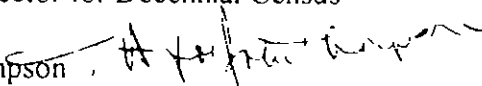




25 MAR 1997

CENSUS 2000 DECISION MEMORANDUM NO 14

MEMORANDUM FOR Robert W Marx
Associate Director for Decennial Census

From John H Thompson, 
Acting Chief, Decennial Management Division

Subject Revision to Census 2000 Questionnaire Mailing Strategy

The Census Bureau is modifying the mail treatment strategy for Census 2000 as outlined in this decision memorandum. This modification is based on an assessment of risks inherent in the original schedule for completing data collection and processing activities for both the census and the quality check (integrated coverage measurement) programs in time to produce apportionment and Public Law 94-171 counts by statutory deadlines. In assessing the risks associated with the original schedule, it became apparent that the nonresponse followup operation presented the greatest vulnerability in terms of our ability to complete subsequent key activities necessary to deliver the census totals by the required dates. That is, we can relieve a major source of the risk and also improve data quality, by starting the nonresponse followup operation earlier. We can achieve this goal by modifying the mail strategy as outlined below and in combination with the implementation of direct sampling.

First, we will deliver the initial questionnaire to respondents about two weeks prior to Census Day. The questionnaire will be preceded a few days by an advance letter and followed a few days by a reminder card. We will focus our initial marketing campaign around urging respondents to complete and return their questionnaires during the two week period leading up to Census Day.

Around Census Day we will deliver a replacement questionnaire to all mail-out/mail-back addresses (this operation does not take place in update/leave or list/enumerate areas). Currently we plan to use a blanket, as opposed to a targeted, replacement mailing strategy. We are basing the decision at this time to use a blanket replacement mailing strategy on several key issues. Based on the best information currently available, we cannot implement a targeted replacement mailing strategy and still achieve our goal of a timely start for the nonresponse followup. Our current information from the commercial printing/mailing community suggests that this process could require up to 30 days. This is an unacceptable delay in our ability to start the nonresponse followup. The blanket replacement questionnaire strategy allows for more flexibility in the data collection schedule and would be cost effective, although less cost effective than a targeted mailing to nonrespondents. We also plan to focus the second phase of the marketing campaign around the delivery of the replacement questionnaire.

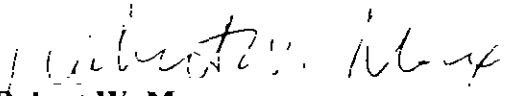
We will continue to solicit additional information from the commercial printing/ mailing community to determine if there are ways to reduce substantially the time required to implement a targeted replacement questionnaire mailing strategy. Should we learn that it is feasible to implement a targeted strategy and still adhere to our critical data collection schedule, we will refine our plan and implement a targeted replacement questionnaire mailing strategy. We expect to complete our research by June of 1997.

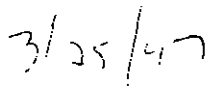
A summary of the key dates for the revised mail strategy and nonresponse followup operation is as follows:

- Deliver advance letter March 11, 2000
- Deliver initial questionnaire March 15, 2000
- Deliver reminder postcard March 20, 2000
- Deliver replacement questionnaire (mail-out/mail-back areas only) March 31, 2000
- Identify nonresponse universe April 12, 2000
- Select nonresponse followup sample April 12 - April 16, 2000
- Identify late mail returns April 12 - April 19, 2000
- Prepare nonresponse assignments and train enumerators April 17 - April 22, 2000
- Conduct nonresponse followup April 24 - June 5, 2000

We plan to demonstrate this revised mail strategy and data collection schedule in the Census 2000 Dress Rehearsal and, based on the results, may make modifications for Census 2000, as appropriate.

I concur with the decision to implement this revised mail strategy, with the provision of minor refinements for Census 2000, as stipulated in this memorandum.


Robert W. Marx
Associate Director for Decennial Census


Date



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census

Washington DC 20233 0001

OFFICE OF THE DIRECTOR

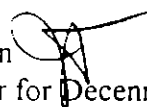
JUL 15 1997

CENSUS 2000 DECISION MEMORANDUM NO 16

MEMORANDUM FOR Bradford R Huther
 Deputy Director and Chief Operating Officer

 and

 Paula J Schneider
 Principal Associate Director for Programs

From John H Thompson 
 Associate Director for Decennial Census

Subject Recommendation for Large Household Followup

The Management Integration Team recommends a mailout/mailback option for follow up of households with more than 5 persons, sometimes referred to as Large Households. I am attaching a description of the options considered (Attachment 1), a copy of the recommendation from the TQA/Internet Program Steering Committee (Attachment 2), and a note titled, "Some Data on Large Households" that presents characteristics of persons enumerated as person 6 or higher (Attachment 3). The factors influencing the recommendation were cost, response, timing, and operational simplicity.

There are significant cost differences projected among the options, but the total number of expected responses does not increase substantially with additional costs. Mailout/mailback is projected as the lowest cost option. This option also offers the most flexibility, does not impact nonresponse followup, completion of data capture processing, or ICM interviewing, and offers the simplest implementation strategy.

An additional consideration involved selection of an option that would, given available development time and other constraints, be "doable" in the Dress Rehearsal (DR) **and** Census 2000. The Census Bureau's CATI facilities can support DR telephone operations but we will need to rely on the private sector to handle the estimated workload for Census 2000. By contrast, the Data Preparation Division can support a mailout/mailback Large Household Followup in both 1998 and 2000.

The Management Integration Team has reviewed the PSC's recommendation, and endorses it. If you also agree with this proposal, please sign the concurrence line below and return this decision memorandum to me. If you would like to discuss some of the issues first, please contact Jack Marshall or me.

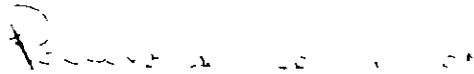
Attachments

I Concur with the Recommendation to Use the Mailout/Mailback Option for the Large Household Followup Operation for Census 2000.



Bradford R. Huther
Deputy Director and
Chief Operating Officer

8/15/97
Date



Paula J. Schneider
Principal Associate for Programs

Date



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington D.C. 20233

JUN 17 1997

PSCB MEMORANDUM SERIES
2000 DECENNIAL CENSUS - 97 09

MEMORANDUM FOR Jack W Marshall
Chief, Technologies Management Office

From *Dennis W. Stoudt*
Dennis W. Stoudt
LHH Working Group Coordinator *Charles Kuhn for DS*

Subject Design Development Status and Recommendation for
Large Household Followup

The Large Household (LHH) Working Group has met several times to explore options for followup to obtain characteristic data for persons in mailback households of six or more persons. The two options we were asked to develop for operational implementation included

Option 1: Telephone followup supported with/by CATI services (including appropriate phone number lookup activities), followed by personal visit (PV) for unresolved cases. This approach would use followup cover sheets generated by Data Preparation Division (DPD) via Docuprint, containing response data captured from the original mail returns, and continuation questionnaires preprinted and labeled at the time of letter generation. The resulting, completed PV questionnaires would be captured through the Data Capture Centers (DCCs). The flow of this option is documented in Attachment 1.

Option 2: Mailout followup. This approach would also use DPD's Docuprint capability to generate followup letters based on the original mail returns, but containing only the respondent name, names of persons for whom data was provided, and names of "continuation persons" (See confidentiality issue, below). Letters and labeled questionnaires would be generated and assembled for, and mailed to large households on a flow basis, requesting person characteristics be provided for each "continuation person" listed on the original mail return. The followup questionnaire would be addressed to the respondent as indicated in the mail return questionnaire, or the name of person 1 if the respondent name is not provided. The returning LHH followup questionnaire would be processed in the DCCs, fulfilling the Census Bureau's obligations for LHH data collection. The flow of this option is documented in Attachment 2.

In developing these options, several issues were considered. The issues, not in order of importance, are

Issue 1: Confidentiality Telephone operators and personal visit enumerators, having *special sworn employee* status, are provided with personal characteristics from original mail returns to facilitate communication with households in the followup universe. Because the mailout scenario can provide no assurance that the recipient will be the initial household respondent, Title 13, U.S.C., precludes inclusion of personal characteristics in the followup mailing. More generalized "probes" would be developed to assist the relevant households in responding.

Through your office, we requested and received clarification of what original response data we are allowed to include on a 'mail' followup questionnaire, Respondent name and phone number, data capture names (from person boxes), and names from the continuation roster.

Issue 2: Coverage Followup Several members of the working group questioned the extent to which LHH followup should pursue coverage improvement. (Note that coverage improvement procedures would require extensive procedural accommodations in both followup options.) It was determined that LHH followup was intended to gather characteristics of persons identified in the original mail return questionnaire, but for whom there was insufficient space for characteristics responses. Although one or two basic coverage probes would be expected as part of the LHH followup questionnaire design, more extensive coverage probes would not be part of the operation.

Issue 3: Timing A major constraint of the telephone/field followup option is its potential interference with Non-Response Followup (NRFU) field operations. It is preferred that NRFU be out of the field prior to start up of LHH field work. Additionally, efficiency of LHH field work can only be obtained by developing a list of all the known cases in a geographic area, and appropriately structuring and labeling the questionnaires to facilitate administration via these "geographic assignments." This requires "stock piling" of the cases until just before the operation and putting an extreme burden on DPD to produce the requisite Docuprinted questionnaires in a compressed time frame. These constraints are, under current designs, unavoidable. This post-NRFU activity will obviously elongate Census data capture and perform enumerations concurrent with some Integrated Coverage Measurement interviewing. Independently, Master Activity Scheduling indicated that a personal visit phase for LHH unacceptably extended the Data Capture File (DCF) formation process and subsequent activities that rely on the DCF.

In comparison, the mailout scenario is not dependent on geographic assignment structuring and may be performed on a flow basis, including identification of LHH cases, printing, labeling, and mailout of the LHH followup letters and questionnaires. This smooths the burden on DPD, and eliminates field efforts and costs.

Issue 4 Cost Considerations Followup by mail has costs which may be estimated based on workloads for printing, postage for mailout, and data capture processing. Telephone and field followup also have these considerations (except postage), but include the substantially obvious personnel costs for both telephone and/or personal visit enumeration.

Issue 5: We have tentatively arrayed the Docuprint workflow to include a cover sheet/letter along with a preprinted, labeled "LHH continuation questionnaire" as the vehicle for PV and mailout followup enumeration. This is done to afford us the potential for taking advantage of the user friendly concept of the "212" design and for presentation consistency for respondents. Implementation design details will be developed later and could modify this approach.

For these and reasons of a potentially improved response rate,, the group proposed an additional option for consideration. That is, since the CATI/PV option appears unacceptable due to timing and higher costs, while the mailout option is less expensive but leaves more cases unresolved, it seemed reasonable to consider an alternative. That alternative is to perform a CATI followup only on LHH's which provided a telephone number as part of their response, while concurrently mailing Docuprinted followup questionnaires to LHH's from which a telephone number was *not* received. Unresolved or partially resolved cases from either option would be dealt with appropriately by subsequent standard processes such as edit and imputation. Though incurring greater cost than the mailout only scenario, this option would resolve more cases and do so within an acceptable time frame. The flow of this proposed option is documented in Attachment 3.

Additional information for consideration in designing LHH followup includes, but is not limited to, the quantity and distribution of LHH households in the 1990 Decennial Census (using the current LHH definition), and DPD resource requirements for each of the two followup options. Attachment 4 provides the 1990 distribution of mail return household sizes by householder race/ethnicity. Further geographic breakdown of these data is being pursued, the results to be provided when they become available. Ballpark estimates of the relative cost level for each option are provided in Attachment 5 for your consideration (do not however, consider these as "cost estimates", per se).

In reviewing the preceding information, the LHH Working Group recognized additional issues needing to be addressed pending a decision on the option to be developed. These issues are provided in Attachments 6 and 7.

We provide these data to assist you and the other MIT members in reviewing the options, issues, and additional relevant information in regard to the treatment of LHH's. The Working Group stands ready to further detail the operational strategy decided on as most appropriate. We will assist in its implementation in the Census 2000 Dress Rehearsal as per your instruction, note however that each option in and of itself is operationally complex and thus we chose to go no further in our discussions and efforts until the preferred option is known. Please notify us of your decision regarding the options as soon as possible.

Attachments

cc

Working Group

F Borsa (FLD)
S Chambers (ACSD)
J Ingold (POP)
N Alberti (DSSD)
D Hackbarth (TMO)
A Kee
W Starr (DSCMO)
M Aulbach (DPD)
D Anderson
D Overton
J Woods
C Kahn (DMD)

Others

M Longini (DSCMO)
A Berlinger
G Mathis (DPD)
J Thompson (DMD)
T Anqueira
M Lynch
J McLaughlin

Nancy Sweet

LARGE HOUSEHOLD PHONE AND PERSONAL VISIT RESOLUTION

March/June 2000

MAILBACK
DATA
CAPTURE
(DCC)

HH SIZE
DETERMINATION
SPECIFICATION
POP

CREATE DCF
& DETERMINE
HH SIZE

April-May
2000

LARGE
HOUSEHOLD
SELECTION
SPECIFICATION

SELECT LARGE
HOUSEHOLDS
(LHH) FROM
MAILBACK
UNIVERSE/FORMS

SET STATUS

DMAF

LHH
FOLLOW UP
DATA BASE

EXTRACT
DATA * FOR
LHH
FOLLOW UP

* Extract data =
Respondent name phone number
Data capture names ages gender
Continuation / additional roster names

Only HH's with a clear indication of
a size of 6 or more persons
Expected workload 3 million HH's

COMMERCIAL
CATI CONTROL
INTERVIEWS IN
TQA SUPPORTED
LANGUAGES

DIRECTORY
ASSISTANCE
AS NEEDED

RESOLVED
COMMERCIAL
CATI

YES

INTERACTIVE
UPDATE OF
HOUSEHOLD
DATA

ELECTRONIC
UPDATE WITH
CONTINUATION
DATA

NO

June/July 2000

Expected workload
750 000 HH's

POSTSCRIPT
FILE FOR
FOLLOWUP
INSTRUMENT

TRANSMIT
STATUS DATA
TO
HEADQUARTERS

LHH FU COVER
SHEET &
QUESTIONNAIRE W/
CENSUS ID
GEOGRAPHY TRACT

PERSONAL
VISIT LHH
FOLLOW-UP
(FLD)

DATA / STATUS
ON COMPLETED
DOCUPRINT
HARDCOPY

OMB
CLEARANCE

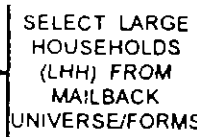
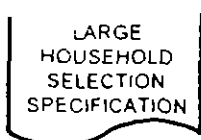
DOCUPRINT CONTROL /
PRODUCTION SYSTEM
(DPD) ENGLISH &
SPANISH LANGUAGES
ONLY

LHH
QUESTIONNAIRE

* Questionnaire introduction
will vary depending on
presence or lack of
continuation / additional
roster names

LARGE HOUSEHOLD
MAILOUT FOLLOW-UP

March June 2000



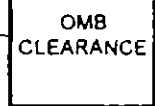
SET STATUS



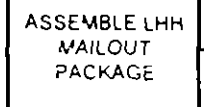
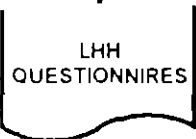
* Extract data =
Respondent name phone number
Data capture names
Continuation / additional foster names

Only HH's with a clear indication of a
size of 6 or more persons Expected
workload 3 million households

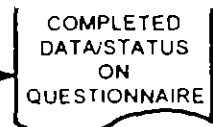
April June 2000



"212" design for
unique continuation
form for this
operation



Address to a named person only
(i.e. respondent name person 1
name) Do not mail when a
specific name is available to mail
to Do not mail to "occupant"



unavailable

1990 Decennial Census Distribution of Household Size of Mail Return Households by Race/Ethnicity of Householder
 Source: Special DMD Tabulation - 12/96

Persons in Household	Total HHs	White Hholder	Black Hholder	AIAN Hholder	API Hholder	Other Hholder	Hispanic Hholder
1	23 4	24 0	23 4	19 5	14 6	9 5	14 0
2	33 6	35 1	25 1	28 0	22 3	17 3	21 7
3	17 4	17 1	19 2	18 9	18 5	18 4	18 4
4	15 2	14 9	15 6	17 1	21 4	20 6	19 0
5	6 6	6 0	8 7	9 1	11 6	14 8	12 6
6	2 3	1 9	4 2	4 1	5 9	8 8	7 0
7	1 0	0 6	2 3	2 0	3 3	6 1	4 4
8	0 3	0 2	0 7	0 6	1 1	2 0	1 4
9	0 1	0 1	0 4	0 3	0 6	1 1	0 7
10	0 1	0 0	0 2	0 1	0 3	0 6	0 4
11	0 0	0 0	0 1	0 1	0 2	0 4	0 2
12 or more	0 0	0 0	0 1	0 1	0 2	0 5	0 3
Total	100 0	100 0	100 0	100 0	100 0	100 0	100 0
Total	67113617	58384655	5640639	307983	1319499	1460841	3727148

**BALLPARK¹ ESTIMATES FOR
LHH FOLLOWUP OPTIONS**

06/02/97	CATI & PV FOLLOW-UP OPTION	FORM MAILOUT OPTION	CATI / MAILOUT OPTION
CATI Workload	3 million	N/A	2 million
CATI Cost	\$18.4 million	N/A	\$ 12.27 million
PV Workload	25% 750,000	N/A	N/A
PV Cost	(@ \$21 per case) \$15.8 million	N/A	N/A
Printing Wkld	750,000	3,000,000	1,000,000
Printing Cost	\$ 357,000 *	\$ 1.44 million *	\$ 480,000 *
M/O Workload	N/A	3,000,000	1,000,000
M/O Cost	N/A	@ 32 \$960,000	@ 32 \$320,000
Mail Return Wkld	N/A	@65% 1,950,000	@65% 650,000
Mail Return Cost	N/A	@ 32 \$624,000	@ 32 \$208,000
Data Capture Cost	@ 50 \$375,000	@.50 \$975,000	@.50 \$325,000
Total Option Cost	\$34.93 million	\$ 4 million	\$13.6 million
Completed Cases	2,962,500	1,950,000	2,150,000
Cost per completed case	@ 75% CATI @ 95% PV \$11.79	@65% Mail back \$2.05	@ 75% CATI @ 65% Mail back \$6.32
	* Assumes 2 shifts working 10 days. To work only one shift increase total cost by \$100k to cover extra machines.	* Assumes 2 shifts working 40 days. To work only one shift increase total cost by \$180k to cover extra machines.	* Assumes 2 shifts Duration undetermined. To work only one shift increase cost by at least \$100k to cover extra machines.

Printing costs are based on a single sheet 8.5" x 11" or 8.5"x14" form. Larger paper and/or folded formats would incur additional costs.

¹ High estimates assumed for all option components since this is only for purposes of defining the relative cost measures.

Additional Issues for Consideration

- 1) Docuprint costs will vary as the style, content, and format of followup documents are developed. The cost estimates as provided were based on currently held and utilized machine resources in DPD. Further examination of costs will be pursued pending selection of a followup option.
- 2) Could certified mail be used to alleviate issues of confidentiality in a mailout scenario?
- 3) If the CATI/Mailout option is selected, could we evaluate the impact of utilizing the presence/absence of a respondent phone number to determine the followup path? Tight scheduling, thus a requirement for concurrence of the two paths, prevents mailout to unresolved CATI cases.
- 4) For purposes of calculating the Ballpark Estimates provided in the preceding attachment, a 65% mail return rate was projected for mailout followup questionnaires. This rate was challenged in Working Group discussions based on data collected in the 1985 Test Census, with a suggestion of decreasing the response rate to 50%. The Working Group elected to maintain the 65% rate in the chart, but also provide documentation of the 1985 Test Census results in Attachment 7.



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D C 20233

JUL 12 1988

1985 TEST CENSUS
PRELIMINARY RESEARCH EVALUATION MEMORANDUM NO. 70

MEMORANDUM FOR Distribution List

Prepared by: Diane Barrett-Pennix *DBP*
Census Coordination Branch
Statistical Support Division

Subject: Mail Return Rates for the 1985 Test Census
of Jersey City, New Jersey and Tampa, Florida

The attached memorandum was issued originally as STSD 1985 Test
Census Memorandum Series No Y-33

Attachment

NOTE: The data in this report are preliminary and tentative in nature. Users of the research memoranda should understand that these documents are prepared for internal office use, with the aim of circulating information among Census Bureau staff members as quickly as possible. These memoranda, therefore, do not undergo the careful review and clearance normally associated with published census documents. Conclusions and recommendations contained herein essentially reflect the thoughts of certain staff members at the time of publication and should not be interpreted as statements of Census Bureau position.

JUN 10 1988



UNITED STATES DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D.C. 20233

STSD 1985 TEST CENSUS MEMORANDUM SERIES #Y-33

MEMORANDUM FOR Susan M. Miskura
-Chief, Decennial Planning Division

From: Charles D. Jones
Acting Chief, Statistical Support Division

Prepared by: Diane Barrett-Pennix / *dr*
Census Coordination Branch
Statistical Support Division

Subject: Mail Return Rates for the 1985 Test Census of
Jersey City, NJ and Tampa, FL

I. INTRODUCTION

This memorandum documents the final mail return rates for the 1985 Test Census of Jersey City, NJ, and Tampa, FL. Mail return rates may be used to measure public cooperation to the census. However, the rate cannot be calculated until the census is over and the final number of occupied housing units is determined. The formula used to calculate mail return rates is the total number of households returning a census questionnaire (by mail) divided by the total number of occupied housing units that received a census questionnaire. Housing units for which forms were sent but were returned as undeliverables or duplicates by the post office (Post Master Returns) are not included in the denominator.

II. EXECUTIVE SUMMARY

A. Jersey City, NJ

A split panel design was used in Jersey City to compare two different data collection methodologies; Modified 80 (Panel A) and Two-Stage Census (Panel B).

1. The overall return rate for Panel A was 42.31 percent and for Panel B, Stage 1 was 44.77 percent. This results in a statistically significant difference of 2.46 percentage points. There was a higher rate of mail returns for Panel B, Stage 1 than for Panel A. This is due to the fact that Panel B, Stage 1 was an all short form questionnaire design.
2. The final Panel A short form rate was 43.85 percent and the long form rate was 36.07 percent for the 1985 Test Census of Jersey City, NJ. This results in a statistically significant difference of 7.78 percentage points between the short and long form return rates for Panel A.

3. Because of procedural changes, final mail return rates cannot be calculated for Stage 2 of Panel B (long forms), therefore no comparisons can be made between short and long form mail return rates for the Two-Stage Census.
4. There was a higher rate of short form mail returns for Panel B, Stage 1 than for Panel A. The short form mail return rate for Panel A was 43.85 percent and the rate for Panel B, Stage 1 was 44.77 percent. Although the rates are similar, the .92 percentage point difference is statistically significant. This surprising finding may indicate some underlying difference between the two panels.
5. Since the Panel A collection methodology was similar to the methodology used for the 1978 Dress Rehearsal and the 1980 Census, only Panel A mail return rates are used to compare Jersey City with Lower Manhattan and the centralized offices in New Jersey.
 - a. The Panel A overall mail return rate of 42.31 percent for Jersey City, NJ, was most similar to the 1978 Dress Rehearsal of Lower Manhattan mail return rate of 41.60 percent. The similarity between the mail return rates in these two areas may be attributed to a) the close proximity of the test sites' locations, b) both sites are urban areas, and c) both were conducted as test censuses.
 - b. The rate of return for short forms for the 1985 Test Census of Jersey City was higher than the rate of return for short forms for the centralized offices in New Jersey from the 1980 Decennial Census, although both areas had a higher rate of return for short forms than for long forms. The difference between the short and long form rates for the 1980 centralized offices in New Jersey was a statistically significant difference of 2.05 percentage points. The difference between the rates of return for short and long forms in these two areas (7.78 and 2.05 percentage points) results in a statistically significant difference of 5.73 percentage points.

B. Tampa, FL

1. The overall mail return rate for Tampa, FL was 62.93 percent.
2. The final short form rate was 64.97 percent and the long form rate was 54.92 percent for the 1985 Test Census of Tampa, FL. This results in a statistically significant

1/ Gerson, Page 2.

2/ Turner, Appendix B.

difference of 10.05 percentage points. It appears there was a higher rate of mail returns for short forms than for long forms for Tampa. The difference between form type for the decentralized offices in Florida from the 1980 Decennial Census was less than one percentage point. For 1980, it appears there was no difference in mail return rates for short forms versus long forms.

III. MAIL RETURN RATES FOR JERSEY CITY, NJ

A. Test of Collection Methodology

1. Split Panel Design

A split panel design was used in the Jersey City test site to compare two different data collection methodologies; Modified 80 (Panel A) and Two-Stage Census (Panel B). The Panel A procedure was approximately the same collection method used for the 1980 Decennial Census. That is, a sample of households were mailed long forms and the remaining households were mailed short forms. For Panel B, data was collected in two stages. In Stage 1, all households were mailed short forms. After nonresponse followup operations were completed for Stage 1, a sample of households were mailed long forms for Stage 2. The mail response rate for Panel B, Stage 2 was only 13.95 percent as of the cut-off date for producing the nonresponse followup exception lists. Because of the low mail response rates, cost and timing implications and the lack of data supporting the advantages of the two-stage census, followup operations were cancelled for Panel B, Stage 2. It was reasonable to assume that the quality of the sample data from Panel B, Stage 2 would not be an improvement over the sample data gathered from Panel A. Refer to SMD 1985 Test Census Memorandum Series #N-8, dated April 7, 1986, for the data quality study on the split panel design for Jersey City.

Since followup operations were cancelled for Panel B, Stage 2, a final count of occupied housing units could not be obtained and therefore final mail return rates cannot be calculated. This memorandum will document mail return rates and analyze data from Panel A and from Stage 1 of Panel B.

2. Panel A Versus Panel B, Stage 1

a. Overall Mail Return Rates

Refer to Table A of Attachment 1, which provides the overall mail return rates for Jersey City. The overall mail return rate for Panel A was 42.31 percent. The overall mail return rate for Panel B, Stage 1 was 44.77 percent. The 2.46 percentage point difference between the two panels is statistically significant. It appears there was a higher rate of mail returns for Panel B, Stage 1 than for Panel A. The higher rate is due to the fact that Panel B, Stage 1 was an all short form design.

b. Short Versus Long Form Mail Return Rates

The final Panel A short form rate was 43.85 percent and the Panel A long form rate was 36.07 percent. This results in a statistically significant difference of 7.78 percentage points. It appears there was a higher rate of returns for short forms than for long forms for Panel A.

Since mail return rates cannot be calculated for Stage 2 of Panel B (long forms), no comparisons can be made between short and long form mail return rates for the Two-Stage Census. The short form mail return rate for Panel B, Stage 1 was 44.77 percent.

c. Short Form Mail Return Rates

The short form mail return rate for Panel A was 43.85 percent. This rate is similar to the Panel B, Stage 1 short form mail return rate of 44.77 percent. Although the rates are similar, the .92 percentage point difference is statistically significant. It appears there was a higher rate of mail returns for short forms for the Two-Stage Census design (Panel B, Stage 1), than for the Modified 80 design (Panel A) which may indicate some underlying difference between the two panels.

B. Jersey City Versus Other Comparable Areas

1. Only Panel A mail return rates are used to compare Jersey City with the other "comparable" areas. The Panel A data collection procedure is more similar to the collection method used for the 1978 Dress Rehearsal and the 1980 Decennial Census.

2. Overall Mail Return Rates

Refer to Table C of Attachment 2, which provides the overall mail return rates and the percentage point differences between the 1985 Test Census sites and "comparable" areas from the 1978 Dress Rehearsal and the 1980 Decennial Census.

The Panel A overall mail return rate for Jersey City, NJ was 42.31 percent. Note from Table C that this rate is similar to the Lower Manhattan mail return rate of 41.60 percent. The similarity between the mail return rates for these areas may be attributed to a) the close proximity of the test sites' locations b) both sites were urban areas and c) both were conducted as test censuses.

The mail return rate for the TAR centralized offices in New Jersey for the 1980 Decennial Census was 76.08 percent. This rate results in a difference of 33.77 percentage points when compared to the return rate for the Jersey City test site. Test census return rates are generally lower than the rates in an actual census, but the difference between these two rates is larger than what would be expected and may not be a good indicator of what to expect in 1990.

3. Short Form Versus Long Form Mail Return Rate

Refer to Table D of Attachment 2, which provides the short form and long form mail return rates and differences between the 1985 Test Census sites and "comparable" areas from the 1980 Decennial Census. The short and long form mail return rates are not available for the 1978 Dress Rehearsal.

For the 1985 Test Census of Jersey City, the final short form rate was 43.85 percent (Panel A) and the long form rate was 36.07 percent (Panel A). This results in a statistically significant difference of 7.78 percentage points between short and long forms for Jersey City. There is also a statistically significant difference between short and long forms for the centralized offices in New Jersey from the 1980 Decennial Census. The short form rate was 76.41 percent and the long form

5/ Gerson, Page 2.

6/ Turner, Appendix B.

rate was 74.36 percent which results in a difference of 2.05 percentage points., It appears there was a higher rate of mail returns for short forms than long forms for both the Jersey City test site and the centralized offices in New Jersey from the 1980 Decennial Census.

The difference between the rate of return for short and long forms (7.78 and 2.05 percentage points) for Jersey City and the centralized offices in New Jersey result in a statistically significant difference of 5.73 percentage points. It appears there was a higher rate of short form mail returns for the 1985 Test Census of New Jersey than for the centralized offices in New Jersey from the 1980 Decennial Census.

IV. MAIL RETURN RATES FOR TAMPA, FL

A. Overall Mail Return Rates

Table B of Attachment 1 provides the overall mail return rates for Tampa, FL. The final mail return rate for Tampa was 62.93 percent. Note from Table C of Attachment 2 that this rate is not as large as the mail return rates for the decentralized offices in Richmond for the 1978 Dress Rehearsal, and for the decentralized offices in Florida for the 1980 Decennial Census., The mail return rates between Tampa and each of the two areas result in similar percentage point differences of 15.27, and 12.27, respectively.

The mail return rates for the decentralized offices in Florida for the 1980 Decennial Census was 75.20 percent... This rate is approximately 12 percentage points higher than the rate for the 1985 Test Census of Tampa. Test census mail return rates are generally 10 percentage points lower than in an actual decennial census. The difference of 12 percentage points is close to the expected difference between test census and actual decennial census and may indicate what to expect for areas with similar characteristics in 1990.

B. Short Form Versus Long Form Mail Return Rates

For the 1985 Test Census of Tampa, FL the final short form rate was 64.97 percent. The long form rate was 54.92 percent. These rates result in a difference of 10.05 percentage points. Table D of Attachment 2 shows that the

7/ Turner, Appendix B.
8/ Kaplan, Page 2.
9/ Turner, Appendix B.
10/ Turner, Appendix B.

References

- [1] Gerson, Earle J "Lower Manhattan Dress Rehearsal Mail Return Rates". October 23, 1978
- [2] Turner, Marshall L., Jr. "1980 Census Mail Response Rates." 1990 Decennial Census Informational Memorandum No. 45, October 9, 1984
- [3] Kaplan, David L "(Richmond) Dress Rehearsal Mail Return Rates." April 20, 1978 and April 25, 1978.
- [4] Jones, Charles D. "Results of the 1985 Jersey City Test Census Data Quality Study." April 7, 1986, SMD 1985 Test Census Memorandum Series #N-8.

TABLE A

FINAL MAIL RETURN RATES
for
JERSEY CITY, NJ
(Panel A and Panel B, Stage 1)

	PANEL A		TOTAL	PANEL B	PAN A and	TOTAL
	SF	LF	PANEL A	(Stage 1) SF (only)	PAN B SF (only)	PAN A and PAN B
TOTAL Qs RETURNED	14167	2869	17036	17943	32110	34979
TOTAL OCCUPIED HU's	32308	7954	40262	40077	72385	80339
MAIL RETURN RATE	43.85%	36.07%	42.31%	44.77%	44.36%	43.54%

TABLE B

FINAL MAIL RETURN RATES
for
TAMPA, FL

	SF	LF	TOTAL
	SF & LF	SF & LF	SF & LF
TOTAL Qs RETURNED	5763	12379	70009
TOTAL OCCUPIED HU's	8870	22540	111243
MAIL RETURN RATE	64	54.92%	62.93%

TABLE C

OVERALL MAIL RETURN RATES
and
Percentage Point Differences

OPERATION	1978 DRESS REHEARSAL		1980 CENSUS			
	Lower Manhattan	Centri- Richmond	Centri- New Jersey	Percenti- Florida		
	MRR	41.60%	78.20%	76.08%	75.20%	
1985 TEST CENSUS	Jersey City (Panel A)	42.31%	0.71	NA	33.77	NA
	Tampa	62.93%	NA	15.27	NA	12.27

MRR - Mail Return Rate

NA - Not applicable. Comparison inappropriate.

TABLE D

SHORT AND LONG FORM MAIL RETURN RATES
and
Percentage Point Differences

FORM TYPE	1985 TEST CENSUS		1980 CENSUS	
	Jersey City (Panel A)	Tampa	Centri- New Jersey	Percenti- Florida
SF	43.85%	64.97%	76.41%	74.49%
LF	36.07%	54.92%	74.36%	75.34%
DIFFERENCE	7.78	10.05	2.05	0.85

* Short and long mail return rates were not available for the 1978 Dress Rehearsal of Lower Manhattan and Richmond.

Recommendation for Large Household Followup

Recommendation: Conduct the LHH using a mailout/mailback strategy only.

Factors influencing the recommendation: timing, cost, likely response, and operational simplicity

Background

The Telephone Questionnaire Assistance Program Steering Committee (TQA PSC) was asked to review options for conducting the Large Household (LHH) Followup operation. The options were proposed by the LHH Working Group. The three options are summarized in the table below, along with 'ballpark' estimates of workload, expected response and cost for each option.

The TQA PSC discussed the following points:

1. There were significant cost differences among the options and the total number of expected responses were not substantially increased with additional costs. Mailout/mailback is projected to be lowest cost. (There was no information on expected differences in quality of data, if any. There was some feeling that response rates via mail might be higher than projected since these households had responded by mail once already. The Dress Rehearsal should provide empirical evidence on the likely response to the LHH form.)
2. There are distinct timing considerations among alternatives. The mailout/mailback option offers the most flexibility, does not impact nonresponse followup, completion of data capture processing, or ICM interviewing.
3. Coverage is not a consideration for this operation (per information provided by the LHH Working Group), it may be possible to impute the missing characteristics data but methods need to be researched for doing this. At present, simplicity and cost should be important considerations in selecting an option. (It was viewed that doing some type of followup might generate positive response from the public.)
4. Without minimizing the effort required, the mailout/mailback option also seems to offer the simplest implementation strategy.

An additional consideration, though not the most important involved selection of an option that would be doable in the Dress Rehearsal (DR) **and** Census 2000. The Bureau's CATI facilities could support the DR but would be unable to support the estimated workload for Census 2000. The mailout/mailback option can be supported in DPD for both.

(A suggestion was made to evaluate results from the DR and see if the response data differ from the imputed data significantly enough to warrant a followup operation at all)

Option	Timing	Cost	Response (Completed Cases)
1 CATI/PV - Most complex operationally	To avoid overlap with NRFU, this operation could delay completion of data capture and would overlap with ICM interviewing	\$34.9 million	2.96 million
2 CATI/Mailout	Somewhat flexible, does not present logistical problems associated with a PV operation	\$13.6 million	2.15 million
3 Mailout/Mailback - least complex operationally	Most flexible, can be done on a flow as cases are identified	\$4 million	1.95 million

7/15/97

Note for Distribution List
From Debbie Griffin
Subject Some data on Large Households

The recent decision to use a 5 person form along with the proposed mailout method for followup of these "large households" prompted DSSD to look a little more closely at who the people are who are enumerated as persons 6, 7, 8 and higher. We were concerned that a high proportion of these persons would be children and that ineffective followup might result in poor data for children especially minority children.

We used 1996 National Content Survey data - specifically data for persons who responded to forms 1A and 1B and were contacted in the NCS reinterview. Form 1A was a booklet format short form with room for 7 persons with an initial roster that was similar to the one used in 1990. Form 1B was a no roster short form booklet with room for 7 persons and a continuation roster with space to identify 5 more.

The attached tables summarize the percent of all persons who were enumerated as persons 6 or greater. In addition, they provide this information for all adults, all children, all children 5 and under and all children between 6 and 18. The data are provided for each of the two forms. Over 2 percent of all persons were enumerated as persons 6 or greater. The rate for adults was less than 1 percent. The rate for children was over 6 percent.

The tables also break these data down by race and Hispanic origin. It is clear from these data that we will have missing data for a higher proportion of minority children for a higher proportion of some minority adults. About 5 percent of White, non-Hispanic children were enumerated as person 6 or greater. About 9 percent of Hispanic children were enumerated as person 6 or greater. About 3 percent of Hispanic adults were enumerated as person 6 or greater compared to less than 1 percent of White, non-Hispanic adults.

It is also clear from these data that we will have missing data for a very high proportion of all children ages 5 and under. Over 11 percent of all children 5 and under were enumerated as person 6. The data indicate that this rate may be as high as 16 percent for Hispanic children 5 and under.

It is important that this type of information be taken into account in the development of imputation methodologies to deal with missing data for large households. If you have any questions on these results please contact me at x4260 or Nick Alberti at x4233.

cc Content Council Distribution List and
 R Killian (DSSD)
 N Alberti

Percent of Each Population Group That Was Enumerated as Person 6 or Higher

RACE/ ORIGIN	Form 1A				
	ALL* PERSONS	ADULTS	CHILDREN		
			All	0 to 5	6 to 18
All	2 17	73	6 02	11 64	3 49
Black	3 34	1 30	8 64	10 79	7 26
Hispanic	5 66	3 17	9 40	15 70	6 17
White NonHisp	1 47	31	4 86	10 84	2 52
Other	6 24	4 03	10 09	12 60	7 61

* Includes persons with missing age

RACE/ ORIGIN	Form 1B				
	ALL* PERSONS	ADULTS	CHILDREN		
			All	0 to 5	6 to 18
All	2 54	99	6 60	11 34	4 56
Black	2 79	45	7 02	14 68	3 53
Hispanic	5 15	3 21	8 33	11 02	6 75
White NonHisp	1 90	62	5 75	11 15	3 84
Other	5 25	2 80	10 48	9 68	11 34

* Includes persons with missing age



AUG 07 1997

CENSUS 2000 DECISION MEMORANDUM NO. 21

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

From: Ruth Ann Killion *Rak*
Chief, Decennial Statistical Studies Division

Subject: Decision to Not Load Census/Administrative Records Data
Into the Integrated Coverage Measurement CAPI Person
Interviews

The Integrated Coverage Measurement (ICM) Team Leaders and Program Steering Committee recommends and the Management Integration Team concurs that census and administrative records (AR) data NOT be loaded into the interviewers' laptop computers for the ICM personal interviews for dress rehearsal and Census 2000.

The main issue under consideration is the desire to simplify the process and cut down on automation and processing complexities that would result if the census/AR data were used.

One reason why census data were loaded in the 95 and 96 CAPI instrument was because they were needed for the CensusPlus methodology. Given that instead of CensusPlus we will use dual system estimation methodology for DR/2000 ICM, this is no longer necessary.

Another initial reason for loading of the census data is a reduction of the personal interview (DSE) follow-up workload. However in the 95 test this reduction was about 5 percent; in the 96 test it was about 4 percent. We believe that the potential gains in this respect are not worth the extra effort. In addition, the census data available at the time required to load in the CAPI instrument could be very limited.

Although the evaluation of the use of administrative records (AR) data in 96 has not been finished, preliminary results indicate that the use of AR would not add enough people to the reconciled ICM roster (the "resolved roster") to make the potential gains worth the effort.

Not loading will result in a simpler questionnaire, require a much simplified training effort and would cut down on processing. The only drawback identified was a potential for increased curbstoning since not loading the data would eliminate the match screen and the incentive to match cases. However, we feel that QA could appropriately handle curbstoning.

It should be noted that this decision does not imply that laptop computers are not needed for the ICM Person Interview. The major reason for using laptops is the time savings derived from their use. They save considerable time in the census schedule and allow us to meet our legal requirements for production of census results.

I concur with the decision to not load census and administrative records (AR) data into the interviewers' laptop computers for the Integrated Coverage Measurement (ICM) personal interviews for dress rehearsal and Census 2000.



John H. Thompson
Associate Director for Decennial Census

8/7/97

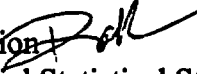
Date



DEC 04 1997

CENSUS 2000 DECISION MEMORANDUM NO. 30

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

From: Ruth Ann Killion 
Chief, Decennial Statistical Studies Division

Subject: Decision to Conduct a CAPI Telephoning Operation for ICM
Before the Regularly Scheduled Personal Visit Interviewing

The Integrated Coverage Measurement (ICM) Team Leaders and Program Steering Committee recommends and I concur that a CAPI telephoning operation for ICM should be conducted before the regularly scheduled personal visit interviewing for dress rehearsal (DR).

The main issue under consideration is the Field Directorate's concern regarding the completion of an estimated 750,000 ICM interviews for Census 2000. We estimate that optimally 200,000 of the 750,000 ICM cases will be available for CAPI telephone interviews. This will reduce the peak management burden of the ICM substantially by spreading the workload (staffing and support) over a longer period of time. It will also reduce the cost of the ICM by approximately \$168,000 dollars for dress rehearsal, and \$4 million dollars for Census 2000.

The plans are to identify for ICM telephoning any households in ICM areas that respond to the census and provide their household phone number. Non-city style addresses, multi-units with less than 20 units, large household followup, and coverage edit cases will be excluded from this operation. A printout of cases with phone numbers will be provided to the regional offices, which will have the option of centralizing the operation. Cases will be assigned without regard for geography. Enumerators will conduct CAPI interviews by phone and transmit cases as always.

A CAPI telephone operation will allow us to complete ICM interviews by telephone earlier in the process--from April 3, 2000 to around May 11, 2000, that is, after an ICM household completes its census form and before the ICM personal visits start. In order to meet this start date for Census 2000, we will need to obtain the census housing unit inventory on January 10, 2000 instead of the proposed February 28, 2000 date. We anticipate insignificant MAF improvement during that time period. The end date is fixed by the completion of nonresponse followup in a significant number of ICM clusters.

After May 11, 2000 (the first possible day for ICM personal visit interviewing), Field staff will have the option of also assigning cases for telephone interviewing during the CAPI personal visit phase but this will be limited to clusters that will not finish NRFU soon, clusters with secured

buildings, or individual type A noninterviews (an occupied unit for which we have been unable to complete an interview).

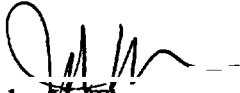
The ICM personal interview and QA CAPI instruments will be slightly modified to handle telephone operations. A flag to identify cases completed by phone will allow for customization of the QA interviews.

As a result of this decision, we are adding two more "inputs" to our charter--first the Data Capture team needs to put priority on the capture of mail returns in ICM areas; second, the Data Processing PSC team needs to give us the telephone numbers for the cases we identify for CAPI telephoning. We have determined that the cost of the data capture operation is not significantly affected by this.

To validate the decision, evaluations of contamination and any mode effects associated with the dress rehearsal ICM telephone operation will be performed. Unless the evaluation indicates otherwise, similar procedures will be followed in Census 2000.

It should also be noted that the Field Directorate has advised us that "reducing the ICM field workload, even by 200,000 will not proportionately diminish, nor may it substantially diminish, the number of laptops required in the field. (Memorandum from Marvin D. Raines to John H. Thompson on "Technical Position for ICM Field Automation," dated July 25, 1997.) But the costs of actual data collection will decline as a result of completing some of the ICM interviews by phone. Additionally, obtaining a significant number of interviews beforehand as a result of this procedure disperses the workload and reduces strain on the CAPI telecommunications infrastructure. Overall, adding this telephone phase reduces the risks we have identified with ICM/CAPI.

I concur with the decision to conduct a CAPI telephoning operation for ICM before the regularly scheduled personal visit interviewing for dress rehearsal and to base the decision for 2000 on results of the evaluation of the DR application.


John H. Thompson
Associate Director for Decennial Census

DEC 04 1997

Date

cc: Management Integration Team
ICM Implementation Team
Statistical Design Team Leaders



JAN 08 1998

CENSUS 2000 DECISION MEMORANDUM NO. 35

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

From: Ruth Ann Killion *Rak*
Chief, Decennial Statistical Studies Division

Subject: Decision to use Computer Assisted Personal Interviewing for the
Integrated Coverage Measurement Survey

The Integrated Coverage Measurement (ICM) Team Leaders and Program Steering Committee recommends and I concur that ICM data collection be conducted using Computer Assisted Personal Interviewing (CAPI) in Dress Rehearsal (DR) and, pending successful DR implementation, in Census 2000. This decision involves three automated ICM operations -- the ICM Person Interview, the ICM QA Interview and the ICM Person Follow-up Interview for which CAPI instruments will be developed.

The main issue motivating this recommendation is the prompt release of ICM results necessary to produce the one-number census estimates by the mandated December 31st due date. It is estimated by the ICM Program Steering Committee that use of Paper and Pencil Interviewing (PAPI) for ICM data collection in 2000 would add 11 work days to the current 2000 census schedule. (Memorandum from David C. Whitford and Magdalena Ramos to John H. Thompson on "Differences in Scheduling Between Paper and CAPI ICM," dated May 2, 1997.) This addition to the schedule would make it difficult to meet the one-number census due date.

Computer assisted interviewing provides faster information than paper interviewing for a number of reasons. CAPI can automate interviewer assignments and electronically transfer data from laptop computers directly to headquarters overnight. CAPI also eliminates manual data review and data entry/scanning. In contrast, paper questionnaires would have to be manually edited in the Local Census Offices and mailed to a Data Capture Center for scanning and/or keying. These more lengthy activities account for the 11 day time difference. The amount of time needed after data collection is shorter with CAPI. Therefore, although a laptop ICM would cost approximately \$60 million more than a paper survey, we believe the time savings justify the extra expense.

The current literature on computer assisted interviewing suggests that, in addition to savings in time, there are other reasons for choosing CAPI. Recent survey methodology research has begun to support the assumption that data quality is higher with CAPI. Additionally, the research indicates that interviewers prefer CAPI to paper interviewing and that interviewers generally perform at a higher level with computer assisted interviewing (Memorandum from

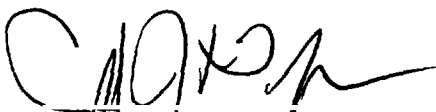
Catherine Keeley to Ruth Ann Killion on "Switching from CAPI to PAPI for ICM Person Interviews," dated April 25, 1997.) These findings concur with our Census Bureau experiences in the 1996 Community Census, when it was found that the novelty of the laptops often helped motivate respondents who may have already been visited numerous times, and enhanced interviewers' perceptions of the importance of their jobs.

Using CAPI for the ICM interviews also benefits the quality assurance (QA) operations. An effective QA operation requires that reports are sent to the regional offices promptly so that the targeted QA cases can be selected and completed in time to repair any problems. The speed with which the QA operation was carried out in 1996 with CAPI was impressive. Paper interviewing would result in a slower and less effective QA operation.

Because of the large sample of households for which ICM interviews will be conducted in Census 2000 (750,000), concerns have been raised about the stability and reliability of all components of the automation system necessary for CAPI data collection, but most especially telecommunications, laptop acquisition, and appropriate training and support for interviewers. Most of these automation risks for ICM are similar to those experienced by other surveys that utilize the CAPI technology. However, ICM overlays high volume with tight timing. We have developed and appropriately funded strategies to mitigate these risks, including strategies for procuring and supporting laptops, expanding testing of the CAPI instruments, training interviewers, constructing effective telecommunications and implementing automated help desks and "phone banks" support.

The use of CAPI for ICM data collection in DR will be assessed and serious evidence of failure of the CAPI methodology will lead to a change in the decision for Census 2000.

I concur with the decision to use CAPI for ICM Survey data collection in DR and 2000, pending successful DR implementation.



John H. Thompson
Associate Director for Decennial Census

JAN 08 1998
Date


cc: Management Integration Team
ICM Implementation Team
Statistical Design Team Leaders



JAN 16 1998

CENSUS 2000 DECISION MEMORANDUM NO. 37

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

From: Ruth Ann Killion 
Chief, Decennial Statistical Studies Division

Subject: Decision on Handling Integrated Coverage Measurement (ICM)
Missing Data for the Census 2000 Dress Rehearsal and Census
2000

The Statistical Design Team Leaders and Program Steering Committee recommend, and I concur, that in the Census 2000 Dress Rehearsal and in Census 2000, ICM missing data be handled as follows:

1. Account for whole-household nonresponse in the P-sample with a ratio type noninterview adjustment similar to that used for the 1990 PES.
2. Account for demographic characteristic missing data using a modified 1990 PES type imputation procedure for the P-sample.
3. Account for demographic characteristic missing data in the E-sample by using the Census Edited File (CEF). For those few E-sample persons whose IDs do not match to CEF person IDs, use a procedure similar to the P-sample imputation procedure.
4. Determine match, residency, and correct enumeration probabilities using simple ratio models within each state rather than by using hierarchical logistic regression models. (Match and residency probabilities apply to the P-sample. Enumeration probabilities apply to the E-sample.)

The Census 2000 Committee on Statistical Policy also reviewed and concurred with these recommendations.

Recommendation one is based on research using 1995 and 1996 ICM data which showed that using census data to define noninterview cells has little effect on estimates and research using 1990 PES data which showed differential effects on race/Hispanic origin and other estimates when noninterview adjustment is not done.

Recommendation two is based on research using 1990 PES data which showed that the 1990 PES type imputation performed better than the Flexible Matching imputation procedure implemented for the 1995 ICM. Additionally, research using 1995 ICM data shows that using a 1990 type PES imputation versus using 1996 census type imputation makes little difference for the P-sample. Thirdly, research using 1990 PES data showed differential effects on race/Hispanic origin and other estimates when imputation is not done.

Recommendation three is made because research using 1995 ICM data suggests a substantial noise reduction for some estimates by using this approach. Use of the CEF data makes sense since the E-sample is a sample from the census.

The recommendation to use a simple ratio model for determining match probabilities of unresolved cases is based on the 1995 and 1996 ICMs where we found few unresolved cases among those sent to followup and that a substantial majority of persons with unresolved final match status were persons with insufficient information for matching. We expect the Census 2000 Dress Rehearsal and Census 2000 will provide similar results because of changes in procedure since 1990.

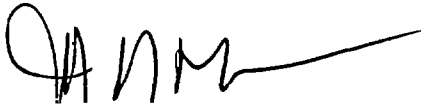
The recommendation to use simple ratio models for determining residency and correct enumeration probabilities of unresolved cases is made as follows.

- We are limited because of the stipulation that we cannot use data from other states to determine missing data values of persons in a given state. This means that if we are using logistic regression models to determine correct enumeration and residency probabilities, we must create separate models for each state and must not borrow strength from any other state.
- Ideally, if we use logistic regression models, separate models should be developed for each state. This is not feasible because of the amount of time required to program and test 50+ models. Hence if logistic regression modeling is used, we should use one generic set of variables which are defined the same way for all states (e.g., race would be defined as white/nonwhite for all states). This would mean among other things that we would not be able to use design based variables such as sampling strata in the models.
- In the 1995 Census Test and 1996 Community Census, we modeled all sites together. Analysis shows that we obtain nearly the same adjustment factors and estimates by taking as our correct enumeration probabilities the ratios of correct enumerations among resolved persons in the same before followup (BFU) match code groups and by taking as our residency probability the ratio of residents among persons with resolved residence status who were sent to followup (or by determining this ratio separately for persons needing followup visits, for persons with insufficient information for matching based on all persons, and for persons with unresolved

residence status who were marked as not needing followup visits). For Census 2000, sample sizes in the states will in most cases be smaller than the sample sizes in the combined 1995 sites and the combined 1996 sites. Because of this, we expect that for state estimation, we will do just as well to determine correct enumeration and residency probabilities as ratios rather than from generic logistic regression models.

- Based on the 1995 Census Test and 1996 Community Census, we expect that each state will require on average 2 hours to process logistic regression models to obtain correct enumeration and residency probabilities. On the other hand, we expect computation of ratios to take no more than one to two minutes per state.

I concur with the decisions on handling missing data in the Census 2000 Dress Rehearsal and Census 2000.



John H. Thompson
Associate Director for Decennial Census

JAN 16 1998

Date

cc: Management Integration Team
ICM Implementation Team
Statistical Design Team Leaders



JAN 28 1998

CENSUS 2000 DECISION MEMORANDUM NO. 38

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *Preston Jay Waite*
Assistant to the Associate Director for Decennial Census

From: Ruth Ann Killion *Ruth Ann Killion*
Chief, Decennial Statistical Studies Division

Subject: Decision Not to Combine Results of Integrated Coverage Measurement and Demographic Analysis in Estimation for Census 2000

The Census Committee on Statistical Policy (CCSP) recommends a decision to **not** combine results of Integrated Coverage Measurement (ICM) and Demographic Analysis (DA) in estimation for Census 2000.

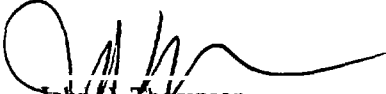
DA has been used for many years to evaluate census coverage nationally by age, race, and sex. In more recent censuses it has also been used to evaluate estimates obtained from census coverage surveys, including the 1990 Post Enumeration Survey (PES). These evaluations have suggested the presence of "correlation bias" in Dual System Estimates (DSEs) obtained from the coverage surveys for adult males, particularly adult Black males. DA provides estimates independently of the coverage surveys, primarily using birth and death registration data and international migration estimates. The DA results suggest consideration be given to methods that somehow "combine" results from DA and ICM to address possible correlation bias in DSEs from ICM in Census 2000. Numerous methods have been developed for doing this combining in a way that controls estimates to reproduce the national sex ratios obtained from DA for age-race groups. Such methods were considered and rejected for use with the 1990 PES.

The primary limitation of DA relevant to the combining issue is its restriction to national level estimates. While subnational DA results are suitable for some evaluation purposes, they are not believed to be sufficiently reliable to use in combining with subnational ICM estimates. The restriction to use of national DA results creates a major problem for combining, as it allows various combining approaches that produce different subnational results but are all equally in agreement with the ICM and DA data. Available data do not provide a means for discriminating for or against one of these combining methods over another. This unresolvable uncertainty about the appropriate way to combine was a primary reason combining was rejected and not used in conjunction with the 1990 PES. In addition, because DA results suitable for combining are available only at the national level, it is not possible to demonstrate how combining would work in the three subnational Census 2000 Dress Rehearsal sites.

(Background information on the motivation for considering combining, methods for doing so, and the issue of alternative combining methods equally consistent with the data yielding different subnational results, is given in two write-ups distributed and discussed at the November 3 and December 15 CCSP meetings. See "Combining Demographic Analysis (DA) and ICM Results—An Overview," and "Combining Demographic Analysis (DA) and ICM Results—Further Results," both by William Bell of Statistical Research Division. Additional background and discussion is given in the 1996 "Report of the Working Group on the Use of Demographic Analysis in Census 2000," and in further references listed in these three reports.)

Primarily because of the unresolvable uncertainty about the appropriate way to combine, the CCSP recommends against combining DA and ICM results in Census 2000.

I concur with this recommendation to **not** combine results of Integrated Coverage Measurement and Demographic Analysis in estimation for Census 2000.



John H. Thompson
Associate Director for Decennial Census

JAN 28 1998
Date



JAN 28 1998

CENSUS 2000 DECISION MEMORANDUM NO. 42

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: Ruth Ann Killion *Rak*
Chief, Decennial Statistical Studies Division

Subject: Estimation Decisions for the Integrated Coverage Measurement
Survey for Census 2000

Several decisions related to estimation for the Integrated Coverage Measurement (ICM) Survey have been made. The purpose of this memorandum is to document these decisions.

1. Dual System Estimation

Standard Dual System Estimation (DSE) within poststrata will be used for Census 2000. The Census Bureau has considerable experience with this methodology from its use in the 1980 Post Enumeration Program (PEP), tests leading up to the 1990 census, in the 1990 Post Enumeration Survey (PES), and in the 1995 Census Test and 1996 Community Census. We know what it takes to implement DSE, both statistically and operationally. While DSE is not perfect it has been demonstrated to provide reasonably reliable estimates of population that correct for established deficiencies in census coverage. These include differential undercounts among race and ethnic groups, renters, and rural residents. Evidence for this is provided by the consistency of DSE results across the different occasions on which it has been used, and in the reasonable consistency between DSE results and independent benchmarks obtained from demographic analysis (DA).

Since DSE is not perfect, the Census Bureau decided to research alternative estimation methods that might either be simpler operationally or more accurate. The approach known as CensusPlus offered possibilities for simplifying operations, primarily by eliminating DSE followup. However, results from CensusPlus in the 1995 and 1996 test censuses showed grossly inferior results to DSE, with CensusPlus estimating overcounts for some groups traditionally shown to be undercounted in comparison to independent DA benchmarks.

In regard to accuracy, a primary area of concern about DSE is its underlying assumption that probabilities of inclusion in the census and ICM are constant over individuals within

poststrata. Failure of this assumption leads to correlation (or heterogeneity) bias, resulting in underestimation by DSE. Comparisons of 1990 PES and 1980 PEP results with DA suggest some correlation bias in DSEs for adult males, particularly adult Black males. Research in this area to date has failed to develop a basic estimation method that overcomes this flaw in DSE.

Approaches researched to try to overcome correlation bias in DSEs include the following. Split DSE involves adding an additional stratification dimension to census and (possibly) ICM inclusions according to whether or not individuals included are associated with households from whom a census mail return was received. Alternative poststratifications were also developed using "hard-to-count" scores obtained from long-form data, as well as from estimated inclusion probabilities from 1990 data. None of these efforts made a significant dent in the correlation bias of the standard DSEs. A more promising approach currently being investigated involves use of logistic regression models of inclusion probabilities; the resulting estimator reduces to the standard DSE in the absence of heterogeneity bias. This approach also has possibilities for tailoring inclusion probabilities to smaller geographic areas than the usual poststrata, with some potential for improving ICM estimates for small areas. This approach will not be used, however, because there is not enough time to complete the research and seek the necessary technical review to gain consensus and make an informed decision on the approach in time to implement it in the Census 2000 Dress Rehearsal. Research on the logistic regression approach will continue as an evaluation tool in Census 2000. Combining Demographic Analysis and Integrated Coverage Measurement is another approach being investigated to try and overcome correlation bias. A separate decision memorandum will be prepared documenting our plans on combining (The decision is not to combine).

Currently, while the problem of correlation bias in DSEs has not yet been solved, there is no available alternative that is demonstrably superior. Also, correlation bias in DSEs must be considered in relation to the much larger biases inherent in using uncorrected census counts or post-NRFU estimates, or simpler adjustments such as those from CensusPlus.

2. Iterative Proportional Fitting or Raking

Iterative proportional fitting, or raking, will be used for the Census 2000 Dress Rehearsal for the ICM for Sacramento and Menominee and the PES for South Carolina using two marginal sets of poststrata. Prior to any necessary collapsing, one set will be 35 race/origin by age/sex poststrata and the other set will be 2 poststrata for tenure (owner/renter). First, direct DSEs will be calculated for each of the 70 cells of the cross-classification of these two sets of poststrata. These DSEs will be summed to obtain the two marginal sets of poststrata. The initial phase estimates will then be raked to these two sets of marginal constraints. Research on the best characteristics to use to define the marginal constraints and on the number of dimensions to use for the raking matrix will

continue. This decision for the Dress Rehearsal does not automatically mean we will use raking in Census 2000. To make the decision for Census 2000, we will list the proposed benefits and potential problems of raking in advance of the Dress Rehearsal. We will then obtain measurable and pertinent information from the Dress Rehearsal so the Census Committee on Statistical Policy can make a reasoned decision about whether raking should be used in Census 2000.

For Census 2000, within each state, it will be necessary to form poststrata to group people that have similar coverage properties such as by race/origin groups by age/sex by tenure. If 6 race/origin groups, 7 age/sex groups, 2 tenure categories and 3 geographic groups are defined in a typical state, a total of $(6 \times 7 \times 2 \times 3) = 252$ poststrata would be required, more than the sample will support. Iterative proportional fitting, or raking, is a well known method to weight survey data simultaneously to multiple dimensions of control variables. Since developed by Deming in 1940, raking has been used to weight the census long form sample to multiple sets of 100% population controls. Raking is being considered for Census 2000 so that multiple sets of poststrata can be defined and the ICM sample weighted so that the calculated coverage factors will result in estimates that correspond to the marginal control estimates. Use of raking would result in coverage factors which vary within a marginal poststratum. For example, for Black male renters age 18-29 a different coverage factor would be used for owners and renters. Owners and renters are known to have different coverage properties.

3. Small Area Estimation

Simple synthetic estimation will be used to calculate estimates for blocks within poststrata for all data products, including public law #94-171 data. For a particular poststratum, the block estimate is obtained by multiplying the initial phase estimate by the poststratum coverage factor. For example, suppose the coverage factor for black male renters age 18 - 29 in a given state is 1.05. Then the initial phase estimate of black male renters age 18-29 in all blocks in the state will be multiplied by 1.05 (with controlled rounding) to produce the census estimate. Research will continue on using logistic regression to form Generalized DSEs at the block level that allow heterogeneous capture probabilities. However, we will not be able to use this procedure for Census 2000 since the research can not be completed in time for implementation in the Dress Rehearsal.

4. Household Data File

One practical deficiency of the PES estimation for 1990 was that the methods accounted for omissions or erroneous inclusions of people but it did not associate these errors with housing units. The estimates of missed or erroneously enumerated people were not placed in housing units. Also, the estimated people were not placed in housing units. This technique does not work well for users of census data who need to know

characteristics on a household basis. An area being researched for Census 2000 was the development of methodology for making estimates in a way that preserved household structure. A file would be created that listed each housing unit by block with the appropriate people in the housing unit. This methodology was used in the 1995 Test to conduct a housing unit coverage evaluation. The objective was to provide estimates of population size and relevant numbers of housing units along with the reliability of the estimates.

Based on a thorough review of the 1995 results, along with the implementation and timing requirements, the Census Bureau will not produce a household data file for Census 2000. Research will continue on methodology for creating a household data file.

5. Hard to Count Scores

Hard to Count (HTC) scores will not be used for poststratification. This decision rests on the desire to only use the most recent data, Census 2000 data, to form groups of individuals (poststrata) believed to have similar coverage characteristics. The HTC scores have been developed for each 1990 Census tract using 1990 Census 100% and long form data. We do not want to use 1990 data to form poststrata for Census 2000. Timing makes it impossible to use Census 2000 long form data to compute HTC scores that could be used to form poststrata. Final counts must be calculated and reviewed by December 31, 2000.

I concur with the recommendations in the memorandum on the ICM estimation methodology for Census 2000.


John H. Thompson
Associate Director for Decennial Census

JAN 28 1998
Date



FEB 05 1998

CENSUS 2000 DECISION MEMORANDUM NO. 44

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: *Michael J. Weiler*
Michael J. Weiler
Assistant Division Chief for Censuses
Field Division

Subject: Availability of Be Counted Forms

On November 5, 1997 the Management Integration Team decided that the Be Counted forms would be made available one day after the delivery of the second mailing. Be Counted forms will be available at the Be Counted sites after April 16.

This decision is based on the strategy that the Be Counted program is designed as a last resort for individuals that did not receive a questionnaire in the mail or who believe that they were not counted in their household. By making the forms available after the second mail-out, we will be sending out the message that filling out the form received in the mail is the preferred method of responding to the census. The Be Counted program in Columbia, SC has been extended two weeks to accommodate for different testing methods than in the other two dress rehearsal sites.

The Questionnaire Assistance Centers in the update/leave areas will open before Census Day. This will allow the public to seek assistance as soon after receiving the census questionnaire as possible.

The following is the schedule for the Be Counted sites and the Questionnaire Assistance Centers:

Be Counted

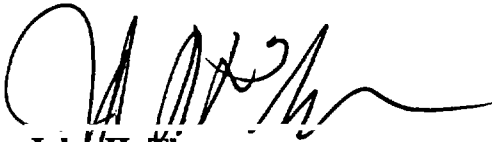
- Columbia, SC 4/16/98 - 5/14/98
- Sacramento 4/16/98 - 5/1/98
- Menominee 4/16/98 - 5/1/98

Questionnaire Assistance Centers

- Menominee & 11 Columbia SC (rural) counties 3/15/98 - 5/8/98
- Sacramento & Columbia SC (urban) 3/31/98 - 5/8/98

We look forward to a quick response to these recommendations.

I concur with the recommendation to make Be Counted forms available after April 16.



John H. Thompson
Associate Director for Decennial Census

FEB 05 1998

Date

cc: Distribution List

- E. Gore (DMD)
- D. Stoudt
- G. Davis
- M. Tenenbaum (DSSD)
- C. McCully (GEO)
- J. Benetti
- R. Damario
- P. Bloxam (FLD)
- J. Cortez
- E. Robinson
- F. Ambrose (CLO)
- S. Ammernhauser (TMO)
- K. Wyatt
- K. Campbell (POP)
- D. Smith
- N. Sweet
- M. Lee (SRD)
- K. Oliphant (C2PO)



MAR 17 1998

CENSUS 2000 DECISION MEMORANDUM NO. 47

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: *RWM*
Robert W. Marx
Assistant Director for Decennial and Geographic Policy

Subject: Recommended Strategy for Creating and Maintaining
the Master Address File for Military Bases

I request concurrence with this recommendation from the Census 2000 Military Enumeration Team for creating the Master Address File (MAF) for military bases. If you agree with this recommendation, I request that you please sign the concurrence line at the end of this memorandum and return it to me.

I. Background

The Census Bureau has classified military bases into two categories, large (also called qualifying for some operations) and small (also called non-qualifying for some operations). Large bases have a resident population of at least 50 people or cover at least one square mile of land area.

The two general types of housing units on military bases are on-base family housing and Group Quarters (GQs). On-base family housing tends to be single family housing units and small multi-unit structures. According to the military's liaisons to the Census Bureau, approximately 99 percent of all bases use city-style addresses for 100 percent of their on-base family housing units. The United States Postal Service (USPS) Delivery Sequence File (DSF) generally contains these addresses.

GQs on military bases are barracks, hospitals and prisons. Military bases are not included in the facility questionnaire universe. The Census Bureau will assign map spots and obtain address information for military GQs from the military GQ listing operation. The GQ address information will be added to the Special Place/Group Quarters (SP/GQs) master file, which then will be used to update the MAF.

II. Steps for Building the MAF for Military Bases

The same strategy used for creating the MAF for civilian dwellings inside the blue line will be used for building the MAF for all military bases, **except small**

bases **outside** the blue line. On-base family housing units on small bases outside the blue line will be listed and added to the MAF during the military GQ listing operation, and will be included in the Update/Leave universe for Census 2000. The following table summarizes the MAF address sources for military bases:

MAF Address Sources for Military Bases

	Small Bases	Large Bases
On-base family housing (city-style addresses)	Inside blue line: DSF/1990 census Address Control File (ACF) Outside blue line: Address listing operation at time of GQ listing	DSF/ACF
Group Quarters	GQ listing/SPGQ file	GQ listing/SPGQ file

A. Create initial MAF by merging the DSF and ACF

The initial MAF will be created by matching the ACF and the DSF. Because military bases contain structures whose residents receive mail in virtually all instances at city-style addresses, we expect the DSF coverage of military bases to be at least as good as it is for the rest of the country.

The assumption of adequate DSF coverage is based on information from military representatives and also the results from processing Fort Jackson's address list for the Dress Rehearsal. Contacts at the Defense Manpower and Data Collection Agency have told the Census Bureau that all of the on-base family housing units on approximately 99 percent of the bases receive mail at a city-style address. This was generally supported by military representatives at the Census 2000/Military Liaison conference held on October 9, 1997.

The Geography Division (GEO) processed an electronic address list of on-base family housing provided by Fort Jackson for the Dress Rehearsal. The following table summarizes the results:

Total number of addresses (on-base family housing) on Fort Jackson's address file	1,270
Number of Fort Jackson's addresses that matched DSF addresses in the automated matching processing	1,224
Number of Fort Jackson's addresses that did not match a DSF address in the automated process, but were found in the DSF during clerical reconciliation	46
Number of Fort Jackson's addresses not in the DSF	0
Number of Fort Jackson addresses that did not geocode to the TIGER database	623

B. MAFGOR

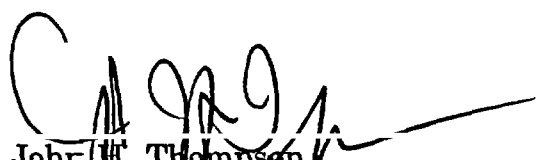
In Spring, 1998, the MAFGOR staffs will make a concentrated effort to resolve ungeocoded military address clusters on all military bases inside the blue line and on large military bases outside the blue line. To ensure all military bases are included in this effort, the GEO will send the MAFGOR staffs a list of military bases, including state and county codes, and the name and phone number of a housing contact for each base. The Field Division (FLD) and GEO will include military bases in the Targeted Map Update operation to supplement MAFGOR.

C. Conduct Block Canvassing

All large military bases will be included in the 1999 block canvassing operation. The FLD, GEO and other divisions will identify requirements and deliverables needed to support this operation.

If you have any questions or comments, please contact Bob Damarico or John McKay of the MAF Operations Branch on (301-457-1106).

I Concur With This Recommendation for Creating the MAF for Military Bases:


 John H. Thompson
 Associate Director for the Decennial Census

MAR 17 1998

Date

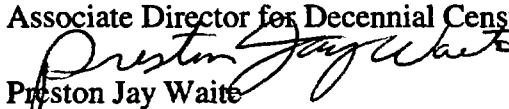
cc: C. Johnson (FLD)
C. Moore
M. Musquiz
K. Kniffen-Giesbrecht (DMD)
D. Stoudt
K. Merrit (DSSD)
E. Byerly (POP)
K. Campbell
A. Clark-Smith
K. Hansen
L. Kehm
G. Swieczkowski
S. Ammenhauser (TMO)
P. Montgomery
GEO MAF Distribution List



MAY 11 1998

CENSUS 2000 DECISION MEMORANDUM NO. 54

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

From: 
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

Subject: Decision to Suspend the Blanket Second Mailing of
Questionnaires in Census 2000

This memorandum documents the decision to suspend the blanket second mailing of questionnaires in Census 2000 under the current census design. The blanket second mailing is a variation of the original targeted second mailing which would have been directed only to those households who did not respond to our initial mailing. This variation was devised when printing vendors said they would need a month to process the targeting of questionnaires for the second mailing. The schedule allowed for at most two weeks. The blanket second mailing strategy would allow sufficient time for advance preparation of questionnaire mailing packages.

Further analysis has shown that there is considerable risk that a blanket second mailing could reduce the accuracy of the census. The Census Bureau asked the National Academy of Sciences (NAS) and other advisory panels to review this design change. Members of the NAS committee expressed concern that using a blanket second mailing strategy may create the following risks:

- Increased costs for dealing with a large workload of duplicate forms;
- Greater inaccuracy resulting from massive duplication; and
- Adverse public reaction that could actually lower mail response, resulting in more nonresponse follow-up and increased costs for field data collection.

Given these risks, we decided not to request a \$33 million increase to the FY 1999 base budget of \$858 million. We did not believe that the vulnerability of this blanket option justified asking for funds in FY1999.

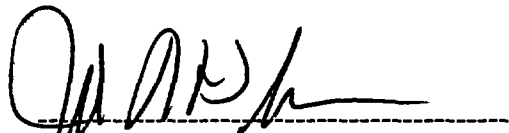
Sending a targeted replacement questionnaire to non responding housing units would add about six percentage points to the mail back response rate, reducing by as much as \$150 million the field data collection costs in FY 2000. This potential cost increase from eliminating the blanket second mailing would be offset by savings of \$74 million in postage, for an upper bound net cost increase of \$76 million in FY 2000. However, for a variety of reasons, we expect that the

additional cost in FY 2000 could be less than the net savings of \$33 million in FY 1999. The Dress Rehearsal experience could result in other changes to key activities/operations that could have significant implications for cost decreases and increases. Some of these changes include:

- Higher Pay Rates Generated from the Westat Pay Rate Study - significantly higher pay rates (relative to 1990) could generate FY 2000 savings from timely completion of nonresponse follow-up, increased productivity, and greater retention of employees;
- Optical Character Recognition (OCR) in data capture - lower than expected OCR rates could result in the need for more clerks to handle keying of questionnaire responses in FY 2000; and
- Integrated Coverage Measurement (ICM) Telecommunication/Automation - if use of Computer-Assisted Personal Interview using laptop computers is not feasible, there could be a savings from not having to purchase the laptops in FY 2000.

Some of these savings could offset the potential cost increases in FY 2000 of dropping the second mailing. Also, the advertising campaign may have a more positive impact on response rates than expected, thus generating additional savings.

I concur with the recommendation to eliminate the blanket second mailing in Census 2000.



John H. Thompson
Associate Director for Decennial Census



Date



AUG 27 1998

CENSUS 2000 DECISION MEMORANDUM NO. 61

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: Carol A. Van Horn *CAH*
Chief, Decennial Management Division

Subject: Revised Procedures for Handling Whole Households with a Usual Home Elsewhere (WHUHE) during Census 2000

We call households living in vacation, seasonal or other occasionally occupied housing units Whole Households with a Usual Home Elsewhere (WHUHE). The Census Operational Managers (COM) and Issue Resolution/Change Control (IR/CC) Board made a recommendation for handling WHUHEs during the mail census and a separate recommendation for handling them during nonresponse follow-up. These recommendations are documented below.

Mail Census Procedures

The COM and IR/CC recommend, and I concur, that we should not include any special instructions, questions, or procedures on the mailback (mail out and update/leave) questionnaires to handle WHUHEs. Refer to Attachment 1 for an illustration of the questionnaire.

For a sampling census, this recommendation is consistent with our strategies of keeping the census simple and using statistical methods to handle coverage problems that are difficult or error-prone in a traditional census. Field, processing, and statistical procedures to implement this approach are already in place. Our usual residence rules and nonresponse follow-up procedures are designed to count these households correctly. The Telephone Questionnaire Assistance Center operators will have procedures in place to help respondents who call with such residence questions under any scenario. Therefore, there are little or no operational impacts of this recommendation. Even in a traditional census, the coverage impacts are so small that they do not warrant special procedures to "double check" what our basic enumeration procedures already do. The procedures that we have used to address this universe have not worked effectively. Thus, this recommendation is applicable equally in a traditional census design.

This recommendation is a change from the procedure used during the Census 2000 Dress Rehearsal. During the Census 2000 Dress Rehearsal, the following instruction was printed on the cover of the mailback questionnaires: *If this house, apartment, or mobile home is a vacation or seasonal home or only occasionally occupied by your household, please call the Census Bureau at 1-888-421-xxxx before you fill out the rest of this form.*

Using 1990 Census housing unit data, preliminary results from the Census 2000 Dress Rehearsal indicate that 0.2 percent of the 153,362 housing units in Sacramento, 0.4 percent of the 251,874 housing units in South Carolina, and 8 percent of the 1,742 housing units in Menominee called the toll-free TQA telephone number because of this instruction. This projects to about 500,000 calls to TQA during the time of peak inbound calling if we include the instruction on the questionnaire. Under the proposed recommendation, we estimate that TQA will handle about 100,000 calls for WHUHEs.

Nonresponse Follow-up Procedures

The COM and IR/CC recommend, and I concur, that for purposes of enumerator questionnaire design, after a screener to determine if the household is a WHUHE, the instruction on the form (to the enumerator) will be generic and state: *Refer to the manual for further instructions.* See Attachment 2 for a copy of the enumerator questionnaire.


Under the current census design that utilizes Integrated Coverage Measurement (ICM), there is no need to have special instructions, questions, or procedures to enumerate the usual residence of WHUHEs during nonresponse follow-up. The COM and IR/CC agreed to include a "screener" on the enumerator questionnaire to assist enumerators in correctly identifying seasonal vacant housing units. The "usual residence" will be counted during the Bureau's regular enumeration procedures or accounted for in ICM. However, since it is too early to know the specific procedures we would utilize to ensure complete coverage of WHUHEs in a traditional census, we recommend that, at least for purposes of enumerator questionnaire design, after a screener to determine if the household is a WHUHE, the instruction on the form (to the enumerator) will be generic and state: *Refer to the manual for further instructions.* This recommendation allowed us to go forward with submission of the forms to the Office of Management and Budget for clearance on July 23, 1998. It also allows us to maintain our options until a final decision is made about the design of Census 2000. By leaving the instruction, we can determine later whether the appropriate procedure in nonresponse follow-up for handling these households is: 1) handing the respondent an instructional card to call our 800 number to give their responses, 2) handing the respondent a *Be Counted* form to mail in, or 3) having the enumerator take the interview for the WHUHE on a separate enumerator questionnaire. When we make a final decision about how to handle WHUHEs in a traditional census, we will change the generic instruction "Refer to the manual for further instructions" to a specific instruction.

This recommendation is favorable for several reasons. Questionnaire clearance can proceed on schedule. Under the current design, field, processing, and statistical procedures to implement the

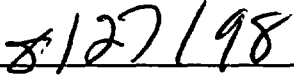
recommendation will be in place, so there are little or no operational impacts. For WHUHEs it is clear that coverage implications are minimal or nonexistent, as was the case for the mailback-questionnaire option. This decision gives us more time under the traditional census design to better evaluate procedural, processing, and timing implications of the options under consideration.

This too is a change from the procedure used during the Census 2000 dress rehearsal. During the Census 2000 dress rehearsal nonresponse follow-up operation, enumerators asked respondents question S3: *Is this house or apartment a vacation or seasonal home or a temporary residence for your household?* If the respondent answered "yes", the enumerator handed the respondent Form DX-11 which told them to call the Census Bureau at our toll-free number.

I concur with the recommendations provided in this memorandum. We will not include any special instructions, questions, or procedures on the mailback (mail out and update/leave) questionnaires to handle WHUHEs. We will include a screener on the enumerator questionnaires to identify WHUHEs during nonresponse follow-up. An instruction will follow this screener to tell the enumerator to: *Refer to the manual for further instructions.* This will give us time, if we use a traditional census design, to better evaluate procedural, processing, and timing implications of the options under consideration. When we know the design of Census 2000, we will change the generic instruction to a specific instruction on the enumerator questionnaire to reflect how procedurally we will handle WHUHEs.



John H. Thompson



Date

Attachments

FORM D-1(E)
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

ENUMERATOR QUESTIONNAIRE

United States Census 2000

Continuation form(s) attached
Number of continuation forms for this address:

LCC: State: County: Tract: Block:
 AA: Map Spot: Unit ID:
 APPLY LABEL HERE →
 House No.: Street/Road Name/Rural Route & Box No.: Apt. No. or Location:
 City: State: ZIP Code:

RECORD OF CONTACT

Type	Month	Day	Time	Outcome	Type	Month	Day	Time	Outcome
<input checked="" type="checkbox"/> Personal	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Personal	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Telephone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Telephone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Personal	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Personal	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Telephone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Telephone	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

OUTCOME: NY = Left notice of visit; RE = Refusal; OT = Other
 CODES: NC = No contact; CI = Conducted interview

CERTIFICATION

I certify that the entries I have made on this questionnaire are true and correct to the best of my knowledge.

Enumerator's signature and date:
 Crewleader's initials: CLD number:
 Month: Day:

INTRODUCTION

S1: Hello, I'm (Your name) from the Census Bureau. (Show ID card.) Is this (Read address)?

Yes - Continue with question S2
 No - Ask: Can you tell me where to find (Read address)? END INTERVIEW

S2: I'm here to complete a census questionnaire for this address. It should take about 7 minutes. This notice (Hand respondent a Privacy Act Notice) explains that your answers are kept confidential.

Did you or anyone in this household live here on Saturday, April 1, 2000?

Yes - Continue with question S3
 No - Skip to question S4

S3: Is this (house/apartment/mobile home) a vacation or seasonal home, or only occasionally occupied by your household?

Yes - Skip to items A, B, and C in the Interview Summary block and refer to Job Aid Section X
 No - Skip to S5

S4: On April 1, 2000 was this unit -

Vacant - Skip to items A, B, and C in the Interview Summary block and refer to Job Aid Section X
 Occupied by a different household? Using a knowledgeable respondent, complete this questionnaire for the Census Day household

S5: How many people were living or staying in this (house/apartment/mobile home) on April 1, 2000?

Number of people

ENUMERATOR NOTE: For questions P2 through P6, prompt respondent with

P1. What is each person's name? Start with the name of a person who owns, is buying, or rents this (house/apartment/mobile home).

Person 1

First Name MI

Last Name

Cancel Add

Person 2

First Name MI

Last Name

Cancel Add

Person 3

First Name MI

Last Name

Cancel Add

Person 4

First Name MI

Last Name

Cancel Add

Person 5

First Name MI

Last Name

Cancel Add

P2. What is each person's sex?

Mark ONE box.

Male
 Female

Male
 Female

Male
 Female

Male
 Female

Male
 Female

P3. (Show Job Aid Card A.) Which of these categories best describes how each person is related to (read name Person 1)?

Person 1

Husband/wife Father/mother
 Natural-born son/daughter Grandchild
 Adopted son/daughter Parent-in-law
 Stepson/daughter Son/daughter-in-law
 Brother/sister Other relative - Specify relationship

NONRELATIVE
 Roomer/boarder Unmarried partner Other nonrelative
 Housemate/roommate Foster child

Husband/wife Father/mother
 Natural-born son/daughter Grandchild
 Adopted son/daughter Parent-in-law
 Stepson/daughter Son/daughter-in-law
 Brother/sister Other relative - Specify relationship

NONRELATIVE
 Roomer/boarder Unmarried partner Other nonrelative
 Housemate/roommate Foster child

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 Natural-born son/daughter Grandchild
 Adopted son/daughter Parent-in-law
 Stepson/daughter Son/daughter-in-law
 Brother/sister Other relative - Specify relationship

NONRELATIVE
 Roomer/boarder Unmarried partner Other nonrelative
 Housemate/roommate Foster child

Husband/wife Father/mother
 Natural-born son/daughter Grandchild
 Adopted son/daughter Parent-in-law
 Stepson/daughter Son/daughter-in-law
 Brother/sister Other relative - Specify relationship

NONRELATIVE
 Roomer/boarder Unmarried partner Other nonrelative
 Housemate/roommate Foster child

if needed, for example, "Let's start with Bob."

P4 What is each person's date of birth? Print numbers in boxes.

Month:

Day:

Year of birth:

If date of birth not known or incomplete, ASK: What was this person's age on April 17?

Age:

Month:

Day:

Year of birth:

If date of birth not known or incomplete, ASK: What was this person's age on April 17?

Age:

Month:

Day:

Year of birth:

If date of birth not known or incomplete, ASK: What was this person's age on April 17?

Age:

Month:

Day:

Year of birth:

If date of birth not known or incomplete, ASK: What was this person's age on April 17?

Age:

Month:

Day:

Year of birth:

If date of birth not known or incomplete, ASK: What was this person's age on April 17?

Age:

ENUMERATOR NOTE: It is important to ask BOTH questions P5 and P6 and show Cards B and C.

P5 Are any of the persons that I have listed Mexican, Puerto Rican, Cuban, or of another Hispanic or Latino group?

No, not Spanish/Hispanic/Latino

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, other Spanish/Hispanic/Latino - What is this group?

No, not Spanish/Hispanic/Latino

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, other Spanish/Hispanic/Latino - What is this group?

No, not Spanish/Hispanic/Latino

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, other Spanish/Hispanic/Latino - What is this group?

No, not Spanish/Hispanic/Latino

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, other Spanish/Hispanic/Latino - What is this group?

No, not Spanish/Hispanic/Latino

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, other Spanish/Hispanic/Latino - What is this group?

P6 Now choose one or more races for each person. Which race or races does each person consider himself/herself to be?

White

Black, African Am., or Negro

Asian Indian

Chinese

American Indian or Alaska Native - What is the name of (your/their) enrolled or principal tribe?

Filipino

Japanese

Korean

Vietnamese

Other Asian

Native Hawaiian

Guamanian/Chamorro

Samoan

Other Pacific Islander

Some other race

What is this race?

White

Black, African Am., or Negro

Asian Indian

Chinese

American Indian or Alaska Native - What is the name of (your/their) enrolled or principal tribe?

Filipino

Japanese

Korean

Vietnamese

Other Asian

Native Hawaiian

Guamanian/Chamorro

Samoan

Other Pacific Islander

Some other race

What is this race?

White

Black, African Am., or Negro

Asian Indian

Chinese

American Indian or Alaska Native - What is the name of (your/their) enrolled or principal tribe?

Filipino

Japanese

Korean

Vietnamese

Other Asian

Native Hawaiian

Guamanian/Chamorro

Samoan

Other Pacific Islander

Some other race

What is this race?

White

Black, African Am., or Negro

Asian Indian

Chinese

American Indian or Alaska Native - What is the name of (your/their) enrolled or principal tribe?

Filipino

Japanese

Korean

Vietnamese

Other Asian

Native Hawaiian

Guamanian/Chamorro

Samoan

Other Pacific Islander

Some other race

What is this race?



COVERAGE

- C1:** I need to make sure I have counted everyone who lived or stayed here on April 1, 2000. Did I miss —
 any children, including foster children?
 anyone away on business or vacation?
 any roomers or housemates?
 anyone else who had no other home?
 Yes — Add person(s) to P1, mark the "Add" box and ask P2 — P6. Correct the POP count in question S5 on the front cover.
 No — Continue with C2.
- C2:** The Census Bureau has already counted certain people so I don't want to count them again here. On April 1, 2000, were any of the people you told me about —
 away at college?
 away in the armed forces?
 in a nursing home?
 in a correctional facility?
 Yes — Delete person(s) from P1 by marking the "Cancel" box. Correct the POP count in question S5 on the front cover.
 No — Continue with H1.

HOUSING

- H1:** Is this (house/apartment/mobile home) —
 Owned by someone in this household with a mortgage or loan.
 Owned by someone in this household free and clear (without a mortgage or loan).
 Rented for cash rent, or
 Occupied without payment of cash rent?
- H2:** If address label includes a Map Spot number, ask — What is the mailing address of this unit?
 House number: _____ Street/road name or rural route and box or PO box: _____

 Apartment number: _____ City: _____ State: _____ ZIP Code: _____

INTERVIEW SUMMARY

A: Status on April 1, 2000: <input type="checkbox"/> Occupied <input type="checkbox"/> Occupied — Duplicate <input type="checkbox"/> Continuation <input type="checkbox"/> Vacant — Regular <input type="checkbox"/> Vacant — Usual <input type="checkbox"/> Home elsewhere <input type="checkbox"/> Demolished <input type="checkbox"/> Burned out	B: POP on April 1, 2000: <input type="checkbox"/> 01 — 29 Total persons <input type="checkbox"/> 00 Vacant <input type="checkbox"/> 38 Delete <input type="checkbox"/> 99 POP unknown	C: VACANT — Which category best described this vacant unit as of April 1, 2000? <input type="checkbox"/> For rent <input type="checkbox"/> For sale only <input type="checkbox"/> Rented but not occupied <input type="checkbox"/> For seasonal/recreational or occasional use <input type="checkbox"/> For migrant workers <input type="checkbox"/> Other vacant	D: SP <input type="checkbox"/> H: REF <input type="checkbox"/> L: UIC	E: CO <input type="checkbox"/> R: VAL <input type="checkbox"/> M: UIC	F: PI <input type="checkbox"/> J: TC <input type="checkbox"/> N: UIC	G: REF <input type="checkbox"/> K: TC <input type="checkbox"/> O: UIC
--	--	--	--	--	---	--

RESPONDENT INFORMATION

R1: Enter respondent's name:
 First Name: _____
 Last Name: _____

R2: In case we need to contact you, what is your telephone number and the best time to call?
 Area code: _____ Telephone number: _____
 Day Evening Either

R3: Respondent —
 Lived here on April 1, 2000.
 Moved in after April 1, 2000 (Refer to Job Aid, Section X).
 Is neighbor or other.



Fold lines →

Persons 7 - 12

If you didn't have room to list everyone who lives in your household on this form, you may be contacted by the Census Bureau for the same information about these people

Person 7 - Last Name

MI

The Census Bureau estimates that, for the average household, the form will take about 10 minutes to complete. We encourage you to follow the instructions and answer the questions about the estate should be directed to the Associate Director for Finance and Administration, Adm. Personnel Production Project, Room 2104, Federal Building, 2020-2000

Respondents are not required to respond to any information collection unless it displays a valid statistical number from the Office of Management and Budget.

Thank you for completing your official U.S. Census 2000 form.

Person 8 - Last Name

Person 9 - Last Name

Person 10 - Last Name

Person 11 - Last Name

Person 12 - Last Name

First Name

MI

A, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Fold lines →

United States Census 2000

This is the official form for all the people at this address. It's quick and easy, and your answers are protected by law. Complete the Census and help your community get what it needs - today and in the future!

Start Here

Please use a ballpoint pen. The person if you don't understand an answer, use Code + Number

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2000?

Number of people

- Foster children, inmates, or housemates
• people staying here on April 1, 2000 who have no other permanent place to stay
• people living here most of the time while working, even if they have another place to live

DO NOT INCLUDE in this number

- college students living away while attending college
• people in a correctional facility, nursing home, or mental hospital on April 1, 2000
• Armed Forces personnel living somewhere else
• people who are or stay at another place most of the time

2. Is this house, apartment, or mobile home -

- Owned by you or someone in the household with a mortgage or loan?
Owned by you or someone in the household who does not have a mortgage or loan?
Rented for cash rent?
Occupied without payment of cash rent?

3. Please answer the following questions for each person living in this house, apartment, or mobile home. Start with the name of one of the people living here who owns, is buying, or rents this house, apartment, or mobile home. If there is no such person, start with any adult living or staying here. (Do not include this person at Person 1. Write in this person's name.)

First Name

MI

4. What is Person 1's telephone number? He may call the person if we don't understand an answer

Area Code + Number

5. What is Person 1's sex? Mark ONE box

- Male
Female

6. What is Person 1's age and what is Person 1's date of birth? Age on April 1, 2000

Print numbers in boxes: Month Day Year of birth

7. Is Person 1 Spanish/Hispanic/Latino? Mark ONE box

- No, not Spanish/Hispanic/Latino
Yes, Mexican, Mexican Am., Chicano
Yes, other Spanish/Hispanic/Latino - Print race

8. What is Person 1's race? Mark ONE or more boxes to indicate what this person considers himself/herself to be

- White
Black African Am. or Negro
American Indian or Alaska Native - Print year of ancestry if present
Asian Indian
Japanese
Korean
Chinese
Filipino
Vietnamese
Other Asian - Print race
Hawaiian
Guamanian or Chamorro
Other Pacific Islander - Print race
Some other race - Print race

If you need help completing this form, call 1-888-XXX-XXXX between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free. Telephone display device for the hearing impaired. Call 1-800-XXX-XXXX between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free. LINGÜÍSTICA AYUDARÁ a usted completar su formulario en español. Llame al 1-888-XXX-XXXX entre las 8:00 a.m. y las 9:00 p.m., 7 días a la semana. La llamada telefónica es gratis.



Form D-1B

Using the 888-2000 Answer Line 2000-2000

Fold line →

Person 2

1. What is Person 2's name? Print name below.
Last Name First Name MI

2. How is this person related to Person 1? Mark ONE box if NOT RELATED to Person 1.
- Husband
 - Husband with stepchild
 - Adopted son/daughter
 - Son/daughter-in-law
 - Stepson/stepdaughter
 - Stepbrother
 - Stepsister
 - Grandchild
 - Parent-in-law
 - Other relative — Print _____
 - Not related
3. What is this person's sex?
 Male Female
4. What is this person's age and what is this person's date of birth? Print numbers in boxes.
Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Puerto Rican
- Yes, Mexican
- Yes, Mexican American
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group Z

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- White
- Black, African Am. or Negro
- American Indian or Alaska Native — Print name of ancestor or principal race Z

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race Z
- Japanese
- Korean
- Vietnamese
- Other Pacific Islander — Print race Z
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race Z

→ If more people live here, continue with Person 3

Person 3

1. What is Person 3's name? Print name below.
Last Name First Name MI

2. How is this person related to Person 1? Mark ONE box if NOT RELATED to Person 1.
- Husband
 - Husband with stepchild
 - Adopted son/daughter
 - Son/daughter-in-law
 - Stepson/stepdaughter
 - Stepbrother
 - Stepsister
 - Grandchild
 - Parent-in-law
 - Other relative — Print _____
 - Not related
3. What is this person's sex?
 Male Female
4. What is this person's age and what is this person's date of birth? Print numbers in boxes.
Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Puerto Rican
- Yes, Mexican
- Yes, Mexican American
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group Z

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- White
- Black, African Am. or Negro
- American Indian or Alaska Native — Print name of ancestor or principal race Z

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race Z
- Japanese
- Korean
- Vietnamese
- Other Pacific Islander — Print race Z
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race Z

→ If more people live here, continue with Person 4

Person 4

1. What is Person 4's name? Print name below.
Last Name First Name MI

2. How is this person related to Person 1? Mark ONE box if NOT RELATED to Person 1.
- Husband
 - Husband with stepchild
 - Adopted son/daughter
 - Son/daughter-in-law
 - Stepson/stepdaughter
 - Stepbrother
 - Stepsister
 - Grandchild
 - Parent-in-law
 - Other relative — Print _____
 - Not related
3. What is this person's sex?
 Male Female
4. What is this person's age and what is this person's date of birth? Print numbers in boxes.
Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Puerto Rican
- Yes, Mexican
- Yes, Mexican American
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group Z

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- White
- Black, African Am. or Negro
- American Indian or Alaska Native — Print name of ancestor or principal race Z

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race Z
- Japanese
- Korean
- Vietnamese
- Other Pacific Islander — Print race Z
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race Z

→ If more people live here, continue with Person 5

Person 5

1. What is Person 5's name? Print name below.
Last Name First Name MI

2. How is this person related to Person 1? Mark ONE box if NOT RELATED to Person 1.
- Husband
 - Husband with stepchild
 - Adopted son/daughter
 - Son/daughter-in-law
 - Stepson/stepdaughter
 - Stepbrother
 - Stepsister
 - Grandchild
 - Parent-in-law
 - Other relative — Print _____
 - Not related
3. What is this person's sex?
 Male Female
4. What is this person's age and what is this person's date of birth? Print numbers in boxes.
Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Puerto Rican
- Yes, Mexican
- Yes, Mexican American
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group Z

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- White
- Black, African Am. or Negro
- American Indian or Alaska Native — Print name of ancestor or principal race Z

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race Z
- Japanese
- Korean
- Vietnamese
- Other Pacific Islander — Print race Z
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race Z

→ If more people live here, continue with Person 6

Person 6

1. What is Person 6's name? Print name below.
Last Name First Name MI

2. How is this person related to Person 1? Mark ONE box if NOT RELATED to Person 1.
- Husband
 - Husband with stepchild
 - Adopted son/daughter
 - Son/daughter-in-law
 - Stepson/stepdaughter
 - Stepbrother
 - Stepsister
 - Grandchild
 - Parent-in-law
 - Other relative — Print _____
 - Not related
3. What is this person's sex?
 Male Female
4. What is this person's age and what is this person's date of birth? Print numbers in boxes.
Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Puerto Rican
- Yes, Mexican
- Yes, Mexican American
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group Z

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- White
- Black, African Am. or Negro
- American Indian or Alaska Native — Print name of ancestor or principal race Z

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race Z
- Japanese
- Korean
- Vietnamese
- Other Pacific Islander — Print race Z
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race Z

→ If more people live here, list them on the back of this page in the spaces provided.

Please turn to go to last page.





OCT 30 1998

CENSUS 2000 DECISION MEMORANDUM NO. 62

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston J. Waite
Assistant to the Associate Director

From: Carol Van Horn *CVH*
Chief, Decennial Management Division

Subject: New Six Person Mailback Questionnaires

This memorandum documents the decision to change the number of persons for which detailed information is collected on mailback (mailout/mailback and Update/Leave) questionnaires from five people, as used in the Census 2000 Dress Rehearsal, to six for Census 2000.

Most persons will be enumerated in Census 2000 on short or long forms designed for use in mailout/mailback or Update/Leave areas. Our plans for the current census design were to use mailback questionnaires with room for data for up to five household members, as was done for the Census 2000 Dress Rehearsal. In parallel, we believed that, for the traditional census, we would use a mailback questionnaire with room for six persons. The six person mailback questionnaire would improve the coverage of the traditional census, particularly without reliance on Integrated Coverage Measurement (ICM), and reduce the need for follow up efforts at "large" households with more than five members.

As we learned more about the design of the six person questionnaire, reviewed our experience with following up large households, and approached deadlines for printing contracts under a "dual strategy" approach, there arose several indications to consider the use of the six person questionnaire under either or both census designs.

Advantages of a six person questionnaire include:

- retains the design initiatives developed with the commercially designed form to make an easy-to-complete, respondent friendly questionnaire;
- can be introduced into our basic system for data capture and mailback questionnaire processing;
- reduces the large household follow up workload by a projected 50 percent from the follow up operations associated with the five person mailback questionnaire;

- provides for a slight positive ICM advantage through more timely data capture of complete large households;
- reduces respondent burden by requiring larger households to respond only once by using a mailback questionnaire designed for households with six persons, rather than five;
- increases coverage and reduces differential undercoverage; and
- reduces the requirements for the National Processing Center by eliminating large household follow up mailout.


The disadvantages of the six person mailback questionnaire are few. Although follow up is reduced by an estimated 50 percent, there are overall higher costs associated with the six person mailback questionnaire due to the long form data capture method which involves capture of each page, regardless of the number of persons in the household. Also, the additional width of the short form is another area of higher costs. Both, however, are relatively minor cost increases when balanced against data quality erosion and losses resulting from the two-stage enumeration for large households.

The Census Operational Managers and Issue Resolution/Change Control Board recommend using the six person questionnaire in any census scenario, which is cited in their respective documentation memoranda, based on the following reasons:

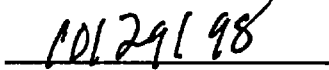
- Coverage improvement in six person households;
- One set of criteria for contract preparations;
- Strategic, user-friendly objectives were met and maintained in the six person questionnaire; and
- Reduction in risk to many printing and processing operations by definitively choosing the six person questionnaire for use in either census design.

Therefore, the incorporation of a six person mailback questionnaire for either the traditional or sampling census design will increase large household coverage and reduce large household follow up activities, while also providing a user-friendly, cost-effective mailback questionnaire for Census 2000.

I concur with the recommendation to incorporate a new six person mailback questionnaire for Census 2000.



John H. Thompson
Associate Director for Decennial Census



Date

**SIX PERSON MAILBACK QUESTIONNAIRE
UNDER ANY CENSUS DESIGN
U.S. Bureau of the Census**

I. Business Need

- ▶ In the planning and resource assessment for the traditional census, we identified a need for \$77 million in additional printing requirements to print a dual set of questionnaires to permit the needed flexibility to accommodate the use of a six-person mailout/mailback questionnaire. The cost of printing 6-person long- and short-form questionnaires in addition to the five-person being used in the current Census 2000 design accounted for \$73 of the \$77 million. We have now determined that we can use a common form for both the sampling and the traditional option. Although there will be additional costs for data capture, the cost of printing will be reduced. We are no longer requesting the \$73 million in FY 1999 for printing two forms, but we do need \$29 million for printing the 6-person form and the programming and design support required for the additional data capture, and the testing and release of software necessary to support additional operations required by a traditional census.
- ▶ We anticipate efficiency in the reduction of the follow-up operations associated with the 5- person mailback form in addition to the coverage benefits for households to respond once by using a mailback form designed for households with six persons. The 6-person mailback form retains the design initiatives developed with the commercial design firm to make an easy-to-complete, respondent friendly questionnaire which has been tested with the 5-person form.

II. Users/Stakeholders

- ▶ Respondents in households with six persons can respond once by using a mailback form designed for households with six persons (1.5% of mailback respondents in 1990; six or more person households represented 3.8% of 1990 mailback respondents). No follow-up by the Bureau reduces the additional burden by mail or telephone contact(s).
- ▶ The Census 2000 Advisory Committee members have been especially concerned with the coverage implications of a 5-person with respect to traditionally (differentially) undercounted population groups, including children and large households.
- ▶ The 6-person mailback form retains the design initiatives developed with the commercial design firm to make an easy-to-complete, respondent friendly questionnaire which has been tested with the 5-person form.

III. Current Approach (Baseline)

- ▶ Our baseline approach for the “sample census” design was to use mailback forms with room for data for up to five household members. In parallel, we believed that, under a traditional census design, we would use a mailback form with room for six persons. The six person mailback form would improve the coverage of the traditional census, particularly without reliance on Integrated Coverage Measurement, and reduce the need for follow up efforts at “large” households with more than five members who are traditionally (differentially) undercounted population groups and households that include children.
- ▶ The Bureau of Census requires follow-up to contact respondents in households with six persons who have already responded once by using a mailback form designed for households with five persons (1.5% of mailback respondents in 1990; six or more person households represented 3.8% of 1990 mailback respondents).
- ▶ Advertisement occurs in October 1998 for the award of the print contracts and the commencement of the technical predecessor activities to the completion of the task (contract compliance to technical specifications before production printing of over 100 million forms). Maintaining the baseline program with a 5-person form locks in the decision (regardless of strategy for census enumeration) and prevents the improvement of coverage for 6-person households and reduction in burden for these mailback respondent-households.

IV. Alternative Solutions

- ▶ As we learned more about the design of the six person form, and reviewed our experience with following up large households, and approached deadlines for printing contracts under a “dual strategy” approach, there arose several indications of the need to consider the use of the six person form under either or both census design. The timing and obligation of funds occurs with the advertisement and request for bids.

Census 2000 Printing Contracts

<u>Contract</u>	<u>Advertise</u>	<u>Open Bids</u>
Mailout/mailback long form - English	October 5	December 7
Mailout/mailback short form - English	October 13	December 17
Update/leave short form packages	November	January
Update/leave long form packages	November	January

- ▶ The Bureau of Census will reduce the required follow-up to contact respondents in households with six persons who have already responded once by using a mailback form designed for households. This cuts the anticipated Census 2000 workload in half (current estimates are based on slightly over one million mailback households with seven or more persons rather than the four million household estimate associated with follow-up of households of six, seven, or more persons (baseline).
- ▶ The use of a six person (mailback) form will increase coverage--and reduce differential under coverage of children and other members of large households, and there would be little or no negative effect on the quality of content data in using the six person (mailback) form. There is also a consistency with our policy to count everyone.
- ▶ The Alternative's effect on other systems is anticipated to be a requirement for less follow-up where the reduction is by more than ½ by proceeding with a 6-person form. The data capture systems must be expanded slightly for additional length/pages (long form) and width (short form). Equipment, modeling, and space estimates are being refined.

V. Benefit/Cost Analysis

- ▶ Benefits---substantial gains in data quality (responses for the sixth person on initial mailback) and reductions in the fragmentation of enumeration--follow-up effort required for enumeration to gain data for the sixth person. Coverage of children and large households is not also compromised with the fragmentation of enumeration.
- ▶ Costs--Using a six person (mailback)questionnaire for any census design will save or avoid some costs in contracting and follow up work, and will require additional dollars for processing--especially capture--requirements. The solution available from industry for document integrity and our data capture techniques require capture of all pages in document---i.e., every long form is processed for all pages printed--which is for six persons (not the # of persons responding). The additional width of the short form also requires adaptation for data capture since the Dress Rehearsal. This is a different incremental increase from long form. These are relatively minor cost increases when balanced against data quality erosion and losses resulting from the two-stage enumeration for large households.
- ▶ Cost figures for equipment, staffing and engineering efforts to capture the six person forms are based on specific assumptions about the most cost-effective combination of machines and people needed to process the additional paper and data without impacting census time schedules.
- ▶ Cost savings will arise from the decrease in the workload for the large household follow up. We estimate that, at minimum, savings will be just under \$3 million. If we move

from a mail follow up to an outbound-call follow up, the per-case cost of follow up increases relative to the mail follow up; therefore, we would both be spending more for the operation (with expected superior results) and saving more in comparing the 5 vs. 6 person form.

VI. Risk Analysis

A decision now is critical due to the previously discussed printing time line. If we stay the course of the baseline, we defray some minimal FY2000 costs, however, at the risk of the completeness and quality of the data for an estimated 4 million housing units as contrasted with slightly over one plus million housing units (associated with the alternative). There is statistical evidence to suggest that the persons not contained within a 5-person form are most probably children who also reside in disproportionately undercounted households.

VII. Recommended Decision

Taxpayer: The use of a 6-person form for a minimal investment provides substantially increased quality of data in addition to less follow-up and reduced burden to several million households.

Corporate goal: In addition to making decisions that support a complete and quality enumeration effort, the plan reduces the cost of the census and supports the plans toward the Census under any design. Both forms will perform the same. We have completed cognitive analysis on the navigation and manipulation of the form. There are no changes in the color, font, icons, or motivational messages. All technical specifications are met by both designs.

VIII. Next Steps

After approval and clearance from the Executive Steering Committee, the Decennial Management Division should prepare and distribute a decision memorandum on this subject.



DEC 02 1998

CENSUS 2000 DECISION MEMORANDUM NO. 65
DSSD 2000 DRESS REHEARSAL MEMORANDUM SERIES E- 5
DSSD CENSUS 2000 MEMORANDUM SERIES R-6

MEMORANDUM FOR John H. Thompson
Associate Director For Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: Howard Hogan *Howard Hogan*
Chief, Decennial Statistical Studies Division

Subject: Revision: Documentation of Response and Return Rates for the
2000 Dress Rehearsal and Census 2000

This memorandum supersedes the memoranda for John H. Thompson from RuthAnn Killion entitled "Response Rates" and "Clarification of Initial Response Rate in Update/Leave Areas" (DSSD Dress Rehearsal Memorandum Series E-1, E-2 and E-3; and DSSD Census 2000 Memorandum Series R-3, R-4, and R-5). To simplify discussions of the various rates and to avoid confusion caused by a lack of clear definitions, this memorandum documents the rates that we plan to calculate for the 2000 Dress Rehearsal and Census 2000. The rates will be calculated at the national level and for all census tracts, local census offices, and state, local, and tribal governments as appropriate. The completion rate defined in the memorandum E-3/R-5 will not be defined as part of this effort.

COMPONENTS OF THE RATES

To simplify the definitions, let:

MAILOUT UNIVERSE = Number of housing units, (identification numbers, IDs) for which a census questionnaire was sent by mail with a request that the completed questionnaire be returned by mail. This includes late adds and housing units to which the U.S. Postal Service (USPS) was unable to deliver the questionnaire, classified "undeliverable-as-addressed" (UAA).

UPDATE/LEAVE (U/L) UNIVERSE = Number of housing units for which a census questionnaire was delivered by a census enumerator with a request that the completed questionnaire be returned by mail. This includes housing units added during U/L and excludes housing units deleted during U/L.

MAILBACK UNIVERSE = Number of housing units in the MAILOUT and UPDATE/LEAVE UNIVERSES.

MAIL = Number of responding housing units in the MAILBACK UNIVERSE for which a “nonblank” questionnaire was returned by mail. Blank questionnaires returned by mail and questionnaires returned by the USPS as UAA will not be included.

TELEPHONE = Number of housing units for which a telephone questionnaire assistance (TQA) interview was completed and matched to a census ID in the MAILBACK UNIVERSE.

BCF = Number of housing units for which a Be Counted Form (BCF) was returned and matched to a census ID in the MAILBACK UNIVERSE.

OTHER RESPONSES = Number of housing units in the MAILBACK UNIVERSE for which some other response option (such as Internet) was received and matched to a census ID (this is not an option for the 2000 Dress Rehearsal but may be used for Census 2000).

UAA-VACANT = Number of MAILOUT UNIVERSE questionnaire mailing package that were returned by the U.S. Postal Service as “undeliverable-as-addressed” with an endorsement of “vacant” and for which no “nonblank” response was checked in for the initial or replacement mailing.

UAA-OTHER = Number of MAILOUT UNIVERSE questionnaire mailing packages that were returned by the U.S. Postal Services as “undeliverable-as-addressed” with an endorsement of categories other than “vacant” and for which no “nonblank” response was checked in for the initial or replacement mailing.

UAA-TOTAL = Sum of UAA-VACANT and UAA-OTHER.

RATE CALCULATION FORMULAS

We will calculate two response rates, two return rates, and three undeliverable-as-addressed rates, and two completion rates for the sites that are subject to the sampling census plan. In a census that includes sampling for NRFU, standard errors will be reported for the two return rates. For Census 2000, we will provide the public with more response options than they had in previous censuses. For example, we will make BCFs available and allow respondents to respond over the telephone during telephone questionnaire assistance. These options make it possible for more than one response to be checked in for a housing unit (census ID). When calculating all rates, we will include only one return (the first return received) for each census ID. Therefore, a housing unit cannot be counted more than once in the computation of any rate. A response will always take precedence over a UAA; for example if a UAA is checked in for an ID and then a “nonblank” mail return or BCF is checked in the mail return or BCF response will be counted.

A. Completion Rates

Completion rates are used to determine the size of the nonresponse followup sample in each census tract. The nonresponse followup sample design mandates that each census tract achieve at least a 90 percent final completion rate. Therefore, the sample size in each census tract is determined by difference between the target of 90 percent and the initial completion rate.

- a. **Initial Completion Rate**--This rate tells us from how many units we received some type of response, whether from the unit itself or from the Postal Service, at the date of sample selection. This rate is calculated using the following formula:

$$\text{Initial Completion Rate} = \frac{\text{MAIL} + \text{TELEPHONE} + \text{BCF} + \text{OTHER RESPONSES} + \text{UAA VACANT}}{\text{MAILBACK UNIVERSE}} * 100$$

- b. **Final Completion Rate**--This rate tells us from how many units we expect to receive some type of response, whether from the unit itself or from the Postal Service, after field followup of sampled units. Under the nonresponse followup sample design, this rate should be at least 90 percent in each census tract. This rate is calculated as:

$$\text{Final Completion Rate} = \frac{\text{MAIL} + \text{TELEPHONE} + \text{BCF} + \text{OTHER RESPONSES} + \text{UAA VACANT} + \text{NRFU SAMPLE SIZE}}{\text{MAILBACK UNIVERSE}} * 100$$

B. Response Rates

Response rates inform state, local, and tribal government officials of our progress in completing the census. This allows them to implement an effective and targeted program to improve respondent cooperation in tracts where we are experiencing difficulty. An additional purpose is to give Census Bureau management the information needed for managing the decennial census. We will calculate two response rates:

- 1. **Mail Response Rate**--This rate tells us how many housing units in the MAILBACK UNIVERSE returned a questionnaire by mail. This rate is calculated using the following formula:

$$\text{Mail Response Rate} = \frac{\text{MAIL}}{\text{MAILBACK UNIVERSE}} * 100$$

2. Total Response Rate--This rate tells us for how many housing units in the MAILBACK UNIVERSE we received at least one response. This rate is calculated using the following formula:

$$\text{Total Response Rate} = \frac{\text{MAIL} + \text{TELEPHONE} + \text{BCF} + \text{OTHER RESPONSES}}{\text{MAILBACK UNIVERSE}} * 100$$

C. Return Rates

Return Rates are calculated for occupied housing units only. These rates cannot be calculated until the census is complete and are an important indicator of public cooperation with the census. We will calculate two return rates:

1. Estimated Mail Return Rate--The estimated mail return rate tells us how many occupied housing units in the MAILBACK UNIVERSE returned a questionnaire by mail. The estimated mail return rate is calculated by dividing the number of occupied MAIL questionnaires by the total number of occupied housing units in the MAILBACK UNIVERSE. The numerator includes occupied MAIL questionnaires but excludes BCF, TELEPHONE, and OTHER RESPONSES. It also excludes mailback forms that are blank, duplicate, or vacant. The denominator includes housing units whose final status is occupied (enumerated and estimated from either the nonresponse follow-up sample or the UAA sample) and excludes housing units with a final status of vacant or nonexistent.

$$\text{Estimated Mail Return Rate} = \frac{\text{Occupied MAIL}}{\text{Occupied MAILBACK UNIVERSE}} * 100$$

2. Estimated Total Return Rate--The estimated total return rate is calculated by dividing the number of occupied MAIL, occupied TELEPHONE, occupied BCF, and occupied OTHER RESPONSES by the total number of occupied units in the MAILBACK UNIVERSE. The numerator excludes: MAIL questionnaires that are blank, duplicate or vacant; BCFs that do not have an ID; telephone questionnaire assistance interviews (TELEPHONE) with an ID that are vacant, or do not have an ID; and UAA-VACANTS. The denominator includes housing units whose final status is occupied (enumerated and estimated from either the

nonresponse follow-up sample or the UAA sample) and excludes housing units with a final status of vacant or nonexistent.

$$\frac{\text{Estimated Total Return Rate}}{\text{Occupied MAIL + occupied TELEPHONE + occupied BCF + occupied OTHER RESPONSES}} \times 100 = \frac{\text{Occupied MAILBACK UNIVERSE}}{\text{Occupied MAILBACK UNIVERSE}}$$

D. Undeliverable-as-Addressed Rates

Since we mail the questionnaires using first-class postage, the U. S. Postal Service will identify questionnaires that they are unable to deliver as addressed. These questionnaires may not be deliverable because the housing unit is vacant or for some other reason. We will produce three undeliverable-as-addressed rates: UAA-vacant, UAA-other, and UAA-total. The numerator includes the number of questionnaires the U.S. Postal Service identifies as undeliverable by reason; that is, the first rate is for UAAs that the U. S. Postal Service identifies as vacant; the second rate is for other UAAs; and the third rate is for all UAAs. To be classified as a UAA, the U.S. Postal Service must indicate that the mailing package was not deliverable during the mailing of the initial and replacement questionnaires, and for which a "nonblank" return was not checked in for the ID. The denominator includes all housing units in the MAILOUT UNIVERSE.

$$1. \quad \text{Postal Vacant UAA Rate} = \frac{\text{UAA-VACANT}}{\text{MAILOUT UNIVERSE}} * 100$$

$$2. \quad \text{Postal Other UAA Rate} = \frac{\text{UAA-OTHER}}{\text{MAILOUT UNIVERSE}} * 100$$

$$3. \quad \text{Total Postal UAA Rate} = \frac{\text{UAA-TOTAL}}{\text{MAILOUT UNIVERSE}} * 100$$

I concur with the decision to calculate these response and return rates for Census 2000.



 John H. Thompson
 Associate Director for Decennial Census

DEC 02 1998

 Date

cc: DSSD 2000 Dress Rehearsal Memorandum Series Distribution List
DSSD Census 2000 Memorandum Series Distribution List
T. Leslie DMD
C. Miller
E. Kobilarcik
R. Killion PRED
F. Abramson
C. Richmond
H. Prouse TMO
P.Gbur DSSD
J. Chesnut
R. Pennington
R. Dimitri CRT

JBT
HE



DEC 08 1998

CENSUS 2000 DECISION MEMORANDUM NO. 67

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *Preston Jay Waite*
Assistant to the Associate Director for Decennial Census

From: Carol M. Van Horn *CMV*
Chief, Decennial Management Division

Subject: Revised Procedures for Enumerating Respondents Who Call Telephone Questionnaire Assistance (TQA) But Cannot Provide a Census Identification Number

The Census Operational Managers (COM) and Issue Resolution/Change Control (IR/CC) Board reached a consensus to recommend collecting only short-form data from TQA callers who cannot provide a Census Identification number (ID). (The TQA operators will collect the appropriate data, short and long, from callers who can provide a census ID.) Given Census 2000 Dress Rehearsal experience, an estimated 80,000 calls to TQA (20 percent of 2.4 million x 1/6) will be affected by this decision.

This recommendation is a change from the procedure tested in the Census 2000 Dress Rehearsal. During the dress rehearsal, a counter was set within the instrument that performed a one in six sample when a caller requesting a telephone interview could not provide a Census ID. The first five callers who could not provide a census ID when requesting a telephone interview were asked the Be Counted Form (short form) questions. The sixth caller was asked the long form questions plus the Be Counted address questions.

The revised approach for Census 2000 has more advantages than disadvantages. This decision will simplify the TQA operation which currently does not include funding to develop the call routing and sampling schema to support the collection of sample data for callers who cannot provide a census ID. Under this approach, TQA operators will be able to handle more calls; the TQA team estimates that TQA operators will be able to handle eight calls in the time it would take to complete one long-form interview. Finally, this option is feasible under a traditional design to be explored. The one drawback of this recommendation is that there could be a

statistical impact on sample data, particularly in small geographic areas, if there is any significant clustering of calls. However, the effect of collecting only short-form data for these questionnaires is very small compared to the fact that we are not conducting a content follow-up operation for missing long-form data or collecting long-form data as part of the Be Counted Program.

I concur with the recommendation specified in this memorandum. The TQA instrument will be programmed to collect short-form data only for callers who cannot provide a census ID.



John H. Thompson

DEC 08 1998

Date



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

OFFICE OF THE DIRECTOR

DEC 15 1998

CENSUS 2000 DECISION MEMORANDUM NO. 69

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant to the Associate Director
for Decennial Census

From: Carol M. Van Horn *CVH*
Chief, Decennial Management Division

Subject: Decision on Changes to the 1998 and 1999 Address List Review Programs

In October 1998, based on concerns raised by the regional directors, an interdivisional team assessed the program and schedule for the 1998 and 1999 Address List Review programs, formerly known as the Local Update of Census Addresses (LUCA) program. Based on the options proposed by this team, and modified by the Census Operational Managers and Issue Resolution/Change Control Process, the following changes were made to the 1998 and 1999 Address List Review programs:

1998 Address List Review

The schedule for local and tribal participation in the 1998 Address List Review program will remain the same, keeping the currently planned three month review period.

The operational components were modified as follows:

- Expand the verification of disputed addresses from a sample to a 100 percent check.
- Include any addresses that have not been verified by June 30, 1999 in the July 1999 Master Address File (MAF) extract for the questionnaire address labeling. As a result, we will mail questionnaires to all of these unverified addresses.
- Field staff will continue to verify disputed addresses after the June 30, 1999 cutoff, and we will provide detailed feedback to participants showing the verification results.

- We will include any questionnaire response received from unverified addresses in the Census results.
- If verification found a participant-supplied address to be invalid, and a questionnaire is not returned for that address, we will determine whether to include that address in the Nonresponse Followup universe in a manner consistent with the overall delete rules currently being developed.

We recommend the 100 percent verification of disputed addresses based on the benefit of eliminating any doubt about the previously proposed sampling verification process and the potential for reducing the number of appeals.

1999 Address List Review

- The schedule for local and tribal participation in the 1999 Address List Review program will be reduced to a six week review period, consistent with the July 1998 MAF Assessment recommendation.
- We are eliminating the step for reconciliation of disputed housing unit counts.

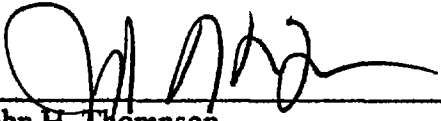
We recommend the six week review period because the review task is much easier than the address-by-address review we asked 1998 Address List Review participants to undertake. The 1999 review task is a review of housing units by Census block. In addition, this shortened review period will allow time to: 1) relist the addresses in the blocks with discrepant housing unit counts; 2) give the local and tribal governments feedback; and 3) allow time for local and tribal governments to appeal any housing unit counts they still dispute.

We recommend eliminating reconciliation because we believe our field recheck makes it unlikely that local and tribal governments will dispute the housing unit counts in very many blocks. Additionally, the census process includes another complete check of all blocks in the 1999 program areas. During the Update/Leave operation, enumerators will add missing addresses as they leave questionnaires at these housing units. We also must allow time for each local and tribal government to appeal the Census Bureau's final determination.

To document the changes, we have attached workflows for the revised programs, questions and answers discussing the changes in the programs, and tables showing the activities in the original program and the revised program. The Regional Census Centers may share these documents with local and tribal governments to explain these changes.

All features of both programs not explicitly mentioned in this memorandum remain as defined by the July 1998 MAF Assessment.

I concur with the recommended changes to the 1998 and 1999 Address List Review Programs.



John H. Thompson
Associate Director for Decennial Census

DEC 15 1998

Date

Attachments

11/30/98

Operational Workflow for Address List Review 1998

1. Invite all eligible local and tribal governments to participate. (Completed February 1998)
2. Obtain signed Confidentiality Agreements from all local and tribal officials who will have access to the LUCA addresses in those governments interested in participating. (Completed April - November 1998)
3. Prepare and ship the materials required for participant review. (Original schedule — May - August 1998; delays have extended this to early December 1998 for some jurisdictions.) (May - early December 1998)
4. Allow three (3) months for participants to perform their map update and address list review. (May 1998 - March 1999)
5. RCC staff review returned materials, provide preliminary feedback to resolve unusable materials, enter map updates into the TIGER data base, and transmit reviewed address file updates to the Geography Division (computer-readable submissions) or the National Processing Center (paper listings). (October 1998 - March 1999)
6. The Geography Division adds participants' suggestions (adds, deletes, corrections) to the Census address list, and determines which participant suggestions the Block Canvassing operation confirmed to exist and which the Block Canvassing operation did not find (rejected addresses). (November 1998 - July 1999)
7. The Census Bureau will use the resulting information to provide detailed "Feedback" materials (updated address list and maps) to all participating governments. (April - July 1999)
8. Each participating government that disagrees with any finding on the detailed Feedback materials has up to 21 calendar days¹ after receiving the Feedback materials to file a written Request for Reconciliation with the RCC. (April - August 1999)

¹ Date established in draft Federal Register notice as required by Office of Management and Budget.

11/30/98

9. **“Reconcile” those disputed addresses not found by the Block Canvassing operation that participants still believe exist. This will involve the RCC or other temporary staff rechecking all addresses questioned by the participants, marking the disputed records in the Feedback file to show which are now accepted and which are still rejected, and making any additional corrections required to the TIGER data base. The standard for the RCC to complete this process for each participating jurisdiction is 30 days² (except for the very largest jurisdictions) after the participant responds to the Feedback materials. (May - September 1999)**
10. **The Geography Division adds to the MAF:**
 - a. **“Reconciled” corrections to the Census address list and provides a “Final Determination” listing to participants who have gone through Reconciliation showing which of their “final” suggestions the Reconciliation operation confirmed to exist and which of their “final” suggestions the Reconciliation operation did not find. (May - July 1999) These addresses will be included on the questionnaire address labeling tape.**
 - b. **“Unreconciled” corrections to the Census address lists after June 1999. (May - July 1999) These addresses will be included on the questionnaire address labeling tape. However, if an address that was accepted after the June 30, 1999 cutoff is not accepted based on the results of verification (July - September 1999), and a questionnaire is not returned for that address, we will treat that address in Nonresponse Follow-up in a manner consistent with the overall delete rules currently being developed.**
11. **Participants still wishing to dispute the Census Bureau’s findings have 30 days² after receiving the Final Determination materials to file a written “Appeal” with the Federal Office of Management and Budget. (September - December 1999) When this happens, the RCC has 15² days to submit all evidence it has accumulated in the Appeal Folder for the jurisdiction documenting the actions taken by the Census Bureau to resolve any appealed address(es). (June - December 1999)**

² Date established in draft Federal Register notice as required by Office of Management and Budget

1998 Address List Review Questions and Answers (11/30/98)

- Q. What if I don't get my responses back in time to get into the Block Canvassing operation?**
- A. This is not a problem. We will match your responses to what our field staff finds during the Block Canvassing operation. We will provide detailed feedback based on this match. If you disagree with our findings, we will field verify your disputed addresses and provide a final determination listing. If you still disagree with our findings, you can file an appeal with the Federal Office of Management and Budget.**
- Q. Three months is not long enough for me to complete my review. Can I have more time?**
- A. No. With approximately 8,000 participating governments, including nearly all with 100,000 or more housing units, we must receive the responses on a flow basis to process them in a timely manner and provide feedback, field verify any disputed addresses, allow you time to appeal any remaining disputed addresses, and include these results in the information we give to our questionnaire printing contractors.**
- Q. The Census Bureau's schedule does not seem to allow sufficient time for incorporating all reconciled addresses in the computer file used for address labeling census questionnaires. How will the Bureau get questionnaires to these addresses?**
- A. The Census Bureau may not have time to confirm all disputed addresses before preparing the computer file for address labeling of census questionnaires. In these cases, the Census Bureau will include unconfirmed disputed addresses in the questionnaire address labeling file, mail questionnaires to these addresses, and include any returned questionnaires in the census results. Unconfirmed addresses for which we do not receive a questionnaire response will not be included in the followup of nonresponding addresses.**
- Q. Our government missed the opportunity to participate when the Bureau originally sent its invitation, but my jurisdiction now is interested in participating in the program. Is it too late?**

- A. You may still participate, but you will not have a full three months to review the Census address list and related maps. You must submit your response to the Bureau by March 12, 1999. With approximately 8,000 participating governments, including nearly all with 100,000 or more housing units, we must receive the responses on a flow basis to process them in a timely manner and provide feedback, field verify any disputed addresses, allow you time to appeal any remaining disputed addresses, and include these results in the information we give to our questionnaire printing contractors.**

11/30/98

Operational Workflow for Address List Review 1999

1. Invite all eligible local and tribal governments to participate. (Completed September 1998)
2. Obtain signed Confidentiality Agreements from all local and tribal officials who will have access to the LUCA addresses and maps showing housing unit locations in those governments interested in participating. (October - December 1998)
3. Prepare and ship the materials required for participant review. (January - March 1999)
4. Allow six weeks for participants to perform their map update and block housing unit count review. Based on the planned delivery schedule, most participant responses should arrive at the Regional Census Centers (RCCs) between January and April 1999.
5. RCC staff key the list of blocks with differences, generate the block maps and listing pages needed to relist all or a sample of those blocks, transfer the map corrections provided by the participants, and relist the blocks. (March-May 1999)
6. Census Bureau staff key the additional/revised addresses found during the relisting, enter into the TIGER data base the new map spots and other map corrections the relisting process identified, reconcile the TIGER data base and the Master Address File Update File. The Geography Division (GEO) prepares/provides the detailed "Feedback" and "Final Determination" materials (updated Block Summary list, Census address list, and maps) to participants that identified any differences. (March - June 1999)
7. Participants still wishing to dispute the Census Bureau's findings have 30 days¹ after receiving the Final Determination materials to file a written "Appeal" with the Federal Office of Management and Budget. (July - August 1999) When this happens, the RCC has 15 days¹ to submit all evidence it has accumulated in the Appeal Folder for the jurisdiction documenting the actions taken by the Census Bureau to resolve any appealed block(s). (August - September 1999)

¹ Date established in draft Federal Register notice as required by OMB.

1999 Address List Review Questions and Answers (11/30/98)

- Q. I'm participating in both the 1998 and 1999 Address List Review programs. Why can I provide individual address updates for the areas included in the 1998 program but only housing unit counts for areas in the 1999 program?**
- A. Many housing units in the 1999 program are in areas that mostly do not have house number and street name mail delivery. In these areas, it is not easy for Census Bureau field staff to locate housing units without using a "descriptive" address. Because of our need to have a descriptive address in these areas, and the difficulty participants have in matching these addresses with their records, we felt it would be more effective for participants to identify the blocks where their housing unit counts differ from the Bureau's counts. Census Bureau staff will relist housing units in disputed blocks.**
- Q. Participants in the 1998 Address List Review program get three months for their review. Why do I get only six weeks to conduct my review in this program?**
- A. We allow less time because the 1999 review task is much easier. The 1999 program is simply a housing unit count review whereas the 1998 program involved a detailed address review. In addition, the Census Bureau needs this shortened review time to allow time for field staff to relist the addresses in the blocks with discrepant housing unit counts, to give you feedback, and to allow time for you to appeal any housing unit counts you still dispute.**
- Q. Six weeks is not long enough for me to complete my review. Can I have more time?**
- A. No. The Census Bureau needs your response within six weeks to provide time to relist blocks with discrepant housing unit counts, allow time for you to appeal any remaining disputed counts, and for the Bureau to include the results from the relisting in the information we give to our questionnaire printing contractors.**
- Q. Since there is no reconciliation process, what can I do if I still dispute the housing unit counts after you conduct a relisting of the discrepant blocks?**
- A. The Census Bureau will relist the addresses in the blocks with discrepant housing unit counts. We believe our field recheck makes it unlikely that you will dispute the housing unit counts in very many blocks. Additionally, the Census**

2000 process includes another complete check of all blocks in the 1999 program areas. During this March 2000 "update the list/leave a questionnaire" operation, Census Bureau staff will add missing addresses as they leave questionnaires at these housing units. If you disagree with our relisted housing unit counts and are concerned that the "update/leave" process will not yield a complete list, you still have the right to file an appeal with the Federal Office of Management and Budget.

- Q. Our government missed the opportunity to participate when the Bureau originally sent its invitation, but my jurisdiction now is interested in participating in the program. Is it too late?**
- A. You may still participate, but you may not have as much time to review the housing unit counts. You must submit your response to the Bureau by March 12, 1999. The Census Bureau needs your response on a flow basis to provide time to relist blocks with discrepant housing unit counts, allow time for you to appeal any remaining disputed counts, and for the Bureau to include the results from the relisting in the information we give to our questionnaire printing contractors.**

Address List Review 1998

11/30/98

Activity	Original Program Plan	Revised Program Plan*
1. Invite Participants/Obtain Signed Confidentiality Agreements	Invitations sent/most Confidentiality Agreements signed	Invitations sent/most Confidentiality Agreements signed
2. Prepare and Ship Review Products	<ul style="list-style-type: none"> • Census Address List • Census block summary list • Census maps • TIGER®/Line Files 	<ul style="list-style-type: none"> • Census Address List • Census block summary list • Census maps • TIGER®/Line Files • 1990 census to Census 2000 collection block number equivalency files • Map sheet corner point files
3. Participants Review Materials	3 month time period to review individual addresses and maps	3 month time period to review individual addresses and maps
4. RCC reviews/provides initial feedback on submissions from local and tribal governments	Individual address updates and map updates	Individual address updates and map updates
5. Update the Census address list and maps/Validate local and tribal government submissions	Include submissions in the Census address list and validated during the Block Canvassing operation	Include submissions in the Census address list by matching to the Block Canvassing results
6. Detailed feedback to local and tribal governments	Individual addresses and updated maps	Individual addresses and updated maps

* Bold typeface denotes program changes.

Activity	Original Program Plan	Revised Program Plan
7. Reconciliation Opportunity	Verification of disputed addresses and working closely with participants to resolve remaining questions	Verification of 100 percent of disputed addresses ^{**} and not working closely with participants to resolve remaining questions
8. Addresses to questionnaire printing contractor	Only verified addresses	All addresses except verified deletes ^{***}
9. Final Determination	Yes	Yes
10. Appeal Opportunity	Yes	Yes

^{**} After a cutoff date (still to be determined), all accepted addresses and any remaining disputed unverified addresses are included on the Census address list used for questionnaire address labeling. The remaining disputed addresses continue through the verification and reconciliation process after the cutoff date.

^{***} Verified deletes will be excluded from the Nonresponse Followup operation consistent with the Bureau's final "delete" rules.

Address List Review 1999

11/30/98

	Original Program Plan	Revised Program Plan*
1. Invite Participants/Obtain Signed Confidentiality Agreements	Invitations sent/receiving signed Confidentiality Agreements	Invitations sent/receiving signed Confidentiality Agreements
2. Prepare and Ship Review Products	<ul style="list-style-type: none"> • Census Address List • Census block summary list • Census maps • TIGER®/Line Files 	<ul style="list-style-type: none"> • Census Address List • Census block housing unit summary list • Census maps • TIGER®/Line Files • 1990 census to Census 2000 collection block number equivalency files • Map sheet corner point files
3. Participants Review Materials	3 month time period to review individual addresses and maps	6 week time period to review housing unit counts and maps
4. RCC reviews/provides initial feedback on submissions from local and tribal governments	Individual address updates and map updates	Blocks with housing unit count discrepancies and map updates
5. Validate local and tribal government submissions	Individual address validation	Relist blocks with discrepant housing unit counts

* Bold typeface denotes program changes.

** Relisting of blocks will be determined by a threshold of the discrepancies between participant housing unit counts and census housing unit counts.

	Original Program Plan	Revised Program Plan
6. Detailed feedback to local and tribal governments	Individual addresses and updated maps	Updated Census block housing unit summary list, updated Census address list, and updated Census Bureau maps
7. Reconciliation Opportunity	Yes, and working closely with participants to resolve remaining questions	No
8. Addresses to questionnaire printing contractor	Only verified addresses	Original addresses plus changes found during relisting of blocks with discrepancies
9. Final Determination	Yes - after reconciliation	Yes, based on relisting results (see Line 5)
10. Appeal Opportunity	Yes	Yes ^{***}

*** Methodology to be determined.



FEB 24 1999

CENSUS 2000 DECISION MEMORANDUM NO. 73

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Warte
Assistant to the Associate Director for Decennial Census

From: Carol M. Van Horn
Chief, Decennial Management Division (DMD)

Subject: Decision to Revise the Block Canvassing Operation Quality Assurance (QA) Plan

Contact Person: Cynthia R. Eurich, DMD, Rm. 2-1422, (301) 457-8232

This memorandum documents the decision to revise the Block Canvassing Operation QA Plan for Census 2000. According to Decennial Statistical Studies Division (DSSD), the initial QA Plan for the Block Canvassing Operation did not provide adequate controls of quality. The revised plan is designed to ensure that at least 98 percent of the addresses are listed correctly on the MAF after Block Canvassing.

Background

The current QA plan aims to control the quality of the canvassing process by preventing errors that are *a result of a lack of understanding* of the job responsibilities by the lister. It does not, however, assure a given level of accuracy of the updated address list and associated maps. The current QA plan consists of four components:

- 1) initially observing the listers to qualify them to list on their own;
- 2) conducting weekly observations;
- 3) informal reviews; and
- 4) performing an office review and edit.

Revised QA Plan

The revised QA Plan adds an inspection of completed work to the original QA plan. A sample of blocks with work completed is selected from each Address Binder (AB) and the address listings for the sample blocks are verified to ensure the canvassing was done correctly. If the error threshold is met or exceeded, the AB will be recanvassed by someone other than the original lister. This QA program has three objectives:

- 1) to assure that no significant differences occur between what appears on the ground, and the housing unit information in the AB, and the geographic features on the maps;
- 2) to assure that coverage errors are not concentrated in small geographic areas; and
- 3) to provide continuous feedback to the canvasser for performance improvement.

The attachment further describes the methodology of the revised QA Plan.

Cost Implications

Because the QA Plan is being revised after the original Block Canvassing budget, additional funds are required for two crew leader assistants and one additional lister for each crew.

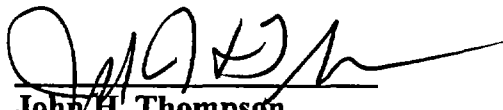
Rationale for Implementing

To achieve our goals for Census 2000, it is imperative for the MAF to be as complete and accurate as possible. The Post Enumeration Survey also depends on a high quality MAF to control variances in the estimation. The revised QA Plan will ensure this step in the MAF update process is performed at the highest possible quality level.

New Requirements

- The DSSD is responsible for developing a quality information system to assess the QA Plan and provide quality measurement of the MAF;
- the Technologies Management Office (TMO) is responsible for providing the necessary tracking and controls in the Operations Control System (OCS) 2000;
- the Field Division (FLD) is responsible for executing the QA Plan; and
- the DMD is responsible for the Cost and Progress reports.

I concur with the recommendation that the Block Canvassing Operation include the additional QA for Census 2000.



John H. Thompson
Associate Director for Decennial Census

FEB 24 1999

Date

Attachment

Methodology

There are *five* different types of QA review performed on the lister's work:

- 1) initially observing the listers to qualify them to list on their own;
- 2) conducting weekly observations;
- 3) informal daily review of work;
- Added- 4) *reviewing a sample of work within an AA*; and
- 5) performing an office review and edit.

While in the field performing the initial and weekly reviews, the Crew Leader (CL) or Crew Leader's Assistant (CLA) will review a sample of areas in the AB already canvassed. The CL records HUs sampled and the type of error(s) identified to make a determination whether it is acceptable. If there are two or more critical errors, the entire AA is rejected and is recanvassed. When the review is acceptable, the AA is sent to the field office. The QA Worksheet and Address Binder are analyzed by DSSD within 6 months of processing the entire operation.

Sampling

Immediately following the weekly observation, a CLA will review two sample areas of ten randomly selected housing units (HUs). The sample areas are selected using a Random Number Table and a QA Worksheet. The CL locates the first HU in the first segment to review for accuracy, and reviews the remaining HUs ground to book. The process is repeated with the second selected segment. Using a guide, a determination is made whether the AA is acceptable. When the review is acceptable, the CL sends the work to the field office. If the work is unacceptable, the AA will be recanvassed. This is a total of 20 HUs for each canvasser each week.

Plan Assumptions

1. Based on the 1998 Quality Improvement Program (QIP) results (simulated by DSSD), undercoverage in the MAF ranges from 3-20%.
2. Block Canvassing will detect approximately 85% of the coverage errors in the MAF.
3. Only 10% of the incoming Block Canvassing work will be below a 98% quality level.
4. A tracking system, similar to the current OCS, needs to be implemented by TMO.
5. Total estimated workload of the block canvassing operation is 94 million HUs.

Plan Characteristics

1. Average outgoing quality (AOQ) = 2.0% The work leaving block canvassing will be 98% accurate.
2. The CL's error for determining acceptable work: maximum of 6%
3. The CL's error for determining unacceptable work: maximum of 20%
4. Expected QA sampling workload:

Verification	2,473,920 HUs = 2.6%
Recanvassed	<u>6,030,298 HUs = 6.4%</u>
Total	8,504,218 HUs = 9.0%

Limitations

- ▶ All completed AAs turned in to the CL since the last observation will not be reviewed or reworked.
- ▶ This operation does not evaluate the performance of individual canvassers, only the overall quality of the completed work.
- ▶ Production time will be lost by the canvasser as the CL/CLA reviews the selected sampling area.

Materials

The training and reference materials have already been printed. DSSD has prepared supplemental procedures that must be inserted into the materials by the regions:

- D-531 Guide for Training Field Operations Supervisors
- D-676 Lister's Training Guide
- D-541 Crew Leader's Manual
- D-641 Guide for Training Crew Leaders
- D-530 FLD Operation Manual
- D-641.1 Crew Leader's Workbook
- D-453.1 QA Dependent Verification Form
- D-453.2 QA Monitoring Report

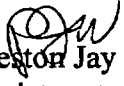
MAR 12 1999




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

CENSUS 2000 DECISION MEMORANDUM NO. 74

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: 
Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: Carol M. Van Horn 
Chief, Decennial Management Division

Subject: Decision to Move Assignment Areas from the Block Canvassing
Universe to the Address Listing Universe

Contact Person: Cynthia R. Eurich, DMD, Rm. 2-1422, (301) 457-8232

This memorandum documents the decision to move some Block Canvassing Assignment Areas (AAs) into the Address Listing Universe (referred to as Wave 4) for Census 2000. This process will avoid having housing units in the Nonresponse Follow-up (NRFU) Operation that are difficult or impossible to find. The addresses moved to the Address Listing Universe will receive questionnaires during the Update/Leave Operation, and not by mail delivery.

Background

Some AAs within the Block Canvassing workload have predominately non-city style, non-locatable addresses, and the Block Canvassing methodology does not allow the capability to record the location description and map spot. The procedure does not efficiently or systematically yield both a good address for mailing, nor an adequate location for follow-up.

The universe selected to be moved was determined by comparing the Master Address File (MAF) address count with the 1990 Census housing unit counts. The detailed criteria for selection of AAs to be moved are listed in the attached revised strategy.

Schedule

The Wave 4 Address Listing Operation must be conducted in the same time frame as the Block Canvassing Operation (beginning in the field on January 16, 1999 and completing data capture on July 24, 1999) so that the results of the operation are contained in the MAF and delivered for the Decennial Master Address File (DMAF) creation in July 1999. The schedule of major activities are listed in the attached revised strategy. The DMD has worked with the participating divisions to add these activities to the Master Activity Schedule (MAS).

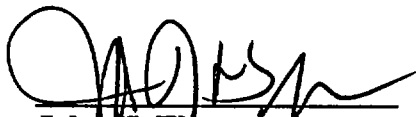
Workload

Although the entire workload has not yet been determined, the minimum estimate of addresses that could be moved to Address Listing is 804,603 (1% of Block Canvassing Universe), with a maximum of 1,827,971 addresses for all Waves.

Alternative/Consequences

The alternative is to leave the current procedures in place for all Block Canvassing AAs. As a result, the Nonresponse Follow-up Operation would have a larger and more complex workload because many questionnaires would be undeliverable, and the physical location of housing units would not always be known (having no map spots and inadequate location descriptions) which would make it extremely difficult for NRFU enumerators to locate the correct housing units.

I concur with the recommendation to move selected Block Canvassing AAs and conduct Address Listing for these AAs within the Block Canvassing Time Frame for Census 2000.



John H. Thompson
Associate Director for Decennial Census

MAR 02 1999

Date

Revised Strategy

1. The threshold for the selection of the universe of AAs to be potentially moved from Block Canvassing to Address Listing was determined by any AA with 70% variance between the MAF and the 1990 housing unit count.
2. The criteria excludes military AAs, AAs in entities that have received LUCA materials, and AAs in which all blocks were TAR in 1990, and includes AAs of any whole entity with a zero count in the MAF.
3. The Geography Division (GEO) will provide the Regional Census Centers (RCCs) with a list of AAs that meet the criteria. The RCCs will review and identify AAs to be moved using local knowledge, consideration of MAF development operations progress, and/or through a field check.
4. The RCCs will record in the Operations Control System (OCS 2000) the Block Canvassing AAs moved from Block Canvassing and mark the Address Registers for proper handling in NPC.
5. The GEO will use the universe from the OCS to flag the addresses in the selected AAs with a TEA of 9, and produce necessary files and products for Address Listing.
6. The DMD, GEO, DSCMO, TMO, FLD and NPC will follow the existing Address Listing methods and procedures for file management, listing, processing and reporting for all AAs selected for Wave 4 of Address Listing.

Activity Description	Division	Planned Start	Planned Finish
Determine threshold for Address Listing (wave 4) AAs in B/C universe	DSSD	11/23/98	11/30/98
Provide specs for A/L AA file layout	TMO	11/30/98	12/03/98
Produce/deliver file of potential A/L AAs to FLD/TMO (from B/C Wave 1)	GEO	12/07/98	12/21/98
Provide file layout for potential A/L AAs file (from OCS)	TMO	12/28/98	01/06/99
Determine AAs to be switched to W4 A/L (from B/C W1)	FLD	12/22/98	01/22/99
FLD codes OCS2000 with list of AAs switched to W4 A/L (from B/C W1)	FLD	01/13/99	01/22/99
Provide final list of AAs switched to W4 A/L (from B/C W1)	TMO	01/26/99	01/26/99
Recode to TEA 9 identified W4 AAs in the MAF/TIGER (from B/C W1)	GEO	01/28/99	02/01/99
Produce and deliver GRF for converted W4 A/L AAs (from B/C W1)	GEO	01/29/99	02/11/99
Mapping Universe created to produce W4 A/L MIMs (from B/C W1)	GEO	02/12/99	02/12/99
Create W4 A/L MIMs (from B/C W1)	FLD	02/16/99	02/18/99
Print W4 A/L Maps (from B/C W1)	FLD	02/17/99	02/19/99
Conduct W4 Address Listing from W1 B/C AAs	FLD	02/22/99	05/21/99
Scanning A/L W4 (from B/C W1)	DSCMO	03/07/99	06/04/99
Keying converted A/L W4 file- (from B/C W1)	DSCMO	03/07/99	06/28/99
Convert A/L W4 Keying to MAFUF format (from B/C W1)	DSCMO	03/09/99	06/30/99
W4 A/L Gus Updates (from B/C W1)	DSCMO	03/09/99	06/07/99
W4 A/L: Reconcile MAF and TIGER updates - (from B/C W1)	GEO	04/12/99	07/08/99
Produce/deliver file of potential A/L AAs to FLD (from B/C W2)	GEO	01/20/99	01/21/99
Determine AAs to be switched to W4 A/L (from B/C W2)	FLD	01/22/99	03/05/99
FLD codes OCS2000 with list of AAs switched to W4 A/L (from B/C W2)	FLD	02/15/99	03/05/99
Provide final list of AAs switched to W4 A/L (from B/C W2)	TMO	03/08/99	03/10/99
Recode to TEA 9 identified W4 AAs in the MAF/TIGER (from B/C W2)	GEO	03/11/99	03/15/99
Produce and deliver GRF for converted W4 A/L AAs (from B/C W2)	GEO	03/12/99	03/19/99
Create W4 A/L MIMs (from B/C W2)	FLD	03/15/99	03/22/99
Print W4 A/L Maps (from B/C W2)	FLD	03/16/99	03/23/99
Conduct W4 Address Listing from W2 B/C AAs	FLD	03/24/99	05/21/99
Scanning A/L W4 (from B/C W2)	DSCMO	04/07/99	06/04/99
Keying converted A/L W4 file- (from B/C W2)	DSCMO	04/07/99	06/28/99
Convert A/L W4 Keying to MAFUF format (from B/C W2)	DSCMO	04/09/99	06/30/99
W4 A/L Gus Updates (from B/C W2)	DSCMO	04/09/99	07/06/99
W4 A/L: Reconcile MAF and TIGER updates - (from B/C W2)	GEO	04/23/99	07/08/99
Produce/deliver file of potential A/L AAs to FLD (from B/C W3)	GEO	02/08/99	02/19/99
Determine AAs to be switched to W4 A/L (from B/C W3)	FLD	02/15/99	04/18/99
FLD codes OCS 2000 with list of AAs switched to W4 A/L (from B/C W3)	FLD	03/22/99	04/18/99
Provide final list of AAs switched to W4 A/L (from B/C W3)	TMO	04/19/99	04/21/99
Recode to TEA 9 identified W4 AAs in the MAF/TIGER (from B/C W3)	GEO	04/22/99	04/26/99
Produce and deliver GRF for converted W4 A/L AAs (from B/C W3)	GEO	04/23/99	04/27/99
Create W4 A/L MIMs (from B/C W3)	FLD	04/26/99	04/29/99
Print W4 A/L Maps (from B/C W3)	FLD	04/27/99	05/02/99
Conduct W4 Address Listing from W3 B/C AAs	FLD	05/03/99	05/21/99
Scanning A/L W4 (from B/C W3)	DSCMO	05/17/99	06/04/99
Keying converted A/L W4 file- (from B/C W3)	DSCMO	05/17/99	06/28/99
Convert A/L W4 Keying to MAFUF format (from B/C W3)	DSCMO	05/19/99	06/30/99
W4 A/L Gus Updates (from B/C W3)	DSCMO	05/19/99	07/06/99
W4 A/L: Update TIGER with features (from B/C all Waves)	GEO	03/29/99	07/01/99
W4 A/L: Reconcile MAF and TIGER updates - (from B/C W3)	GEO	05/05/99	07/08/99
W4 A/L: Add Addresses to the MAF - (from B/C all Waves)	GEO	06/01/99	07/15/99



MAR 02 1999

CENSUS 2000 DECISION MEMORANDUM NO. 75

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
Assistant to the Associate Director for Decennial Census

From: Carol M. Van Horn *CVH*
Chief, Decennial Management Division

Subject: Revised Procedures for Enumerating Respondents Who Call
Telephone Questionnaire Assistance (TQA) But Cannot Provide a
Census Identification Number

Contact: Theresa Leslie, DMD, Room 1422/2, x4223

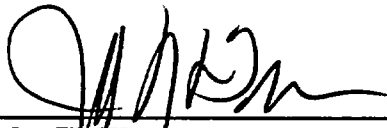
The Census Operational Managers (COM) and Issue Resolution/Change Control (IR/CC) Board reached a consensus to recommend collecting only short-form data from TQA callers who cannot provide a Census Identification number (ID). (The TQA operators will collect the appropriate data, short and long, from callers who can provide a census ID.) Given Census 2000 Dress Rehearsal experience, an estimated 80,000 calls to TQA (20 percent of 2.4 million x 1/6) will be affected by this decision.

This recommendation is a change from the procedure tested in the Census 2000 Dress Rehearsal. During the dress rehearsal, a counter was set within the instrument that performed a one in six sample when a caller requesting a telephone interview could not provide a Census ID. The first five callers who could not provide a census ID when requesting a telephone interview were asked the Be Counted Form (short form) questions. The sixth caller was asked the long form questions plus the Be Counted address questions.

The revised approach for Census 2000 has more advantages than disadvantages. This decision will simplify the TQA operation which currently does not include funding to develop the call routing and sampling schema to support the collection of sample data for callers who cannot provide a census ID. Under this approach, TQA operators will be able to handle more calls; the TQA team estimates that TQA operators will be able to handle eight calls in the time it would take to complete one long-form interview. Finally, this option is feasible under a traditional

design to be explored. The one drawback of this recommendation is that there could be a statistical impact on sample data, particularly in small geographic areas, if there is any significant clustering of calls. However, the effect of collecting only short-form data for these questionnaires is very small compared to the fact that we are not conducting a content follow-up operation for missing long-form data or collecting long-form data as part of the Be Counted Program.

I concur with the revised procedures for enumerating respondents who call Telephone Questionnaire Assistance (TQA) but cannot provide a census Identification number.



John H. Thompson
Associate Director for Decennial Census

MAR 02 1999

Date

cc: Distribution List



MAR 02 1999

CENSUS 2000 DECISION MEMORANDUM NO. 76

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston J. Waite *PJW*
Assistant to the Associate Director

From: Carol Van Horn *CVH*
Chief, Decennial Management Division

Subject: Census 2000 Mailing and Questionnaire Delivery
Strategy and Dates

Contact Person: Jane Ingold, DMD, Rm. 2-2104, (301) 457-4646

This memorandum documents the dates and volumes for the components of the questionnaire delivery strategy for the Census 2000, including the questionnaire mailout dates, and supersedes Census 2000 Decision Memorandum No. 14: "Revision to Census 2000 Questionnaire Mailing Strategy" (attached).

Consideration was given to revisions in the mailing strategy dates under the current plans for a scenario of a "sampled census without a second mailout". Discussions by staff from Decennial Management Division, Decennial Systems and Contracts Management Office, and Decennial Statistical Studies Division resulted in a decision to make no revisions to the questionnaire mailing dates in the Master Activity Schedule for the Census 2000. Data capture sizing is set to meet the priority check-in, scanning, and surname capture requirements by April 11, 2000.

The dates that were agreed upon for the United States Postal Service (USPS) delivery of the mailout/mailback (MO/MB) letter, questionnaire, and reminder card are as follows:

Mail Piece	Begin - End
Deliver MO/MB Advance Letter	03/06/00 - 03/08/00
Deliver MO/MB Questionnaire	03/13/00 - 03/15/00
Deliver MO/MB Reminder Card	03/20/00 - 03/22/00

In addition, we have provided an assessment of volume to the USPS. The volume of advance letters, questionnaires and reminder cards for the MO/MB delivery strategy is 94,346,050 pieces for each mailing. The MO/MB questionnaire total volume includes 78,621,708 short forms and 15,724,342 long forms.


The dates for the USPS delivery of the Update/Leave (U/L) letter and reminder card and enumerator distribution of the U/L questionnaire are as follows:

Mail Piece	Begin - End
Deliver U/L Advance Letter	03/01/00 - 03/03/00
Distribute U/L Questionnaire	03/03/00 - 03/30/00
Deliver U/L Reminder Card	03/27/00 - 03/30/00

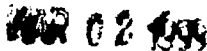
The volume for the USPS U/L delivery strategy is 23,368,965 advance letters and reminder cards. The total volume of 23,368,965 enumerator distributed U/L questionnaires, includes 19,474,138 short forms and 3,894,828 long forms.

The USPS considers the MO/MB and U/L volume estimates as target volumes for delivery and the base for the respondents' business return reply to the Census 2000 data capture centers.

I concur with the recommended Census 2000 mailing and questionnaire delivery strategy and dates.



John H. Thompson
Associate Director for Decennial Census



Date

MAR 25 1999



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

CENSUS 2000 DECISION MEMORANDUM NO. 77

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston J. Waite
Assistant to the Associate Director for Decennial Census

From: Susan Miskura
Chief, Decennial Management Division

Subject: Changes Planned for the Census 2000 Language Program

Contact Person: Jane H. Ingold, Decennial Management Division, (301) 457-4646

This memorandum documents the changes planned for the Census 2000 language program based on recommendations developed subsequent to a design review held in January 1998. *"The Census 2000 Language Program: Lowering Barriers to Census Participation (A Business Case Analysis), July 31, 1998,"* contains further information and documentation of the issues.

The objective of all Census 2000 program planning is to raise the response rates, improve the data accuracy, and conduct a cost effective decennial census. The purpose of the Census 2000 language program is to support that goal by providing census information and assistance in languages other than English. In addition to the design review and comments from both the General Accounting Office and the Office of the Inspector General, several issues emerged during the Census 2000 Dress Rehearsal.

The following bullets identify what was "originally planned" and implemented in the Dress Rehearsal. The changes or contrasts to these bullets appear on the next page.

- A questionnaire in English and a second language mailed to selected neighborhoods;
- Be Counted forms in many languages and widely available (languages specifically selected for the sites);
- Questionnaire Assistance Centers staffed by unpaid volunteers; and
- Advertising, bilingual enumerators, and Telephone Questionnaire Assistance.

The operational hurdles encountered during the Dress Rehearsal highlighted the need for the Census Bureau to reevaluate the language support program for Census 2000. The Census Bureau identified and addressed the following major issues encountered during the Dress Rehearsal.

- The printing community could not deliver a unified, automated method to produce the English/other language mailing packages;
- The Census Bureau was only able to reach a limited number of all linguistically isolated households with targeted mailings;
- The availability of Be Counted forms in many languages created incentive to use the forms as “handouts”; and
- The Local Census Offices had difficulty finding volunteers to staff the Questionnaire Assistance Centers.

After reviewing the results of the Dress Rehearsal, developing a business case analysis of the language program, briefing the advisory committees, and incorporating all feedback, the Census Bureau developed plans for an new, integrated Census 2000 language program. This program will offer the following services to support the goals of Census 2000:

- The Census 2000 mailout/mailback questionnaires will be printed in the following languages.

✦	English	Spanish	Chinese	✦
	Tagalog	Vietnamese	Korean	

- An option for all households that receive a Census 2000 advance letter is to request a Census mailout/mailback questionnaire in any of the above languages. The advance letter is scheduled for USPS first class delivery in areas of the country where update/leave is the distribution strategy for questionnaires, and in the mailout/mailback areas where the USPS delivers the questionnaires. List/Enumerate and Update/Enumerate areas of the country will not receive an advance letter with the option to request a specific language questionnaire. The operational workflow at the National Processing Center for the receipt of special requests for a questionnaire in a language other than English is being developed and will be documented in an upcoming decision memorandum as well as in the Language Program Master Plan.
- Be Counted forms in the same languages as the mailout/mailback questionnaires. Other public use forms and questionnaires are also available in Spanish at the recommendation of the Field and Population Divisions. This includes forms and questionnaires to support enumeration in Group Quarters and Service Based enumeration.
- Approximately 15 million language assistance guides in about 30 languages. The available languages, quantities, and distribution will be influenced by partnership specialists and advisory committee discussions.
- Approximately 15,000 paid temporary staff positions in QACs. Recommendations on QACs and position allocations will be influenced by partnership specialists, regional availability, and advisory committee decisions.

- Staff associated with advertising and TQA planning continue to determine the strategies for supporting languages.
- Bilingual enumerators. (These enumerators will have foreign language guides available to aid them in their translation.)

This revised Census 2000 Language Program is expected to help create a Census 2000 climate that promotes goodwill and cooperation between the Census Bureau, our census partners, and respondents throughout the nation.

Puerto Rico

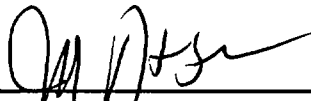
- Residents of Puerto Rico will be enumerated under a slightly different strategy than stateside residents. The Census 2000 update/leave questionnaires, as well as the SEQ's and other collection forms, will be printed in the following languages with Spanish considered the primary language.

Spanish	English
---------	---------

- An advance letter is scheduled for USPS delivery to "Postal Patron" instead of first class in Puerto Rico in order ensure delivery to the largest number of residents. The operational workflow at the National Processing Center for the receipt of special requests from Puerto Rico through TQA for a questionnaire in a language other than Spanish is being developed and will be documented in an upcoming decision memorandum as well as in the Language Program Master Plan.
- Be Counted forms in the same languages as the update/leave questionnaires.
- A language assistance guide for French/Haitian will be available at the QACs, Local Census Offices, and community groups.
- Paid temporary staff positions in QACs. Recommendations on QACs and position allocations will be influenced by partnership specialists, regional availability, and advisory committee discussions.
- Bilingual enumerators.

This revised Census 2000 Language Program is expected to help create a Census 2000 climate that promotes goodwill and cooperation between the Census Bureau, our census partners, and respondents throughout the nation and Puerto Rico.

I concur with the recommendation to implement the Census 2000 language program.



John H. Thompson
Associate Director for Decennial Census

MAR 25 1999

Date

* * *



3-31-99

CENSUS 2000 DECISION MEMORANDUM NO. 78

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston J. Waite *PJW*
Assistant to the Associate Director

From: Susan M. Miskura *SM*
Acting Chief, Decennial Management Division

Subject: Large Household Follow up -- Outbound Coverage Edit Phone
Follow up Operation

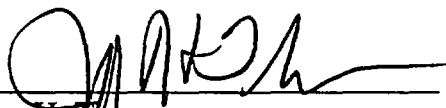
Contact Person: Jane H. Ingold,
Chief, Content and Products Branch
Decennial Management Division, (301) 457-4646

This memorandum documents the direction provided by the IR/CC to use telephone follow up (outbound CATI) to conduct follow up for content and coverage of households with seven or more persons. It also documents the necessity to include the follow up of large households for which a telephone number is not available in the planning for operations like Coverage Improvement Follow up.

Most persons will be enumerated in Census 2000 on short or long forms designed for use in mailout/mailback or Update/Leave areas. Our plans for the Dress Rehearsal and tentatively for Census 2000 included a Docuprint letter and questionnaire (designed for scanning) to conduct follow up of households with more members than five or six (size of the Dress Rehearsal and Census 2000 questionnaires, respectively.)

The Decennial Management Division (DMD) worked with the case costs for the outbound calls provided by CATI contractor(s), revised the workloads for following up large households based on the six person questionnaire(s), and considered easing respondent burden and improving coverage for large households. The IR/CC recognized that the use of the outbound CATI Follow up for coverage edits and for large household follow up should be considered. DMD under the direction of the Assistant to the Associate Director directed that taking steps to define the requirements for such an operation would achieve improved coverage and reduce burden as well as simplify operations in the National Processing Center. DMD also continues to pursue additional ways to maintain coverage goals for Census 2000 in obtaining data for large households with no telephone.

I concur with the recommendation to incorporate large household follow up into the coverage edit operation conducted by outbound TQA/CATI and continuing efforts to examine the coverage of large households without telephones.



John H. Thompson
Associate Director for Decennial Census

~~3-31-99~~
Date



APR 12 1999

CENSUS 2000 DECISION MEMORANDUM NO. 79

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Warte*
Preston Jay Warte
Assistant to the Associate Director for Decennial Census

From: *SM*
Susan M. Miskura
Chief, Decennial Management Division

Subject: Decision to Conduct the Program for Identifying New Construction
Between January 2000 and Census Day

Contact Person: Karen S. Medina, DMD, Rm. 2-1422, (301) 457-8232

This memorandum documents the decision to include a program in Census 2000 for local and tribal governments to identify new construction between January 15, 2000 and Census Day. This program responds to concerns raised by our local and tribal government partners that housing units constructed between January 2000 [the time of the Postal Validation Check (PVC)] and Census Day will not be included in the Census.

Background

Based on concerns expressed by local and tribal governments, an interdivisional team developed a process to identify and enumerate newly constructed housing units. The PVC will identify new construction through January and early February 2000. The New Construction program will fill the gap between the time of the PVC and April 1, 2000, Census Day. Newly constructed housing units are defined as housing units that have been built and occupied between January 15, 2000 and Census Day, or housing being built, for which basic construction has been completed closing the structure from the elements, but not occupied.

The program will be offered to only entities within the mailout/maiback areas (Update/Leave, Rural Update/Enumerate, and List/Enumerate procedures will identify new construction in remaining areas). All entities within mailout/mailback areas will be eligible to participate, regardless of whether or not they participated in LUCA. However, for LUCA participants, addresses submitted cannot be among the universe of addresses already disputed under the LUCA Reconciliation process and potentially involved in the Appeals process. The Census

Bureau will match and unduplicate the submitted addresses from the new construction program against the census address list updated from the PVC operation. Census enumerators will visit each "new" address during the Coverage Improvement Followup (CIFU) operation and complete a questionnaire for the housing unit, if it exists.

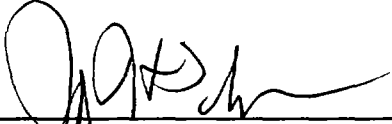
Workflow and Schedule

The Geography Division (GEO) will prepare a letter to invite local and tribal governments to participate, and the Regional Census Centers (RCCs) will send the letter in October 1999. Participating governments will receive an address list and associated maps beginning January 15, 2000. The address list and maps will be created from the same vintage of the MAF and TIGER data base as that used for the PVC. The address list will show only the Basic Street Addresses (BSA); it will **not** show individual housing unit addresses within multi-unit structures. It will display a count of the number of individual unit addresses at the BSA. The local and tribal governments will be asked to return to the RCCs the address list of the newly constructed housing units and updated maps between February and April 1, 2000. The National Processing Center (NPC) will key the new addresses and the RCCs will update TIGER in April 2000. The GEO will match and unduplicate the new addresses with the Master Address File (MAF)/Decennial MAF (DMAF) updated from the PVC in April through June 2000. The Decennial Systems and Contracts Management Office (DSCMO) will incorporate the new addresses into the CIFU DMAF in time for including them in the CIFU workload. Census enumerators will followup and enumerate the new addresses, if they exist, in July and August 2000 during CIFU.

Workload

We estimate that the program could identify 200,000 new housing units.

I concur with the recommendation to conduct a program to identify newly constructed housing units between January 15 and Census Day, April 1, 2000.



John H. Thompson
Associate Director for Decennial Census

APR 12 1999

Date



JUN 01 1999

CENSUS 2000 DECISION MEMORANDUM NO. 80

MEMORANDUM FOR John H. Thompson
 Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
 Assistant to the Associate Director for Decennial Census

From: Susan M. Miskura *SM*
 Chief, Decennial Management Division

Subject: Cancellation of the Targeted Edit for Census 2000


Contact Person: Theresa Leslie, Decennial Management Division, (301) 457-4223

This memorandum documents the decision to drop the Targeted Edit planned for inclusion in the Coverage Edit Follow-up operation for Census 2000. The Coverage Edit Follow-up operation is a Computer Assisted Telephone Interviewing operation that reviews information provided on census questionnaires to collect missing information and correct possible errors. The Targeted Edit was added to the Traditional Census Plan in order to identify responses that fall in hard to enumerate (HTE) areas. By using the Planning Database, housing units that contained coverage errors would be identified in the target geographic areas and referred to the Coverage Edit Follow-up operation.

After analyzing the information that was available about the potential coverage improvement, we learned that the anticipated coverage gain was very low. We projected that less than 100,000 persons might be added through this program at great expense. Moreover, the original requirement for the targeted edit was defined without having had the opportunity to develop the specific requirements for edit failure. There was little time to develop these criteria, and no opportunity for testing possible failure rules. Even using all information available from previous censuses and tests, we could not determine a set of acceptable criteria in the time available.

Therefore, we concluded that the targeted edit would not be cost effective and have decided to drop it from the Census 2000 operational plan.

I concur with this decision to drop the Targeted Edit from the Census 2000 operational plan.



John H. Thompson
Associate Director for Decennial Census

JUN 01 1999

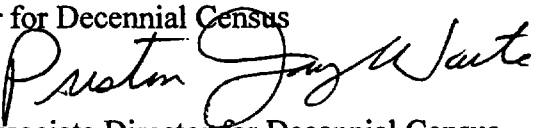
Date




JUN 01 1999

CENSUS 2000 DECISION MEMORANDUM NO. 81

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite 
Assistant to the Associate Director for Decennial Census

From: Susan M. Miskura 
Chief, Decennial Management Division

Subject: Handling of In-movers and Whole Household Usual Home
Elsewhere (WHUHE) Cases Identified During Non-Response
Followup (NRFU)

Contact Person: Fay F. Nash, Decennial Management Division, (301) 457-8039

This memorandum documents the decision on how to handle in-movers and whole households with a usual home elsewhere (WHUHEs) during the Non-Response Follow-up (NRFU) operation for Census 2000. Collecting data from in-mover households for their Census Day addresses, and from whole households for their usual home addresses, is expected to be more accurate than collecting data for these households from proxy respondents. Hence, these procedures will improve coverage and enhance data quality for these types of households. Furthermore, these procedures will allay respondent concerns that they might not be included in the census.

The following describes the enumeration procedures separately for both types of cases. It describes the processing jointly because processing of these cases does not differ until the application of the Primary Selection Algorithm (PSA). The PSA needs to be modified to accommodate these types of cases, as well as other changes based on the Dress Rehearsal experience, and will be documented separately.

A. In-movers

Households that have moved into the NRFU address since Census Day will be asked whether they completed a census questionnaire at their 4/01/00 address. If they did not or if they do not remember having done so, the enumerator will complete an unlabeled Simplified Enumerator Questionnaire (SEQ) (i.e., an SEQ without a census identification number) for the Census Day address. The labeled SEQ (with a census ID) will be completed by proxy for the NRFU address to reflect the vacant or occupied status of the unit on Census Day. This information may be obtained from a current resident or a neighbor.

B. Whole households with a usual home elsewhere (WHUHE)

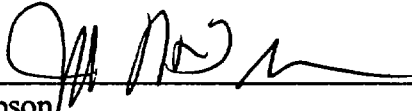
Households contacted at a NRFU address that claim that their usual residence is other than at the NRFU address (i.e., is “elsewhere”) will have an unlabeled SEQ completed for the usual residence address. In addition, the labeled NRFU SEQ will be completed with a status of “vacant” for Census Day.

C. Processing

The processing of the SEQs with labels from both of the above situations will follow the normal flow of NRFU questionnaires returned to the Local Census Office (LCO). They will be shipped to the processing center and data captured with other census labeled forms.

The SEQs without labels will be processed in a manner similar to NRFU adds and are shipped separately to the processing center. The processing center will perform check-in and data capture using a processing ID. From this point, the processing schema is the same as for the other sources of non-ID'd questionnaires, that is, those from the Be Counted and the Telephone Questionnaire Assistance programs. The address on an unlabeled SEQ will be matched to the Master Address File (MAF) to determine if the address is already included in the census. If so, the MAF ID is assigned to the unlabeled questionnaire data. If not, the address is geocoded, and field verified as time permits. Verified addresses from unlabeled SEQs will be added to the MAF, assigned MAF IDs and included in the census.

I concur with the recommendation to provide the opportunity for (1) in-movers households that moved into a NRFU address since Census Day to have a questionnaire filled at their Census Day address, and (2) households that were at the NRFU address on Census Day but which really claim residence at another location to have a questionnaire filled for their usual residential address.



John H. Thompson
Associate Director for Decennial Census

JUN 01 1999

Date

cc: Distribution List



JUN 04 1999

CENSUS 2000 DECISION MEMORANDUM NO. 82

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
Assistant Director for Decennial Census

From: Susan M. Miskura *SM*
Chief, Decennial Management Division

Subject: Decision to Eliminate the Within-Block Search (WBS) From
the 2000 Census

Contact Person: Maria Urrutia, DMD, Room 1422-2, (301) 457-4244

This memorandum documents the decision to eliminate the Within-Block Search (WBS) from the 2000 Census. The WBS is a person-level search process tested during the Dress Rehearsal (DR) as a method to minimize the likelihood that respondents who initiated their own enumeration were also counted at another address in the same block.

Background

After the 1995 Census Test, decennial managers were increasingly concerned about the potential level of multiple response and the error that could result from the new methods, such as Be Counted forms and their equivalent records (BCFEs), that allow respondents to initiate their own enumeration in Census 2000. Consequently, members of the Multiple Response Resolution Team (MRRT) and other staff began developing automated procedures to attempt to resolve instances of multiple response from those using one of the new self-initiated means of response. In the Spring of 1998, work began on developing a business case analysis to be applied to the DR results.

Much of the analysis of the production and the evaluation results for the WBS in the DR have been completed. First and foremost, the MRRT focused on the question as to what role, if any, the WBS should play in Census 2000. The following alternatives were considered:

- Improve the WBS for use in Census 2000.
- Improve the WBS for implementation only in Update/Leave areas.
- Eliminate the WBS entirely and focus resources on improving the Primary Selection Algorithm (PSA) which is the algorithm designed for selecting all persons to be included in housing units in the census.

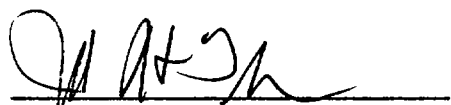
Ranking factors were used to measure each alternative's ability to improve accuracy and its ability to be implemented successfully in Census 2000.

Basis for Decision

Based on the risks and benefits examined and presented to some of the decennial managers by the MRRT, it has been decided that the option of eliminating the WBS entirely and focusing resources on improving the PSA is the most viable. This decision is based on the following two factors:

1. Production results indicate that the impact of the WBS on the population count will be marginal at best.
2. The WBS process would require substantial redesign to work effectively in the decennial census environment, and this investment is not justified by the potential gain.

I concur with the recommendation to eliminate the Within-Block Search from the 2000 Census.



John H. Thompson
Associate Director for Decennial Census

JUN 01 1999

Date



JUN 09 1999

CENSUS 2000 DECISION MEMORANDUM NO. 83

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
Assistant Director for Decennial Census

From: Susan M. Miskura *SM*
Chief, Decennial Management Division

Subject: Address List Review 1998: Decision to Combine Detailed Feedback With Final Determination and Verify All LUCA Addresses Not Matched to the Block Canvassing Results

Contact Person: Kathleen M. Halterman, DMD, Rm. 2-1422, (301) 457-8230

The Census Bureau has decided to provide local and tribal governments detailed feedback information on the results of block canvassing their address lists as part of a final determination process. This decision eliminates a separate step (an initial review) to provide information to local and tribal governments participating in the Address List Review 1998 program.

Background

The Address List Review 1998 program provides an opportunity for local and tribal governments to review the Census 2000 address list and provide additions and corrections to the Census Bureau. The current program gives participants a chance for an initial review of the address list, detailed feedback from the Census Bureau on their address suggestions, reconciliation / verification of any disputed addresses, and, lastly, final determination from the Census Bureau on the verification results. Under the current plan, after the participant provides their address suggestions, the Census Bureau matches the suggestions to the results of the Block Canvassing operation and provides the participant with the results of that match. This is the detailed feedback. The participant has 21 days after receiving the detailed feedback to respond and request reconciliation of addresses that they believed the Census Bureau erroneously included or excluded from the Census 2000 address list. The Census Bureau then has 60 days to verify the existence of disputed addresses and process the results. The results of the verification would be included in the final determination materials. After receiving final determination materials, participants may appeal any address that they still believe the Census Bureau erroneously included or excluded from the Census 2000 address list.

Recommendation

Based on the reduced amount of time now remaining for these activities, we recommend that we combine the detailed feedback process with the final determination process and provide this information after we verify all addresses (not just disputed ones) provided by the participant that do not match to the results of the Block Canvassing operation. This combination offers the following advantages over keeping the current plan:

- It simplifies the program for the participants in that they no longer will need to do a separate review (in 21 days) of addresses that do not match to the Block Canvassing operation and identify specific addresses they believe are still missing or are incorrect in the Master Address File (MAF).
- It will ensure that we have substantial evidence to support the Census Bureau's position on a participant's appeal of a disputed address.
- It saves time in the schedule in that we will not need to produce, deliver, and ship detailed feedback materials separate from the final determination materials. We can start verifying addresses sooner because we will no longer have to wait for the reaction of the local and tribal governments.
- It will result in more areas having "field verified" addresses in the July 1999 MAF extract delivery for the Decennial MAF (DMAF) than would have been included if we did not make this change.
- It will result in more areas to get into the Appeal process early, allow more time for governments to make their Appeal, get it resolved and included in time for the December 1999 "late" MAF extract delivery for the DMAF, as compared to keeping the current plan.
- It reduces the number of "late-late" Appeal adds in the February 2000 MAF delivery for the DMAF.

I concur with the recommendation to combine the detailed feedback with the final determination for Address List Review 1998.



John H. Thompson
Associate Director for Decennial Census

JUN 09 1999

Date



June 9, 1999

CENSUS 2000 DECISION MEMORANDUM NO. 84

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
Assistant Director for Decennial Census

From: Susan M. Miskura *SM*
Chief, Decennial Management Division

Subject: Address List Review 1999: Decision to Provide a Second Master Address File (MAF) Extract for the Decennial MAF (DMAF) on August 15, 1999

Contact Person: Kathleen M. Halterman, DMD, Rm. 2-1422, (301) 457-8230

This memorandum documents the decision to provide a second delivery of the Master Address File (MAF) for the Decennial MAF (DMAF) on August 15, 1999.

Background

Due to delays in the Address Listing operation, many local and tribal governments received their Local Update of Census Addresses (LUCA) 1999 review materials much later than planned. For these Update/Leave (U/L) and Rural Update/Enumerate (U/E) areas, the address list and map updates from LUCA 1999 recanvassing will not be completed in time to meet the MAF extract and Geographic Reference File (GRF) delivery by July 31, 1999. This delivery is needed for DMAF creation and preparation of the questionnaire address labeling files. This has the potential of delaying delivery of the address labeling files to the Mailout/Mailback (MO/MB) and U/L printing contractors, and any delay in the printing and delivery of labeled forms to the U.S. Postal Service and Local Census Offices for delivery in March 2000 is unacceptable.

Resolution

The Decennial Management Division, Decennial Statistical Studies Division, Decennial Systems and Contracts Management Office (DSCMO), Field Division (FLD), and Geography Division (GEO) agreed on the following resolution:

- We will not change the current MAF extract and GRF July delivery schedule. GEO will deliver county-based MAF extracts and GRFs within the July 1999 time frame and notify DSCMO when it has delivered all county files for each state. These county-based deliveries, however, will exclude all known U/L and Rural U/E assignment areas (AAs) that contain blocks involved in the LUCA 1999 recanvassing and/or processing that have not been completed in time to meet the July delivery schedule. DSCMO will proceed with DMAF creation, long form sampling, and surname determination as designed and based on the information contained in these MAF extracts and GRFs.
- By August 15, 1999, GEO will deliver MAF extracts for those AAs that were not complete in the July delivery but are now completed. The August files however, will exclude all known U/L and Rural U/E AAs that contain blocks, identified before the July delivery, involved in the LUCA 1999 recanvassing and/or processing that still have not been completed. For each delivered AA, DSCMO will add the address information to the DMAF, implement the long form sampling and surname determination, and include these additional addresses in the U/L questionnaire address labeling file using the same processes and procedures as for the July address labeling files.

The July and August deliveries are mutually exclusive.

Adding an additional two weeks to the MAF extract delivery schedule will allow FLD to complete most of the LUCA 1999 recanvassing, for the National Processing Center and DSCMO to complete most of the recanvassing address keying and TIGER updates, and for GEO to update the MAF.

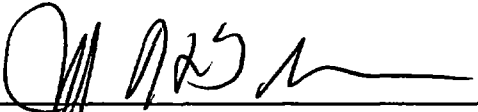
Implications

This resolution has the following implications:

- The preparation of the DMAF and the MO/MB and U/L questionnaire address labeling files can proceed according to the current schedule.
- Consistency is maintained between the U/L and Rural U/E address lists, maps, and questionnaires.
- Modifications are required to GEO's software to exclude AAs from the first MAF extracts and include only specific AAs in the second MAF extracts.
- Adding a second MAF extract delivery requires additional processing steps for GEO and DSCMO.
- Extending the schedule by two weeks reduces the amount of time available to DSCMO for U/L and Rural U/E DMAF processing, but it does not add significant risk.

A separate decision memo will be issued dealing with address updates from LUCA 1999 AAs that do not complete the recanvassing and processing by August 15, U/L and Rural U/E AAs which were delivered in July but have since had blocks within the AA recanvassed, address updates from Supplemental LUCA 1998 verification/recanvassing, and address updates in MOMB, U/L, or U/E areas from the Appeal process. Subsequent deliveries will be on a whole U/L or Rural U/E AA basis, either as a whole first delivery AA or a whole replacement AA.

I concur with the decision to provide a second delivery of the MAF for the DMAF on August 15, 1999.



John H. Thompson
Associate Director for Decennial Census

JUN 09 1999

Date



AUG 16 1999

CENSUS 2000 DECISION MEMORANDUM NO. 86

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *Preston Jay Waite*
Assistant Director for Decennial Census

From: Howard Hogan *Howard Hogan by RS*
Chief, Decennial Statistical Studies Division

Subject: Decision to Use the Targeted Extended Search Methodology to
Search One Ring of Surrounding Blocks in the Census 2000
Accuracy and Coverage Evaluation

Contact Person: David C. Whitford, DSSD, Room 2420-2, (301) 457-4035

This memorandum documents the decision to perform a Targeted Extended Search in the Accuracy and Coverage Evaluation in Census 2000. This operation is explained below.

Background and Definition

The Accuracy and Coverage Evaluation is a statistical methodology that improves decennial census results for both the total population and the various component groups that comprise the total. After the initial steps of the enumeration are complete, an independent survey, the Accuracy and Coverage Evaluation, reenumerates a sample of clusters of blocks. The persons enumerated in the survey are matched against the census enumerations. The better accuracy of the matching, the better the improvement in the decennial census results.

During the matching operation we search for people enumerated in the census only within the Accuracy and Coverage Evaluation cluster. In some blocks, though, we may have indications from the previous HU matching operation that errors have occurred in the initial count. For instance, an inordinate number housing units in an Accuracy and Coverage Evaluation block may have been mistakenly included across the street, outside the sampled cluster, during census processing.

In block clusters where this occurred we will perform a Targeted Extended Search (TES) for the people in the Accuracy and Coverage Evaluation who were missing in the initial count. It is likely that we will also target and include in the TES a sample of other blocks (without inordinate errors) to reduce potential bias due to balancing error.

The TES will search for census people in appropriate blocks neighboring the blocks in the Accuracy and Coverage Evaluation clusters, i.e., within one ring of surrounding blocks. The “appropriate” blocks are those where we have already noted that an inordinate number of errors have occurred in the initial count. To ensure our efforts are balanced, we will also undertake an extended search in the TES blocks for people erroneously enumerated in the Accuracy and Coverage Evaluation clusters.

The 1998 Dress Rehearsal evaluation results from the Accuracy and Coverage Evaluation state that, “New matches in the second ring (323) [of surrounding blocks] were less than half a percent of all P-sample records (Total Dress Rehearsal - 72256) and 2.1% of the dress rehearsal nonmatches (15117). First ring new matches (2021) were 2.8% of all P-sample records and 13.4% of the nonmatches.” (Wolfgang, 1999)

Basis for Decision

The evaluation results show there is considerable gain in person matching by extending the block search to the first ring: more persons will be matched and more duplicates will be found. This increased accuracy will decrease the variance of the dual system estimates.

However, a second ring search should not be included in the TES for the following operational reasons:

- When balanced with corresponding census duplicates, the increase in persons who were successfully matched will not change the expected value of the coverage estimates. Only the variance of those estimates will be reduced by expanding the search.
- Due to timing problems, the Geography Division (GEO) is not able to identify the second ring blocks in time for the Accuracy and Coverage Evaluation person followup.
- Another timing problem is that it would be difficult for GEO to display the second ring blocks on the maps for the interviewers to use for the followup, and it would be difficult for Decennial Systems and Contracts Management Office to identify second ring blocks on the census questionnaire labels.
- In order to balance the search for missed people in the surrounding blocks, clerks would have to extend their search for duplicate Accuracy and Coverage Evaluation people in the surrounding blocks. This clerical task of matching a long list of Accuracy and Coverage Evaluation people to a longer list of census people in the surrounding blocks is time consuming and error prone.

- By including a second ring of blocks, this makes the search increase exponentially. Additional staffing for this person matching and interviewing would create a strain on available resources.

Thus, based on the risks and benefits examined, the decennial managers recommend limiting the extended block search to only the first ring for the selected A.C.E. block clusters using the Targeted Extended Search methodology.

I concur with the recommendation to limit the surrounding block search during the 2000 Census Accuracy and Coverage Evaluation (A.C.E.) operations to one ring.



John H. Thompson
Associate Director for Decennial Census

AUG 16 1999

Date

References

Wolfgang, "Surrounding Block Research," draft memorandum in DSSD 2000 Procedures and Operations Series, Chapter S, subchapter RE, 1999



AUG 18 1999

CENSUS 2000 DECISION MEMORANDUM NO. 87

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
Assistant Director for Decennial Census

From: Susan M. Miskura *SM*
Chief, Decennial Management Division

Subject: Handling of Late Adds for Inclusion in Census 2000

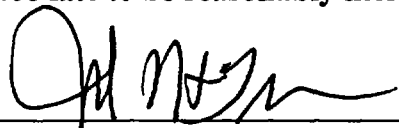
Contact Person: Edison Gore, Decennial Management Division, Room 2012,
Bldg. 2, (301) 457-3998

We anticipate that some new addresses identified in pre-Census Day operations will not be processed in time to meet the date (4/11/99) for Nonresponse Follow-up (NRFU) universe determination. This memorandum documents the decision to include these addresses in the Coverage Improvement Follow-up (CIFU) operation.

In addition to the "New Construction" address adds obtained through partnerships with local and tribal entities and already included in the plan for CIFU, the Update/Leave (U/L) operation, and possibly other operations in partnership with the U.S. Postal Service, will identify adds through March 2000. It is likely that some of these new addresses (approximately 50,000) will not be processed in time to be included in the NRFU universe. It would be possible to include them in a supplemental list for NRFU, but this requires staging a second assignment preparation operation which would divert local census office (LCO) staff from the main focus of completing NRFU on schedule. In lieu of inclusion in NRFU, the cases can be incorporated in the (CIFU) operation. The main advantage is that the adds can be included in the initial universe determination for CIFU, causing no interruption in the normal flow of that operation. The disadvantage of inclusion in CIFU, rather than NRFU, is that the interview occurs later, possibly impacting data quality.

When comparing the impact caused by the NRFU additional workload in the LCOs and the recall error for the late adds, inclusion in CIFU is a better option. Late adds will become part of the regular CIFU workload and will be processed according to the plans already outlined for that operation.

**I concur with the recommendation to include new addresses identified prior to Census Day
(but too late to be reasonably included in NRFU) in CIFU.**



John H. Thompson
Associate Director for Decennial Census

AUG 18 1999

Date

cc: Distribution List



AUG 23 1999

CENSUS 2000 DECISION MEMORANDUM NO. 88

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *Preston Jay Waite*
Assistant Director for Decennial Census

From: Susan M. Miskura *Susan M. Miskura*
Chief, Decennial Management Division

Subject: Revised Date to End Inbound Telephone Questionnaire Assistance
(TQA) Service

Contact Person: Gemma Furno, DMD, 1422-2, 457-8369 or Ed Gore, DMD, 2012-
2, 457-3998

This memorandum documents the decision to change the end of TQA inbound agent assisted service from July 7, 2000 to June 8, 2000.

Background

The current date to end TQA is July 7, 2000, which is also the last day for Nonresponse Follow-up (NRFU). Under the original census plan, both TQA and NRFU were to end on the same day. Since the end of NRFU is now July 7, the end of TQA was rescheduled to match it.

We originally planned to allow respondents to provide their census information throughout the inbound period, but a closer assessment of the schedule required a modification. After June 8, there would be insufficient time to geocode and potentially field verify addresses collected from respondents who could not provide their census questionnaire identification number (census ID). Therefore, we specified no collection of data in such cases after June 8. We planned to continue taking census information from callers who could provide their census ID, since the addresses for these returns would require no additional geocoding and field verification.

However, because we would only stop collecting data for cases that did not have a census ID, implementing these revised plans would require instrument modification in several places to accommodate the census ID and date check. Since programming has started on the TQA and interactive voice recognition instruments, these modifications could adversely impact an already tight instrument development and testing schedule.

In the Census 2000 Dress Rehearsal, we received only 63 calls (about 0.2 percent of all calls) during the final month of the TQA inbound operation. In 2000, the equivalent number of calls would be less than 40,000 out of 11,000,000 total calls expected. We expect very few callers to

have a census ID during this period - they would most likely have called or mailed back a form earlier. In addition, for callers requesting an interview during this final stage of TQA, our overall policy is to encourage callers to cooperate with the census enumerator and only complete a questionnaire by telephone if the person insists.


Options Considered

We examined four options to resolve this issue. The first was discussed above (only stop collecting information for non-census ID cases). This option was rejected because the necessary instrument modifications could adversely impact the TQA development and testing schedule. The second option was to take no interviews from ANY callers after June 8, but keep the July 7 end date for agent-assisted TQA. The only service TQA would provide at this stage would be responses to questions about the census. The third option considered was to take interviews through July 7 for all respondents who wish to provide census information through TQA. The problem with this option is that interviews taken from callers without a census ID might not be included in the census. The fourth option was to end the agent-assisted TQA operation on June 8 for everyone and only maintain a recorded message through July 7. The recorded message would thank them for their interest, inform them that the mail back portion of Census 2000 is complete, and that enumerators are visiting addresses from which we did not receive a form. If they need further assistance, respondents can call directory assistance and get the telephone number for their local census office. This option would not provide an opportunity for the public to speak to live agents or provide census information during NRFU. It also would not, however, require major TQA instrument modifications. In addition, we would not be providing varying levels of TQA service to different segments of the population during the last stage of TQA.

Decision

After weighing the above options and factors, we have selected option 4 as the best approach. Under this option, respondents who call after June 8 will receive a recorded message as described above.

I concur with the decision to end the inbound agent assisted TQA operation on June 8, 2000.



John H. Thompson
Associate Director for Decennial Census

AUG 23 1999

Date



OCT 28 1999

CENSUS 2000 DECISION MEMORANDUM NO. 91

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: *Preston Jay Waite*
Preston Jay Waite
Assistant Director for Decennial Census

From: Susan M. Miskura *SM*
Chief, Decennial Management Division

Subject: Validating Block Canvassing Deletes in LUCA '98 Field Verification

Contact Person: Kathleen M. Halterman, Chief, Geographic Programs Branch,
DMD, Rm. 2-1422, (301) 457-8230

This memorandum documents the decision to validate Block Canvassing (BC) deletes during the Field Verification (FV) operation for LUCA '98.

Background

The inclusion criteria for the initial creation of the Decennial Master Address File (DMAF), requires a 2nd confirmation of deletes in order to exclude an address from the census address universe. The current plan is to include in Non Response Follow Up (NRFU) those addresses deleted in Block Canvassing for which we do not receive a mail-return questionnaire. A NRFU enumerator would visit each address to verify its status.

Justification

The inclusion of the Block Canvassing deletes, while adding to the workload of LUCA 98 Field verification, has a two-fold benefit. It will:

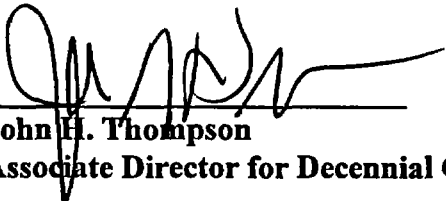
- 1) reduce the NRFU workload, as stated above, by removing the verified BC deletes; and
- 2) improve the quality of the LUCA '98 feedback address listings and New Construction address listings, by validating a greater universe of addresses.

Recommendation:

The new proposal is to include all Block Canvassing deletes in the Local Update of Census Addresses (LUCA) 1998 Field Verification operation to confirm its status as a true delete. Subsequently, a Block Canvassing delete, which is also deleted in LUCA 1998 Field Verification, for which we do not receive a mail-return questionnaire, would be excluded from the NRFU universe.

The LUCA '98 Field Verification operation includes verifying Block Canvassing deletes (DMAF deliverable addresses coded as "D1" in Block Canvassing). The addition of the Block Canvassing deletes increased the Field Verification workload by 1,935,937 addresses.

I concur with the recommendation to validate the Block Canvassing deletes in LUCA '98 Field Verification.



John H. Thompson
Associate Director for Decennial Census

OCT 28 1999

Date



DEC 14 1999

CENSUS 2000 DECISION MEMORANDUM NO. 94

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay White *pgw*
Assistant Director for Decennial Census

From: Susan M. Miskura *sm*
Chief, Decennial Management Division

Subject: Limiting the Requirements for the Census 2000 Mail Response
Feedback Project

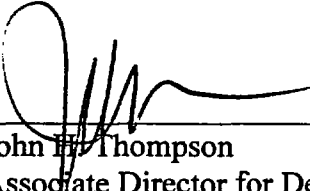
Contact Person: Barbara S. Tinari, Chief, Field Data Collection Branch, Decennial
Management Division, Room 1422-2, (301) 457-8324

The Census Bureau has decided to limit the Census 2000 Mail Response Rate Feedback Project to include only the production of daily tabular mail response rate data for functioning governmental units which will be disseminated via the Internet. We will no longer be providing tract level thematic map products.

Various project issues formed the basis for this decision. We raised concerns about the operational feasibility to develop an ambitious system within a short schedule. Real time displaying of map data in sync with respective tabular data was uncertain. Anticipated negative public response to tract maps not matching 1-to-1 with functioning governmental unit boundaries also surfaced as a legitimate concern.

With the resulting decision, we are aware of the potential negative fallout the Census Bureau may face. External data users may charge us with falsely raising their expectations to receive mapping data products similar to the Census Bureau's dress rehearsal tract level mapping products currently available. However, we strongly feel the pros significantly outweigh the cons and that this decision is justified and ultimately in the best interest of the Census Bureau.

I concur with the decision to limit the requirements for the Census 2000 Mail Response Rate Feedback Project to the production of tabular place level mail response rate data for functioning governmental units which will be disseminated via the Internet.



John H. Thompson
Associate Director for Decennial Census

DEC 14 1999

Date


cc: Distribution List




DEC 17 1999

CENSUS 2000 DECISION MEMORANDUM NO. 95

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through:  Preston Jay Waite
Assistant Director for Decennial Census

From: Susan M. Miskura 
Chief, Decennial Management Division

Subject: Census 2000 Postal Validation Check Methodology

Contact Person: Kathleen M. Halterman, Geographic Programs Branch,
Decennial Management Division, Room 1422, Bldg. 2, (301-457-8230)

This memorandum documents changes to the methodology for the Census 2000 Postal Validation Check (PVC). Attached are the letter from the United States Postal Service (USPS) documenting their formulated position, and the business case document from the PVC Working Group substantiating the process formulated for the Postal Validation Check for Census 2000.

Historical Background

In recent past censuses, for mailout/mailback areas, the Census Bureau used the process of casing addresses via the USPS A920 procedures, where postal carriers validated the address coverage in the census address list as close to Census Day as possible, usually in the January to February time period. The process was expensive, time-consuming, and labor-intensive, both for the USPS personnel, and Census Bureau headquarters and field resources.

During the 1990s, the Census Bureau embarked on creating the Master Address File (MAF). And, in Public Law 103-430, the Census Address List Improvement Act of 1994, the USPS was directed to provide the Bureau with a copy of the address information it maintains for mail delivery. The USPS provides this updated delivery address information via its Delivery Sequence File (DSF). The Bureau uses this information to add and revise addresses in the MAF, and to identify street names and address ranges missing from the TIGER data base so that TIGER deficiencies can be researched and corrected.

In September 1997, the Census 2000 Address List Reengineering report recommended a PVC by USPS letter carriers in late January 2000 in order to improve the coverage of the city-style addresses prior to the delivery of Census 2000 questionnaires. This PVC was to help ensure that new

construction and previously missed units were included in time for the Census 2000 mailout.

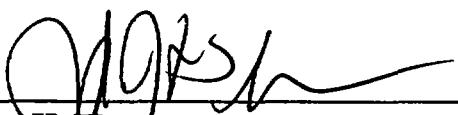
Postal Validation Check Concept for Census 2000

After many months of study, evaluation, and discussions with the USPS, the Bureau now plans to update its list of city-style mailing addresses via automated means, using current USPS files of addresses newly identified by letter carriers in lieu of a manual casing check. The PVC methodology will consist of supplementing the Census 2000 address list for mailout/mailback areas, updated by Block Canvassing and the Local Update of Census Addresses Program (LUCA), with two USPS "refreshes" of the DSF before January 2000, one in September and another in November. These addresses will be included in the MAF through the existing and established geocoding and updating methodologies. The additional geocoded addresses from these refreshes will be included on the supplemental tape for the questionnaire labeling contractor. In February, the Bureau will receive a file from USPS of supplemental added addresses in time to be included in the census process. These addresses will be processed and included, as time permits, in the mailout through the labeling operation in the Bureau's National Processing Center (NPC), with any residual included in the Non-Response Follow-up operation. A final DSF refresh in April 2000 will complete the cycle of updates for the USPS. These addresses will be included and integrated with the universe for Coverage Improvement Follow-up operations, as the addresses are successfully geocoded.

This revised methodology was chosen based on the evaluation of the DSF to MAF by the USPS and the Bureau from analysis of the Dress Rehearsal results, and the resultant heightened efforts by the USPS to increase the currency and accuracy of the DSF. The main effort is centered on the USPS inaugurating several enhancements, including two National Edit Book Week campaigns, supported by the installation of the BookII system software, explained in the attached letter from the Vice-President for Operations Planning, USPS, and in the attached Bureau's Business Case Analysis.

This revised methodology for the PVC will ensure the most effective process for the inclusion of all USPS deliverable addresses and will ensure the completeness of the MAF for Census 2000 as previously envisioned.

I concur with the decision to amend the Postal Validation Check as stated above by using the automated USPS DSF update methodology in place of the USPS A920 Casing check and associated processes.



John H. Thompson
Associate Director for Decennial Census

DEC 17 1999

Date

Attachments:

- 1. Case for Using DSF Refresh to Replace Postal Casing Check; Census Bureau, September 1999**
- 2. USPS letter from Nicholas F. Barranca, Vice President, Operations Planning; July 8, 1999**

Using the United States Postal Service Delivery Sequence File Refresh Process to
Replace the Postal Casing Check Process for Census 2000
A Business Case Analysis

I. Previous Plan

The U.S. Postal Service's Delivery Sequence File (DSF) is an important source of addresses for the Census Bureau's Master Address File (MAF). As the Census Bureau gained experience through both systematic and anecdotal comparisons of DSF addresses to residential structures on the ground, concern grew regarding inconsistencies in DSF coverage and update timeliness. The "Census 2000 Address List Reengineering" document of September 24 1997 proposed a Postal Validation Check (PVC) as one of the operations that could deal with the perceived deficiencies of the DSF. The goal of the PVC was to provide a means by which Postal Service letter carriers could pass along to the Census Bureau their knowledge of residential delivery point addresses that were not already in the DSF.

At the core of the PVC was a commercially-available service that the Postal Service describes in section A920 of its Domestic Mail Manual, and calls "Address Sequencing Services: Sequencing of address cards plus inserting cards with addresses for missing and new addresses." To take advantage of this service, the customer prints its address list on to cards (one address per card), and ships the cards to the Postal Service. The Postal Service then distributes the cards among the appropriate letter carriers for a manual comparison of the cards to each letter carrier's route sequence, as represented by the pigeon-hole labels on the boxes that the carrier uses to "case" each day's mail in delivery order. After the carrier has finished casing the customer's cards, the carrier scans the case to identify empty pigeon-holes, and annotates on to a separate "add" card each address shown on the carrier's case that is not represented by a card from the customer.

II. Looking for a Better Way

Although the Census Bureau contracted for A920 services to supplement address lists prior to the 1980 and 1990 decennial censuses, we wanted to include a "Postal Check" as one of the preparatory operations for the Census 2000 Dress Rehearsal, to gain experience with modifications to card printing and add card capture processes. Postal Service headquarters personnel actively monitored all phases of the A920 operations for the pertinent Dress Rehearsal sites, and visited the Census Bureau's National Processing Center in Jeffersonville, Indiana, to observe the activities required to prepare the add cards for key capture.

Analysis of the addresses added by the Dress Rehearsal Postal Check seemed to substantiate the need for an A920 operation to take place as close to April 1, 2000, as the follow-on processing operations would allow. Of the 4,833 addresses added by the Dress Rehearsal Postal Check in February 1998, almost ten percent had not yet appeared in the September 1998 version of the DSF. As a result of their desire to improve upon this

performance, and their conviction that automated processes should be able to eliminate much of the labor-intensive activities that they observed both in their own offices and in Jeffersonville, staff from Postal Service headquarters sought ways to ensure more timely and comprehensive updates of the DSF.

III. Improving DSF Update Procedures

Responding to the Census Bureau's intention to contract for A920 services for the Census 2000 Postal Validation Check (see letter of March 24, 1999 from Dr. Prewitt to Postmaster General Henderson), the Postal Service outlined DSF update enhancements that will allow the Postal Service to provide timely address updates electronically. Electronic transfer of data, if the scope and timeliness of the data are equivalent to an A920 casing check conducted during the same time frame, would eliminate the need for the card printing, manual casing, and extensive clerical key-capture preparations originally planned for the Postal Validation Check.

Here are the changes that the Postal Service will make in how it updates the DSF:

A. Greater emphasis on timely submission of the "edit books" that carriers use to provide update information to the office that maintains the DSF. The Postal Service conducted an "Edit Book Week" in June 1999 during which Postal Service headquarters stressed the importance of DSF updates to letter carriers. The Postal Service will conduct an identical campaign during the week of January 10, 2000, timed for maximum impact on the last DSF updates that we could hope to process in time for inclusion in the decennial mailstream.

B. Developing an automated program that screens incoming change-of-address (COA) forms to find delivery point addresses not shown on the DSF. After verification, the USPS would add these addresses to the DSF.

C. By November 1999, the Postal Service will have changed the way they assign identification information to DSF address records. This change will make new add records readily distinguishable, and enable transfer of January 2000 edit book adds to the Census Bureau by the first week of February 2000.

IV. Why the DSF Improvements will Yield Results Comparable to a Manual A920 Operation

A. After the Postal Service incorporates updates into the DSF from the required monthly edit book submissions, each letter carrier receives color-coded address labels pertinent to his or her route. The labels represent the only means by which carriers can update the individual address information shown on the casing equipment. Because add cards generated by an A920 manual casing operation are not used to update the DSF, there is much more incentive for the carriers, and the Postal Service in general, to rely on edit book maintenance to benefit their own daily mail sorting.

B. The new Book Track II software makes it much easier for Postal Service management to monitor which carrier routes are not keeping up with their edit book maintenance responsibilities. To convince letter carriers and their supervisors that Postal Service management ascribes a high priority to edit book maintenance, communications from headquarters to regional and local Postal Service offices will cite Book Track II results and findings from the existing "street review" QA of the edit books. During the street review, an audit team visits 40 randomly-selected carrier routes per year. The audit team validates the edit book by following on the ground the delivery sequence described in the book.

C. The Postal Service's ability to provide January 2000-vintage address adds to the Census Bureau in electronic form by the first week of February 2000 makes the timing comparable to the casing operation.

V. Quantifying the Improvements

Update tallies following the June 1999 Edit Book Week activities demonstrate that letter carriers respond positively to an increased emphasis on edit book maintenance. The campaign generated 29 million weekly transactions, in contrast to the weekly average of 23 million received previously. The Census Bureau can gauge the impact on the DSF itself by comparing summary tallies from the August 15, 1999 version of the file against DSF tallies that we have kept beginning in 1994, and by matching address adds received from the Block Canvassing operation against the August DSF. Changes in results from the Postal Service's street review QA also could suggest trends in edit book maintenance, but we need to determine whether the scheduling of the street reviews would allow for meaningful data to be available in time to affect a decision.

VI. Efficiency Gains: Dollar and Staff Savings

Automated transfer of new address information will produce the following advantages over manual methods:

A. The Postal Service estimates that the A920 manual casing operation originally envisioned by the Census Bureau for Census 2000 would consume 129,000 person-hours. Although the Edit Book Week proposed for January 2000 does involve additional effort on the part of the letter carriers, the results directly improve daily Postal Service operations, which is **not** true of an A920 casing activity.

B. Elimination of card printing will save the Census Bureau \$4,000,000 according to Decennial Management Division estimates.

VII. Efficiency Gains: Less-Quantifiable Advantages

A. Automated operations are less error-prone, especially those that label questionnaires, assign geocodes, and eliminate annotation and key capture of paper documents.

B. The Census Bureau already has software for, and operational familiarity with, automated DSF update of the MAF.

C. A series of DSF refreshes will allow the Census Bureau to begin tackling the clerical geocoding work load earlier, thereby reducing the pressure on Regional staff and space during February-March 2000.

D. Under the original A920 manual casing plan, full Title 13 confidentiality protection would have to be provided at every processing stage for the MAF addresses printed on cards, and for the addresses annotated on add cards by Postal Service personnel. By eliminating the requirement for printing and annotating cards, we not only eliminate costly and time-consuming shipment of cards, we also no longer risk compromise of Title 13 data while in transit to/from, or in possession of, printing contractors, Postal Service installations, and Census Bureau offices.

E. The Postal Service's ability to provide January 2000-vintage address adds to the Census Bureau in electronic form by the first week of February 2000 makes it likely that the Census Bureau will be able to generate questionnaire mailing packages for more of these adds than would have been possible with the A920 manual casing operation. This is because the time-consuming data keying activities have been eliminated, and the Census Bureau thus will have more time to perform the geocoding that is required before a questionnaire can be included in the mailstream. Census Bureau studies consistently show that mailout-mailback enumeration is more cost-effective than other types of enumeration.

September 1999

NICHOLAS F. BARRANCA
Vice President, Chief of Staff



July 8, 1999

Mr. Preston Jay Waite
Assistant Director for
Decennial Census
Bureau of the Census
Washington, DC 20233-7000

Dear Mr. Waite:

Thank you for meeting us to discuss our alternative proposal to the Census Bureau's request for a national postal validation casing check. The Postal Service refers to this process as "Address Sequencing Services," and it is described in detail in the *Domestic Mail Manual* (DMM), module AS20.

We are pleased that you consider the proposal a positive move toward meeting the demands of the electronic age.

Traditionally, the Census Bureau has validated addresses using the manual address sequencing card process. As part of this process, postal carriers around the country received cards containing addresses from the Census Bureau's Master Address File (MAF). This service is still available, but the two test sites that the Census Bureau submitted the address cards identified a gap in the way our carriers provide address information. The issue involves carriers processing address cards they assume will be added to Postal Service files but neglecting to submit the proper documentation needed to enter the information into our master address file. As such, the addresses are often not added to the Delivery Sequence File (DSF).

In the 1990 Census, the Postal Service only maintained address information in a ranged format, which required the Census Bureau and the Postal Service to perform the manual address sequencing card process. In 1993 we implemented a new database structure that maintains individual addresses for every carrier (city, rural, and highway contract route) and PO box section in the country. As a result, we established a maintenance process called "Edit Book."

The Edit Book contains a list of all delivery points on a carrier route in the sequence of delivery. A by-product of the Edit Book is the color-coded address labels that are mounted on all carrier casing equipment. The information on the address labels reflects the data in the Edit Books and is used daily to sort mail for delivery.

Carriers processed the manual address sequencing cards during the 1990 Census, and they would do the same if this process were used for the 2000 Census. However, carriers are the same employees who maintain the Edit Books for their individual routes. Because of the new and improved Edit Book process, it will be more efficient for carriers to validate and correct addresses using the books rather than processing manual address cards. The Edit Book process will generate electronic updates rather than thousands of hard copy address cards and will eliminate manual data entry of new addresses.

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102 11 1021

To complement the Edit Book process, as mentioned in our previous letter, we will also implement the BookTrack II software program in July of this year. BookTrack II will help identify missing address information and will allow us to monitor and create a history of all carrier route maintenance activity. This program will provide an advanced monitoring tool to our local delivery managers because they will be able to identify which routes are reporting changes. The second program will generate information through our daily processing of change-of-address (COA) information received from our customers. These changes will be compared to the DSF to determine whether an address is in our master address file, is vacant, or is in our master address file as a non-delivery address. It is our strong belief that this program will help us identify all missing addresses.

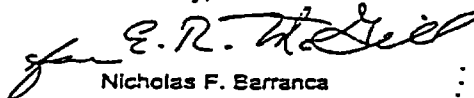
As stated in my May 27 letter to Mr. Kenneth Prewitt, we conducted National Edit Book Week the week of June 19-25, 1999. During this week, all carriers were given the time to review and update their Edit Books. The process was very successful. We average approximately 23 million weekly database transactions; during National Edit Book Week, we experienced an all-time high of 29 million transactions. The addresses added through Edit Book updates will be reflected in the August 1999 DSF, which will be available mid to late July 1999.

To avoid conducting a national postal validation check (DMM A920), we have scheduled another National Edit Book Week for the week of January 10, 2000. We selected this week based on our holiday season mail volumes.

We understand that the last DSF the Census Bureau plans to accept for the Census 2000 mailing is the November 1999 file. We are pleased to inform you that by that time the Postal Service will have developed a new program that will provide you with new addresses weekly. We are certain that this program, in conjunction with the other database maintenance improvement programs mentioned in my May 27 letter, will provide the Postal Service and the Census Bureau the most current address database available.

We appreciate the opportunity to work collectively with the Census Bureau and are continuously striving to meet all of your needs for Census 2000. If any additional information is needed, please contact DeWitt Crawford in Address Management at 901-681-4612.

Sincerely,



Nicholas F. Barranca

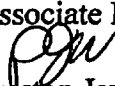
cc: John A. Rapp, VP, Field Operations Support

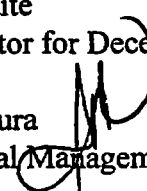


JAN 14 2000

CENSUS 2000 DECISION MEMORANDUM NO. 96

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through:  Preston Jay Waite
Assistant Director for Decennial Census

From: Susan M. Miskura 
Chief, Decennial Management Division

Subject: Decision to Eliminate Field Verification in the Supplemental Local Update of Census Addresses (LUCA) 1998 in Mailout/Mailback (MO/MB) Areas and Remaining LUCA 1998 Areas, and Incorporate All Participant Suggested Changes and Additions into the Census 2000 Process

Contact Person: Kathleen M. Halterman, Geographic Programs Branch,
Decennial Management Division, (301) 457-8230

This memorandum documents the decision to eliminate the field verification of participant suggested addresses in the Supplemental portion of LUCA 1998 in MO/MB areas and in some LUCA 1998 entities, and to include these addresses in the Census 2000 process; that is, in questionnaire mailout and in Nonresponse Followup if a completed questionnaire is not checked in.

Background

In the late spring of 1998, the Geography Division (GEO) began producing address list review materials for local and tribal governments who had signed a Confidentiality Agreement to participate in the LUCA 1998 program. During the quality assurance process, which compared the current Master Address File (MAF) address counts with 1990 housing unit counts and 1998 housing unit estimates for each entity, the GEO determined that the address lists for approximately 700 entities appeared to be deficient. A decision was made to hold the products for these entities until the Bureau had completed the Block Canvassing and Address Listing operations to update the MAF. In the summer of 1999, when the MAF had been updated and the LUCA lists could be produced, the GEO discovered that because of changes in Type of

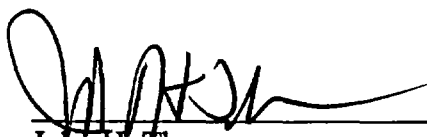
Enumeration Area, the addresses for some blocks in entities participating in the LUCA 1998 and/or LUCA 1999 programs had not been sent out for review within the proper respective program. Additionally, the GEO discovered that some local and tribal governments had inadvertently not been invited to participate in the program. It was then decided that all local and tribal governments affected by these various problems would be eligible for a Supplemental LUCA program that would include both Update/Leave and MO/MB areas.

The original schedule for the Supplemental LUCA program in MO/MB areas called for the production of materials after the results of the Block Canvassing operation were incorporated into the MAF. The expectation was that the results of the program, including appeals, could be incorporated in time for MAF extract deliveries in December and February. However, the production of the Supplemental LUCA materials coincided with the delivery of the MAF extract for the Decennial MAF (DMAF) to create the initial label tape for Census 2000 questionnaires, and additionally, the GEO was still trying to identify other local and tribal governments that were eligible for the program. To ensure timely delivery of the MAF extracts for the DMAF needed to create the label tape, and to assure inclusion of all eligible governments, the GEO postponed the production of the Supplemental LUCA materials. The delay in the production of those materials until August through October meant that, for the vast majority of participating entities, we would not be able to incorporate into the MAF the results of any field verification of additions and changes provided by the local or tribal government and accepted appeal addresses in time to deliver a questionnaire by Census Day.

Recommendation

Due to the lateness of the Supplemental LUCA 1998 program in MO/MB areas and the remaining LUCA 1998 areas, we recommend that we do not conduct field verification of additional addresses provided by participants in these areas, but instead include all suggested changes and additions into the complete census process, and provide feedback to the participants to that effect. The GEO will add these addresses to the MAF, and these addresses will become DMAF deliverable. Depending on the timing of the processing of the participant's returns, these addresses will either be delivered in the January 7, 2000 MAF extract delivery or the February 22, 2000 MAF extract delivery, with questionnaire mailout March 13, 2000, and March 29, 2000, respectively. Any of these addresses for which we do not receive a mail return will be included in the Nonresponse Followup operation. These addresses also will be included in the New Construction program.

I concur with this decision to eliminate the field verification of participant suggested addresses in the Supplemental LUCA 1998 program in MO/MB areas and the remaining LUCA 1998 areas.



John H. Thompson
Associate Director for Decennial Census

JAN 14 2000

Date



FEB 08 2000

CENSUS 2000 DECISION MEMORANDUM NO. 97

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston J. Waite *PJW*
Assistant to the Associate Director for Decennial Census

From: Howard Hogan *Howard Hogan*
Chief, Decennial Statistical Studies Division

Subject: Overcounts for the Census 2000 Accuracy and Coverage
Evaluation Survey

Contact Person: Rick Griffin, Decennial Statistical Studies Division, Room 2500,
Bldg. 2, (301-457-4227)

I. Background

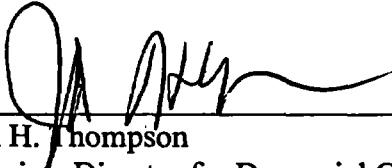
Census 2000 Decision Memorandum No. 90, Subject: Overcounts in Census 2000 Dress Rehearsal, presents a decision for dealing with poststrata with estimated overcounts. A decision was made for the Dress Rehearsal to stop selecting person records for subtraction when all imputed person records in a group had been used (See Decision Memorandum No. 90 for more details). This decision will be changed for Census 2000 as explained in this decision memorandum

II. Census 2000 Accuracy and Coverage Evaluation

For Census 2000 there will be no sampling for Nonresponse Follow-up or Undeliverable as Addressed Vacant units. Thus the proportion of the final count that is imputed persons will be much lower than for the Dress Rehearsal. To create an internal adjusted file for the 1990 Post Enumeration Survey, records for all persons (persons enumerated as well as persons imputed) in all poststrata were eligible for inclusion in the special coverage correction category. Not allowing records for enumerated persons in the coverage correction category would have resulted in an internal adjusted file with counts substantially different from the Dual System Estimates in poststrata with estimated overcounts.

If any overcounts are estimated for a particular poststratum for the Census 2000 Accuracy and Coverage Evaluation Survey (A.C.E.), the census counts for this particular group must be corrected to reflect the estimated overcount. The methodology for the A.C.E. survey will accomplish this by creating statistical records based on both enumerated and imputed data within the poststratum. These records will then be assigned a weight of -1 and included in the census data files in a special coverage correction category. This is in addition to the records that include the reports on enumerated and imputed individuals. When the census data are tabulated, the statistical records with the negative weights will be added to the census counts to incorporate the estimated overcount into the final results. Note that under this procedure no reported data for any individual will be removed from the Census 2000 data files.

I concur with the decision to allow all persons, enumerated and imputed, to be eligible for replication in the special coverage correction category with a weight of -1 for the Census 2000 A.C.E. Survey.



John H. Thompson
Associate Director for Decennial Census

FEB 08 2000

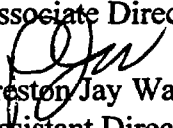
Date




FEB 17 2000

CENSUS 2000 DECISION MEMORANDUM NO. 99

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: 
Preston Jay Waite
Assistant Director of Decennial Census

From: Susan M. Miskura 
Chief, Decennial Management Division

Subject: Undeliverable As Addressed (UAA) Redistribution Operation

Contact Person: John W. Gloster, Decennial Management Division, (301) 457-8226

This memorandum documents the decision on the basic methodology for handling the Undeliverable As Addressed (UAA) Redistribution Operation for Census 2000. This operation is a cooperative effort between the Census Bureau and the US Postal Service (USPS) which will enable the Census Bureau to attempt redistribution of questionnaire packages that the USPS can not deliver because of reasons such as incorrect ZIP Code, lack of residential delivery in the area, and resident refusal of mail package.

A. Methodology

FLD HQ provides both the staffing and procedural requirements for the operation.

Between March 13 and March 15, 2000, the USPS will mail out Census 2000 questionnaires to approximately 98 million housing units (HUs) in mailout/mailback areas. The USPS will be unable to deliver an estimated 11.8 million of these questionnaires and will designate them as UAAs. Once a questionnaire has been designated as UAA, it is separated by the local post office from other mail and routed to a USPS Processing and Distribution Center/Facility (PDC). Instead of using regular procedures to return these UAAs to the Bureau's return address at the National Processing Center (NPC) in Jeffersonville, IN, the staff at the PDC will hold all UAA census questionnaires through March 18, 2000 for pick-up by the LCOs for redistribution.

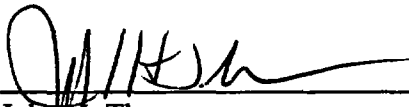
In preparation for UAA Redistribution, Field Division (FLD), with assistance from its Regional Census Centers (RCCs) and from Decennial Statistical Studies Division (DSSD), will select PDCs which cover ZIP Codes that are likely to have high numbers of UAAs. The RCCs/LCOs will use this information to plan LCO staffing and procedural requirements. Prior to March 18, 2000 the Census Bureau will designate the ZIP Codes for which LCOs will be responsible. On March 18, 2000, LCO staff will pick up UAAs from the PDC that services most of the mailout/mailback addresses in the area. Any UAAs that arrive at the PDCs after March 18 will be returned to NPC. The LCO staff will take the questionnaires for the ZIP Code or ZIP Codes they are assigned for

redistribution back to their office, check them into OCS 2000, and make assignments for as an efficient redistribution as possible within ZIP Code. Questionnaires that are not redistributed will be returned to the LCO by the staff no later than April 7, 2000. These questionnaires will be checked out of the LCO and returned to NPC.

B. WORKLOAD ESTIMATES

UAA Description	Estimated number of questionnaires
Total UAAs projected by Bureau	11.8 million
Total UAAs obtained from PDCs <i>* LCOs will only pick up UAAs from targeted ZIPs</i>	6 million
Total UAA cases LCOs will attempt to redistribute <i>* LCOs may choose not to redeliver all UAAs depending on ZIP totals</i>	5 million
<i>Net</i> total UAAs to be redistributed <i>* An estimated 1.7 million UAAs will be determined to be undeliverable</i>	3.3 million

I concur with the recommendation to conduct the Undeliverable As Addressed (UAA) Redistribution from the LCOs by targeted ZIP Code areas, with completion by April 7, 2000.



 John H. Thompson
 Associate Director for Decennial Census

FEB 17 2000

 Date



FEB 22 2000

CENSUS 2000 DECISION MEMORANDUM NO. 100

MEMORANDUM FOR John H. Thompson

Associate Director for Decennial Census

Through:

Preston J. Waite

Assistant to the Associate Director for Decennial Census

From:

Howard Hogan

Chief, Decennial Statistical Studies Division

Subject:

Service-Based Enumeration in Census 2000: Multiplicity Estimation

Contact Person:

Rick Griffin, DSSD, 2500/2, x4227

This memorandum describes changes in the statistical methodology used during the Service Based Enumeration (SBE) operation and documents the Census Bureau's decision to exclude data resulting from this methodology in the census counts generated for the apportionment of Member of Congress among the states. These data will be included in the adjusted counts produced after the completion of the Accuracy and Coverage Evaluation survey, which the Census Bureau will make available in a form that allows states to use them for redistricting purposes. The more accurate counts can also be used for determining the allocation of federal funds, and for ongoing statistical and programmatic purposes.

I. Introduction

The Service-Based Enumeration (SBE) operation is the Census Bureau's primary program for enumerating people with no usual residence. The Census Bureau designed this operation to enumerate people at service locations that primarily serve people without usual residence, such as emergency and transitional shelters, soup kitchens and regularly scheduled mobile food vans.

As part of the compromise on sampling reached by the Administration and Congressional leaders, the Census Bureau agreed that statistical sampling would not be used at the Columbia, South Carolina site during the Census 2000 Dress Rehearsal. At the Sacramento, California site, the Census Bureau tested statistical sampling as part of the Census 2000 plan in place at the time. Consequently, two different methodologies were used to include people without a usual residence in the Census 2000 Dress Rehearsal.

In Columbia, SC the Census Bureau visited emergency and transitional shelters on April 20, 1998. A two member enumeration team enumerated people at most shelters using Individual Census Reports. Larger sites had more than two enumerators. At soup

kitchens enumerators conducted personal interviews using an Individual Census Questionnaire. After an unduplication process was complete, the count was assumed to be the total number of people enumerated at these facilities.

In Sacramento, CA all field procedures and questionnaires were identical to the ones used in Columbia, SC, but a multiplicity estimator based on responses to the usage questions was applied. A usage question asks respondents how many times they used service facilities in the past week. This estimator accounts for people who use services, but were not present on the day of the enumeration.

The Census Bureau will not use the multiplicity estimator to determine the apportionment counts. In order to obtain a more accurate count of persons without usual residence, the Census Bureau has decided to use the multiplicity estimator to produce Census results for all other uses except apportionment.

II. Change in SBE Multiplicity Estimation for Census 2000

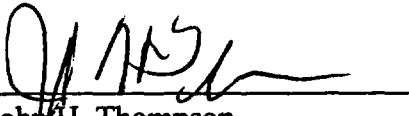
For the Census 2000 Dress Rehearsal multiplicity estimation any SBE person who did not respond to the usage question was given a weight of zero. Enumerated persons who did respond to the necessary usage question had their multiplicity weight multiplied by a noninterview factor to account for those persons with a weight of zero. As a result we discarded demographic data actually collected for persons who did not respond to the usage questions. In addition this zero weighting caused problems with presentation of results in terms of persons added due to SBE multiplicity estimation.

For Census 2000, we will impute responses to the usage questions prior to multiplicity estimation. Thus, after unduplication and controlled rounding all SBE persons will be included on the file used for all purposes except apportionment at least once. The number of persons added due to multiplicity estimation will be the adjusted SBE count minus the unadjusted SBE count.

III. Decision

The population without usual residence is very transient (by definition). Thus, using the traditional methodology would require numerous visits to the service locations to obtain a reasonable count. Census 2000 will use the same data collection procedures (one visit) that were used in the Dress Rehearsal. The multiplicity estimator accounts for those persons without usual residence who use services but who were not present on the day of enumeration. In addition since Census 2000 Dual System Estimation (DSE) excludes all Group Quarters persons including SBE persons, SBE multiplicity estimation does not interfere with the critical path for DSE. Multiplicity estimation should be used for all purposes except for apportionment for Census 2000.

I concur with the use of the multiplicity estimator for Census 2000 for all purposes except apportionment.



John H. Thompson
Associate Director for Decennial Census

FEB 22 2000

Date

MAY 30 2000



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

CENSUS 2000 DECISION MEMORANDUM NO. 103

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite
Assistant to the Associate Director for Decennial Census

From: Susan M. Miskura
Chief, Decennial Management Division

Subject: Decision on Flow Processing for the Coverage Improvement
Followup Operation

Contact: Barbara S. Tinari, Chief, Field Data Collection Branch, Decennial
Management Division, Room 1422-2, (301) 457-8324

This memorandum documents the final decision on the implementation of flow processing for the Coverage Improvement Followup (CIFU) operation. Although we have always assumed flow processing for CIFU, the final plan requires conducting CIFU in four separate waves as groups of Local Census Offices (LCO) complete Nonresponse Followup (NRFU). The goal of this decision was to balance the need for a structured approach to flow processing against the increased and complex processing requirements.

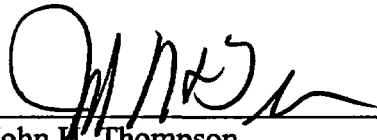
Attachment A shows scheduling dates for critical activities and estimated counts of LCOs by wave. Multiple divisional review will identify the LCOs to include in each wave and this information will be communicated to Decennial Systems and Contracts Management Office (DSCMO) to begin the file creation/processing. For the first wave, DSCMO requires a sufficient number of LCOs to justify the use of resources to implement the CIFU processing steps.

The impact of implementing the four wave flow processing schedule is that:

- The Field Verification operation will be delayed. The operation's processing schedule for all LCOs will occur July 24-28, 2000 with files made available for data collection on July 31, 2000.

- Partial household Be Counted Forms, whether they match or do not match to an existing address on the Decennial Master Address File (DMAF) will not be included in CIFU. These addresses will not be available until June 26, 2000 which is too late for CIFU universe creation on June 15. The current plan is to include these cases in the Coverage Edit Followup operation.

I concur with the decision to revise the enumeration period requirement for the Coverage Improvement Followup Operation and to delay the Field Verification operation.



John M. Thompson
Associate Director for Decennial Census

MAY 30 2000

Date

Attachment

cc: Distribution List

Attachment A

Scheduling Dates for Critical Activities and Estimated Counts of LCOs by Wave

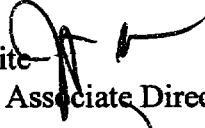
Current MAS Lines	Activity	Wave 1 60-70 LCOs Included	Wave 2 200-300 LCOs Included	Wave 3 100-200 LCOs Included	Wave 4 Remaining LCOs Included
03-30C0190	CIFU- Train FOSs	6/15 - 6/19	6/30 - 7/5	7/14 - 7/18	7/31 - 8/3
11-02C7323	CIFU-Implement universe determination (updating DMAF)	6/16 - 6/23	6/30 - 7/8	7/14 - 7/21	7/31 - 8/7
11-02C7324	CIFU-Select/Implement universe for OCS	6/16 - 6/23	6/30 - 7/8	7/14 - 7/21	7/31 - 8/7
08-02C0300	CIFU-TMO receives/provides workloads to RCCs	6/23 - 6/25	7/8 - 7/10	7/21 - 7/23	8/7 - 8/9
08-30C0200	CIFU-Train CLs	6/20 - 6/22	7/6 - 7/8	7/19 - 7/21	8/4 - 8/7
08-30C0205	Print CIFU Listings/Labels	6/26 - 6/29	7/11 - 7/14	7/24 - 7/27	8/10 - 8/13
08-30C0180	CIFU-Prepare & Distribute Assignments to CLs	6/26 - 7/3	7/11 - 7/17	7/24 - 7/31	8/10 - 8/17
08-30C0210	CIFU-Train Enumerators	7/5 - 7/7	7/18 - 7/20	8/1 - 8/3	8/18 - 8/21
08-30C0230	Conduct CIFU	7/6 - 7/27	7/19 - 8/9	8/2 - 8/23	8/19 - 9/9




JUL 21 2000

CENSUS 2000 DECISION MEMORANDUM NO. 108

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite 
Assistant to the Associate Director of Decennial Census

From: Susan M. Miskura 
Chief, Decennial Management Division

Subject: Residual Nonresponse Followup Operation

Contact Person: Barbara Tinari, Decennial Management Division, (301) 457-8234

This memorandum documents the decision on the basic methodology for conducting Residual Nonresponse Followup (R-NRFU) for Census 2000. R-NRFU is a supplemental operation that will occur in 3 separate waves, consisting of workloads that are comprised of Nonresponse Followup (NRFU) cases that have no record of data capture from any source/form type, and were not in Coverage Improvement Followup (CIFU). We expect the largest number of R-NRFU cases will be enumerator questionnaires (EQs) lost during box shipment or staging. Local Census Offices (LCOs) having NRFU cases that fall into the above categories will be assigned to a R-NRFU wave equivalent to its CIFU wave number (1 - 3).

There will be no formal office or field training on R-NRFU data collection and office procedures, nor printing of additional training materials. All R-NRFU enumerators will obtain interviews and complete R-NRFU EQs in the same manner as NRFU, using the same reference materials and Public Use Forms. Instructional memoranda will be issued on how to prepare assignments, how to assign the work, and how to review and check-in completed cases.

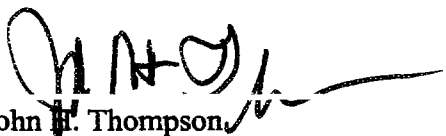
After Decennial Statistical Studies Division (DSSD) conducts an independent programming of the universe as a pre-production quality assurance procedure, they will evaluate and approve the R-NRFU universe criteria.

Sixteen days after Decennial Systems and Contracts Management Office (DSCMO) cuts for CIFU (for each wave), the Technologies Management Office (TMO) will load the files onto the Regional Census Center (RCC) databases. LCOs will print assignment directories, address listings, and EQ labels. The address listings used in R-NRFU will differ from those used during NRFU in that only R-NRFU cases will appear on the listings.

Schedule

Residual Nonresponse Activity	Wave 1	Wave 2	Wave 3
Implement Universe Determination and Select/Implement R-NRFU Universe for OCS 2000	7/10 - 7/13	7/24 - 7/27	8/2 - 8/7
TMO Receives/Processes Files for R-NRFU	7/15 - 7/16	7/29 - 7/30	8/8 - 8/9
FLD Prints Listings / Labels and FLD Prepare/Distribute Assignments	7/17 - 7/18	7/31 - 8/1	8/10 - 8/11
Conduct R-NRFU, check out, ship to DCCs	7/19 - 7/27	8/2 - 8/9	8/14 - 8/22

I concur with the recommendation to conduct Residual Nonresponse from July 10, 2000 - August 30, 2000, for NRFU cases that were not data captured at the time of the R-NRFU cut and were not eligible to be in CIFU.


John H. Thompson
Associate Director for Decennial Census

JUL 21 2000

Date



NOV 16 2000

CENSUS 2000 DECISION MEMORANDUM NO. 111

MEMORANDUM FOR John H. Thompson
Associate Director for Decennial Census

Through: Preston Jay Waite *PJW*
Assistant Director for Decennial Census

From: Howard Hogan *Howard Hogan*
Chief, Decennial Statistical Studies Division

Subject: Documentation of Response and Return Rates Definitions for
Census 2000

INTRODUCTION

This memorandum supersedes Decision Memorandum Number 65 for Census 2000. For a description of the undeliverable as addressed (UAA) rates for Census 2000, see DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES #L-3.

To simplify discussions of the various rates and to avoid confusion caused by a lack of clear definitions, this memorandum documents the response and return rates planned for Census 2000. Rates will be calculated at various levels of geography.

RATE CALCULATION FORMULAS

When all is said and done, three response rates and one return rate will have been calculated. For Census 2000, we provided the public with more response options than they had in previous censuses. People were able to respond by Be Counted Forms distributed at various community locations, over the telephone using Telephone Questionnaire Assistance (TQA), and via the internet, which was a new response option for Census 2000. These options made it possible for more than one response to be checked in for a housing unit (census ID). When calculating the rates, we tally only one response (the first response received) for each census ID. Therefore, a housing unit cannot be counted more than once in the computation of any rate.

Keep in mind that although the formulas below make use of the whole mailback universe (housing units which were delivered a questionnaire to be returned by mail), the universe used in a given rate is restricted by whatever level of geography or type of enumeration area is of particular interest.

A. Response Rates

Response rates are highly dependent on the time at which they are calculated. Two rates

in this paper reflect check-in of questionnaires up to the time of their calculation. One rate is restricted to only count responses prior to the late cut for nonresponse followup (NRFU), which corresponds to all check-ins through close of business on April 18, 2000. Additionally, housing units that are counted toward the numerator or the denominator can be added or removed for a variety of other reasons. For example, as soon as a questionnaire that was checked in as being blank is identified as such, it loses its designation as a successful check-in and should be removed from a response rate numerator. Another example is housing units that are added during the update/leave operation. These housing units are not to be counted toward the original update/leave universe but are considered for two of the response rates in this paper since they were able to return a mailback questionnaire. As a result of these fluxes in our universes and due to the need for data at various stages during Census 2000, it is necessary that we define three different response rates. "Census 2000 Initial Response Rate," "Census 2000 Final Response Rate," and "Census 2000 Mail Response Rate."

1. Census 2000 Initial Response Rate

The Census 2000 Initial Response Rates informed state, local, and tribal government officials of our progress in completing the census as part of the '90 Plus Five component of the *How America Knows What America Needs (HAKWAN)* program. Rates were calculated for a total of 38,147 entities. Beginning on March 27 and ending on April 11, 2000, cumulative Census 2000 Initial Response Rates were updated daily and posted on the internet so that areas could track their progress. The Census 2000 Initial Response Rates were posted on the internet two more times on April 19, 2000 and April 25, 2000. Each posting reflected the state of check-ins as of two days previous. The use of the internet allowed local officials to implement an effective and targeted program to improve respondent cooperation in areas where we experienced difficulty during the 1990 census. An additional use of the Census 2000 Initial Response Rate was to give Census Bureau management the information needed for managing the decennial census.

Census 2000 Initial Response Rates were also calculated at the census interim tract level, but these were not released as often as the entity rates. May 2 was the last posting for these rates.

Over the course of the internet postings, there were updates to the Decennial Master Address File (DMAF) that took place that potentially could alter Census 2000 Initial Response Rate denominators from one day to the next. We did not wish areas monitoring their Census 2000 Initial Response Rates to be surprised with drops in their rates due to those updates. Therefore, built into the software was a stipulation that if a rate for any given entity was less than the rate of the previous posting, the previous rate would be used again. Thus, the Census 2000

Initial Response Rate could never decrease from one posting to the next.

Housing units that were to be delivered mailback questionnaires but were not eligible for the nonresponse followup universe were not counted as part of the initial mailback universe (except for a relatively small number from certain experimental panels). Also excluded from the denominator were housing units identified as undeliverable before the mailout operation; these housing units were eligible for NRFU but did not receive a mailback form.

In addition to mail returns, the Census 2000 Initial Response Rate numerator included responses registered in time from TQA, Be Counted Forms, and the internet. Hence, it was not strictly a mailback rate. Additionally, it should be noted that the numerator only included a check-in if the corresponding housing unit was also counted in the denominator. When calculating this rate, we tallied only one response (the first response received) for each census ID. Therefore, any given housing unit was not counted more than once in the computation of this rate. The rate is calculated using the following formula:

$$\text{Census 2000 Initial Response Rate} = \frac{\text{MAIL} + \text{TELEPHONE} + \text{BCF} + \text{INTERNET}}{\text{INITIAL MAILBACK UNIVERSE}} \cdot 100$$

The INITIAL MAILBACK UNIVERSE corresponded to the total number of housing units (identification numbers or IDs) from the MAILOUT/MAILBACK UNIVERSE and the UPDATE/LEAVE UNIVERSE that were found on the DMAF when the rate was actually calculated (one day before the posting). The early rates included the effect of the Master Address File (MAF) extract delivery to the DMAF that occurred around March 15, 2000. Later postings included the effect of the DMAF update originally scheduled for April 7. The MAILOUT/MAILBACK UNIVERSE consisted of the housing units for which a census questionnaire was sent by mail with a request that the completed questionnaire be returned by mail. This included housing units which were designated UAA by the United States Postal Service (USPS). The UPDATE/LEAVE UNIVERSE consisted of housing units for which a census questionnaire was delivered by a census enumerator with a request that the completed questionnaire be returned by mail. As a result of the Local Update of Census Addresses (LUCA) appeals process, a limited number of housing units in update/leave areas were part of the final DMAF update but were mailed questionnaires instead of being visited by an enumerator. These housing units were included in the INITIAL MAILBACK UNIVERSE. Housing units from update/leave areas that were added to the DMAF after March 23 (for example, housing units added during update/leave questionnaire delivery) were not

included in the INITIAL MAILBACK UNIVERSE for any of the internet postings. Housing units deemed not eligible for the nonresponse followup universe were also not included in this universe. Housing units in mailout areas that were pre-identified as undeliverable and were consequently not mailed questionnaires were not included in the INITIAL MAILBACK UNIVERSE for any of the postings. Housing units that were deemed duplicates (“surviving MAF addresses,” or SMAF IDs) were not included in the INITIAL MAILBACK UNIVERSE.

MAIL referred to the number of housing units in the INITIAL MAILBACK UNIVERSE for which a “nonblank” questionnaire corresponding to an ID was returned by mail by the close of business two days previous to the given posting. Questionnaires returned by mail but identified as blank were not counted, but past rates that did count those blank questionnaires were not recalculated.

TELEPHONE referred to the number of housing units in the INITIAL MAILBACK UNIVERSE for which a TQA interview was completed and matched to a census ID by close of business two days previous to the posting.

BCF referred to the number of housing units in the INITIAL MAILBACK UNIVERSE for which a Be Counted Form was returned and matched to a census ID by close of business two days previous to the posting.

INTERNET referred to the number of housing units in the INITIAL MAILBACK UNIVERSE for which an internet questionnaire was completed with a census ID by close of business two days previous to the posting.

2. Census 2000 Final Response Rate

The Census 2000 Final Response Rates was a final measure of performance for state, local, and tribal government officials as part of the *'90 Plus Five* component of the *How America Knows What America Needs (HAKWAN)* program. This rate determined whether or not a given entity met its *'90 Plus Five* target response rate (five percentage points greater than its 1990 response rate). The goals were established as a result of a challenge issued by the Census Bureau Director to governments to raise their 1990 response performances. This rate represented the last internet posting of response rates, which took place on September 19, 2000.

The rate used the DMAF of September 7, 2000 as its base, and it was calculated for 38,146 entities. Two entities dropped out of the *'90 Plus Five* universe since the calculation of Census 2000 Initial Response Rate due to the discovery that their housing units were smaller than our disclosure rules for rate release permit.

One entity was added after being mistakenly left out of the universe for the Census 2000 Initial Response Rates.

Again, built into the software was the stipulation that if a rate for any given entity was less than the rate of the previous posting (which occurred on April 25), the previous rate would be reused. For tract rates, the May 2 posting was utilized as the benchmark. Thus for any given entity, the Census 2000 Final Response Rate could never be smaller than the Census 2000 Initial Response Rate.

Criteria for inclusion in the denominator for the Census 2000 Final Response Rate were **substantially different** from the criteria for the Census 2000 Initial Response Rate. The base for the Final Response Rate denominator was all housing units in mailout/mailback or update/leave enumeration areas that were either: a) eligible for nonresponse followup and had a mailback equivalent check-in, or b) actually in the nonresponse followup universe.

The Census 2000 Final Response Rate numerator included responses registered in time from TQA, Be Counted Forms, and the internet. Hence, it was not strictly a mailback rate. Additionally, it should be noted that the numerator only included a check-in if the corresponding housing unit was also counted in the denominator. When calculating this rate, we tallied only one response (the first response received) for each census ID. Therefore, any given housing unit was not counted more than once in the computation of this rate. The rate is calculated using the following formula:

$$\text{Census 2000 Final Response Rate} = \frac{\text{MAIL} + \text{TELEPHONE} + \text{BCF} + \text{INTERNET}}{\text{NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE}} \cdot 100$$

NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE corresponded to the total number of MAILOUT/MAILBACK UNIVERSE or UPDATE/LEAVE UNIVERSE housing units (identification numbers or IDs) that were either: a) eligible for the NRFU operation and had a mailback equivalent check-in, or b) actually part of the NRFU workload. For the Census 2000 Final Response Rate, this universe was representative of the DMAF as of September 7, 2000. As before, the MAILOUT/MAILBACK UNIVERSE consisted of the housing units for which a census questionnaire was sent by mail with a request that the completed questionnaire be returned by mail. This included housing units which were designated UAA by the United States Postal Service (USPS). The UPDATE/LEAVE UNIVERSE consisted of housing units for which a census questionnaire was delivered by a census enumerator with a request that the completed questionnaire be returned by mail. This included housing units which

were designated as a delete by the update/leave enumerator. This excludes housing units added during update/leave. As a result of the Local Update of Census Addresses (LUCA) appeals process, a limited number of housing units in update/leave areas were part of the final DMAF update but were mailed questionnaires instead of being visited by an enumerator. These were a part of the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE. In contrast with the denominator for the Census 2000 Initial Response Rate, housing units in mailout areas that were pre-identified as undeliverable and were consequently not mailed questionnaires were included in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE. Housing units that were deemed duplicates (“surviving MAF addresses,” or SMAF IDs) were not included in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE.

MAIL referred to the number of housing units in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE for which a “nonblank” questionnaire corresponding to an ID was returned by mail by September 7, 2000. Note that **MAIL** for the Census 2000 Final Response Rate does not reference the same universe as **MAIL** in the Census 2000 Initial Response Rate.

TELEPHONE referred to the number of housing units in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE for which a TQA interview was completed and matched to a census ID by September 7, 2000. Note that **TELEPHONE** for the Census 2000 Final Response Rate does not reference the same universe as **TELEPHONE** in the Census 2000 Initial Response Rate.

BCF referred to the number of housing units in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE for which a Be Counted Form was returned and matched to a census ID by September 7, 2000. Note that **BCF** for the Census 2000 Final Response Rate does not reference the same universe as **BCF** in the Census 2000 Initial Response Rate.

INTERNET referred to the number of housing units in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE for which an internet questionnaire was completed with a census ID by September 7, 2000. Note that **INTERNET** for the Census 2000 Final Response Rate does not reference the same universe as **INTERNET** in the Census 2000 Initial Response Rate.

3. Census 2000 Mail Response Rate

This rate describes how many housing units in the mailback universe responded before the late cut for NRFU (close of business on April 18, 2000) via a mail questionnaire, TQA, a Be Counted Form, or the internet. The same housing unit ID is only counted once if it was in more than one of those response universes.

This rate will be calculated after the Census 2000 Initial Response Rate and Census 2000 Final Response Rate so that blank questionnaires, update/leave adds, etc., can be completely identified. The numerator for the Census 2000 Mail Response Rate excludes blank forms, responses without an ID, and housing units designated UAA without another response before the late cut for NRFU. A housing unit designated UAA is included in the numerator if there was another response before the late cut for NRFU. It should be noted that the numerator only includes a check-in if the corresponding housing unit is also counted in the denominator. When calculating this rate, we tallied only one response (the first response received) for each census ID. Therefore, any given housing unit was not counted more than once in the computation of this rate. This rate is calculated using the following formula:

$$\text{Census 2000 Mail Response Rate} = \frac{\text{MAIL} + \text{TELEPHONE} + \text{BCF} + \text{INTERNET}}{\text{MAILBACK UNIVERSE}} \cdot 100$$

The MAILBACK UNIVERSE refers to the number of housing units from the MAILOUT/MAILBACK UNIVERSE and the UPDATE/LEAVE UNIVERSE on the final edition of the DMAF that makes use of tabulation geography. The MAILOUT/MAILBACK UNIVERSE consists of the housing units for which a census questionnaire was sent by mail with a request that the completed questionnaire be returned by mail. This includes housing units which were designated UAA by the USPS. The UPDATE/LEAVE UNIVERSE consists of housing units for which a census questionnaire was delivered by a census enumerator with a request that the completed questionnaire be returned by mail. This includes housing units added during update/leave that had the opportunity to send back a questionnaire. As a result of the LUCA appeals process, a limited number of housing units in update/leave areas were part of the final DMAF update but were mailed questionnaires instead of being visited by an enumerator. These housing units are included in the MAILBACK UNIVERSE. Additionally, housing units that were delivered mailback questionnaires but were not eligible for the nonresponse followup universe are not counted toward the MAILBACK UNIVERSE, unless there is a corresponding check-in. In that case, the housing unit would be counted toward both the numerator and denominator.

To reiterate, there are **important differences** between the INITIAL MAILBACK UNIVERSE and the MAILBACK UNIVERSE. The INITIAL MAILBACK UNIVERSE corresponds to different versions of the DMAF as it was still in flux. It does not include housing units added through the update/leave operation, and it does not include housing units which were not eligible for the nonresponse followup universe. The MAILBACK UNIVERSE corresponds to the mailout

and update/leave housing units on the DMAF as of the final DMAF update in August of 2000 and after the tabulation geography update to be performed in November of 2000. Housing units added through the update/leave operation are included, and housing units which were not eligible for the nonresponse followup universe are included if a corresponding check-in was recorded.

There are also **major differences** between the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE and the MAILBACK UNIVERSE. The most notable difference is the inclusion of the pre-identified undeliverable housing units in the NONRESPONSE FOLLOWUP ELIGIBLE UNIVERSE.

MAIL refers to the number of housing units in the MAILBACK UNIVERSE for which a "nonblank" questionnaire corresponding to an ID was returned by mail before the late cut for nonresponse followup (NRFU). Questionnaires returned by mail but identified as blank are not be counted. Note that MAIL for the Census 2000 Mail Response Rate does not reference the same universe as MAIL in the Census 2000 Initial Response Rate or Census 2000 Final Response Rate.

TELEPHONE refers to the number of housing units in the MAILBACK UNIVERSE for which a TQA interview was completed and matched to a census ID before the late cut for NRFU. Note that TELEPHONE for the Census 2000 Mail Response Rate does not reference the same universe as TELEPHONE in the Census 2000 Initial Response Rate or Census 2000 Final Response Rate.

BCF refers to the number of housing units in the MAILBACK UNIVERSE for which a Be Counted Form was returned and matched to a census ID before the late cut for NRFU. Note that BCF for the Census 2000 Mail Response Rate does not reference the same universe as BCF in the Census 2000 Initial Response Rate or Census 2000 Final Response Rate.

INTERNET refers to the number of housing units in the MAILBACK UNIVERSE for which an internet questionnaire was completed with a census ID before the late cut for NRFU. Note that INTERNET for the Census 2000 Mail Response Rate does not reference the same universe as INTERNET in the Census 2000 Initial Response Rate or Census 2000 Final Response Rate.

It might be a semantics nightmare, but it is very important that these three response rates not be confused. The two that might cause the most confusion are the Census 2000 Final Response Rate and the Census 2000 Mail Response Rate. The former will receive much more publicity because of its use in the *'90 Plus Five* program for determination of achievement of response goals for states, counties, cities, etc. However, it is the latter which agrees with the traditional definition of mail response rate and should be used for historical documentation of that rate. However, both the Census 2000

Initial Response Rate and the Census 2000 Final Response Rate should be preserved for future reference if a challenge program similar to that of '90 Plus Five is to be used in future censuses.

B. Return Rate

Return rates are calculated for occupied housing units only. These rates cannot be calculated until the census is complete, and they are an important indicator of public cooperation with the census. We will calculate one return rate:

Census 2000 Mail Return Rate

This rate tells us for how many occupied housing units in the mailback universe we received at least one response prior to the late cut for NRFU (close of business on April 18, 2000). Occupied housing units responding via mailback questionnaires, TQA, Be Counted Forms, and the internet are all included in the numerator. A housing unit is only counted once if it was in more than one of those universes. The numerator excludes blank forms, responses corresponding to housing units with a final status of vacant or nonexistent, responses without an ID, and housing units designated UAA without a response before the late cut for NRFU. A housing unit designated UAA is included if there was another response before the late cut for NRFU. The denominator includes housing units whose final status is occupied and excludes housing units with a final status of vacant or nonexistent. Occupancy status of the housing units that did not reply before the late cut for NRFU or were designated as UAA is determined over the course of NRFU. It should be noted that the numerator only includes a check-in if the corresponding housing unit is also counted in the denominator. When calculating this rate, we tallied only one response (the first response received) for each census ID. Therefore, any given housing unit was not counted more than once in the computation of this rate. This rate is calculated using the following formula:

$$\text{Census 2000 Mail Return Rate} = \frac{\text{Occupied MAIL} + \text{Occupied TELEPHONE} + \text{Occupied BCF} + \text{Occupied INTERNET}}{\text{Occupied MAILBACK UNIVERSE}} \cdot 100$$

The Occupied MAILBACK UNIVERSE refers to the number of housing units from the MAILOUT/MAILBACK UNIVERSE and the UPDATE/LEAVE UNIVERSE that had a final status of occupied after all followup operations are completed. The MAILOUT/MAILBACK UNIVERSE consists of the housing units for which a census questionnaire was sent by mail with a request that the completed questionnaire be returned by mail. Housing units which were designated UAA by the USPS are counted toward the Occupied MAILBACK UNIVERSE if they had a final status of occupied.

Housing units in mailout/mailback enumeration areas that are deemed occupied but for which a mailing was not even attempted are not part of this universe. The UPDATE/LEAVE UNIVERSE consists of housing units for which a census questionnaire was delivered by a census enumerator with a request that the completed questionnaire be returned by mail. Housing units which were added during update/leave that had the opportunity to send back a questionnaire are counted toward the Occupied MAILBACK UNIVERSE if they had a final status of occupied. If an update/leave housing unit to be delivered a questionnaire could not be found and was flagged as a delete, but it still had a final status of occupied, then it does count toward the Occupied MAILBACK UNIVERSE. Additionally, housing units that are delivered mailback questionnaires but were not eligible for the nonresponse followup universe are not counted toward the Occupied MAILBACK UNIVERSE, unless there is a corresponding check-in and the housing unit has an occupied final status. In that case, the housing unit is counted toward both the numerator and denominator.

Occupied MAIL refers to the number of housing units in the Occupied MAILBACK UNIVERSE for which a “nonblank” questionnaire corresponding to an ID was returned by mail before the late cut for nonresponse followup (NRFU). Questionnaires returned by mail but identified as blank are not counted.

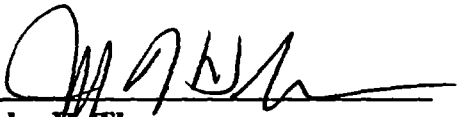
Occupied TELEPHONE refers to the number of housing units in the Occupied MAILBACK UNIVERSE for which a TQA interview was completed and matched to a census ID before the late cut for NRFU.

Occupied BCF refers to the number of housing units in the Occupied MAILBACK UNIVERSE for which a Be Counted Form was returned and matched to a census ID before the late cut for NRFU.

Occupied INTERNET refers to the number of housing units in the Occupied MAILBACK UNIVERSE for which an internet questionnaire was completed with a census ID before the late cut for NRFU.

As an additional study in Census 2000 Operational Summary A.7.b, “Study of Census 2000 Mailback Return Rates,” DSSD will evaluate the impact of the Primary Selection Algorithm (PSA) on return rates in terms of the primary form selected by PSA for a census household as compared to the form that was counted toward the return rate.

I concur with the decision to cease using the definition of the rates described in Decision Memorandum No. 65 with reference to Census 2000 and instead calculate Census 2000 response and return rates as defined above.


John H. Thompson
Associate Director for Decennial Census

NOV 16 2000
Date

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