United States General Accounting Office

GAO

Testimony

Before the Subcommittee on National Security, International Affairs, and Criminal Justice
Committee on Government Reform and Oversight
House of Representatives

For Release on Delivery
Expected at
12:00 noon EDT
Wednesday
October 25, 1995

DECENNIAL CENSUS

Fundamental Design Decisions Merit Congressional Attention

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GAO/T-GGD-96-37

DECENNIAL CENSUS: FUNDAMENTAL DESIGN DECISIONS MERIT CONGRESSIONAL ATTENTION

SUMMARY STATEMENT OF
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On the basis of its review of the 1990 Decennial Census, GAO determined that fundamental census design changes were needed because the established approach had exhausted its potential for counting the population cost-effectively. The 1990 Census population count was less accurate than the 1980 count. The reported net undercount of 1.8 percent (4.7 million persons) obscured a larger gross error. GAO estimated that 9.7 million persons, or 3.9 percent of the population, were not counted at all in 1990, but this was partially offset in the net count by millions of persons who were improperly included. The less accurate 1990 results cost a record-high $25 per household and a total of $2.6 billion. If done the same as the one in 1990, the 2000 Census could cost an estimated $4.8 billion.

The Bureau of the Census has decided to make fundamental changes to the traditional census design. These decisions have cost savings consequences approaching or exceeding $1 billion. These decisions will also determine the scope and quality of data that are used for key public and private decisions, ranging from determining representation in Congress and other legislatures and allocating billions of dollars in federal assistance among the states to locating new businesses and targeting commercial solicitations.

GAO recommended, and the Bureau has formally adopted, fundamental census design changes. For instance, shortening census questionnaires can promote higher and more accurate public responses and lower costs. Developing an accurate address list reduces unnecessary mailings and expensive follow-up visits to locations that do not actually exist or to residences that are unoccupied. Sampling households that fail to respond to questionnaires produces substantial cost savings and should improve final data quality. While these and similar changes could save $1 billion from the cost estimate of the 2000 Census with the same design, successful implementation of changes on this scale in a conservative organization will require aggressive management.

Although the Bureau has made key design decisions, the range of options is broad and the implications, both for public policy and federal spending, are considerable. The window of opportunity for Congress to provide guidance on those decisions and on their funding is closing. The further the Bureau proceeds with its decisions, the less Congress will be able to affect the census without significant risk of wasted expenditures and unacceptable results. For example, the Bureau now plans to begin sampling after a 90-percent response has been achieved. One alternative, a 70-percent cutoff, would save an additional $700 million but might jeopardize public confidence. Congress may wish to weigh in on such key decisions.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to assist in your oversight of the Census Bureau's preparations for the 2000 Decennial Census. You asked us to focus our comments on the Bureau's fundamental design of the 2000 Decennial Census and the way it builds on the experiences of previous censuses. You also asked for any additional concerns we have regarding the 2000 Decennial Census. Our testimony today is based on our past and ongoing work to monitor and evaluate the Bureau's research and planning process and the Bureau's 1995 Census Test.

The Bureau recently released its design decisions for the 2000 Decennial Census in a document entitled The Reengineered 2000 Census. We are encouraged by several of the Bureau's decisions such as the questionnaire redesign; address list development, with support from the Postal Service; and multiple mail contacts, which we supported in past testimonies and reports. We are also encouraged that the Bureau has decided to sample those households failing to respond to census questionnaires rather than conducting a 100-percent follow-up as it has in the past. The Bureau estimated that a reengineered census will cost about $3.9 billion, which is about $900 million less than would be spent if it performed the census without design changes. However, achieving the $900 million savings will require aggressive management attention on the part of the Bureau to ensure that the fundamental changes are well executed.

The Bureau has made its decisions on the key design parameters and now Congress needs to weigh in on those decisions and provide the funding it believes is appropriate, especially considering that such elements as the content of the census questionnaires and the use of alternative sampling techniques could significantly affect both the results and the final cost of the 2000 Census. While the Bureau's reengineering document contains planned changes similar to those we have advocated, we are concerned that the opportunity for a well-planned census will be lost if Congress and the Bureau cannot agree to the fundamental design and budget for the 2000 Census in a timely manner. Although a bright line does not exist delineating when congressional input may be too late, the later an agreement is reached, the greater the risk that hundreds of millions of dollars may be inefficiently spent and that successful redirection of the 2000 Census will be impossible.

BACKGROUND

After comprehensively studying the 1990 Decennial Census, we concluded that the established approach that was used for taking the census appeared to have exhausted its potential for counting the population cost-effectively.[1] Therefore, we recommended that fundamental changes be made to reduce future census costs

[1]See Decennial Census: 1990 Results Show Need for Fundamental Reform (GAO/GGD-92-94, June 9, 1992).

and improve the quality of the data collected. The 1990 Census marked the first census in which the Bureau failed to improve on the accuracy of the predecessor census since the Bureau began estimating the accuracy of census coverage in 1940. Furthermore, data quality and coverage declined as the absolute and per-household census costs climbed to record highs.

Data quality problems in the 1990 Census showed up in several key areas. The net undercount--the difference between the estimated population and the census count--was estimated by the Bureau to be 1.8 percent of the population, or approximately 4.7 million persons. This undercount was higher than the estimated 1.2 percent net undercount for the 1980 Census. The 1990 net undercount obscures the true magnitude of the error in the census because, while millions of persons were missed by the census, this undercount was in part offset in the net count by millions of other persons who were improperly counted. Examining the amount of gross error, therefore, provides a more complete picture of the quality of the census. In a 1991 report, we estimated that the 1990 Census contained a minimum of 14.1 million gross errors. These errors included 9.7 million persons missed during the count, or 3.9 percent of the population.[2]

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[2]See 1990 Census: Reported Net Undercount Obscured Magnitude of Error (GAO/GGD-91-113, Aug. 22, 1991).

Further, the estimated 4.4 percentage point difference in the 1990 net undercount rate between blacks (5.7 percent) and non-blacks (1.3 percent), referred to as the differential undercount, was the highest difference since the Bureau began such measurement in 1940.

Despite the Bureau's goal of containing the cost of the 1990 Decennial Census, the census continued an upward spiral of higher costs. The census in 1970 cost $221 million; in 1980, $1.1 billion; and in 1990, $2.6 billion. Adjusting for inflation and workload growth, the cost of the 1980 Census doubled that of the prior one, and the cost of the 1990 Census was 25 percent higher than the one in 1980. In constant 1990 dollars, the $25 spent to count each household for the 1990 Census was $5 more per household than was spent in 1980. In 1990, the Bureau estimated that if the census taking approach did not change, the 2000 Decennial Census could cost about $4.8 billion in current dollars.

A critical factor affecting the cost of a census is following up on nonresponses to the census questionnaires. A declining response rate to the census questionnaires has increased the Bureau's costly nonresponse workload. In the 1980 Census, the mail response rate was 75 percent, 3 percentage points lower than it was in the 1970 Census, and in the 1990 Census the response rate dropped to 63 percent, 12 percentage points lower than it

was in 1980. If the downward trend in public cooperation continues, the mail response rate could be as low as 55 to 59 percent in 2000 and generate a potential nonresponse workload of nearly 50 million cases that could require about $1.25 billion in follow-up costs.

IMPROVED QUESTIONNAIRE DESIGN COULD PROMOTE A BETTER RESPONSE RATE

The Bureau has made progress in its efforts to simplify and streamline both the short and long census questionnaires to promote a better mail response rate. While these changes should reduce costly follow-up of nonresponding households, the Bureau needs to obtain congressional buy-in to the content of the questionnaire.

Having households mail back census questionnaires is less costly and more accurate than relying on enumerators--temporary Census Bureau employees--to obtain information through personal interviews at every household in the nation. In the past three censuses, the Bureau has relied on returned questionnaires to collect data on most of the households in the nation.

Since 1976, we have suggested that the Bureau test a streamlined questionnaire to determine whether it could improve the census mail response rate and thereby improve census accuracy and

reduce costly follow-up efforts.[3] As we stated in our 1992 report, revising the form or content of the questionnaire used in the 1990 Census could have promoted a better mail response rate by reducing the time and effort needed for respondents to understand and complete the census form.[4] The Bureau noted that there is evidence from private sector surveys that questionnaires taking less than 5 minutes to fill in have significantly higher response rates.

We are encouraged by the progress the Bureau has made since 1990 in exploring ways to make it easier for people to respond to the census. In 1992, the Bureau conducted the Simplified Questionnaire Test of mail return rates for a redesigned short questionnaire with only five personal questions--name, age, gender, race, and ethnicity. The test results showed that the new shorter questionnaires were more apt to be returned by mail than were the longer questionnaires used in the 1990 Census.

The 1995 Census Test used a short questionnaire with six questions. It also used long questionnaires for a small percentage of the population. These questionnaires ranged in

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[3]See Programs to Reduce the Decennial Census Undercount (GAO/GGD-76-72, May 5, 1976); Decennial Census: Issues Related to Questionnaire Development (GAO/GGD-86-74BR, May 5, 1986); Decennial Census: Local Government Uses of Housing Data (GAO/GGD-87-56BR, Apr. 8, 1987); and Census Reform Needs Attention Now (GAO/T-GGD-91-13, Mar. 12, 1991).

[4]See GAO/GGD-92-94.

length from 16 to 53 questions, with even the longest version including 11 fewer questions than did the 1990 long questionnaire. The 1995 test generally showed that the shorter the questionnaire, the more likely the household is to respond.

The Bureau is currently redesigning the questionnaires with contractor assistance to make them more user-friendly. These designs are being shown to key Members of Congress and will ultimately be tested in 1996. The Secretary of Commerce is required to report to Congress on the proposed contents of the 2000 Decennial Census in April 1997.

Obtaining Consensus
on Content

Although the Bureau has made progress in shortening both the short and long questionnaires, it has not obtained consensus among key stakeholders on the content of the questionnaires and their length or whether to use a long questionnaire at all. Questions have been raised by the Chairman of the House Appropriations Subcommittee, which is responsible for the Bureau's budget, as to why it should be appropriating funds for the Bureau to gather data for the private sector and other government agencies at no cost to them. Other fundamental questions have been asked as to why the government needs to collect data on such things as the number of bathrooms in the

house, the way the person got to work last week, or the kind of work the person is doing.

In response to concerns about the content of the questionnaires, the Bureau has worked with other federal agencies to assess their data needs and has pared the census questionnaires down to some extent. However, if the long questionnaire is dropped entirely from the 2000 Decennial Census and some or all of the data are still required by the government, alternatives must be assessed for collecting those data. One alternative is to collect the data through smaller samples taken throughout the decade. This concept is known as continuous measurement.

Preliminary estimates from 1993 by the Bureau suggest that the cost of continuous measurement in the early years would be about $100 million per year.[5] Final estimates on the cost of continuous measurement will not be available until the Bureau has evaluated a 1996 test.

The longer it takes for the Bureau to reach agreements with stakeholders, most notably Congress, the greater the potential for an adverse impact on the cost of the 2000 Census and its success in meeting federal data requirements.

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[5]Decennial Census: Test Design Proposals Are Promising, But Fundamental Reform Is Still at Risk (GAO/T-GGD-94-12, Oct. 7, 1993).

Machine Reading Census Questionnaires

The cost advantage of using questionnaires can be enhanced if they can be machine processed. The Bureau is planning to use optical scanners to read the data from returned questionnaires into its computer systems. However, as we testified in October 1993, in its research into using such scanners the Bureau has experienced many setbacks because of problems in selecting a contractual agreement and in a lack of funding.[6]

Officials in the Bureau's Decennial Management Division told us that the Bureau plans to test the optical scanning of three separate short questionnaires and one long questionnaire in 1996. They also said that work on a final optical scanning process would be expedited if the Bureau would decide on final census questionnaires as quickly as possible. The Bureau's Technical Services Division, responsible for the actual design of the scanning system, needs as much advance time as possible to procure and test the data imaging equipment needed for questionnaire processing for the 2000 Census.

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[6]GAO/T-GGD-94-12.

MULTIPLE MAIL CONTACTS SHOWS
POTENTIAL TO IMPROVE RESPONSE RATE

In past testimonies and reports, we urged the Bureau to reduce dependence on costly follow-up by enumerators by testing the use of multiple mail contacts. During the 1995 Census Test, the Bureau tested multiple mail contacts consisting of four household contacts: a pre-notice letter, an initial questionnaire, a thank you/reminder card, and a replacement questionnaire. The test marked the first time the Bureau has tested and evaluated the operational feasibility of using multiple mail contacts during a decennial census-like environment.

While the test results have not been finalized, Bureau officials told us that using multiple mail contacts showed a potential for increasing the mail response rate by at least 7 percent, thereby reducing costly follow-up. An official told us that the estimate was based on the number of households responding to the replacement questionnaire. He also said that the other parts of the mail contact strategy increased the response rate. However, he said the Bureau had been unable to determine by how much when we spoke with him in October 1995.

For the 2000 Decennial Census, the Bureau expects to have multiple mail contacts with up to 120 million households, and with as many as 48 million households receiving replacement

questionnaires, the cost could be significant. Bureau officials estimated the cost of multiple mail contacts to be about $50 million. We believe that this amount is a worthwhile investment considering that it may prevent the Bureau from having to follow up with enumerators on 8.4 million households and could save the Bureau about $175 million. This savings is based on the Bureau's estimate that 1 percentage point nonresponse in the 2000 Census would cost about $25 million for follow-up activities.

THE BUREAU IS ACTIVELY PURSUING OPPORTUNITIES TO INCREASE USE OF THE POSTAL SERVICE

The Bureau and the Postal Service have made progress in their cooperative efforts to improve the coverage and reduce the cost of the 2000 Decennial Census. The Bureau is working with the Postal Service to maintain and update its address list. The Bureau is also exploring the potential for using the Postal Service to identify vacant and nonexistent housing units early in the census process, which could improve data quality and reduce costly nonresponse follow-up.

An accurate and complete address list that identifies the mailing address and physical location of each housing unit is the cornerstone of a successful census. Virtually all fundamental design changes planned for the 2000 Census, particularly the use

of sampling and integrated coverage measurement,[7] depend on a complete and accurate list of residential addresses. Therefore, a master address file integrated with a geographic database is a crucial basic requirement for the 2000 Census.

We have long advocated that the Bureau maintain an address list throughout the decade rather than prepare a new one for each census. In the 1990 Decennial Census, the Bureau, for the first time, developed an automated system that allowed it to incorporate changes from its various address list development procedures and retain the list. For the 2000 Census, the Bureau is building on that 1990 address list primarily through data provided by the Postal Service's automated Delivery Sequence File to create a permanent and continuously maintained address list. The use of Postal Service address information provides the Bureau with an updated, nationwide source of mailing address information with which to update its own address list.

The 1995 Census Test was the first opportunity to use this address file. Initial results of matching the files of the Bureau and the Postal Service for the four 1995 test sites were promising. The Bureau showed a high match rate (over 92 percent) between the two files and added addresses to its list. Unlike

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[7]We provide details on integrated coverage measurement, a statistical estimation method, later in this testimony.

other design features included in the 1995 Test, the address list development method was not to be formally evaluated.

Continuing changes in the nation's housing stock will always make developing a complete and accurate address list a major challenge for the Bureau. However, building on the investment it made for the 1990 Census and placing far greater reliance on the Postal Service appear to offer the Bureau the opportunity for significant improvements and savings.

A more inclusive and accurate address list should produce savings, but these savings could be enhanced with reliable information on whether someone actually lives at the address. Thus, another cost-saving initiative using the Postal Service is to determine the occupancy status of housing units. In the 1990 Decennial Census, the Bureau sent temporary census employees, enumerators, to visit 34.3 million housing units from which a questionnaire was not returned by mail. However, many of those visits were not necessary because the housing unit either was vacant or did not actually exist. Of the approximately 100 million questionnaires delivered in that census, 8.6 million were delivered to units subsequently found to be vacant and 4.8 million were addressed to nonexistent units, according to Bureau records. These 13.4 million addresses represented about 39 percent of the 34.3 million housing units that required visits from enumerators because a questionnaire was not mailed back. We

estimated that total field costs to follow up on questionnaires not mailed back because the housing unit was vacant or nonexistent were about $317 million in the 1990 Decennial Census.

The Bureau used the Postal Service during the 1990 Census to help identify the occupancy status of some of the last, most difficult follow-up cases. A Bureau study found that although additional testing was needed, this use appeared to be a very inexpensive and practical way to help complete these final cases. In our 1992 report, we encouraged the Bureau to use the Postal Service to identify vacant and nonexistent units before any census questionnaires were mailed because we believed such an approach could yield substantial savings.[8] However, we noted that testing the use of the Postal Service in this capacity would be necessary because the Bureau had no data from the 1990 Census on how accurately the Postal Service identified units as nonexistent.

In the 1995 Census Test, the Bureau planned to test the use of Postal Service letter carriers to identify vacant and nonexistent units when it mailed census materials. The Bureau's plan was to use undeliverable First-Class mail that the Postal Service returned to the Bureau to identify vacant and nonexistent units. According to Bureau officials, due to budget cuts follow-up on vacant units was dropped and the Bureau accepted the Postal

[8]See GAO/GGD-92-94.

Service's identification of vacant units. For questionnaires returned for other reasons, including nonexistent addresses, the Bureau attempted to gather data verifying the accuracy of the Postal Service's classifications. The accuracy of these classifications will not be known until the Bureau releases its evaluation of the test census. The evaluation is scheduled to be released in November 1995.

COST SAVINGS FROM SAMPLING FOR NONRESPONSE FOLLOW-UP

Following up of households that do not respond to the census is one of the most expensive components of the census. In our 1992 report, we recommended that the Bureau consider using statistical sampling to develop census information on nonrespondents in an effort to achieve significant cost-savings.[9] Census Bureau estimates suggest that without decreasing accuracy, sampling could have saved up to $457 million spent on nonresponse follow-up in the 1990 Decennial Census by sampling 30 percent of these nonresponding households, rather than performing a 100-percent follow-up of all nonrespondents.

As we testified in September 1994, sampling nonrespondents could actually improve the accuracy of census data on nonrespondents

[9]See GAO/GGD-92-94.

while saving money.[10] The number of errors found in census data increases in proportion to the time it takes to complete the census. The nature of sampling itself, however, increases the statistical uncertainty of the data on nonrespondents at lower geographic levels. The magnitude of statistical uncertainty is dependent on the size of the sample, the method used to draw the sample, and the size of the universe being sampled.

We also testified in September 1994 that the Bureau must be prepared to provide policymakers with data on the trade-off between the accuracy and potential cost-savings of sampling for nonresponse.[11] The Bureau's document, The Reengineered 2000 Census, begins to provide this information by listing several cost options. It chose an option of cutting off follow-up of nonrespondents after a 90-percent response rate has been reached, then sampling 1 in 10 of the remaining nonrespondents. (The Bureau has generally referred to this process as truncation.) The Bureau plans to attain the 90-percent response rate through a combination of mail questionnaire responses, data obtained by Bureau employees from administrative records, and questionnaires completed by enumerators on the basis of household interviews.

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[10]Decennial Census: 1995 Test Census Presents Opportunities to Evaluate New Census-Taking Methods (GAO/T-GGD-94-136, Sept. 27, 1994).

[11]See GAO/T-GGD-94-136.

The Bureau believes that the 2000 Census will cost $3.8 billion under the 90-percent truncation option assuming other reengineering efforts will produce a mail response rate of 66.9 percent. The following table provides various options for cutting off the follow-up of nonrespondents and provides data on census costs if the Bureau achieves a 66.9 or a 56.9 percent mail response rate, which is more consistent with the recent trend of declining mail response.

Table 1: Cost Options for Follow-Up on Nonrespondents

Dollars in billions

Assumed mail response rate	Cost of 100% follow-up[a]	Cost for reduced follow-up			
		95%	90%	80%	70%
66.9%	$4.3	$4.2	$3.9	$3.4	$3.2
56.9%	4.7	4.5	4.3	4.0	3.4

[a]Traditional Census Bureau design.

Source: Census Bureau data.

According to the Bureau, the option of sampling after a 90-percent response rate is achieved would produce a $400 million savings over a 100-percent follow-up with the same mail response rate. As the table shows, other options exist that would produce greater or fewer savings. For example, the Bureau could save an additional $700 million if it performs a 70-percent truncation.

In selecting an option, the quality of the resulting data must be considered. The Reengineered 2000 Census document is silent about the quality of data in the various options it presents. However, Bureau officials told us that the quality of the data for the various options would be comparable, even at the lowest geographic levels used for congressional redistricting. They said both sampling (at either the 70- or 90-percent truncation) and 100-percent follow-up would have some associated errors and the errors take different forms but basically offset each other. Bureau officials noted, however, that the amount of error at the geographic level used for redistricting was not determined for the traditional census design of 100 percent follow-up used in 1990. Therefore, a statistical comparison of the accuracy of a census using sampling for nonrespondents and a traditional census cannot be made. Bureau officials did say that sampling at either a 70- or 90-percent truncation could yield final results that are similar in reliability.

Bureau officials told us that the Bureau's decision to use the 90-percent cutoff was based on focus group input from the public. Focus group participants were more comfortable with relying on actual data rather than sample data. On the basis of the focus group results, Bureau officials said they believe that too great a reliance on sampling could undermine the public's willingness to respond to the census.

Nevertheless, Bureau officials said that the Bureau is continuing to study two other alternatives including (1) a 70-percent truncation and (2) differential sampling for nonresponse right after completion of initial mail response. According to Bureau estimates, both alternatives could save more than the 90-percent truncation.

The Bureau's strategy of relying on administrative records to gather the information on a portion of households that do not respond by mail creates many questions that have yet to be answered by the Bureau. The reengineering document notes that the Bureau must undertake extensive research and testing before it implements this initiative. The Bureau's reengineering document also includes an estimate that the Bureau will complete information for 5 percent of nonresponding households through the use of administrative records.

OBTAINING ONE-NUMBER CENSUS PRESENTS CHALLENGES

Bureau data show that each recent decennial census has produced an undercounting of the population, which has been most pronounced for minority populations. In an attempt to measure and then reduce the differential coverage error observed in previous censuses, the Census Bureau is evaluating the use of integrated coverage measurement (ICM) in the 1995 Census Test.

ICM is a statistical estimation method that is designed to improve the accuracy of the census count by reconciling the results of the original census counts with data obtained from a sample of households. Under ICM, a sample of 1 in 10 households would be visited by an enumerator to check the accuracy of the initial census data.

According to Bureau officials, ICM would enable the Bureau to present a one-number census that would be published by December 31, 2000. This date is the deadline for delivering the population count for apportioning congressional representation among the states.

The Bureau has used coverage measurement surveys in past censuses to help it determine whether original counts should be adjusted, especially to deal with differential undercounts of minority populations. The coverage measurement survey used in the 1990 Census was called the Post Enumeration Survey (PES). PES results, however, were not available until after the December 31, 1990, deadline for apportionment counts. The Bureau developed ICM not only to improve the census counts but to reduce the time required by the 1990 Census method for checking the accuracy of the original counts and producing adjusted numbers.

If the Bureau were to use a coverage measurement survey, whether PES or ICM, to adjust for undercounting, it must be reliable.

The Secretary of Commerce considered using PES results to adjust the 1990 Census to correct the undercount. However, on the basis of data available at that time, the Secretary decided against the adjustment. Matters related to the adjustment of the 1990 Census count are to be heard before the Supreme Court this year.

To successfully use ICM, the Bureau must overcome several challenges, some of which include: (1) determining which of two estimation methodologies can produce sufficiently accurate estimates of the undercount within the time available to produce a one-number census, (2) obtaining a legislative change for Census Day to allow for more time to complete tabulations, (3) tracing occupants of households that move during the census operation, (4) working with the required computer technology, and (5) avoiding statistical bias in the interview process.

The Bureau is evaluating whether the estimation methodology used in the 1990 PES or a newly developed methodology is best to use in producing a one-number census. PES employed a population estimation methodology, known as a dual-system estimation, that may not lend itself to completion in the required time. The newly devised methodology, which the Bureau calls CensusPlus, may be more rapid, but the Bureau must determine whether CensusPlus can produce sufficiently accurate undercount estimates down to the block level.

Even if the new CensusPlus estimation methodology is to be used, Bureau officials said that Census Day may need to be moved up. Although the Bureau is waiting for the final 1995 Census Test results before deciding, it may need to request that Congress move up Census Day by at least 4 weeks in order to complete ICM and produce a one-number census count by December 2000. This move, however, would require an amendment to Title 13 of the United States Code, which currently sets April 1 as Census Day.

Obtaining information about the occupants of a household if they have moved between Census Day and the day of the coverage measurement sample interview may be difficult for enumerators. The Bureau estimates that about 7 percent of the households in ICM sample areas will move during that time.

In order to do the coverage measurement survey more rapidly, the Bureau plans to use computer notebooks in the field. However, we observed that during the 1995 Census Test, enumerators had difficulty using the computer notebooks while conducting interviews at household doorsteps. In addition, during the 1995 Census Test, the Bureau had difficulty loading nonresponse data in the computer notebooks in time for use by enumerators in the field. Enumerators, therefore, were unable to match interview data with original census questionnaire data, and matching had to occur after the interview was completed, which slowed the measurement process. With ICM, the enumerators would be

responsible for making matches between an address listing, their on-the-spot interview information, and the Census roster showing the people that were counted in a household when the original count was provided on the questionnaire. Bureau officials have said that making this match may conceivably introduce interviewer bias into the ICM process. The 1995 Census Test was to evaluate whether this bias does occur. Test census results are to be available in December 1995.

THE CENSUS BUREAU IS OPERATING IN AN UNCERTAIN ENVIRONMENT

Overarching the problems associated with improving specific design components of the 2000 Census is the uncertainty regarding the Bureau's budget and organizational location. This uncertainty complicates the task of resolving the fundamental design issues for the coming census.

Budget

The type of census that will be conducted in 2000 depends ultimately upon the resources that will be available. To conduct a decennial census in 2000 similar to those done in previous decades requires the Bureau's budget to begin a steep climb in fiscal year 1995 that would culminate in peak expenditures in 2000. Increased budget amounts are to be used for such things as

finalizing research on key issues related to the census design, procuring equipment and other supporting materials, and hiring enumerators. Traditionally, Bureau budget increases have begun in mid-decade partly because of the long lead times required to obtain and mobilize the vast resources required to execute a decennial census.

However, the Bureau's budget environment is currently tenuous. Congressional proposals have been made that would significantly curtail the census budget. For example, one proposal would have limited the Bureau's fiscal year 1996 budget to 75 percent of its fiscal year 1994 expenditures, or about $178 million, and would hold its budget to that level indefinitely.[12] Such budget levels would require significantly greater changes to the census than have been considered to date by the Bureau. The Census Director has been reported as saying that the proposed $178 million per year ceiling on spending for the 2000 Census would mean that a traditional enumeration of the population could not be done. The Director said that the Bureau would instead have to estimate the population on the basis of administrative records alone.

It is important that the Bureau develop an understanding of its likely future budget levels with appropriate congressional

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[12]Commerce Dismantlement: Observations on Proposed Implementation Mechanism (GAO/T-GGD-95-233, Sept. 6, 1995).

committees. If the Bureau continues to plan for a census that would cost about $3.9 billion dollars but that level of funding does not materialize, the Bureau will have spent hundreds of millions of dollars on research and planning that will be largely irrelevant to the actual census that will be performed. Furthermore, if the funding level remains unresolved and the Bureau proceeds to plan for a $3.9 billion census, it may be unable to revise its plans rapidly enough to execute a reliable census in the year 2000 under a significantly lower budget. For example, in 1992 testimony we expressed our belief that a census based entirely or even substantially on administrative records is not feasible by 2000.[13]

Relocating the Census Bureau

Over the past year, bills have been introduced that would abolish the Department of Commerce. These bills offer several alternatives for relocating the Bureau. One bill currently being discussed, for instance, would move the Bureau into the Office of Management and Budget (OMB) for a short period of time before incorporating it into a consolidated federal statistical service or moving it into the Department of Labor's Bureau of Labor Statistics if a consolidated service were not established. Although these bills address issues more encompassing than the

[13]Census Reform: Major Expansion in Use of Administrative Records for 2000 Is Doubtful (GAO/T-GGD-92-54, June 26, 1992).

Census Bureau, they contribute to the current uncertainty that challenges the Bureau's leadership.

We have not analyzed these bills in depth. However, on the basis of our work over the years at both the Census Bureau and OMB, we believe that certain issues merit consideration. Because OMB has not had direct responsibility for carrying out government programs, its officials may not have the same experience base from which to offer managerial guidance to the Census Bureau as would officials in other agencies. In addition, although the Bureau has considerable autonomy within the Department of Commerce, Commerce historically has had a role in areas such as Bureau procurement, dealing with legal issues including suits filed disputing census results, financial reporting, and congressional relations. In fiscal year 1995, Census reimbursed Commerce $8.5 million for general administration services. Again, given its normal role, OMB may not have resources to provide such services.

We have reported and testified in the past[14] that management attention is needed to ensure that the Bureau stays on track to fundamentally redesign the 2000 Census and realize potential cost savings. For example, in 1994 we said that continuing top-level leadership, particularly at the Census Bureau, the Department of

[14]See GAO/GGD-92-94 and Decennial Census: Promising Proposals, Some Progress, but Challenges Remain (GAO/T-GGD-94-80, Jan. 26, 1994).

Commerce, and OMB is critical to generate needed consensus on the direction of change and the implications of census reform for federal and other data needs.[15] Thus, it would be important that steps be taken to mitigate the unavoidable disruptions to managerial attention that would accompany a relocation of the Bureau.

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This concludes my prepared statement. I would be pleased to answer any questions.

[15]GAO/T-GGD-94-80.

RELATED GAO REPORTS

Addressing the Deficit: Budgetary Implications of Selected GAO Work for Fiscal Year 1996 (GAO/OCG-95-2, Mar. 15, 1995).

Decennial Census: 1995 Census Test Presents Opportunities to Evaluate New Census-Taking Methods (GAO/T-GGD-94-136, Sept. 27, 1994).

Bureau of the Census: Legislative Proposal to Share Address List Data Has Benefits and Risks (GAO/T-GGD-94-184, July 21, 1994).

Decennial Census: Promising Proposals, Some Progress, but Challenges Remain (GAO/T-GGD-94-80, Jan. 26, 1994).

Decennial Census: Test Design Proposals Are Promising, but Fundamental Reform Is Still at Risk (GAO/T-GGD-94-12, Oct. 7, 1993).

Decennial Census: Focused Action Needed Soon to Achieve Fundamental Breakthroughs (GAO/T-GGD-93-32, May 27, 1993).

Decennial Census: Fundamental Reform Jeopardized by Lack of Progress (GAO/T-GGD-93-6, Mar. 2, 1993).

Census Reform: Major Expansion in Use of Administrative Records for 2000 Is Doubtful (GAO/T-GGD-92-54, June 26, 1992).

Decennial Census: 1990 Results Show Need for Fundamental Reform (GAO/GGD-92-94, June 9, 1992).

Progress of the 1990 Decennial Census: Some Causes for Concern (GAO/T-GGD-90-44, May 21, 1990).

Critical Issues for Census Adjustment: Completing Post Enumeration Survey on Time While Protecting Data Quality (GAO/T-GGD-90-15, Jan. 30, 1990).

1990 Census: Comparison of Coverage Improvement Programs for 1980-1990 (GAO/GGD-90-8, Nov. 28, 1989).

Status of Census Bureau Plans and Preparation for the 1990 Census (GAO/T-GGD-87-6, Mar. 12, 1987).

The Census Bureau's 1984 Address List Compilation Test (Mar. 13, 1986).

A $4 Billion Census in 1990? Timely Decisions on Alternatives to the 1980 Procedures Can Save Millions (GAO/GGD-82-13, Feb. 22. 1982).

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