persistent lack of priority-setting, coupled with minimal research, testing, and evaluation documentation to promote informed and timely decision making.[25] And, while the planning process for the 2010 Census was initially

[24]GAO, *Transition Series: Commerce Issues*, OCG-89-11TR (Washington, D.C.: Nov. 1, 1988).

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

more rigorous than for past decennials, in 2004 we reported that the Bureau's efforts lacked a substantial amount of supporting analysis, budgetary transparency, and other information, making it difficult for us, Congress, and other stakeholders to properly assess the feasibility of the Bureau's design and the extent to which it could lead to greater cost-effectiveness compared to alternative approaches. As a result, in 2004, we recommended that the Bureau develop an operational plan for 2010 that consolidated budget, methodological, and other relevant information into a single, comprehensive document.

The Bureau later developed specific performance targets and an integrated project schedule for 2010. However, the other elements we recommended were only issued piecemeal, if available at all, and were never provided in a single, comprehensive document. Because this information was critical for facilitating a thorough, independent review of the Bureau's plans, as well as for demonstrating to Congress and other stakeholders that the Bureau could effectively design and manage operations and control costs, we believe that had it been available, it could have helped stave off, or at least reduce, the IT and other risks that confronted the Bureau as Census Day drew closer.

The Bureau's strategic plan for 2020, first issued in 2009, is a "living" document that will be updated as planning efforts progress. As the approach for 2020 takes shape, it will be important for the Bureau to avoid some of the problems it had in documenting the planning process for the 2010 Census, and pull all the planning elements together into a tactical plan or road map. This will help ensure the Bureau's reform initiatives stay on track, do not lose momentum, and coalesce into a viable path toward a more cost-effective 2020 Census. On the basis of our work on planning for the 2010 Census, a road map for 2020 could include, but not be limited to, the following elements that could be updated on a regular basis:

- specific, measurable performance goals, how the Bureau's efforts, procedures, and projects would contribute to those goals, and what performance measures would be used;
- descriptions of how the Bureau's approaches to human-capital management, organizational structure, IT acquisitions, and other internal functions are aligned with the performance goals;

- an assessment of the risks associated with each significant decennial operation, including the interrelationships between the operations and a description of relevant mitigation plans;
- detailed milestone estimates for each significant decennial operation, including estimated testing dates, and justification for any changes to milestone estimates;
- detailed life-cycle cost estimates of the decennial census that are credible, comprehensive, accurate, and well-documented as stipulated by Office of Management and Budget and GAO guidance; and
- a detailed description of all significant contracts the Bureau plans to enter into and a risk management plan for those contracts.

A comprehensive road map could generate several important benefits. For example, it could help ensure a measure of transparency and facilitate a more collaborative approach to planning the next census. Specifically, an operational plan could function as a template for 2020 giving stakeholders a common framework to assess and comment on the design of the census and its supporting infrastructure, the resources needed to execute the design, and the extent to which it could lead to greater cost-effectiveness compared to alternative approaches. Further, it could be used to monitor the Bureau's progress in implementing its approach, and hold the agency accountable for results. Importantly, to the extent the plan—or aspects of it—are made available using social media tools, it could prompt greater and perhaps more constructive civic engagement on the census, by fostering an ongoing dialog involving individuals and communities of stakeholders throughout the decade.

Concluding Observations

The Bureau goes to great lengths each decade to improve specific census-taking activities, but these incremental modifications have not kept pace with societal changes that make the population increasingly difficult to locate and count cost-effectively. The Bureau is fully aware of this problem and has wasted no time in turning the corner on the 2010 Census and launching the planning efforts needed for a more cost-effective enumeration come 2020.

Many components are already in place, and a number of assessment and planning activities are already occurring. At the same time, the Bureau has also been responsive to the recommendations we have made in our past work. As these actions gather momentum in the years ahead, it will be important that they put the Bureau on a trajectory that boosts its capacity

to conduct an accurate count, control costs, manage risks, and be more nimble in adapting to social, demographic, technological, and other changes that can be expected in the future. It will also be important for Congress to continue its strong oversight of the census to help ensure the progress the Bureau has made thus far continues going forward. We look forward to supporting the Subcommittee in its decision making and oversight of the decennial census.

Chairman Carper, Ranking Member Brown, and Members of the Subcommittee, this concludes my prepared statement. I would be pleased to respond to any questions that you might have at this time.

GAO Contacts

If you have any questions on matters discussed in this statement, please contact Robert Goldenkoff at (202) 512-2757 or by e-mail at goldenkoffr@gao.gov. Other key contributors to this testimony include Benjamin Crawford, Vijay D'Souza, Dewi Djunaidy, Ronald Fecso, Robert Gebhart, Richard Hung, Signora May, Lisa Pearson, Jonathan Ticehurst, and Timothy Wexler.

Related GAO Products

High-Risk Series: An Update. GAO-11-278. Washington, D.C.: February 2011.

2010 Census: Data Collection Operations Were Generally Completed as Planned, but Long-standing Challenges Suggest Need for Fundamental Reforms. GAO-11-193. Washington, D.C.: December 14, 2010.

2010 Census: Key Efforts to Include Hard-to-Count Populations Went Generally as Planned; Improvements Could Make the Efforts More Effective for Next Census. GAO-11-45. Washington, D.C.: December 14, 2010.

2010 Census: Follow-up Should Reduce Coverage Errors, but Effects on Demographic Groups Need to Be Determined. GAO-11-154. Washington, D.C.: December 14, 2010.

2010 Census: Plans for Census Coverage Measurement Are on Track, but Additional Steps Will Improve Its Usefulness. GAO-10-324. Washington, D.C.: April 23, 2010.

2010 Census: Data Collection Is Under Way, but Reliability of Key Information Technology Systems Remains a Risk. GAO-10-567T. Washington, D.C.: March 25, 2010.

2010 Census: Key Enumeration Activities Are Moving Forward, but Information Technology Systems Remain a Concern. GAO-10-430T. Washington, D.C.: February 23, 2010.

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

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

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

Information Technology: Significant Problems of Critical Automation Program Contribute to Risks Facing 2010 Census. GAO-08-550T. Washington, D.C.: March 5, 2008.

Information Technology: Census Bureau Needs to Improve Its Risk Management of Decennial Systems. GAO-08-259T. Washington, D.C.: December 11, 2007.

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

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

21st Century Challenges: Reexamining the Base of the Federal Government. GAO-05-325SP. Washington, D.C.: February 1, 2005.

Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity. GAO-04-394G. Washington, D.C.: March 1, 2004.

Comptroller General's Forum, High-Performing Organizations: Metrics, Means, and Mechanisms for Achieving High Performance in the 21st Century Public Management Environment. GAO-04-343SP. Washington, D.C.: February 13, 2004.

Human Capital: Key Principles for Effective Strategic Workforce Planning. GAO-04-39. Washington, D.C.: December 11, 2003.

2010 Census: Cost and Design Issues Need to Be Addressed Soon. GAO-04-37. Washington, D.C.: January 15, 2004.

2000 Census: Lessons Learned for Planning a More Cost-Effective 2010 Census. GAO-03-40. Washington, D.C.: October 31, 2002.

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

GAO's Mission

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

Obtaining Copies of GAO Reports and Testimony

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

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's Web site, http://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

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

Congressional Relations

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

Public Affairs

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

Please Print on Recycled Paper