

GAO

Testimony

Before the Subcommittee on Census, Statistics,
and Postal Personnel,
Committee on Post Office and Civil Service
House of Representatives

For release on Delivery
Expected at
10:30 a.m. EST
Wednesday
January 26, 1994

DECENNIAL CENSUS

Promising Proposals, Some Progress, But Challenges Remain

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059129/150852

DECENNIAL CENSUS: PROMISING PROPOSALS,
SOME PROGRESS, BUT CHALLENGES REMAIN

SUMMARY STATEMENT
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Over the last year, GAO has chronicled the Bureau's progress toward making fundamental changes to the decennial census methodology that might achieve the overarching goals of containing costs and improving accuracy for the 2000 Census. In its October 1993 testimony GAO said that although the Bureau had made promising proposals, fundamental reform was still at risk. Today, while the Bureau has continued to make some progress since October, GAO's overall assessment remains essentially the same.

GAO is still concerned about the long-term prospects for reform, given the overall pace of the Bureau's progress to date and the significant challenges that remain. While GAO is encouraged by the Bureau's recent focus on testing specific proposals to modify the census methodology, GAO believes that the Bureau must aggressively plan for and carefully implement its research, testing, and evaluation programs. Results of those efforts must be available to make fully informed and timely decisions and to build needed consensus among key stakeholders and customers for changes in the 2000 Census.

Any changes to the decennial census--which is the cornerstone of the federal statistical system--will naturally reverberate throughout the federal government and the broader public and private statistical community. Continuing top level leadership particularly at the Census Bureau, the Department of 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. For example, despite the capable efforts of the current Acting Director, as long as the Bureau Director position remains vacant, the Census Bureau will be without a fully vested and authoritative voice. The Bureau Director plays a central role both internally and externally in brokering agreements among stakeholders, fostering relationships of shared responsibility for the census with the Postal Service and other organizations, and leading discussions with Congress, the Department of Commerce, the Department of Justice, and OMB on any legislative initiatives related to the decennial census.



Mr. Chairman, Mr. Petri, and Members of the Subcommittee:

I am pleased to be here today to comment on the plans of the Bureau of the Census for the 2000 Decennial Census. You asked for our perspective on the issues discussed in the Bureau's report to Congress, which was required by the conference report accompanying the fiscal year 1994 appropriations bill. You also asked for our comments on the status of cooperative efforts between the Bureau and the U.S. Postal Service and on the effects of fiscal year 1994 funding levels on the Bureau's planning and research program for the 2000 Decennial Census. My testimony is based on our continuing audit work, at the Subcommittee's request, to monitor and evaluate planning activities and operations for the 2000 Decennial Census.

Over the last year, we have chronicled the Bureau's progress toward making fundamental changes to the decennial census methodology that might achieve the overarching goals of containing costs and improving accuracy for the 2000 Census.¹ In our testimony in October 1993, we said that although the Bureau had made promising proposals, fundamental reform was still at risk. Today, while the Bureau has continued to make some progress since October, our overall assessment remains essentially the same. We are still concerned about the long-term prospects for reform, given the overall pace of the Bureau's progress to date and the significant challenges that remain. While we are encouraged by the Bureau's recent focus on testing specific proposals to modify the census methodology, we believe that the Bureau must aggressively plan for and carefully implement its research, testing, and evaluation programs. Results of those efforts must be available to make fully informed and timely decisions and to build needed consensus among key stakeholders and customers for changes in the 2000 Census.

GAO PERSPECTIVE ON THE BUREAU'S REPORT TO CONGRESS

At the time we were completing our audit work to prepare for this hearing, the Bureau's report to Congress due January 1, 1994 had not been officially approved. The perspectives we offer today are based on a draft report, which was awaiting approval by the Secretary of Commerce, when we completed this statement.

¹See Decennial Census: Fundamental Reform Jeopardized by Lack of Progress (GAO/T-GGD-93-6, Mar. 2, 1993); Decennial Census: Focused Action Needed Soon to Achieve Fundamental Breakthroughs (GAO/T-GGD-93-32, May 27, 1993); and Decennial Census: Test Design Proposals Are Promising, but Fundamental Reform Is Still at Risk (GAO/T-GGD-94-12, Oct. 7, 1993).

In its draft report to Congress, the Bureau summarizes its planned efforts to improve the decennial census. The report lists and summarizes the status of what the Bureau refers to as 14 proposed fundamental changes from the 1990 Census. Today, we will focus on those proposed changes that we believe, based on our prior work and analysis, offer the greatest potential to contain costs and improve accuracy. These changes are: (1) the development of a more user-friendly, streamlined census questionnaire and the use of more frequent mail contacts; (2) the development of ways to sample nonrespondents; (3) the development of a "one-number census" that combines the results of the traditional head count supplemented by administrative records and statistical estimating procedures to produce a single, best possible set of numbers by the legal deadlines; and (4) the development of ways to rely more on the Postal Service to improve the Bureau's address list and geographic system.

Status of Efforts to Develop a User-Friendly and Streamlined Questionnaire

The Bureau currently plans to have user-friendly questionnaires distributed through a multiple contact implementation strategy for both the 1995 test and the 2000 Decennial Census--changes we have long supported. The Bureau has issued a contract to evaluate current and emerging technologies that could support these changes and to help determine the obstacles that must be overcome for multiple mail contacts to over 100 million households. We also are encouraged that the Bureau is streamlining the 1995 test questionnaire by reducing the content. The 1995 test census will have six questions on the short form--a reduction of five questions from the 1990 census short form. The Bureau also plans to ask 37 additional questions of a sample of the population (a reduction of 11 questions from the 1990 Census long form). For the sample questions on the long form the Bureau plans to use a matrix sampling design. Those chosen to be in the sample would receive different versions of the long form, each with a different set of questions, but no one household would be asked all 37 sample questions. We have noted in previous testimony that this matrix sample design presents difficult operational and processing problems.

The Bureau indicates in its report that its decisions on the content for the 1995 test do not represent final decisions on the content of the 2000 Census. No consensus yet exists on what questions to include in the 2000 Census. The Bureau, with the assistance of others in the executive branch, is continuing its review, begun in December of 1992, of federal agency needs for each question on the census questionnaire. The Bureau says in its report that determination of 2000 Census content will continue well past the 1995 test. The Secretary of Commerce is required to report to Congress on the contents of the 2000

Decennial Census in April 1997. We are concerned about this timing. In our transition report on the Department of Commerce, we said that an early Bureau recommendation on census content is required for political consensus and operational reasons.

Status of Efforts to Sample Nonrespondents

To reduce costs, the Bureau is considering sampling households that do not mail back questionnaires instead of attempting to contact each nonresponding household through a personal visit by a census enumerator. We have long favored testing this procedure as a possible way to reduce costly fieldwork and enhance total data quality. Sampling nonrespondents in the 1995 test will require careful operational planning. Sampling nonrespondents has to be integrated operationally with whatever estimation techniques are used in the Bureau's "one-number census" proposal. The Bureau currently plans to use a 30-percent sampling rate in its 1995 test. At that rate, the Bureau estimated it could have saved as much as \$457 million in the 1990 Census.

The Bureau also needs to prepare and present information as soon as possible comparing the possible error differential between sampling nonrespondents and the traditional methods used in 1990 for contacting all nonrespondents. Sampling error is introduced, particularly at the smaller geographic levels of blocks and census tracts, by sampling nonrespondents. But the sampling error may be offset by the elimination of other types of error caused by attempts to followup all nonrespondents in the 1990 Census. This tradeoff can be analyzed closely on the basis of 1990 Census data.² The results of this analysis need to be explained and clearly communicated. With this information the users of census data can compare the range of potential errors in the data from the two methods.

The Bureau is considering whether section 195 of Title 13 of the U.S. Code should be amended to permit sampling nonrespondents. We have not done a legal analysis of this issue, and we take no position on what section 195 requires or prohibits. We note that several federal district court decisions have found that statistical adjustments of the census counts can be completed

²See Planning the Decennial Census: Interim Report, Panel on Census Requirements in the Year 2000 and Beyond, Committee on National Statistics, Commission on Behavioral and Social Sciences and Education, National Research Council. (National Academy Press: Washington, D.C. 1993) pp. 17-18.

under existing law.³ However, sampling nonrespondents has not yet been addressed by the courts because this technique has never been used in a decennial census. As we said in our report on the recommendations of the National Performance Review, because of its critical nature to census planning and the need for operational testing, any possible legal issues concerning sampling should be resolved as expeditiously as possible.⁴

Status of Bureau Proposal for a "One-Number Census"

The Bureau faces significant challenges in developing its proposal to integrate estimation procedures into the census to improve coverage. The Bureau's "one-number census" would integrate a headcount and statistical estimation procedures to produce a single and best possible set of numbers by the legal deadlines. Those deadlines are December 31 of the census year for state population numbers for reapportionment purposes and April 1 of the following year for basic population data used for redistricting purposes. Last October, we testified that the possible design for integrated measurement was in a state of flux. Since that time, the Bureau has conceived of a new method for integrating estimation procedures into the census. The Bureau's proposal is a hybrid that combines some of the concepts of the previously considered methods. It resembles the basic approach of the post enumeration survey (PES) used in the 1990 census; this survey matched the results of a reinterview of a sample of the population to the original enumeration and statistically estimated the true population based on this information. We agreed last October with the recommendation of the National Academy of Sciences Panel to Evaluate Alternative Census Methods that the Bureau should continue research efforts to perfect the PES.

We support the Bureau's intent to test and evaluate the hybrid method in 1995 as a possible way to perfect the PES. To overcome the difficult problems of completing the PES in time to meet the statutory deadlines and to minimize data quality problems, the Bureau is proposing to change and accelerate the coverage estimation process with its hybrid proposal. The proposed changes, however, present another set of problems. For example, to expedite the sample survey upon which the coverage estimates are based, the survey will occur at the same time that some of the initial nonresponse interviewing is still under way. The

³Carey v. Klutznick, 508 F. Supp 404 (S.D.N.Y. 1980); Young v. Klutznick, 497 F. Supp. 1318 (E.D. Mich. 1980); City of New York v. U.S. Dept. of Commerce, 739 F. Supp. 761, 767 (E.D.N.Y. 1990)

⁴Management Reform: GAO's Comments on the National Performance Review's Recommendations (GAO/OCG-94-1, Dec. 3, 1993).

Bureau needs to evaluate whether this timing complicates Bureau field procedures and possibly contaminates the data.

The Bureau is considering using administrative records as part of the proposed "one-number census" methodology because they have the potential of identifying those persons who are not identified in either the initial interview or the sample survey. Using administrative records, however, poses a number of operational and statistical problems that must be addressed in the 1995 test. A key issue is the degree of evidence needed by the Bureau before it can conclude that a person found in an administrative record should be enumerated as living at a certain residence on Census Day. Bureau tests on using administrative records as part of special censuses in 1993 met with mixed results and appear to have limited value in solving the problems of using administrative records as part of a "one-number census."

Status of Cooperative Efforts With the U. S. Postal Service

The Bureau and the Postal Service have made some progress in their cooperative efforts to improve the decennial census. In our October 1993 testimony, we expressed concern that the Bureau's efforts with the Postal Service to improve the address list were lagging. We noted that without aggressive action the Bureau may lose opportunities to test initiatives in 1995. Since then, the Bureau and the Postal Service have been exploring ways to improve the coverage and reduce the cost of the census. I will discuss three areas of this cooperative effort: (1) address list development, (2) geographic work, and (3) the identification of vacant housing units.⁵ For those new procedures that prove successful in the 1995 test, the Bureau and the Postal Service must begin planning for implementing them on a nationwide scale. Due to the size of the decennial census and regular Postal Service operations, these joint efforts pose enormous logistical challenges.

Cooperative Address List Development Efforts

The first phase of a pilot study on sharing address information between the Postal Service and the Bureau has been completed. Despite some technical problems and the need for further analysis, the Bureau is encouraged that using the Postal Service's automated address system offers the potential to update its own address list. The Bureau and the Postal Service believe that statutory barriers prevent a full cooperative sharing of address information. They are developing proposed language for changing their respective authorizing statutes governing the

⁵Additional work is ongoing in other areas, such as delivery and return of census questionnaires and strategies for rural areas.

sharing of address information on a nationwide basis. We have not had sufficient time to evaluate the need for such legislative changes.

Cooperative Geographic Work

The Bureau must be able to locate precisely and map the new addresses provided by the Postal Service. Procedures to do this are in an early stage of development. The first step of the effort--incorporating the addresses into the Bureau's automated geographic database--has just begun, so the effectiveness of this procedure cannot yet be determined. The Bureau must update both its address list and its geographic database to support any census design.⁶ We are concerned that plans for such updates are not more developed. If the Bureau in cooperation with the Postal Service does not develop a systematic way to update the Bureau's automated geographic database, the Bureau will have to revert to relying on numerous local governments. Such a reliance would complicate the process.

Cooperative Efforts to Identify Vacant Housing Units

The Bureau has concluded that it may be able to use Postal Service letter carriers to identify vacant housing units, an idea which we have favored in past reports and testimony. In the 1990 Census, about 39 percent of the 34.3 million housing units that required personal visits were either vacant or nonexistent. In its 1995 test, the Bureau plans to eliminate one of the two follow-up visits to units thought to be vacant or nonexistent. The Bureau plans to use information supplied by letter carriers when they cannot deliver a census questionnaire because a housing unit is vacant or does not exist. The Bureau believes that this change would have saved as much as \$165 million in the 1990 Census. It also believes that the data obtained from the Postal Service should be more accurate. The Bureau and the Postal Service need to analyze how to synchronize this operation with the regular operations of the Postal Service, and they need to develop plans to evaluate this procedure in the 1995 test.

BUREAU IS CAUTIOUSLY OPTIMISTIC THAT IMPORTANT CENSUS ACTIVITIES SUFFICIENTLY FUNDED IN FISCAL YEAR 1994

The 1995 test will be crucial for the Bureau to achieve needed fundamental breakthroughs in the 2000 Decennial Census. Last October we noted that sufficient funds might not be available in fiscal year 1994 to plan and prepare for this test. Since that time, however, the Bureau has indicated it believes it can

⁶These updates are crucial elements of the Bureau's proposed continuous measurement concept.

augment fiscal year 1994 appropriations provided by Congress with additional recoveries of prior years' obligations, and it is cautiously optimistic that funds are sufficient to provide for all important census planning activities in fiscal year 1994. However, the availability of fiscal year 1995 funds for carrying out the large scale census test now being planned for four locations is not yet known.

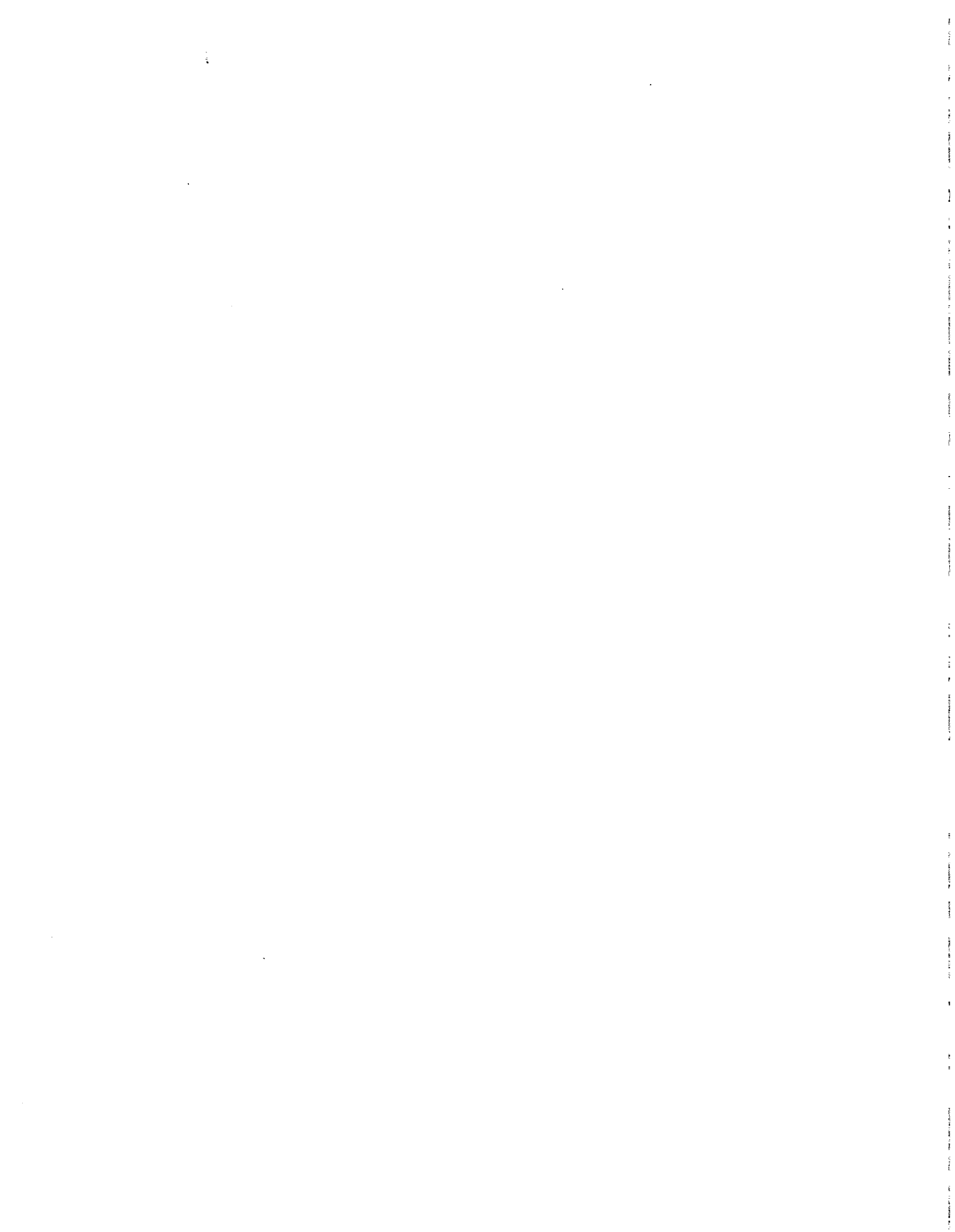
PROVIDING THE LEADERSHIP NEEDED FOR SUCCESS

Any changes to the decennial census--which is the cornerstone of the federal statistical system--will naturally reverberate throughout the federal government and the broader public and private statistical community. Continuing top level leadership particularly at the Census Bureau, the Department of 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.

For example, despite the capable efforts of the current Acting Director, as long as the Bureau Director position remains vacant, the Census Bureau will be without a fully vested and authoritative voice. The Bureau Director plays a central role both internally and externally in brokering agreements among stakeholders, fostering relationships of shared responsibility for the census with the Postal Service and other organizations, and leading discussions with Congress, the Department of Commerce, the Department of Justice, and OMB on any legislative initiatives related to the decennial census.

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This concludes my prepared statement, Mr. Chairman. My colleagues and I would be happy to answer any questions.

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