

U.S. DEPARTMENT OF COMMERCE
Office of Inspector General



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BUREAU OF THE CENSUS

*2000 Decennial Census:
Expanded Targeted Questionnaire Program
May Be Unnecessary and Counterproductive*

Audit Report No. ESD-9610-7-0001 / September 1997

Office of Audits, Economics and Statistics Audits Division





September 30, 1997

MEMORANDUM FOR: Dr. Martha Farnsworth Riche
Director
Bureau of the Census
Frank DeGeorge

FROM: Frank DeGeorge

SUBJECT: Final Report: 2000 Decennial Census:
Expanded Targeted Questionnaire Program
May Be Unnecessary and Counterproductive
(ESD-9610-7-0001)

This is our final report on the bureau's decennial targeted questionnaire program. The bureau has generally concurred with our observations and recommendations. It has also provided additional comments, which were considered and, where appropriate, were reflected in the final report. The Bureau's comments are attached as appendix I. Our annotated response to the Bureau's comments is attached as appendix II. Because the recommendations have not yet been fully implemented, the bureau must follow normal procedures in submitting an audit action plan within 60 days. We thank Census Bureau staff for the assistance and courtesies extended to us during our review. If you have any questions, please contact me at 202-482-4661 or Mort Schwartz, Director, Economics and Statistics Audits Division, at 202-482-8248.

SUMMARY OF OBSERVATIONS

The 2000 decennial census program to improve coverage of the hard-to-enumerate by targeting questionnaires in multiple languages may not be necessary and may compromise the bureau's ability to achieve its stated goals of increasing accuracy and containing costs. The program may be unnecessary because the bureau has made sampling an integral part of its 2000 design to compensate for ineffective coverage improvement programs used in past censuses. Further, the 1995 Census Test results indicated that targeted questionnaire program components (targeted mailings of questionnaires in English and Spanish and targeting areas with blank census forms in multiple languages) did not increase response rates for the intended populations.

Although specific program details are not yet in place, if, as is likely, the program grows significantly, it would result in a substantial increase in workload, and could hinder completing nonresponse follow-up on schedule. According to decennial managers, the limited time to complete nonresponse follow-up is the single biggest risk in the census. The nonresponse follow-up must be completed before certain key operations of the Integrated Coverage Measurement (ICM)--the large independent survey intended to locate and correct for those not counted in the census--can proceed. Delaying these operations could compromise delivery of the apportionment counts to the President by the legal deadline.

While acknowledging these limitations, bureau managers have identified the goal of promoting partnerships as necessary for expanding the number of languages included, suggesting that measures of cost effectiveness are less important. Given the bureau managers' intensive efforts to communicate and implement partnerships, community leaders are likely to expect to play a significant role in determining the program's ultimate scope and nature. In light of past experience, local officials will probably advocate an expansive program. Unless cost-effectiveness is a fundamental criterion, program cost growth is likely.

We recommend that the bureau define a comprehensive targeted questionnaire program, keeping in mind the interdependent effects on cost, schedule, performance, and public perception. Furthermore, the bureau should discuss the program details and justification with local partners as soon as possible.

INTRODUCTION

The Census Bureau, in consultation with expert advisory panels, "reengineered" census-taking methods to meet the challenges of accurately and cost-effectively counting an increasingly hard-to-count population in 2000. An accurate census is crucial because the Constitution requires that it be used to apportion the Congress. Additionally, census data are used for a host of other important activities, including federal and state redistricting, the implementation and enforcement of the Voting Rights Act, and the distribution of billions of dollars of federal and state funds each year. Because of its centrality to decisions that last 10 years, the bureau must address concerns about the content and method of conducting the census raised by federal, state, and local governments and a myriad of advocacy groups whose constituents are affected by census results.

The 1990 census was long, expensive, and labor-intensive, a situation exacerbated by a lower-than-expected public response. Because of the low response, the bureau required additional appropriations from the Congress during the census to complete the count. Despite the census' higher cost, post-analysis concluded that its accuracy decreased. Particularly alarming to the Congress and other stakeholders was the increase in the differential undercount over past censuses; that is, of people missed in the census, a disproportionate number were minorities, who were often poor, urban, and facing language barriers.

The Congress convened a panel of experts from the National Academy of Sciences to address these problems. In 1994, the panel concluded that to contain cost and increase accuracy, the bureau should use statistical sampling and estimation as an integral part of the 2000 census design. In addition, the panel concluded that the bureau should rethink and reengineer the entire census process and operations. The National Academy stated that the highly labor-intensive enumeration techniques for follow-up and coverage improvement added in recent decades to increase census participation did not increase accuracy. For example, late in the 1980 and 1990 censuses, the bureau initiated a "Were You Counted?" program that attempted to find nonrespondents who were likely to be undercounted. The program introduced many errors into the census count.

The National Academy concluded that traditional counting methods alone are not sufficient, and in some cases only marginally effective. Bureau officials agreed and decided to incorporate statistical sampling and estimation into the design to accomplish two things: (1) reduce the nonresponse workload (to contain cost and save time) by enumerating only a sample of nonrespondents and estimating the rest, and (2) increase accuracy (improve coverage of the hard-to-count) by conducting a large independent survey, the ICM survey, as a quality check of the census.

A major challenge in 2000 is completing census operations in time to conduct the ICM survey and process its results by the December 31 deadline. To help address this challenge, the bureau adopted a strategy to make it easier for people to be counted. This strategy will be implemented using several new methods, including multiple mailings of questionnaires and notices about the census, targeted mailing packages to households that include questionnaires in both English and a second language (e.g., Spanish), questionnaire assistance and response by telephone in multiple languages and at Questionnaire Assistance Centers, and making blank questionnaires widely available in up to 32 languages in addition to English.

If these new methods increase response rates, they will reduce the number of nonresponding households, thereby reducing the number of expensive field visits required during sampling. The sampling of nonrespondents will require visits to approximately 22 million households, assuming a mail response rate of 66.9 percent, and must be completed in about six weeks. The new methods were included in the 1995 Census Test, an operational test of over a dozen potential new census components in three sites, and will be used in the Census 2000 Dress Rehearsal, a dry run of the census in three new sites next year.

Another strategy for Census 2000 is to build partnerships at every stage of the process with state, local, and tribal governments; community-based and other organizations; and the private sector. The bureau believes that such partnerships are valuable because local officials and community leaders understand and know their communities, and can therefore help to tailor plans for conducting the census. Local and tribal governments will have the opportunity to review, confirm, and augment the list of neighborhoods identified for targeting methods, including mailings of a second language questionnaire to accompany the English ones, and for distributing blank questionnaires, called Be Counted forms, in multiple languages. Additionally, community-based organizations and local governments will help the bureau to identify strategic and high-visibility locations to serve as Be Counted questionnaire distribution sites.

To help determine which areas need which targeted methods, the bureau intends to develop a planning database containing 1990 census data and selection criteria for identifying appropriate targeted methods. For example, a prototype of the database was used in the 1995 Census Test to select linguistically isolated areas, defined as areas in which residents do not speak English well, to receive targeted mailing packages that included both Spanish and English questionnaires.

PURPOSE AND SCOPE OF AUDIT

The initial objective of our review was to evaluate the status of the decennial questionnaire design and to identify any deficiencies affecting other interdependent components, such as questionnaire production schedules and data capture. During our field work, we found that some of the concerns about questionnaire design readiness that prompted our review had been reduced as the design for the dress rehearsal evolved. However, we also found that the targeted program for mailing joint English and Spanish questionnaire packages had been expanded to include additional languages and that the Be Counted program, originally scheduled to be completed before the nonresponse follow-up process begins, had been extended through the end of that process. Moreover, we discovered that both programs were still in the conceptual stage.

Consequently, we focused on targeted mailings and the Be Counted program, which for simplicity we will refer to jointly as the “targeted questionnaire program,” and the effects of program expansion on the census design’s cost, schedule, performance, and public perception. To accomplish this objective, we reviewed test plans and evaluations, related contracting documents, advisory panel documentation, decision memoranda, congressional correspondence, and other internal and external documents concerning the targeted questionnaire program.

We also analyzed relevant information on current and planned decennial activities and the relationships among them residing in the Decennial Master Activity Schedule, the primary project management tool for the 2000 census, and the decennial cost model. Specifically, in reviewing the schedule, we examined targeted questionnaire-related activities and the adequacy of the linkages among them. We discussed the results with cognizant officials, including the bureau’s Deputy Director and its Associate Director for Decennial Census. For the cost model, we reviewed the assumptions and the currently attributed cost components for the targeted questionnaire program and compared this information to recent programmatic changes. For this limited review, we did not examine the bureau’s internal controls, nor did we rely on computer-generated data.

All interviews were conducted at the Census Bureau’s offices in Suitland, Maryland. We conducted our field work from June through August 1997. The audit was conducted in accordance with generally accepted government auditing standards and performed under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, as amended.¹

TARGETED QUESTIONNAIRE PROGRAM MAY NOT BE NECESSARY

The 2000 census plan is designed to meet the competing goals of increasing accuracy and containing costs by replacing unsystematic, error-prone, 1990-style coverage improvement programs with carefully planned and executed statistical methods. This premise is consistent with both the National Academy of Sciences’ conclusions and the bureau’s 1995 Census Test results. Specifically, the bureau plans to increase census accuracy by reducing the differential

¹The OIG notes that audit team members accepted positions with the Census Bureau following completion of the audit field work and this report; however, the OIG has determined that the audit was conducted and reported with full independence and impartiality.

undercount through the ICM survey, the independent quality control check to be conducted at the end of the enumeration. The bureau will contain cost by sampling nonrespondents instead of conducting a 100 percent follow-up, which would require implementing expensive, hard-to-control, and error-prone coverage improvement programs.

The 1995 Test included a targeted Spanish questionnaire mailing and Be Counted questionnaires in English, Spanish, Tagalog (a language spoken in the Philippines), Chinese, and Vietnamese, to support the objective of increasing response rates, and decreasing the differential undercount. In the targeted mailing test, questionnaires in English and in Spanish were mailed to areas that the 1990 census indicated had high (more than 30 percent) and moderately high (between 15 and 30 percent) levels of Spanish linguistic isolation. Response rates in the targeted areas were lower than expected, suggesting that mailing forms in Spanish did not increase response rates.

However, because of limitations in the test design, the bureau could not determine definitively whether the use of Spanish questionnaires raised response rates over what they would have been if only an English questionnaire had been used. However, the test did enable the bureau to conclude that the percentage of targeted households returning questionnaires in Spanish did not vary by the level of the neighborhood's linguistic isolation. Bureau analysts and the National Academy of Sciences concluded that either linguistic isolation is not a good predictor of the usefulness of the Spanish-language questionnaire or the 1990 data were out of date by 1995, which suggests that they will be even less useful in 2000.

Despite the Be Counted program's emphasis on increasing the participation of people who do not speak English well, the 1995 Census Test results indicate that the program did not achieve that goal. The bureau placed Be Counted forms at 646 sites, of which almost half were targeted at linguistic minorities. The overall response to the campaign was low. The bureau processed 4,596 completed Be Counted forms, representing 0.7 percent of the total population. However, of these, only 1,698 included people clearly not already counted. Additionally, over 42 percent of those forms were completed or received via the bureau's telephone assistance line, meaning that the 646 sites yielded only a little more than 1,000 returned forms. Further, only one-fifth of the completed Be Counted forms in the 1995 Census Test sites were printed in languages other than English. Finally, all 215 of the Asian language Be Counted forms returned to the bureau were completed in English. Analysis of the language in which Spanish forms were completed is not available. The National Academy concluded that the Be Counted program did not achieve the goal of improving coverage of groups traditionally undercounted in the census and that it should therefore be reduced.

Of the 1,698 Be Counted forms added, 176 were from housing units that did not receive a questionnaire in the mail because their addresses were not in the Master Address File (MAF). However, because these people did not receive a mailed questionnaire, and overall participation was low, their addition did not result in the significant duplication problem that would have occurred if people in already counted housing units had responded in large numbers. Bureau analysts attributed this success to the campaign's short duration and close proximity (within

three weeks) to Census Day. They concluded that limiting the availability of the Be Counted forms to one month after Census Day and to a relatively small number of distribution sites may minimize multiple responses for Census 2000.

Despite the National Academy's recommendations that coverage improvement programs be reduced, the bureau's justification of sampling as an alternative to them, and its own test results, bureau managers have decided not only to continue, but to expand, the targeted questionnaire program. In addition to Spanish and English, forms will be mailed in selected Asian and other languages; Be Counted will include up to 32 languages at an undetermined number of sites; and it will continue during nonresponse follow-up.

Although bureau managers recognize the limitations discussed above, they justify the continuation and expansion of the program in terms of the new, less quantifiable goal of promoting local partnerships, indicating that cost effectiveness was not a primary consideration. Specifically, the Associate Director for Decennial Census stated that the targeted mailings were expanded to address concerns expressed by one of the advisory committees. When asked about the policy to extend the Be Counted program, he stated that the intent was only to *accept* Be Counted forms until the end of nonresponse follow-up, but not to *extend* the program, for example, by continuing to promote it and make forms available. However, he also acknowledged that such an approach may make it very difficult to end the program because of the perception that there is still an opportunity to be counted. Unfortunately, even if cost is not a major consideration, the performance pitfalls of full program implementation may outweigh projected gains in public approval.

FULL IMPLEMENTATION OF THE TARGETED QUESTIONNAIRE PROGRAM COULD BECOME COUNTERPRODUCTIVE

Many details of the 2000 targeted questionnaire program, including its size, are not yet defined. However, a more expansive scenario appears consistent with bureau and stakeholder expectations. We define "full program implementation" as mailing questionnaires in one of five or more non-English languages and placing Be Counted forms in one or more of up to 32 languages at hundreds of thousands of locations for the duration of census-taking operations. Given the low 1995 Census Test response rates, targeting mailed questionnaires in several languages and placing Be Counted forms in multiple languages at public sites during census taking may appear to be either a positive or neutral way to improve the response rate of the hard-to-count population. However, implementation of this plan could jeopardize both data quality and an already tenuous strategy for completing basic census-taking operations in time to conduct the ICM survey, without which the undercount will not be corrected.

Using the "long form" questionnaire, the Census Bureau plans to collect more detailed data from a one-in-six sample of the population. The additional information from the long form is needed for a myriad of uses. The poor quality of long form data from hard-to-count areas and small population subgroups has been a longstanding concern of the bureau's advisory committees. In fact, the bureau initiated the targeted mailings in Asian and possibly other languages in order to address this concern. However, the Be Counted form's wide availability--in any language--may

provide an unintended incentive to substitute this form, which contains only “short form” information and takes a fraction of the time to complete, for a long form received at one’s home. The bureau’s plans for 2000 do not include any follow-up of households that complete a Be Counted form in lieu of a long form. Depending on the extent of substitution occurring in subpopulation groups, data quality could further decline. How this approach will affect data quality is unknown; however, extending the Be Counted program could jeopardize the bureau’s attempt to complete the census in time for the ICM survey.

According to the Decennial Master Activity Schedule and bureau managers responsible for field operations, all activities intended to reduce the nonresponse field visit workload--multiple questionnaire mailings, questionnaire assistance and response by telephone and at Questionnaire Assistance Centers, and the availability of Be Counted forms--should be completed and all respondent information should be processed before nonresponse follow-up begins. Completion of such steps is needed to ensure that nonrespondents are properly identified and a sample selected for follow-up. The implication is that responses received after the nonresponse sample is drawn have arrived too late to prevent a personal follow-up visit. A similar requirement is in place for the conclusion of the nonresponse follow-up phase, where the file containing all processed census responses for a given area is completed, allowing the ICM survey to begin.

The strict cut-off of questionnaire processing before the ICM survey begins is designed to ensure both the statistical validity of the ICM survey interview process and sufficient time to process and match the results of the two operations. The targeted language mailings strain the schedule because additional time is needed to manually transcribe questionnaires in languages other than English and Spanish before they can be electronically processed. The translation process may be carried out in locations away from the processing centers, creating logistical difficulties that the bureau has not yet addressed. Therefore, the amount of additional time required to fully process targeted questionnaires is not yet accounted for in the Master Activity Schedule. An expanded Be Counted program potentially would have even more severe consequences.

First, multiple response modes generally complicate and increase field operations, data processing, matching and unduplication of forms, and sample selection for nonresponse follow-up. The steps required in the 1995 Census Test to accommodate the use of Be Counted forms, in addition to the traditional mailing, provide an illustrative example. When Be Counted forms were returned, they first were processed and checked for duplication. This process of checking for duplicates required the bureau to assign to each form a unique geographical identification number designating a specific spatial location. If the Be Counted form represented people in a housing unit not on the MAF, the address was verified by a field visit, enumeration was completed if necessary, the address was added to the MAF, and the housing unit was treated as a responding address.

The Be Counted forms were designed to accommodate both individuals and whole households who believed that they were missed, and to be able to distinguish between the two circumstances. When the only response from an existing unit was a Be Counted form that indicates a response for the entire household, it was treated like a questionnaire received in the mail. However, if the only response from a household was a Be Counted form representing less

than the full household, that housing unit became part of the nonresponse universe. If this unit was selected as part of the nonresponse follow-up sample, it was counted during nonresponse follow-up. If the unit was not in the sample, it was treated like any other nonresponding unit not in the sample, i.e., its persons and characteristics were estimated based on the units that were in the sample; thus, partial household information was not used in the 1995 Census Test. In the dress rehearsal and the 2000 census, the bureau will have to implement the additional step of translating the Be Counted forms completed in languages other than English or Spanish, as with the targeted mailed questionnaires. Despite the complexities inherent with the introduction of the Be Counted program, their impact on operations would be limited by the program's completion before nonresponse follow-up.

Second, extending the Be Counted program beyond nonresponse follow-up means that the complexities and increased workload discussed above will be exacerbated. As mentioned earlier, decennial managers believe that the limited period available to complete nonresponse follow-up in time to conduct the ICM survey is the single biggest risk in the census. Bureau officials have stated that any significant deviation from the expected workload could compromise delivery of the apportionment counts to the President by the legal deadline-- December 31, 2000.

The extended duration of the Be Counted program is likely to increase the expected workload, especially if local efforts to increase the count result in unexpectedly large influxes of Be Counted forms in as many as 32 languages. The bureau's sampling plan consists of estimating 10 percent of the population (over 12 million housing units) based on the responses of the first 90 percent. Due to the assumptions underlying sampling, once the sample of nonrespondents is selected, those not in the sample cannot later be included, or the results could be biased. Local officials, who would not likely have access to the bureau's sampling lists, may encourage some percentage of those people living in the more than 12 million housing units to complete a Be Counted form.

In response to congressional concerns about forms returned late that are not part of the sample for nonresponse follow-up, bureau managers have stated that they would be used in the census. Therefore, unlike in the 1995 Census Test, Be Counted forms received during nonresponse follow-up will have to be used in a yet-to-be-defined way. It is not obvious how that information could be added to the census directly without violating fundamental sampling assumptions, biasing the results. The bureau may wish to use the information to help estimate the nonresponding, nonsampled housing units. To date, a final decision on how the data will be used has not been made.

EMPHASIS ON TARGETED QUESTIONNAIRE PARTNERSHIP AND LACK OF DETAILS CAST UNCERTAINTY ON PROGRAM COST

While program details for 2000 are still pending, bureau managers have put significant effort into promoting the targeted questionnaire partnership concept. These efforts include conferences with governmental and non-governmental entities, the establishment of a regional staff and local

infrastructure to support efforts, and a nationwide campaign by top bureau officials to promote partnerships. In the past, local officials have strongly advocated for using any means available for increasing their population counts. The current emphasis on partnerships and empowerment could result in even greater advocacy by local officials of an expanded program. When asked about the cost effectiveness of either the targeted language mailing or the Be Counted program in multiple languages, the Associate Director for Decennial Census stated that moving toward the goal of promoting partnerships, not improving the response and cost, was the deciding factor. He further stated that preliminary estimates of the cost of expanding languages should only modestly increase the total program cost currently reflected in the decennial cost model.

However, the decennial cost model estimate is based on an incomplete set of program components, yielding a cost figure that may not be consistent with either program expansion or partners' expectations. For example, the cost model assumes a single drop-off of 50 Be Counted forms at each of 280,000 sites (an average of 7 sites per local jurisdiction) and a single pick-up of the unused forms. Such a scenario is inconsistent with plans for the dress rehearsal, in which the bureau will make re-stocking visits, as needed, to all libraries, post offices, departments of motor vehicles, and additional targeted sites.

The process to determine the size of the 2000 targeted questionnaire program has not progressed because staff attention is focused on preparing for the dress rehearsal, which they are viewing as a separate process that may not employ the same criteria as the 2000 census. Among the key decisions that will significantly affect cost, yet have not been addressed, are:

- the number of languages and areas for targeted mailings,
- the number of languages, forms, and sites for Be Counted,
- the percentage of 39,000 local governments and other community leaders to involve in reviewing bureau plans, and
- the intensity of effort required to exchange information with local partners.

The myriad of additional assumptions that will affect cost, such as the percentage of Be Counted forms returned to the bureau, are themselves dependent on pending program details. Current cost model parameters seem even less adequate with the recent decision to extend the duration of the Be Counted program for 2000. Therefore, the cost estimate is likely to change because bureau officials are just beginning to develop program details for 2000.

Another area of uncertainty is the targeted questionnaire program's dependence on other programs that are not yet in place. Bureau managers recognize the need to organize planning in this area quickly, given that some aspects need to be implemented within the next year. For example, beginning in July 1998, regional office officials are expected to begin an approximately seven-month local review of areas identified for various targeted methods. This review is to serve the dual purposes of promoting partnerships and updating the 1990 census data

that make up the planning database. The bureau will inform local partners of the areas selected for targeted methods and have them react by indicating that they (1) agree with the areas and methods, (2) have identified new areas that also should be targeted, or (3) have identified areas that have changed and no longer meet particular criteria.

To carry out this activity, the bureau must fully implement the planning database on a national level, include all selection criteria so that areas and methods can be identified, and train regional office staff in interpreting and modifying the database. The implementation team does not yet exist, and several key issues have not been addressed, such as the conditions under which local information will be accepted and the technical manner in which it will be incorporated. Additionally, because linguistic isolation did not perform well as an indicator for targeted language mailings, the Language Determination Team is just beginning work on identifying additional indicators that will help determine how many areas will receive targeted questionnaires.

Given that the current cost model does not include all of the elements identified by program managers, let alone those details not yet identified, cost estimates are likely to increase. However, it is not clear how the program's cost could rise much given that senior bureau managers have established a \$4 billion ceiling for the decennial census, other programs areas are struggling to stay within budget, and any deviation from projections must be brought forward soon to ensure consideration in the bureau's fiscal year 1999 budget submission.

WHETHER PLANNED OR UNPLANNED, COST GROWTH SEEMS LIKELY

If the bureau continues to promote the targeted questionnaire program without stringent selection criteria, the program appears likely to grow in size and cost. The primary question may be whether the growth will occur early and therefore be planned or whether it will occur late and be minimally controlled. First, local officials may find narrow bureau criteria for targeting unacceptable during the local review phase next year and encourage the bureau to expand the program, or bureau officials may adopt broad criteria in anticipation of this difficulty. Second, the bureau may proceed with narrow criteria, but receive enormous pressure from local officials concerned about response rates during census implementation, and be forced to implement targeted efforts during the census.

Although bureau managers recognize the need for selection criteria to manage the program, they limited their ability to develop objective criteria when they decided not to include cost and certain other effectiveness indicators. For example, since the 1995 Census Test's use of linguistic isolation was not a good indicator of effectiveness, the bureau will have difficulty defending any specific percentage threshold. Without quantifiable justification and local officials' incentives for maximum effort to ensure a complete count, it will be difficult to establish narrow selection criteria that will be widely accepted by local partners. Therefore, the bureau will find it difficult to refuse a request to expand the program, as evidenced by the expansion earlier this year of the targeted mailing component of Census 2000.

Additionally, bureau managers' decision to extend the Be Counted program by allowing forms to be accepted until the end of nonresponse follow-up in effect extends the full Be Counted program. Further expansion also appears likely once the local reviews begin in July 1998. The bureau's past experiences indicate that local officials will ask for additional efforts, and the partnership initiative provides them with a greater expectation that the bureau will heed their advice.

On the other hand, if cost and associated schedule constraints contain program development, the resulting program will likely be modest. To control costs, bureau officials may not be able to respond to local requests, creating a potentially large discrepancy between what partners expect and what the bureau delivers. If the discrepancy is large, the goal of promoting partnerships to create a cooperative working environment could be damaged. Further, these unmet expectations could create intense pressure during the census to expand coverage improvement programs, especially as local problems are uncovered. The probability of this occurring in 2000 is greater than in past censuses because of another aspect of the partnership plan, whereby the bureau will provide local governments with real-time response rates to spur action in low-response areas. Program expansion at the last minute could require either additional funding from the Congress or a reduction in later operations, including sampling. Given its centrality to achieving the bureau's goal of an accurate count, this potential trade-off is of particular concern.

CONCLUSIONS

We recognize that partnerships with local governments can be a helpful way for the bureau to conduct the decennial census, including identifying the hard-to-count, such as those people who speak little or no English. However, partnerships and coverage improvement programs cannot replace statistical methods in containing costs and reducing the differential undercount--the impetus behind the reengineered design. We are concerned that using statistical methods to achieve the goals of increasing accuracy and containing costs may become subordinated to promoting partnerships. This could jeopardize the critical goal of keeping the nonresponse follow-up operations and workload as simple and light as possible.

Given bureau managers' plans and intensive efforts to communicate how to implement partnerships, community leaders are likely to expect to play a significant role in finalizing the scope and method of implementing the targeted questionnaire program. Further, if the perceived public relations gain associated with such programs takes precedence over substantive cost, schedule, and performance concerns, the goals of cost containment and reducing the differential undercount could be compromised. For this reason, the bureau must move forward quickly to define the scope of the targeted questionnaire program and determine how it can and should be implemented. The bureau must balance cost, schedule, performance, and public perception concerns in performing that task.

Bureau managers must communicate program plans and their justification to the local partners immediately because without the details, the partners' expectations about their roles in program planning and implementation may differ significantly from what is operationally desirable or

even feasible. The longer this discrepancy exists, the more likely it is that the desired cooperative environment will erode. We are not suggesting that the bureau abandon the targeted questionnaire partnership. Rather, the bureau should openly discuss with partners the research results indicating the limitations of the targeting initiatives and then design the program to complement, rather than compromise, a successful 2000 decennial census.

RECOMMENDATIONS

We recommend that the Director of the Bureau of the Census:

1. Design a comprehensive targeted questionnaire program, which considers cost, schedule, performance, and public perception constraints and trade-offs, including
 - a. The effects on major census operations, such as delays in completing data processing, and
 - b. The effects of other related programs, such as delays in developing the Planning Database or changes in the partnership program.
2. Communicate the targeted questionnaire program's scope and limitations to local partners in time to discuss and resolve concerns.



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-0001

OFFICE OF THE DIRECTOR

SEP 30 1997

To: Frank DeGeorge
Inspector General
Department of Commerce

Through: Lee Price *Lee Price*
Acting Under Secretary for Economic Affairs

From: Martha Farnsworth Riche *Martha Farnsworth Riche*
Director

Subject: Responses to Recommendations and Comments on Draft Report:
2000 Decennial Census: Expanded Targeted Questionnaire Program
May Be Unnecessary and Counterproductive (ESD-9610-7-XXXX)

Thank you for providing the opportunity to review the draft version of this report and for the substance of the recommendations it contains. The Census Bureau agrees that the Census 2000 "targeted questionnaire" activities must consider cost, schedule, performance, and public perception constraints and trade-offs. We intend to demonstrate the plan for these activities in the Census 2000 Dress Rehearsal. Based on the findings in the evaluation studies, we will take corrective action, where needed.

In addition, the attachment to this response provides a few comments about selected activities discussed in the details of the report. If further information would be helpful regarding these programs or any other Census 2000 activities, please do not hesitate to contact me.

Attachment

cc: Mort Schwartz (DOC/OIG)
Rochelle Martinez
Sally Obenski

Comments on Specific Items in the Draft Report

1. The Census Bureau is concerned that the report's combined treatment of the Be Counted program and the mailing of questionnaires in languages other than English may blur key distinctions between these programs. Although it may well affect the nonresponse follow-up work load, the Be Counted program is not designed to reduce that work load, per se. Rather, it provides a response method for individuals living in housing units that did not receive an initial or replacement questionnaire—perhaps because their addresses were not included in the Master Address File (MAF). A second focus of the Be Counted program is to include individuals who do not live in a location with a “regular address” or who believe they were not counted in the census by other means. This includes individuals who were omitted in error from the questionnaire of the household where they live because of confusion about residency rules or for any other reason. Neither a housing unit omitted from the MAF nor a resident omitted from a completed questionnaire would be in the nonresponse follow-up universe, nor would their characteristics be estimated on the basis of census responses in the census tract where they live.
2. The Census Bureau has told the Congress that it will process all Census 2000 mail-out questionnaire returns received during nonresponse follow-up. Although we plan to withdraw Be Counted questionnaires from distribution by the start of the nonresponse follow-up field operation, we also plan to process late Be Counted returns we receive after that date. As in 1990, we will attempt to remove housing units from the nonresponse follow-up assignment lists if their residents return a questionnaire during the days between generation of the nonresponse follow-up assignment lists and the sending of these lists to the local census offices.

Despite these attempts, it is unavoidable that telephone responses, mail-out questionnaires, and Be Counted forms will be received from some housing units after nonresponse follow-up enumerator visits begin. Although details are being worked out, a computer edit based on the comprehensiveness of the responses provided will determine which information to tabulate in these situations. Late returns from housing units not in the nonresponse follow-up sample will be incorporated in the census results during the estimation process. No responses received within the data collection period will be discarded in Census 2000.

3. The Census Bureau does not believe that the Be Counted program or the mailing of non-English questionnaires will delay the beginning of the Integrated Coverage Measurement (ICM) Survey. The data collection phases of the ICM Survey are not dependent on the completion of a file of “all processed census responses for a given area” because census responses are no longer being loaded into the interviewers' laptop computers before they interview. That file is not needed until the census-ICM matching process takes place **after** the conclusion of both field operations, not before the beginning of ICM data collection. For example, the telephone interview phase of the ICM involving mail respondents will begin in advance of nonresponse follow-up operations in the same census tract because these

interviews do not put both nonresponse follow-up and ICM interviewers in the same census tract at the same time. Field interviews in ICM clusters will begin as soon as a census tract reaches the required nonresponse follow-up completion level based on its sampling rate.

4. The Census Bureau first used the Census 2000 Planning Database to help select Be Counted distribution locations in the 1995 Census Test. Other sources of information included the knowledge of local partners, as well as a Census Bureau field staff “windshield survey” of the proposed locations. Beginning with evaluations from the 1995 Census Test, the Census Bureau has been refining its original distribution strategy.
5. The Census Bureau believes that current technology can resolve any logistical issues that might arise in meeting the processing schedules if non-English questionnaire responses are translated at locations other than the data capture centers.
6. To the greatest extent possible, the Census Bureau intends the Census 2000 Dress Rehearsal to be a demonstration of the activities we will use to conduct Census 2000. We do not view it as a “separate process” from the planning for Census 2000.
7. The Census Bureau conceives of the Census 2000 partnership program as a broad series of collaborations with state, local, and tribal governments, as well as with community-based organizations, businesses, the media, and others. The distribution of Be Counted questionnaires, including those in languages other than English, and the targeted mailing of non-English questionnaires to households in areas with high concentrations of linguistically-isolated households, are only limited elements of the partnership program.
8. The Census Bureau believes that it would not be difficult to refuse a request to expand the Be Counted program when it is not justifiable on a cost, schedule, and performance basis. Should the Census Bureau turn down such a request, we anticipate that our partners would expand their local outreach programs in areas with low response.
9. The Census Bureau agrees with the conclusion that the partnership and coverage improvement programs cannot replace statistical methods in containing costs and reducing the differential undercount on a large-scale basis. However, we believe that such programs can have a positive effect in a particular neighborhood or locality when we work in collaboration with local or tribal governments and other partner organizations.

**OIG Annotated Response to
Census Bureau Comments on Specific Items in the OIG Draft Report**

1. The Census Bureau is concerned that the report's combined treatment of the Be Counted program and the mailing of questionnaires in languages other than English may blur key distinctions between these programs. Although it may well affect the nonresponse follow-up workload, the Be Counted program is not designed to reduce that workload, per se. Rather, it provides a response method for individuals living in housing units that did not receive an initial or replacement questionnaire -- perhaps because their addresses were not included in the Master Address File (MAF). A second focus of the Be Counted program is to include individuals who do not live in a location with a "regular address" or who believe they were not counted in the census by other means. This includes individuals who were omitted in error from the questionnaire of the household where they live because of confusion about residency rules or for any other reason. Neither a housing unit omitted from the MAF nor a resident omitted from a completed questionnaire would be in the nonresponse follow-up universe, nor would their characteristics be estimated on the basis of census responses in the census tract where they live.

OIG Response: We recognize the bureau's intent to limit the scope and duration of these programs. Our report emphasizes, however, that the intensive involvement of local partners, who have incentives to maximize their population counts, may result in expanded programs. Clearly, if the program is limited to the bureau's intent, the risks diminish enormously.

2. The Census Bureau has told the Congress that it will process all Census 2000 mail-out questionnaire returns received during nonresponse follow-up. Although we plan to withdraw Be Counted questionnaires from distribution by the start of the nonresponse follow-up field operation, we also plan to process late Be Counted returns we receive after that date. As in 1990, we will attempt to remove housing units from the nonresponse follow-up assignment lists if their residents return a questionnaire during the days between generation of the nonresponse follow-up assignment lists and the sending of these lists to the local census offices.

Despite these attempts, it is unavoidable that telephone responses, mail-out questionnaires, and Be Counted forms will be received from some housing units after nonresponse follow-up enumerator visits begin. Although details are being worked out, a computer edit based on the comprehensiveness of the responses provided will determine which information to tabulate in these situations. Late returns from housing units not in the nonresponse follow-

up sample will be incorporated in the census results during the estimation process. No responses received within the data collection period will be discarded in Census 2000.

OIG Response: See Number 1.

3. The Census Bureau does not believe that the Be Counted program or the mailing of non-English questionnaires will delay the beginning of the Integrated Coverage Measurement (ICM) Survey. The data collection phases of the ICM Survey are not dependent on the completion of a file of “all processed census responses for a given area” because census responses are no longer being loaded into the interviewers’ laptop computers before they interview. That file is not needed until the census-ICM matching process takes place **after** the conclusion of both field operations, not before the beginning of ICM data collection. For example, the telephone interview phase of the ICM involving mail respondents will begin in advance of nonresponse follow-up operations in the same census tract because these interviews do not put both nonresponse follow-up and ICM interviewers in the same census tract at the same time. Field interviews in ICM clusters will begin as soon as a census tract reaches the required nonresponse follow-up completion level based on its sampling rate.

OIG Response: We agree that the program is not likely to delay the start of the ICM, rather the conduct, as stated on page 6. Therefore, we clarified the wording in the paragraph.

4. The Census Bureau first used the Census 2000 Planning Database to help select Be Counted distribution locations in the 1995 Census Test. Other sources of information included the knowledge of local partners, as well as a Census Bureau field staff “windshield survey” of the proposed locations. Beginning with evaluations from the 1995 Census Test, the Census Bureau has been refining its original distribution strategy.

OIG Response: The 2000 Planning Database does not yet exist. According to bureau documentation and interviews with cognizant staff, a prototype was used in the 1995 Census Test that included only census data for the test sites.

5. The Census Bureau believes that current technology can resolve any logistical issues that might arise in meeting the processing schedules if non-English questionnaire responses are translated at locations other than the data capture centers.

OIG Response: Bureau staff plan to translate forms in any language other than English or Spanish through manual (non-automated) translation. Therefore, we do not agree that technology will address our concerns.

6. To the greatest extent possible, the Census Bureau intends the Census 2000 Dress Rehearsal to be a demonstration of the activities we will use to conduct Census 2000. We do not view it as a “separate process” from the planning for Census 2000.

OIG Response: Again, we understand the stated intent. The reference to viewing the dress rehearsal separately from the census came from cognizant staff, with whom we held extensive discussions.

7. The Census Bureau conceives of the Census 2000 partnership program as a broad series of collaborations with state, local, and tribal governments, as well as with community-based organizations, businesses, the media, and others. The distribution of Be Counted questionnaires, including those in languages other than English, and the targeted mailing of non-English questionnaires to households in areas with high concentrations of linguistically-isolated households, are only limited elements of the partnership program.

OIG Response: We agree that there are additional elements to the partnership program.

8. The Census Bureau believes that it would not be difficult to refuse a request to expand the Be Counted program when it is not justifiable on a cost, schedule, and performance basis. Should the Census Bureau turn down such a request, we anticipate that our partners would expand their local outreach programs in areas with low response.

OIG Response: See number 1.

9. The Census Bureau agrees with your conclusion that the partnership and coverage improvement programs cannot replace statistical methods in containing costs and reducing the differential undercount on a large-scale basis. However, we believe that such programs can have a positive effect in a particular neighborhood or locality when we work in collaboration with local or tribal governments and other partner organizations.

OIG Response: Given time and budget constraints, the relevant question is one of cost-benefit tradeoffs among programs competing for those limited resources.