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Status of Plans for the 1990 Decennial  
Census: An Update

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



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STATUS OF PLANS FOR THE 1990 DECENNIAL CENSUS:  
AN UPDATE

SUMMARY OF STATEMENT BY  
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Given the inherent difficulty of taking a census, the Bureau has made some positive strides to improve its operations for the next decennial. However, GAO believes that three critical areas will require greater attention--controlling costs, recruiting and retaining quality employees, and improving census automation.

GAO believes that the Bureau's estimate of \$2.6 billion for taking the 1990 census is understated because it does not fully incorporate prospective cost increases. The Bureau historically has had difficulty controlling costs without compromising data quality. Cost estimates for the 1990 census are following the 1980 pattern, when they rose dramatically as the census year drew closer.

The Bureau's current approach to identifying cost reductions has not addressed the magnitude of possible funding shortfalls nor comprehensively identified program priorities. Not making early decisions on program priorities could force cutbacks in census operations more drastic than occurred in 1980. This could adversely affect data quality and compel the Bureau to request supplemental appropriations, as occurred in 1980.

Second, the Bureau must confront serious difficulties in attracting and retaining the over 400,000 temporary employees it will need in 1990. Inadequate pay has contributed to staffing problems in early census activities. To improve its competitiveness, the Bureau is considering geographic pay scales for 1990. GAO believes this effort is needed. The Bureau should expedite decisions on its pay structure for 1990 so that recruiting efforts are not hampered.

The Bureau also needs to review options to expand the labor pool for decennial employment. GAO continues to believe that serious consideration should be given to legislation that would enable federal retirees to accept census employment without reductions in their retirement benefits.

Finally, the Bureau needs to continue the progress it has made in automating the census. It has successfully automated a number of key operations, such as producing maps and checking questionnaires, to replace the error-prone manual procedures used in 1980. However, some automated reports in early census operations were not always available or accurate. These problems need the Bureau's continued attention if it is to have the timely and accurate information needed to manage the census.

Mr. Chairman and Members of the Subcommittee:

I am pleased to appear today to discuss our observations on the status of the decennial census. My comments are based on the results of our reviews of the Census Bureau's fiscal year 1990 budget request, which at \$1.3 billion represents about one half of the estimated \$2.6 billion full-cycle census costs; the 1988 dress rehearsal, which was the Bureau's final opportunity to test procedures and operations under census-like conditions; and the prelist operations, in which the Bureau is developing the 1990 address list for suburban and rural areas.

The Bureau has made some positive strides to improve its operations for the 1990 census. For example, census data will be processed earlier, which will allow more time for quality checks. The Bureau also has automated some error-prone manual operations, such as the preparation of maps, to overcome significant problems experienced in the 1980 census.

Three key areas, however, will continue to challenge the Bureau throughout the census. These entail

- containing escalating census costs without significantly compromising data quality;
- attracting and retaining the over 400,000 temporary employees needed; and

-- making further improvements in the automation of census operations.

### CONTROLLING CENSUS COSTS

Controlling decennial costs without compromising the quality of the data has been a longstanding dilemma for the Bureau. For the 1980 census, cost estimates rose significantly during the 5 years preceding actual operations. In 1975 the Bureau originally estimated the 1980 census would cost \$450 million. The estimate rose to \$565 million in 1977, and in 1980 it jumped to \$1 billion. The 1980 census eventually cost about \$1.1 billion. Because the Bureau had underestimated costs for 1980, it ran out of funds during the census, disrupting operations and requiring \$50 million in supplemental appropriations.

The funding shortfall in 1980 also prompted actions that reduced data quality and slowed dissemination of some publications. For example, the Bureau reduced the number of staff who coded the data from census questionnaires, contributing to a delay of about 1 year in the publication of some data on population characteristics. In addition, one half of the data for some population characteristics was not coded at all, diminishing the usefulness of certain census publications.

Similar to 1980, cost estimates for the 1990 decennial have escalated in recent years. The Bureau's initial objective was to keep the 1990 per housing unit cost no higher than the 1980 level, after adjusting for inflation. Using this objective, the Bureau estimated in 1985 that the 1990 census would cost \$1.8 billion. In 1986, however, the estimate was raised to \$2.6 billion--a 44-percent increase. On the basis of continued inflation and more current cost estimates, we believe that the 1990 census, as planned, will cost about \$3 billion.

To keep the cost within its \$2.6 billion estimate, the Bureau has begun to make reductions. So far Bureau officials have identified savings totaling more than \$40 million. These include:

- scaling back pay increments and eliminating proposed geographic pay scales for processing office personnel, accounting for \$23 million, because to date the Bureau has not experienced problems in attracting and retaining staff for these offices;
- scaling back staff and travel funds for decennial promotion activities, amounting to \$1.1 million; and
- decreasing data editing of population characteristics in the Nation's most rural areas, totaling \$5 million.

The Bureau also has targeted other program reductions but, as of yet, has not calculated the exact savings to be accrued. For example, the Bureau decreased the number of first-line supervisors, increasing the ratio of enumerators to their supervisors from 8:1 to 9:1 or 10:1, depending on the type of office. Reducing the level of supervision could have an impact on production and data quality.

In addition, the Bureau has decided not to update its new automated geographic files for 1990 to incorporate changes, such as new streets noted in its field canvassing activities. Although these changes will not affect the completeness of the population counts, the maps used by localities to check the accuracy and completeness of preliminary census counts might not show recently built streets. This may create a perception among local officials that census counts are inaccurate. In addition, the published census maps will not contain the most current geographic information.

As the Bureau moves to contain costs, it simultaneously faces additional financial pressures, such as the need to raise its 1990 pay scale for district offices. As I will discuss later, the Bureau recognizes that in many areas, its pay rates are not competitive. To improve its competitive position, the Bureau is considering adopting geographic wage rates based upon its

analysis of local labor markets and an identification of competitive pay rates for each of its over 450 district offices. While the Bureau has included a \$21 million line item for pay increases in its fiscal year 1990 budget request, we believe this may not be sufficient to attract needed employees. Even if the \$21 million increase is approved, as many as 69 percent of the Bureau's district offices would still be left with pay rates below the competitive levels established by the Bureau's geographic pay analysis.

We believe that the Bureau's \$2.6 billion cost estimate is not complete or realistic. The Bureau has not fully incorporated prospective cost increases, such as geographic pay rates and inflation. Moreover, its current approach to identifying cost reductions, while helpful, has not directly confronted the magnitude of possible funding shortfalls. We believe that if the census is done as planned, the shortfall could be about \$400 million.

The Bureau needs to make a complete cost estimate and determine program priorities while time affords some flexibility. The Bureau needs such a list of program priorities to aid in making the difficult funding decisions that it confronts. The failure to make funding decisions now could force cutbacks in census operations more drastic than occurred in 1980 and compel the Bureau to request supplemental funding.

## BUREAU NEEDS TO ADDRESS STAFFING DIFFICULTIES

Problems in attracting and retaining a quality workforce historically have plagued decennial census operations. During peak operations in 1980, for example, the Bureau was unable to fill 30 percent of its enumerator positions and suffered from turnover rates as high as 74 percent. Staff shortages and high turnover can lead to additional recruitment and training costs, as well as contribute to delays in completing activities.

The Bureau faces equally severe challenges in 1990. To help ensure sufficient staff, the Bureau anticipates that it will need to recruit at least 1.6 million applicants for district offices in 1990, or about 45 percent more than the Bureau needed in 1980. This increase is due to several factors, including an estimated increase in the number of housing units, an expected mail response rate lower than in 1980, and anticipated high job refusal and turnover rates.

### Implementing Competitive Pay Rates

The most fundamental staffing challenge confronting the Bureau is ensuring that its pay rates are competitive. Problems in staffing early field activities for 1990 demonstrated how inadequate pay could hamper recruitment and retention. For example, the Bureau reported that over 29 percent of the prelist

areas had difficulties in meeting recruiting and staffing goals. In addition, according to a Bureau official, the turnover rate was over 60 percent, or more than twice what the Bureau had expected. While all of the staffing difficulties cannot be attributed to pay, inadequate compensation appeared to have played a major role in some areas, according to reports from the Bureau's regional recruiters.

To meet prelist staffing needs, the Bureau raised its enumerator pay in six east coast areas from \$5.50 to \$8.00 per hour--a 45-percent increase. The Bureau has not yet evaluated the effect of the pay increase on census costs or productivity, but the Bureau believes that the higher pay rate increased the number of applicants. For example, in Northern Virginia, 200 persons had been recruited before the pay increase. However, in the 2-week period after the pay increase was implemented, 500 applicants were recruited.

The Bureau has initiated two major efforts to improve the competitiveness of its pay rates for 1990. First, as noted earlier, the Bureau is requesting \$21 million for pay increases in district offices. According to Bureau officials, under the Bureau's fiscal year 1990 budget request, all district offices would receive a 2 percent pay increase. In addition, 60 of the district offices that are the most difficult to staff would receive additional increases of either 10 or 20 percent. As a

result, for most offices, enumerator pay would increase to about \$5.60 per hour, while in the 60 most difficult offices it would be either \$6.72 or \$7.32 per hour.

Second, the Bureau is reviewing the implications of a full-scale geographic wage system with six different rates. As currently envisioned, the proposal would pay enumerators between \$5.50 and \$7.50 per hour depending on where they work. An \$8.00 per hour rate would be reserved for district offices that suffer from extreme staffing shortages.

We have previously encouraged the Bureau to consider a geographic pay system that is more sensitive to local market conditions.<sup>1</sup> The Bureau has to date not reached a final decision on the design of its 1990 pay system. It needs to decide soon so that it has the time and flexibility to address the cost implications of its approach. Moreover, continuing indecision about pay could interfere with the schedule for hiring activities for 1990, such as developing, printing, and distributing recruitment materials. In addition, because of problems it has had in the past, the Bureau needs to test changes to its pay system to ensure that it can effectively administer a geographic wage system on a nationwide basis.

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<sup>1</sup>Status of the 1990 Decennial Census, (GAO/T-GGD-88-53, Sept. 27, 1988).

## Increasing the Number of Job Applicants

Better pay alone will not solve all of the Bureau's staffing problems. The Bureau now faces a diminished labor pool compared to the one available in prior decennials. Moreover, the nature of decennial work is unattractive to many potential employees. Census employment is temporary, in most cases lasting several weeks; most positions do not earn benefits; and access to an automobile is required for many field positions.

The Bureau needs to aggressively pursue ways to increase the availability of its labor supply. Federal retirees are an important potential source of census employees that has not been used. Our September testimony suggested that the Bureau consider proposing legislation that might encourage retirees to accept temporary employment for the decennial without reductions to their federal retirement benefits. We continue to believe that this option should be thoroughly explored.

The Bureau also could improve its staffing capability by undertaking more intensive and comprehensive efforts to evaluate the causes of its recruitment and retention difficulties. The Bureau does not systematically collect and analyze data to determine the specific causes of its staffing problems. For example, the Bureau does not attempt to determine exactly why its temporary employees quit. Collecting this information might

enable the Bureau to better design strategies to attract and retain needed staff. Additionally, by reducing turnover, the Bureau saves funds that would have been spent on additional recruitment and training.

#### DRESS REHEARSAL AUTOMATION EFFORTS

##### SHOW MIXED RESULTS

Greater use of automation is one of the Bureau's major improvements for 1990. In 1980, the Bureau relied extensively on manual operations that were both slow and error-prone. Increased use of automated data processing (ADP) can help improve data quality by reducing errors and should enable the Bureau to better monitor and control costs and productivity information. Enhanced use of ADP offers the Bureau both opportunities and significant management challenges. This was illustrated by the mixed results of the 1988 dress rehearsal.

The dress rehearsal demonstrated that the Bureau has made a number of positive strides in automating key operations. For example, the Bureau successfully automated procedures to record the receipt of census questionnaires, produce maps, and edit some questionnaires for completeness. The Bureau also was successful in capturing data on automated files as questionnaires were being received, which was not the case in 1980. For 1990, this will allow more time for data review, which may ultimately

improve data quality and accelerate data dissemination.

However, the Bureau was not as successful in implementing other critical ADP efforts in the dress rehearsal. As we have reported, the Bureau experienced delays in procuring minicomputers that were to be used to complete a variety of data gathering and control activities, including keying addresses and producing management information reports.<sup>2</sup> These delays occurred because of late decisionmaking and bid protests. As a result, the value of the dress rehearsal was diminished because the Bureau was unable to fully test critical software under census-like conditions.

In some cases, management information systems did not work as expected. For example, reports from systems that were designed to assist field managers in hiring employees and monitoring census costs and progress were not always available, accurate, or useful. These problems continued in the early part of prelist.

Thus far, the Bureau has been able to complete initial 1990 census activities despite problems with some of its management information reports. In these cases, the Bureau relied on manual operations and special assistance from headquarters ADP staff. However, such solutions may not be feasible during the actual

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<sup>2</sup>DECENNIAL CENSUS: Minicomputer Procurement Delays and Bid Protests: Effects on the 1990 Census (GAO/GGD-88-70, June 1988).

decennial because the census is a much larger effort than either the dress rehearsal or prelist.

We recommended in our 1988 minicomputer report that the Bureau develop an operations contingency plan in the event that some of its automated systems do not function as intended in 1990. The Commerce Department agreed with our recommendation and reports that it is making progress in developing the plan. It expects to have the plan completed by the end of April.

The Bureau has taken a number of other actions to address problems with its ADP efforts. For example, the Bureau established a systematic process for resolving regional census problems with automated management reports. The Bureau also has streamlined the automated applicant file to eliminate a number of reports that either were not useful or had proven difficult to develop in a useful format.

In closing, Mr. Chairman, considering the inherent difficulties in taking a census, we feel the Bureau is making progress in a number of key areas. However, as I have noted, the Bureau must address some critical issues in the immediate future in order for the Nation to have a cost-effective and well-managed census. We will continue to monitor the Bureau's progress throughout the decennial census and will keep the Subcommittee informed.

Mr. Chairman, this concludes my statement. I would be pleased to respond to questions.

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