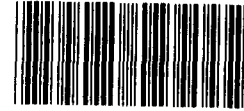


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Preparations For A Possible Census Adjustment

Statement of
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Before the
Subcommittee on Government Information and Regulation
Committee on Governmental Affairs
United States Senate

and the

Subcommittee on Census and Population
Committee on Post Office and Civil Service
House of Representatives



PREPARATIONS FOR A POSSIBLE CENSUS ADJUSTMENT

SUMMARY OF STATEMENT BY
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GAO's report being released today, 1990 Census Adjustment: Estimating Census Accuracy - A Complex Task (GAO/GGD-91-42, Mar. 1991), shows that the Census Bureau must overcome a series of major hurdles to complete a high quality Post Enumeration Survey (PES)--the primary methodology that is being used as a possible basis for adjusting the 1990 census. The complex and difficult PES must be completed and evaluated by the adjustment decision deadline of July 15, 1991.

The Bureau has generally kept PES operations and evaluations on schedule. However, the deadline for an adjustment decision required the Bureau to establish an extremely tight time schedule for the PES, and a number of critical activities that remain to be done before the deadline could compromise the schedule. For example, the schedule for the Bureau's 19 evaluations of the PES is especially tight. Careful and thorough evaluations are essential to measure the amount of error in the PES and the degree to which the Secretary of Commerce can have confidence in results of the PES when making an adjustment decision.

While the quality of the PES is to be measured through the evaluations currently underway, some initial data are available which provide a sense of the quality of the effort thus far and the progress that has been made since the 1980 census. According to the Bureau, as of March 15 between 3 and 4 percent of the persons in the 1990 PES were unresolved, that is, the Bureau was not able to get sufficient data to determine whether the persons were missed or correctly counted in the census. The 1990 percentage is a marked improvement over the 8.4 to 9.7 percent of such persons in 1980, when the percentage of unresolved persons was a major factor in Bureau officials' recommendation that the 1980 census not be adjusted.

The percentage of unresolved persons was relatively low from a national perspective; however, such cases were unevenly distributed across the nation. The Bureau and GAO are separately examining the implications of this uneven distribution for the adjustment decision.

Because of the longstanding controversy and sensitivity associated with census adjustment, GAO believes that the criteria and measurements that the Department will use in applying its guidelines for considering whether to adjust the census should be set forth as early and openly as possible before PES and related evaluation results are completed.

Chairman Kohl, Chairman Sawyer, and Members of the Subcommittees:

We are pleased to be here today to discuss the status of the 1990 Post Enumeration Survey (PES) and other adjustment-related matters. As you know, the PES is the primary methodology that the Department of Commerce is using as a possible basis for adjusting the 1990 census for over- and undercounts. It compares responses from a sample of households interviewed several months after Census Day with census questionnaires from the same housing units to determine if each person was correctly counted, missed, or double-counted in the census. Under a court-approved stipulation and order, the Secretary of Commerce has until July 15, 1991, to decide whether to adjust the census and to publish adjusted counts if a positive decision is made.

Our report being released today shows that the Bureau must overcome a series of major hurdles to complete a high-quality PES.¹ In particular, the complex and difficult PES must be successfully executed and rigorously evaluated in time for the adjustment decision. Today, I would like to build on that theme by discussing the degree to which the PES is on schedule and some of the initial indicators of the possible quality of the PES. I also will discuss the progress the Department has made in determining how to apply its guidelines for a possible

¹1990 Census Adjustment: Estimating Census Accuracy - A Complex Task (GAO/GGD-91-42, Mar. 1991).

adjustment. My comments are based on our ongoing work at the request of Congress to monitor 1990 adjustment related matters.

PES OPERATIONS GENERALLY REMAIN ON SCHEDULE

We note in our report that the deadline for an adjustment decision required the Bureau to establish an extremely tight time schedule for the PES. The Bureau has encountered some delays in the PES but has managed to keep the PES generally on schedule, according to the Bureau's weekly reports of the status of the PES.

Nevertheless, a number of critical activities remain before the adjustment decision deadline that could compromise the schedule. For example, senior Bureau officials have stressed, and we agree, that the schedule for the Bureau's evaluations of the PES is especially tight. Careful and thorough evaluations are essential to measure the amount of error in the PES and the degree to which the Secretary can have confidence in the results of the PES when making an adjustment decision.

As of March 18, the Bureau's evaluations appeared to be generally on schedule. However, the status of the Bureau's PES evaluations, like other PES activities, can change daily, as unexpected problems arise. For example, in mid-February, the Bureau redirected some programming staff working on 5 of the

Bureau's 19 PES evaluations to higher-priority PES work. As of the end of February, Bureau officials reported that programming resources had been returned to the delayed evaluations. The Bureau still expects to complete all evaluations in time for the adjustment decision by having staff work overtime.

As the adjustment decision deadline approaches, there is decreasing flexibility to address delays. The Bureau plans to complete most of the PES evaluation projects by May 15. This would allow about 2 weeks to complete the PES total error study by the scheduled end-date of June 1. As discussed in our report, we believe that the total error study is the single most important evaluation that the Bureau will do. It combines the results of various other evaluations to assess the overall effects of errors in the PES. Bureau officials said that if additional delays occur, they will, to the extent possible, continue to ensure that the evaluations that form the total error study are completed as planned and on schedule.

Completing the evaluations also is important to shed light on the degree to which the Bureau's actions taken to meet the tight PES operations schedule may have harmed the quality of PES data. For example, as we discuss in our report, because of PES time constraints, the Bureau decided that persons added to the census in late November and December 1990 could not be incorporated into the usual PES process. The Bureau is designing a new evaluation

project that will examine some of the effects of not including all late census persons within PES areas in the PES.

INITIAL INDICATIONS OF THE QUALITY OF THE PES

Bureau officials said that they are generally satisfied with the performance of PES field and processing operations completed to date. While the ultimate quality of those PES operations will be measured through the evaluations currently underway, some initial data are available that provide a sense of the quality of the effort thus far and the progress that has been made since 1980.

We discuss in our report being released today that matching PES and census records is the foundation upon which census over- and undercount estimates are based. Having the data needed to make a match determination is vital to the success of the PES. In instances where the Bureau does not have sufficient information to make a match determination, the individual is characterized as "unresolved" and a match determination is statistically assigned based on an examination of the results of similar cases where the Bureau was able to make a determination. Limiting the number of unresolved individuals is important because the need to statistically assign a match status introduces uncertainty and possible bias into the PES estimates of census over- and undercount rates.

According to a senior Bureau official, as of March 15, between 3 and 4 percent of individuals in the 1990 PES were classified as unresolved--a significant improvement over the 1980 experience. In 1980, the Bureau's post enumeration study to measure census coverage suffered from serious missing data problems. As a result, a match determination could not be made for 8.4 percent to 9.7 percent of the individuals in the study.

In large part, the high level of missing data and resulting high percentage of unresolved persons led Bureau officials to recommend that the 1980 census coverage estimates were not sufficiently accurate to adjust the census. The current Bureau Director testified in September 1990 that if missing data rates are as high in the 1990 PES as they were in 1980, the Bureau will have "severe technical reservations about the accuracy of the PES as an adjustment tool."² So far this does not appear to be the case.

The Bureau made significant changes in the 1990 PES design and operations to minimize the amount of missing data. To its credit, the Bureau also implemented a special, unplanned effort during actual PES operations to further reduce the amount of missing data.

²Progress of Census Operations Relating to Coverage Evaluation, testimony of Dr. Barbara Everitt Bryant before the Subcommittee on Census and Population, House Committee on Post Office and Civil Service, Sept. 11, 1991.

According to the Bureau's 1990 management reports of the results of initial PES field interviewing, the Bureau did not obtain an acceptable interview for approximately 2.9 percent of cases-- which represents about 4,200 of the approximately 144,000 occupied housing units in the PES sample. Such interviews are referred to as "nonresponse" cases. Nonresponse cases can result from a number of factors; for example, a household might refuse to respond and the Bureau might be unable to locate a knowledgeable surrogate, such as a neighbor. In district offices with a nonresponse rate greater than 2 percent of occupied housing units, the Bureau sent highly experienced interviewers back into the field to attempt to obtain interviews for these cases.

About 2,800 of the approximately 4,200 cases were converted from nonresponse to household or acceptable surrogate interviews. This effort improved the completeness of PES data available for initial matching efforts by increasing the overall percentage of interviews with household members to nearly 96 percent and lowering the nonresponse rate to about 0.8 percent. The remaining 3.2 percent of cases are those where the Bureau reports it completed an interview with what it considers to be an acceptable surrogate.

After initial matching efforts were completed, more information was needed for some cases to make a match decision. These cases were sent back to the field for a follow-up interview to gather the additional information. Similar to its initial interviews, the Bureau's reports show it was generally successful in limiting the number of nonresponse cases during follow-up efforts. The Bureau's information system shows that only 1.3 percent of the cases sent for follow-up resulted in a nonresponse. However, as expected because the cases were more difficult, the amount of surrogate data collected during follow-up was higher than during initial interviews, about 17.4 percent.

Achieving low levels of nonresponse during follow-up is important because only the persons for whom it is most difficult to make a match decision require follow-up. The Bureau has found that these persons are far more likely to have been missed in the census than persons for whom a match was easily made. As a result, the failure to get follow-up interviews could result in missing the very persons the Bureau wants most to include in the PES.

While the nationwide percentage of unresolved persons in the 1990 PES was relatively low compared to 1980, these cases are unevenly distributed across the nation. At this point, the PES performance in limiting the overall amount of missing data and unresolved persons in 1990 represents a significant improvement

over 1980. But the implications of an uneven distribution of missing data for a possible 1990 adjustment remain unclear. The Bureau will provide us with detailed data on the distribution of unresolved cases, which we will analyze as part of our continuing work on the PES. The Bureau also is reviewing missing data as part of its PES evaluation effort.

STANDARDS FOR ADJUSTMENT DECISION STILL BEING DEVELOPED

The introduction to the Department's guidelines for making an adjustment decision state that the basic decision confronting the Secretary is whether the counts are made more accurate by adjustment or whether an adjustment would introduce more error into the census count.³ The introduction also notes, however, that the Secretary must consider the implications of the adjustment decision on the public. The Department's guidelines are intended to help address these issues.

For example, one of the guidelines states that the decision whether or not to adjust the census shall take into account the "potential disruption of the process of the orderly transfer of

³The court order and stipulation required that the defendants issue guidelines stating what they believed to be relevant technical and nontechnical statistical and policy grounds for a decision on adjustment. After a period of public comment on a set of draft guidelines, the Department issued 8 final guidelines on March 15, 1990. The court ruled on June 7, 1990, that the final guidelines, while offering a bare minimum, were in compliance with the order and stipulation.

political representation" likely to result from whatever decision the Secretary makes. The Department notes that political disruption is an important consideration for whichever decision on adjustment the Secretary makes. The explanation of the guideline lists three potential examples of political disruption: (1) the effect that adjustment could have on state redistricting plans, (2) the effect that failure to adjust could have on the orderly and proper transfer of political representation to historically undercounted communities, and (3) politically disruptive challenges by localities to official census counts because of the Department's inability to ensure that the counts are accurate at the local level.

Other policy-oriented guidelines include considerations of the effects that adjusting or not adjusting the census may have on future census-taking efforts, the constitutionality and legality of adjustment, and the ability to articulate clearly the basis and implications of the decision. Unfortunately, the guidelines do not contain specific information on the standards and measures the Department plans to use. In many cases, specific measures will be difficult if not impossible to develop. For example, the Department's published guideline on political disruption notes that the concept cannot be easily quantified.

The Department has contracted with a consultant to identify how adjusting census counts would affect the broad distribution of

the resident population; for example, how geographic regions and areas would gain or lose enumerated population if the counts were adjusted. Such information could be used to draw inferences about how adjusting or not adjusting census counts would affect the distribution of government funds to state and local governments--an element of potential political disruption that the Department is reviewing.

The Department also is considering soliciting in the Federal Register formal comments on all the final guidelines, including those that are policy oriented, from any interested party. We urge the Department to decide soon if it will proceed with the request for comments so that it will have time to take action on any new insights or concerns.

Since the guidelines were issued in March 1990, the Department has not, nor does it currently plan to, publicly release before the adjustment decision additional explanation or clarification of how the guidelines will be applied. The Department believes that the application of the guidelines depends to some extent upon the expertise of those involved in the decisionmaking process. The Department therefore maintains, it is not possible to identify how the guidelines will be applied until all participants in the adjustment process have the opportunity to provide input to the Department.

The Department also believes that releasing even explicitly preliminary information on the potential application of the guidelines could give the improper impression that the Department had reached closure on the application of the guidelines. The Department is concerned that, as a result, some interested parties would be deterred from providing additional ideas and insights into how the guidelines could be applied.

We believe that such a scenario is highly unlikely. On the contrary, we believe that interested parties would be more likely to provide comment and input if the Department releases information on its work to date on the policy guidelines. The notice in the Federal Register that the Department is considering to invite public comment could provide an appropriate vehicle to begin such an open dialogue.

Because of the longstanding controversy and sensitivity associated with census adjustment, we believe that it is important that the adjustment decisionmaking process be perceived as objective and open to public scrutiny. We believe that the criteria and measurements that the Department will use in applying the guidelines should be set forth as early as possible before PES and related evaluation results are completed. However, if the Department intends to solicit broader public participation in the decisionmaking process, it must act quickly

because the deadline for the adjustment decision is less than 4 months away.

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In summary, the Bureau thus far appears to be making progress in executing the 1990 PES. The current momentum must be maintained to ensure that the remaining activities and evaluations--in particular the total error model--provide the timely and complete data the Secretary needs to make an adjustment decision.

This concludes my prepared statement. My colleagues and I would be pleased to respond to questions.

Copies of GAO reports cited in this statement are available upon request. The first five copies of any GAO report are free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

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