MEMORANDUM FOR Distribution

From: Cynthia Clark

Associate Director for Methodology and Standards

Subject: Risk Assessment of the Integrated Coverage Measurement Field

Data Collection and Processing Schedule

I am pleased to present the executive summary of one of the evaluation studies for the Census 2000 Dress Rehearsal. The dress rehearsal was conducted in three sites — Columbia, South Carolina; Menominee County, Wisconsin; and Sacramento, California. The evaluation studies cover detailed aspects of eight broad areas related to the census dress rehearsal — census questionnaire, address list, coverage measurement, coverage improvement, promotion activities, procedures addressing multiple options for census reporting, field operations, and technology.

The executive summary for each evaluation study is also available on the Census Bureau Internet site (http://www.census.gov/census2000 and click on the link to "Evaluation"). Copies of the complete report may be obtained by contacting Carnelle Sligh at (301) 457-3525 or by e-mail at carnelle.e.sligh@ccmail.census.gov. Please note that the complete copy of the following reports will not be publically released: reports regarding procedures addressing multiple options for census reporting and the Evaluation of Housing Unit Coverage on the Master Address File.

The evaluations are distributed broadly to promote the open and thorough review of census processes and procedures. The primary purpose of the dress rehearsal is to simulate portions of the environment we anticipate for Census 2000, so we can identify and correct potential problems in the processes. Thus, the purpose of the evaluation studies is to provide analysis to support time critical review and possible refinements of Census 2000 operations and procedures.

The analysis and recommendations in the evaluation study reports are those of staff working on specific evaluations and, thus, do not represent the official position of the Census Bureau. They represent the results of an evaluation of a component of the census plan. They will be used to analyze and improve processes and procedures for Census 2000. The individual evaluation recommendations have not all yet been reviewed for incorporation in the official plan for Census 2000. These evaluation study reports will be used as input to the decision making process to refine the plans for Census 2000.

The Census Bureau will issue a report that synthesizes the recommendations from all the evaluation studies and provides the Census Bureau review of the dress rehearsal operation. This report will also indicate the Census Bureau's official position on the utilization of these results in the Census 2000 operation. This report will be available July 30th.

Risk Assessment Of The Integrated Coverage Measurement Field Data Collection And Processing Schedule

April 1999

Rita Petroni Planning, Research, and Evaluation Division

EXECUTIVE SUMMARY

The Census 2000 Dress Rehearsal implemented the Integrated Coverage Measurement (ICM) Program in Sacramento, California and Menominee County, Wisconsin and the Post Enumeration Survey (PES) program in Columbia, South Carolina and eleven surrounding counties. To meet mandated deadlines, a large number of ICM activities had to be incorporated into the schedule to produce census figures. There was substantial concern that the operations schedule would not allow enough time for each of the many activities to produce sufficiently accurate data. Further, to meet the various intermediate schedule milestones the Bureau collected and processed data on a flow basis. This meant tracking and controlling about 1500 discrete work clusters with varying start and closeout dates that had to be met if the overall schedule was to succeed. Additionally, there was concern about the adequacy of the telecommunications systems and management of the ICM Computer Assisted Personal Interview (CAPI).

This evaluation, conducted by the National Opinion Research Center, focused on the dress rehearsal schedule and quality and the analysis of risk associated with the ICM and PES for Census 2000 including telecommunications and ICM CAPI management considerations. It also identified four recommendations.

The major findings follow.

The schedule showed some risks because, though many tasks were completed on time, a majority were completed later. Most did not hold up completion of the final population estimates. A few ran very late. For example, the Quality Check (ICM) Sample Design/ Estimation, Person After Follow-Up Coding, and Final Housing Matching took twice as long as planned. Even though these ran very late, the final schedule was met.

The quality of the PES and ICM were excellent by every criterion used to measure quality.

Key areas of risks to Census 2000 are:

- a. There is a need to staff additional technical employees, both in Suitland and the regional offices. Additional staff is needed in Headquarters to build a system to manage the much larger number of housing units that will be included in 2000. Also, staff is needed to support key functions such as CAPI instrument testing and sampling and estimation programs. Help desk staff is needed to support field interviewers. Field technicians for regional offices are necessary. TMO needs to staff up and may not be able to find all the qualified people it needs because of the shortage of computer engineers and software specialists. Headquarters has a shortage of technical staff to accomplish timely programming, testing and maintenance of a new ICM 2000 computer system.
- b. The decision making process needs to be improved so that actions needed to implement decisions can be made in a reasonable time frame.

c. Systems testing needs to be done.

The use of CAPI and the proposed telecommunications network seem to be under control.

The recommendations follow.

- 1. Ensure the staff pay more attention to the use of the Master Activity Schedule (MAS) as a management tool and ensure that it is updated weekly.
- 2. For those activities that ran very late and for which the schedule was changed many times, work out a realistic schedule before the census gets underway. The results for the Dress Rehearsal should be very helpful in setting the schedule.
- 3. Investigate innovative ways to hire additional technical staff (identified in the major findings above) in Suitland and in the regional offices. Perhaps retired persons could be hired; perhaps arrangements could be made with other agencies and organizations for a fixed time period.
- 4. Thorough, rigorous end-to-end systems testing is needed for the entire census cycle.