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MEMORANDUM FOR The Distribution List

From: Burton Reist *[signed]*
 Acting Chief, Decennial Management Division

Subject: 2010 Census Enumeration at Transitory Locations Quality Profile

Attached is the 2010 Census Enumeration at Transitory Locations Quality Profile. The Quality Process for the 2010 Census Test Evaluations, Experiments, and Assessments was applied to the methodology development and review process. The report is sound and appropriate for completeness and accuracy.

If you have any questions about this document, please contact Tracey McNally at (301) 763-4302 or Jennifer Reichert at (301) 763-4298.

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2010 Census Enumeration at Transitory Locations Quality Profile

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Executive Summary

This report presents the results of the 2010 Census Enumeration at Transitory Locations Reinterview operation. The Enumeration at Transitory Locations operation was conducted for the first time in the 2010 Census to provide people without conventional housing an opportunity to be included in the census and to include their living quarters as a housing unit.

Transitory Locations included recreational vehicle parks, campgrounds, racetracks, circuses, carnivals, marinas, hotels, and motels (including those on military sites). To clarify, only those hotels and motels that stated they housed people on a long term basis were included in this universe.

In prior censuses, people in these types of facilities were enumerated as part of the Group Quarters operation. Other locations that might be considered 'transitory' such as outdoor shelters or temporary parking lot sites remained in the Group Quarters operation.

Background

The Enumeration at Transitory Locations operation enumerated people living at Transitory Locations who did not have a Usual Home Elsewhere at the time of the contact. If the respondent stated they had a Usual Home Elsewhere, a questionnaire was not completed. If they responded that they had no other Usual Home Elsewhere, they were enumerated at that site, and their living quarter was counted as a housing unit.

The Reinterview program had two components, one for the Transitory Location itself, and one for the Enumerator Questionnaires completed within each Transitory Location. The objective of the Transitory Location Reinterview program was to ensure that the enumerators understood and followed the appropriate enumeration procedures, as well as to detect and deter enumerator errors and data falsification. The purpose of the Enumerator Questionnaires Reinterview program was to verify that the enumerator properly determined residence status for each housing unit.

When a Transitory Location or an Enumerator Questionnaire was selected for Reinterview, an Office Clerk performed the Reinterview by telephone. The Paper-Based Operations Control System was designed to flag a 10-percent sample of the Transitory Locations once they were completed and checked in. A 10-percent sample of Enumerator Questionnaires checked in with a respondent-provided telephone number was also selected for reinterview. Because the Reinterview program was implemented via telephone, Enumerator Questionnaires without a telephone number were considered ineligible for Reinterview.

Results

There were a total of 40,621 Transitory Locations in the Enumeration at Transitory Locations universe. This number reflects the count of Transitory Locations recorded from the Enumeration at Transitory Locations Cover Page data that could be matched from the Paper-Based Operations Control System and data capture results from the National Processing Center data files. Over

one-third (35.2 percent) of the universe was hotels/motels, while carnivals and racetracks accounted for less than one percent (0.5 percent) of the Transitory Locations universe. The Paper-Based Operations Control System was designed to select a 10 percent sample of Transitory Locations. Based on the number of Transitory Locations in the Reinterview universe, the final sample was actually 9.6 percent.

Overall, there were a total of 118,486 Enumerator Questionnaires checked in from the field for the Enumeration at Transitory Locations operation. Of these, 102,400 (86.4 percent) Enumerator Questionnaires contained a respondent-provided telephone number. There were 9,212 Enumerator Questionnaires selected for Reinterview. This was a 9.0 percent sample rate.

There was a total of 3,865 Transitory Locations included in the Random Reinterview. While the majority (75.7 percent) of those Transitory Locations passed, approximately one-fifth (22.1 percent) of the office clerks reported that they were unable to reach the contact person at the Transitory Location to verify that the enumeration had occurred. This elevated no-contact rate could be a reflection of the high number of cases that were not actually Transitory Locations.

Most of the respondents (80.9 percent) who completed an Enumerator Questionnaire and were reinterviewed verified in RI that they had been interviewed by a census enumerator. Three percent of the reinterview respondents enumerated at a Transitory Location answered that they were not interviewed by a Census Bureau enumerator.

A total of 11,036 enumerators worked on the Enumeration at Transitory Locations operation throughout the United States and Puerto Rico. There were 2,126 Reinterview office clerks who performed the Transitory Locations Reinterview and 3,608 Reinterview office clerks who worked on the Enumerator Questionnaire Reinterview.

Recommendations

Improve tracking systems to ensure complete accounting of all Reinterview cases.

Explore options to include people who reply that they do have a Usual Home Elsewhere in the reinterview sample.

Test Enumeration at Transitory Locations Reinterview operations thoroughly.

Improve the Address Canvassing and Group Quarters procedures to identify and list the Transitory Locations appropriately. The misunderstanding of procedures contributed to thousands of addresses that were incorrectly listed as Transitory Locations.

Develop the capability to monitor the operations in real time. We need to ensure that the Cost and Progress System is working correctly, or we need access to the Paper-Based Operational Control System.

I. Introduction

A. Scope

The purpose of the 2010 Census Enumeration at Transitory Locations (ETL) Quality Profile is to provide the results of the 2010 ETL Quality Control (QC) program, as well as recommendations for subsequent census operations.

B. Intended Audience

The intended audience of this report includes program managers and staff responsible for planning the 2020 Census and mid-decade tests.

II. Background

This report presents the results of the 2010 Census ETL Reinterview operation. The ETL operation was conducted for the first time in the 2010 Census to provide people without conventional housing an opportunity to be included in the census and to include their living quarters as a housing unit.

In prior censuses, people in these types of facilities were enumerated as part of the Group Quarters operation. Other locations that might be considered 'transitory' such as outdoor shelters or temporary parking lot sites remained in the Group Quarters operation.

A. Enumeration at Transitory Locations Operation

The ETL operation enumerated people living at Transitory Locations (TLs) who did not have a Usual Home Elsewhere (UHE) at the time of the ETL contact. If they responded that they had no other UHE, they were enumerated at that site, and their living quarter was counted as a housing unit. The TLs included recreational vehicle parks, campgrounds, racetracks, circuses, carnivals, marinas, hotels, and motels (including those on military sites). To elucidate, only those hotels and motels that stated they housed people on a long term basis were included in the universe.

Enumerators canvassed each TL (excluding motels/hotels) to determine if the units had occupants, and if the occupants had a UHE. Enumerators conducted an interview using an *Enumerator Questionnaire (EQ)*, Form D-15, at units whose occupants stated they did not have a UHE. For hotels/motels, the enumerators conducted an interview at the units identified by the contact person in the hotel/motel registration office. We conducted the ETL operation from March 22, 2010 through April 16, 2010.

B. Enumeration at Transitory Locations Reinterview Program

The ETL Reinterview (RI) Program had two components, one for the TL itself, and one for the EQs completed within each TL.

The objective of the TL RI program was to ensure that TL enumerators understood and followed the appropriate TL enumeration procedures, as well as to detect and deter enumerator errors and data falsification.

The purpose of the EQ RI program was to verify that the TL enumerator properly determined residence status for each housing unit in the TLs. More specifically, to determine whether the respondent had a UHE.

1. Transitory Locations

For the TL RI, there was a Random RI in which a sample of completed TLs was checked. There also was a Supplemental RI in which the Local Census Office (LCO) Assistant Manager for Quality Assurance (AMQA) could place additional TLs into RI when falsification was suspected or for any other situation where management deemed it necessary to review additional work. The following explains the two types of RI Sample:

Random RI Sample:

The Paper-Based Operations Control System (PBOCS) was designed to flag a 10-percent sample of the TLs completed by selecting the third eligible TL checked in, and then every 10th eligible TL checked in. Hence, the Random RI sample consisted of the following eligible TLs: 3rd, 13th, 23rd, 33rd, 43rd, etc.

Supplemental RI Sample:

Any TL not selected for Random RI could have been put into Supplemental RI for any enumerator at any time, and for any reason, (e.g., if it was suspected that the enumerator may not have been following proper procedures). Any LCO manager may have used the PBOCS to specify which TLs to place in Supplemental RI. The AMQA could also use Supplemental RI as an investigative tool for any enumerator who failed RI.

2. Enumerator Questionnaire

For the EQ RI, there was a Random RI of a sample of completed EQs checked in with a respondent-provided telephone number - EQs without a telephone number were considered ineligible for RI. There was no Supplemental RI for EQs.

The PBOCS was designed to flag a 10-percent sample of the EQs (with telephone numbers) completed by selecting the third eligible EQ checked in, and then every 10th eligible EQ checked in. Hence, the Random RI sample consisted of the following eligible EQs: 3rd, 13th, 23rd, 33rd, 43rd, etc.

C. Reinterview Operations

The initial RI contact was made by LCO clerks under the supervision of the AMQA. For the TL RI an RI office clerk telephoned the TL contact person to determine if the enumeration was conducted. For the EQ RI, the RI office clerk telephoned the EQ respondent to ensure the enumeration was conducted and to verify the enumerator properly determined residence status.

The RI office clerk made at least three attempts to conduct an RI by telephone with the TL contact person or the EQ Respondent. If they were not available, the RI office clerk could conduct the RI with another knowledgeable person (proxy).

If the RI office clerk was unable to reach the TL contact person or proxy by telephone after three attempts, the AMQA and Assistant Manager for Field Operations (AMFO) determined if an investigation was necessary. If so, the AMFO or Crew Leader (CL) was sent to the TL to attempt to conduct an RI with the TL contact person or proxy. There was no personal visit for EQ RI.

D. ETL Reinterview Outcome

Transitory Locations Reinterview Outcome

The RI office clerk read the questions on the *ETL Reinterview Form for TLs*, Form D-941(TL), to the TL contact person. See Appendix A for a copy of the questionnaire. Once the RI was completed by the RI office clerk, they reviewed the form and entered the results in the Reinterview Final Outcome section as appropriate. The possible TL RI final outcome options are listed below:

Pass	If the respondent answers "Yes" or "I don't know," mark the Final Outcome as Pass.
Unable to Contact	If unable to reach original respondent or a proxy, mark the Final Outcome as Unable to Contact, after consulting with the AMQA regarding final status.
Soft Fail	If the respondent answers "No" and an investigation indicates respondent error or honest enumerator error, mark the Final Outcome as Soft Fail.
Hard Fail	If the respondent answers, "No" and an investigation indicates data falsification, mark the Outcome as AMQA Hard Fail Recommendation.

When an enumerator hard failed, the AMQA and AMFO made a decision regarding possible termination of the enumerator. The Local Census Office (LCO) Manager made the final decision if the AMQA and AMFO disagreed on whether to terminate the enumerator.

The AMFO assigned any case that failed RI due to falsification for rework. The rework was done by a different group of production enumerators.

□ Enumerator Questionnaire Reinterview Outcome

If the RI office clerk was unable to reach the respondent or proxy after three telephone attempts, they marked the Reinterview Final Outcome as Unable to Contact. There was no personal visit for EQ RI cases.

When a respondent was reached, the RI office clerk read the questions on the *ETL Reinterview Form for EQs*, Form D-941(EQ), to the respondent. See Appendix B for a copy of the questionnaire. Once the RI was completed by the RI office clerk, they reviewed the form and entered the results in the Reinterview Final Outcome section as appropriate. The possible EQ RI final outcome options are listed below:

Pass	If the respondent answers “No” or “I don’t know” to the usual home elsewhere question (question D), mark the Final Outcome as Pass.
Unable to Contact	If unable to contact the respondent or proxy after at least three telephone attempts, mark the Final Outcome as Unable to Contact. or If the telephone number provided by the respondent is non-working or incorrect, mark the Final Outcome as Unable to Contact.
Soft Fail	If the respondent answers “No” or “I don’t know” to the question on whether they were contacted, mark the Final Outcome as Fail. or If the respondent answers “Yes” to the usual home elsewhere (question D), mark the Final Outcome as Fail.

There was no rework for EQ RI due to the transitory nature of this population. However, Field Division could have used the results of the RI operation to take appropriate corrective or administrative action for any enumerators who may have falsified or otherwise collected inaccurate data.

E. Data Capture

Within a week of the completion of the ETL operation, the AMQA was instructed to mail the completed *ETL Reinterview Forms for TLs*, D-941, *ETL Reinterview Forms for EQs*, D-941, and the *Enumeration at Transitory Location Cover Page*, D-693 (ETL) to the National Processing Center (NPC) for keying. The captured information was subsequently sent to the Decennial Statistical Studies Division (DSSD).

III. Methodology

This section discusses the methodology used to analyze the RI data from the *ETL Reinterview Form for TLs* and the *ETL Reinterview Form for EQs*.

A. ETL Questions This Profile Will Address

The following questions were listed in the 2010 Census Enumeration at Transitory Locations Quality Profile Outline in Attachment F of the 2010 Census: Quality Control Program for the Enumeration at Transitory Locations Operation:

ETL Reinterview Form for TLs Results

- How many TLs were enumerated?
- Was the sampling plan implemented correctly?
- How many ETL cases were in Random RI and what was their final outcome?
- How many ETL cases were in Supplemental RI and what was their final outcome?
- How many cases were reworked? What percent?
- How many enumerators were there?
- How many enumerators were in Random RI? In Supplemental RI?

ETL Reinterview Form for EQs Results

- How many total EQs were completed in production?
- Was the sampling plan implemented correctly?
- How many EQs were in Random RI and what was their final outcome?
- How many enumerators were there?
- How many enumerators were in Random RI?

B. Input Data

Data were entered into PBOCS by the office clerks in the LCOs during the ETL operation.

The NPC files contain data keyed from ETL forms by NPC staff after the ETL operation was completed.

The NPC keyers followed the instructions detailed in each of the form's keying specifications. They followed the keying QC plan explained in the DSSD 2010 Decennial Census Memorandum Series #F-11, "Quality Control Specifications for the 2010 Census Key-From-Paper Operations" from Whitford to Hackbarth (Marquette, 2009). The keying QC plan ensured a one-percent Average Outgoing Quality Limit (AOQL) on field-level keying errors.

C. Output Data

We answered the Quality Profile questions using the following datasets:

PBOCS ETL Assessment Data - one record for every case in the ETL initial universe
PBOCS ETL TL RI Data - one record for every TL case included in the RI sample selection
PBOCS ETL EQ RI Data - one record for every EQ case included in the RI sample selection
NPC ETL Cover Page Data - one record for every TL in the ETL initial universe
NPC ETL TL RI Data - one record for every TL case included in the RI sample selection
NPC ETL EQ RI Data - one record for every EQ case included in the RI sample selection

Table 3.1 shows the number of records received from each source.

Source	Records Received	
PBOCS		
PBOCS ETL Assessment Data	TLs	48,180
File	EQs	121,026
PBOCS ETL TL RI Data File		4,438
PBOCS ETL EQ RI Data File		10,234
NPC		
NPC ETL Cover Page Data File		47,354
NPC ETL TL RI Data File		4,339
NPC ETL EQ RI Data File		9,801

□ *Enumeration at Transitory Locations Cover Page, Form D-693 (ETL)*

We had intended to match the PBOCS Assessment file to the NPC ETL Cover Page file to get an all-inclusive record for each TL. There were several problems linking the PBOCS data records to the NPC data records. In some cases, the TL identification (ID) numbers were missing or did not match, some records were on the PBOCS data file and not on the NPC data file, and vice versa. In order to accurately report the summary statistics in this report, some of the data from PBOCS and NPC keyed files required cleaning. See below for an explanation of how we reconciled the files.

The total number of TLs in the PBOCS ETL workload for the operation was 48,180. However, due to procedural errors in the LCOs that led to TLs being checked into the system multiple times, this number included many duplicates. Of the original total workload, 47,894 TLs were checked in from the field to PBOCS. According to Field Division, all actual work was completed in the field even though the final report shows 286 TLs were not checked in. PBOCS was not working, and therefore was not used, at the end of the operation, which could explain why the TLs were not checked in.

Every TL in the ETL universe should have had an *Enumeration at Transitory Locations Cover Page, Form D-693 (ETL)* associated with it. The ETL Cover Page contained crucial information to complete the enumeration, such as the TL name and address, contact name, and number of units to enumerate. With that said, NPC did not receive an *ETL Cover Page* for every TL checked in. It is unknown whether they were not completed in the LCO or if

the LCO did not ship them to NPC as directed. There were 1,549 PBOCS records that did not match to the NPC ETL Cover Page file.

DSSD received a file from NPC containing data for 47,354 ETL Cover Pages. DSSD reviewed the file and found 486 TLs with a duplicate TL ID number or no TL ID at all and 230 TL IDs that did not match to the PBOCS file. We removed 6,017 TLs that we identified as duplicates (by matching LCO, Assignment Area, and TL Name or if the word “duplicate” was written in the notes section).

We merged the PBOCS and NPC files together to produce the final data set we used for the summary statistics in Section V. below. We will refer to the merged file as the DSSD ETL Data file.

Table 3.2 DSSD Enumeration at Transitory Locations Data File

	PBOCS File	NPC File
TL Records	48,180	47,354
Duplicates and/or Blanks	-	486
NonMatch	1,549	230
TL Records Removed as Duplicate IDs	6,010	6,017
PBOCS and NPC TL Matched	40,621	40,621

□ *ETL Reinterview Form for TLs, Form D-941*

The PBOCS was designed to flag a 10-percent sample of the TLs for reinterview. There were a total of 4,438 TLs selected for RI on the PBOCS data file. NPC keyed a total of 4,339 TL RI forms. Of these, 137 forms were found to be duplicate or blank. We merged the PBOCS and the NPC file and were able to match 3,878 TL RI records.

Table 3.3 DSSD Transitory Location Reinterview Data File

	PBOCS File	NPC File
TL RI Records	4,438	4,339
Duplicates and/or Blanks	-	137
NonMatch	560	324
PBOCS and NPC TL RI Matched	3,878	3,878

□ *ETL Reinterview Form for EQs, Form D-941(EQ)*

The PBOCS was designed to flag a 10-percent sample of the EQs for reinterview. There were a total of 10,234 EQs selected for RI on the PBOCS data file. NPC keyed a total of 9,801 EQ RI forms. Of those, 419 forms were found to be duplicate or blank. Once we merged the PBOCS and NPC files we had a total of 9,212 EQ RI records.

	PBOCS File	NPC File
EQ RI Records	10,234	9,801
Duplicates and/or Blanks	-	419
NonMatch	1,022	170
PBOCS and NPC EQ RI Matched	9,212	9,212

We planned also to use the Cost and Progress System to track QC work during the ETL operation, however, that system was not functional during the course of the ETL operation. This restricted our data analysis primarily to information we received after the operation was completed.

IV. Limitations

The following assumptions and limitations should be taken into account when reading the results from this report.

During the 2010 Census Address Canvassing or Group Quarters Validation (GQV) operations, enumerators were instructed to list each TL, for example, the main office of a campground. Some of the enumerators misunderstood these directions and listed every campsite within the TL as an individual TL. This resulted in thousands of duplicated TL listings.

Another problem in some LCOs was a misunderstanding about hotels and motels. Only those hotels and motels identified during the GQV phase (identified as housing long-term residents) should have been included in the ETL universe. However, some RCCs and LCOs incorrectly started adding “all” hotels and motels within their area back into the ETL universe. This also caused unnecessary workload for the ETL operation.

It seems that the Address Canvassing and GQV Listers were not properly trained to identify ETL addresses. For example, bed and breakfast accommodations which should not have been identified as ETL addresses, made up 15 percent of the ETL Universe. Some other erroneous entries included hunting lodges, cabins, mobile home parks, church retreats, etc. These should have been listed as housing units.

The total number of TLs in the ETL workload for the operation was 48,180. However, this number included many duplicates. This was an unexpected problem that was not known until the LCOs actually began processing the workload. Once we were aware of the magnitude of the problem, we provided instructions for the LCOs to use to identify and eliminate the duplicates. They were instructed to write “duplicate” in the notes section of the ETL Cover Page. However, these instructions were not always followed and we were left with duplicate TL listings (see Table 3.2).

The instability of the PBOCS caused various limitations in the conduct of the operation and our analysis for this report.

There were several problems linking the PBOCS data records to the NPC data records. In some cases, the TL identification numbers were missing or did not match, some records were on the PBOCS data file and not on the NPC data file, and vice versa. In order to accurately report the summary statistics in this report, some of the data from PBOCS and NPC keyed files required cleaning.

PBOCS was not working, and therefore was not used, at times during the ETL operation. This impacted the checking in and checking out of TLs. Toward the end of the operation, there were issues with PBOCS, and a decision was made to stop processing ETL work in PBOCS. However, according to Field Division, all work was completed in the field.

We eliminated 14,292 TL records from our analysis because they did not match or were duplicates, all of which we could not resolve.

The LCOs marked 17 TL RI cases as Hard Fail (data falsification and/or intentional procedural violations). Field Division provided information that LCOs reported that some of these cases were erroneously marked as a hard fail when they should have actually been coded as a soft fail (honest mistakes). However, the PBOCS did not allow the user to change the RI outcome field once it had been saved. So, we have no way to know which cases were affected.

If a resident staying at an ETL stated that they had a usual home elsewhere, there was a limitation to the QC that we did not verify the UHE was correct since we did not collect any data from that person during production.

V. Results

In this section, we will present summary results and detailed tables, where necessary, pertaining to the ETL RI operations. They are presented on a national level, but data at the Regional Census Center level can be found in the appendices.

Transitory Locations

A. How many Transitory Locations were enumerated?

There were a total of 40,621 TLs in the ETL universe. The enumerator should have selected what type of TL they were sent to enumerate on the *Enumeration at Transitory Locations Cover Page*, Form D-693 (ETL). See Appendix C for a copy of the form. They were given the choices of Marina, RV Park, Hotel/Motel, Campground, Carnival, Racetrack, or Other.

Approximately one-fifth (21.2 percent) of the enumerators selected "Other" on the ETL Cover Page. Table 5.1 shows the distribution of TL locations by their type. Over one-third (35.2 percent) of the ETL universe was hotels/motels while carnivals and racetracks account for less than 1 percent (0.5 percent) of the TL universe.

Table 5.1 Enumeration at Transitory Location Universe by Type of Location

Location Type	Number	Percentage
Marina	2,125	5.2
RV Park	6,400	15.8
Hotel/Motel	14,286	35.2
Campground	8,902	21.9
Carnival	69	0.2
Racetrack	106	0.3
Other	8,598	21.2
Blank	135	0.3
Total	40,621	100.0

Source: DSSD ETL Data File

There were 8,598 records where the enumerator wrote in the “Other” field of the ETL Cover Page. Of these, 1,939 (22.6 percent) were bed and breakfast accommodations. Some other entries include hunting lodges, cabins, mobile home parks, church retreats, etc.

B. Was the sampling plan implemented correctly?

The PBOCS was designed to select a 10 percent sample. Based on the number of TLs in the RI universe, it was actually a 9.6 percent sample. There were a total of 40,621 TLs in the ETL universe. Of these, 3,878 TLs were selected for RI.

Although we fell slightly short of the 10 percent goal, the known issues with PBOCS and data limitations may explain the differences.

C. How many TLs were in Random RI and what was their final outcome?

There was a total of 3,865 TLs included in the Random RI and 13 were in Supplemental RI. While the majority (75.7 percent) of TLs passed, approximately one-fifth (22.1 percent) of the office clerks reported that they were unable to reach the contact person at the TL to verify that the enumeration had occurred. This elevated no-contact rate could be a reflection of the high number of cases that were not actually Transitory Locations. Table 5.2 below summarizes the TL RI by interview type.

Table 5.2 Transitory Location Reinterview Outcome by Reinterview Type

Reinterview Outcome	Random Reinterview		Supplemental Reinterview		Total	
	Number	Percent	Number	Percent	Number	Percent
Pass	2,927	75.7	13	0.3	2,940	75.8
Unable to Contact	854	22.1	-	-	854	22.0
Soft Fail	67	1.7	-	-	67	1.7
Hard Fail	17	0.4	-	-	17	0.4
Total	3,865	99.7	13	0.3	3,878	100.0

Source: DSSD ETL Data File

If an AMQA determined that the CL or Lead Enumerator falsified data instead of actually conducting the enumeration, they instructed the RI office clerk to record the final outcome as a Hard Fail. The LCOs marked 17 TL RIs as Hard Fail.

Field Division provided information that LCOs reported that some of these cases were erroneously marked as a hard fail when they should have actually been coded as a soft fail. However, the PBOCS did not allow the user to change the RI outcome field once it had been saved. So, we have no way to know which cases were affected by the reported miscoding of reinterview outcomes.

D. How many TLs were in Supplemental RI and what was their final outcome?

Any TL not selected for Random RI could have been put into Supplemental RI for any enumerator, at any time, for any reason (e.g. if it was suspected that the enumerator was not following proper procedures). The AMQA could also use Supplemental RI as an investigative tool for any enumerator who failed RI.

Table 5.2 above shows that 13 TLs were placed into Supplemental RI. All of the TLs placed into Supplemental RI passed.

E. How many TL cases were reworked?

There was a box on the ETL Cover Page to indicate if it was the initial assignment or if the TL was being reworked. There were 181 (0.5 percent) ETL Cover Pages with rework selected as the type of assignment. This field was left blank on 17.7 percent (7,205) of the ETL Cover Pages.

F. How many ETL Production enumerators were there?

There were a total of 11,036 enumerators who worked on the ETL operation throughout the United States and Puerto Rico.

G. How many enumerators were in Random RI? Supplemental RI?

There were 2,126 (19.3 percent) enumerators who worked on a TL selected in Random RI. Only 12 (0.1 percent) different enumerators were placed in Supplemental RI, indicating the AMQA may have been suspicious of the enumerator's work. All of the TLs placed in Supplemental RI passed.

Enumerator Questionnaires

H. How many EQs were completed in production?

There were a total of 118,486 EQs checked in from the field for the ETL operation. Of these, 102,400 (86.4 percent) contained a telephone number.

Table 5.3 shows the distribution of the number of EQs completed at each TL. More than half (56.4 percent) of the TLs appear to have been empty, had respondents who reported they had a UHE, or were in the ETL universe by mistake because the enumeration resulted in no completed EQs.

	Number	Percent
No Questionnaires	22,913	56.4
1 – 49	17,458	43.0
50 – 99	210	0.5
100 – 149	27	0.1
150 – 199	8	0.0
200 +	5	0.0
Total	40,621	100.0

Source: DSSD ETL Data File

I. Was the sampling plan implemented correctly?

The PBOCS was designed to select a 10 percent sample of EQs with a telephone number. Overall, there were a total of 118,486 EQs checked in from the field for the ETL operation. Of these, 102,400 (86.4 percent) contained a telephone number and were therefore eligible for RI. There were 9,212 EQs selected for RI. This is a 9.0 percent sample rate.

Although we fell slightly short of the 10 percent goal, the known issues with PBOCS and data limitations may explain the differences.

J. How many EQs were in the Random RI and what was their final outcome?

Most of the respondents (80.9 percent) who were contacted for EQ RI verified that they had been interviewed by a Census Bureau enumerator. Three percent of the RI respondents enumerated at a TL answered that they were not interviewed by a Census Bureau enumerator.

Reinterview office clerks reported that they were unable to reach about 16 percent of the RI respondents by telephone. This is shown in Table 5.4 below.

Reinterview Outcome	Number	Percent
Pass	7,453	80.9
Fail	272	3.0
Unable to Contact	1,487	16.1
Total	9,212	100.0

Source: DSSD ETL Data File

A total of 272 EQs failed the RI. Of these, 175 EQ RI respondents responded “Yes, they did have a usual home elsewhere”, indicating that they should not have been enumerated in ETL.

K. How many enumerators were in Random RI?

There were a total of 3,608 enumerators whose EQs were selected for EQ RI. There was no Supplemental RI for EQs.

VI. Conclusions and Recommendations

In this section, we summarize the outcome of the RI operations and provide recommendations for improving the ETL RI program.

A. Conclusions

There were a total of 40,621 Transitory Locations in the Enumeration at Transitory Locations universe. This number reflects the count of Transitory Locations recorded from the Enumeration at Transitory Locations Cover Page that could be matched from the Paper-Based Operations Control System and National Processing Center data files. Over one-third (35.2 percent) of the universe was hotels/motels, while carnivals and racetracks accounted for less than one percent (0.5 percent) of the Transitory Locations universe.

The Paper-Based Operations Control System was designed to select a 10 percent sample of TLs. Based on the number of Transitory Locations in the Reinterview universe, the final sample was actually 9.6 percent.

Overall, there were a total of 118,486 Enumerator Questionnaires checked in from the field for the Enumeration at Transitory Locations operation. Of these, 102,400 (86.4 percent) Enumerator Questionnaires contained a respondent-provided telephone number and therefore were eligible for reinterview. There were 9,212 Enumerator Questionnaires selected for Reinterview. This was a 9.0 percent sample rate.

There was a total of 3,865 Transitory Locations included in the Random Reinterview. While the majority (75.7 percent) of Transitory Locations passed, approximately one-fifth (22.1 percent) of the office clerks reported that they were unable to reach the contact person at the Transitory Location to verify that the enumeration had occurred. This elevated no-contact rate could be a reflection of the high number of cases that were not actually Transitory Locations.

Most of the respondents (80.9 percent) who completed an Enumerator Questionnaire verified in RI that they had been interviewed by a census enumerator. Three percent of the RI respondents enumerated at a Transitory Location answered that they were not interviewed by a Census Bureau enumerator.

A total of 11,036 enumerators worked on the Enumeration at Transitory Locations operation throughout the United States and Puerto Rico. There were 2,126 Reinterview office clerks who performed the Transitory Locations Reinterview and 3,608 Reinterview office clerks who worked on the Enumerator Questionnaire Reinterview.

B. Recommendations

Explore options to conduct reinterview with people who reply that they do have a UHE. Under the 2010 Census ETL design, cases where the respondent reported they had a UHE were not subject to any additional followup. Therefore, if data falsification or errors occurred in those cases, there was no way to identify or correct the falsification or errors.

Test ETL RI operations thoroughly.

It is vital that we improve the Address Canvassing and Group Quarters procedures to identify and list the Transitory Locations appropriately. The misunderstanding of procedures contributed to thousands of addresses that were incorrectly listed as TLs.

We need to be able to monitor the operations in real time. We need to ensure that the Cost and Progress System is working correctly, or we need access to the PBOCS, rather than having no data until after the operation is completed.

VII. References

McNally, Tracey A. (2009), "2010 Census: Quality Control Plan for the Enumeration at Transitory Locations Operation," DSSD 2010 Decennial Census Memorandum Series No. F-4R, U.S. Census Bureau, April 23, 2009.

Marquette, RJ and Ronia Char (2009), "Quality Control Specifications for the 2010 Census Key-From-Paper Operations," DSSD 2010 Decennial Census Memorandum Series No. F-11, U.S. Census Bureau, September 9, 2009.

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VIII. Acknowledgements

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Form D-941 (ETLRI-TL) U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau	TRANSITORY LOCATION (TL) IDENTIFICATION	
Reinterview Form for Transitory Locations Operation: Enumeration at Transitory Locations 2010 Census	1. LCO/ST/CO:	2. AA Number:
	3. TL Case ID Number:	
	4. TL Name:	
	5. TL Address:	
	6. TL Contact Name:	
	7. TL Contact Telephone Number:	
	TL BINDER INFORMATION	
1. TL Binder Check-in Date [month/day/year]: / /		
2. Crew Leader or Lead Enumerator Name/Applicant ID Number:		
REINTERVIEW INFORMATION		
1. Reinterview Clerk Name:		
2. Reinterview Date [month/day/year]: / /		
3. Reinterview Type: <input type="checkbox"/> Random or <input type="checkbox"/> Supplemental		
<p style="text-align: center;"><i>Note: Verify that you have transcribed all necessary information onto the reinterview form before contacting the TL!</i></p> <p>> Read verbatim below:</p> <p>A. "Hello, my name is (your name). I work for the U.S. Census Bureau." "As part of our quality control procedures, I would like to verify that a Census Bureau Enumerator visited your facility/site recently." "May I please speak with Mr./Ms. _____?" (Transcribe name from TL Binder)</p> <p style="margin-left: 40px;"> > If "Yes", skip to line C > If "No", read line B </p> <p>B. "May I speak with someone else who can answer my questions?"</p> <p style="margin-left: 40px;"> > If "Yes", Enter respondent's name below: _____ > If respondent is available, read line C > If a respondent is not immediately available, ask when they would be available for a call back. Write call back time and date here _____ </p> <p>> Ask the respondent:</p> <p>C. "Our records show census staff visited your facility/site on or about ____/____/____ (Transcribe date from TL Binder) to enumerate your units." "Is this correct?"</p> <div style="margin-left: 80px;"> 1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No 3. <input type="checkbox"/> I don't know </div> <p style="margin-left: 120px;"> Before you accept a response of 'No' or 'I don't know', ask respondent if there is anyone else who might have talked to an enumerator. </p> <p style="margin-left: 40px;"> > Thank respondent and end interview > Mark (X) a Final Outcome for the interview below </p>		
REINTERVIEW FINAL OUTCOME		
Determining Final Outcome:		
Pass - If the respondent answers, "Yes" or "I don't know", mark the Final Outcome as "Pass" Unable to Contact - If unable to reach original respondent or a proxy, mark the Final Outcome as "Unable to Contact", after consulting with AMQA regarding final status Soft Fail - If the respondent answers, "No" and an investigation indicates respondent error or honest enumerator error, mark the Final Outcome as "Soft Fail". Hard Fail - If the respondent answers, "No" and an investigation indicates enumerator falsification, consult with AMQA. If AMQA recommends "Hard Fail", do so below.		
Final Outcome (also key into OCS)		
<input type="checkbox"/> Pass <input type="checkbox"/> Unable to Contact (Mark only if directed by AMQA or QA OOS) <input type="checkbox"/> Soft Fail (Mark only if directed by AMQA or QA OOS) <input type="checkbox"/> Hard Fail (Mark based on AMQA Recommendation)		
PLEASE USE THE SECTION BELOW TO PROVIDE ANY ADDITIONAL INFORMATION		

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Form D-941 (ETLRI-EQ) U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau	TRANSITORY LOCATION (TL) IDENTIFICATION 1. LCO/ST/CO: 2. AA Number: 3. TL Case ID Number: 4. TL Name: 5. TL Address: 6. EQ Processing ID Number: 7. Respondent Name: 8. Respondent Telephone Number:
Reinterview Form for Enumerator Questionnaires Operation: Enumeration at Transitory Locations 2010 Census	
QUESTIONNAIRE INFORMATION 1. Questionnaire Check-in Date [month/day/year]: / / 2. Enumerator Name/Applicant ID Number:	
REINTERVIEW INFORMATION	
1. Reinterview Clerk Name:	
2. Reinterview Date [month/day/year]: / /	

Note: verify that you have transcribed all necessary information onto the reinterview form **before** contacting respondent!

Read verbatim below:

A. "Hello, my name is (your name). I work for the U.S. Census Bureau." "As part of our quality control procedures, I would like to verify that you were recently interviewed by a Census Bureau Enumerator at the _____ (transcribe name of TL from original questionnaire)."
 "May I please speak with Mr./Ms. _____?" (Transcribe name from original TL Questionnaire)

- > If "Yes", skip to line C
- > If "No", read line B

B. "May I speak with someone else who can answer my questions?"

- > If "Yes", Enter respondent's name below:

- > If respondent is available, read line C

- > If a respondent is not immediately available, ask when they would be available for a call back. Write call back time and date below:

> Read the Confidentiality Notice on the D-1(F), Information Sheet, to the respondent!

> Ask the respondent:

C. "Were you (or original respondent) contacted on or about ___/___/___ (Transcribe date from original TL Questionnaire) by a census enumerator

1. Yes - If "Yes", skip to question D.
2. No - If "No", thank respondent, end interview and mark (X) 'Fail' (below) as the Final Outcome
3. I don't know - If "I don't know", thank respondent, end interview and mark (X) 'Fail' (below) as the Final Outcome

D. "In this operation, we want to count people where they usually live and sleep." "For people with more than one place to live, this is the place where they sleep most of the time." "When you were interviewed at (transcribe name of TL from original questionnaire), did you have another usual residence?"

- > If "Yes", thank respondent and end interview
 - o Mark (X) 'Fail' (below) as the Final Outcome for the interview
- > If "No" or "I don't know", ask:

E. "Including yourself, how many people were living or staying in this (RV/boat/room/unit) on ___/___/___ (Transcribe date from original TL Questionnaire)?" _____

- > Thank respondent and end interview
 - o Mark (X) 'Pass' (below) as the Final Outcome for the interview

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REINTERVIEW/FINAL OUTCOME

Determining Final Outcome:

Pass - If the respondent answers, "No" or "I don't know", to the usual home elsewhere question (question D), mark the Final Outcome as "Pass"

- Fail -** Mark the Final Outcome as, "Fail" for the following reasons:
- o If the respondent answers, "No" or "I don't know", to the question of whether they were contacted, (question C), mark the Final Outcome as "Fail"
 - o If the respondent answers, "Yes", to the usual home elsewhere question (question D), mark the Final Outcome as "Fail"

- Unable to Contact -** Mark the Final Outcome as "Unable to Contact" for the following reasons:
- o If you are unable to contact the original respondent or proxy after at least 3 attempts
 - o If the telephone number provided by the respondent is non-working or incorrect

Final Outcome (also key into OCS)

- Pass**
- Fail**
- Unable to Contact**

PLEASE USE THE SECTION BELOW TO PROVIDE ANY ADDITIONAL INFORMATION

Table A1. Enumeration at Transitory Location Universe by Type of Location at RCC Level

RCC	Marina (# / %)	RV Park (# / %)	Hotel/Motel (# / %)	Campground (# / %)	Carnival (# / %)	Racetrack (# / %)	Other (# / %)	Blank (# / %)	RCC Total (# / %)
Puerto Rico	14 11.0	9 7.1	44 34.7	3 2.4	- -	- -	57 44.9	- -	127 0.3
Boston	243 6.5	121 3.2	1,131 30.3	971 25.9	5 0.1	8 0.2	184 26.3	5 0.7	3,738 9.2
New York City	80 11.4	4 0.6	383 54.8	39 5.6	- -	4 0.6	184 26.3	5 0.7	699 1.7
Philadelphia	197 8.2	65 2.7	943 39.4	569 23.7	4 0.2	5 0.2	607 25.4	4 0.2	607 25.4
Detroit	154 6.2	147 5.9	687 27.6	933 37.5	5 0.2	8 0.3	549 22.1	5 0.2	2,488 6.1
Chicago	69 3.0	124 5.5	791 34.7	736 32.3	6 0.3	5 0.2	541 23.8	5 0.2	2,277 5.6
Kansas City	107 2.6	741 17.8	1,305 31.4	1,051 25.3	11 0.3	4 0.1	927 22.3	9 0.2	4,155 10.2
Seattle	426 7.1	1,163 19.4	1,768 29.5	1,379 23.0	14 0.2	2 0.0	1,216 20.3	21 0.4	5,989 14.7
Charlotte	292 8.2	415 11.6	1,153 32.3	913 25.6	8 0.2	54 1.5	717 20.1	17 0.5	3,569 8.8
Atlanta	259 7.5	832 24.2	1,354 39.3	444 12.9	8 0.2	5 0.2	527 15.3	13 0.4	3,442 8.5
Dallas	118 3.0	1,484 38.2	1,261 32.5	365 9.4	3 0.1	5 0.1	630 16.2	19 0.5	3,885 9.6
Denver	52 1.0	1,054 20.2	1,859 35.6	1,232 35.6	4 0.1	3 0.1	1,007 19.3	11 0.2	5,222 12.9
Los Angeles	114 4.3	241 9.1	1,607 60.9	267 10.1	1 0.0	3 0.1	395 15.0	8 0.3	2,636 6.5
NATIONAL	2,125	6,400	14,286	8,902	69	106	8,598	135	40,621
TOTAL	5.2	15.8	35.2	21.9	0.2	0.3	21.2	0.3	100.0

Source: DSSD ETL Data File

Table A2. Transitory Location Reinterview Outcome by Reinterview Type at RCC Level

RCC	Random Reinterview				Supplemental Reinterview				RCC Total (# / %)
	Pass (# / %)	Unable to Contact (# / %)	Soft Fail (# / %)	Hard Fail (# / %)	Pass (# / %)	Unable to Contact (# / %)	Soft Fail (# / %)	Hard Fail (# / %)	
Puerto Rico	6 100.0	- -	- -	- -	- -	- -	- -	- -	6 100.0
Boston	238 74.1	80 24.9	3 0.9	- -	3 100.0	- -	- -	- -	324 8.3
New York City	49 81.7	11 18.3	- -	- -	- -	- -	- -	- -	60 1.6
Philadelphia	183 75.9	53 21.9	3 1.24	2 0.8	- -	- -	- -	- -	241 6.2
Detroit	184 65.9	84 30.1	9 3.2	2 0.7	- -	- -	- -	- -	279 7.2
Chicago	169 71.6	63 26.7	4 1.7	- -	1 100.0	- -	- -	- -	237 6.1
Kansas City	290 69.1	115 27.4	9 2.1	6 1.4	1 100.0	- -	- -	- -	421 10.9
Seattle	448 81.3	97 17.6	6 1.1	- -	1 100.0	- -	- -	- -	552 14.3
Charlotte	286 74.3	84 21.8	14 3.6	1 0.3	1 100.0	- -	- -	- -	386 10.0
Atlanta	285 84.1	46 13.6	7 2.1	1 0.3	- -	- -	- -	- -	339 8.8
Dallas	280 81.6	59 17.2	3 0.9	1 0.3	2 100.0	- -	- -	- -	345 8.9
Denver	307 71.4	117 27.2	5 1.2	1 0.2	3 100.0	- -	- -	- -	433 11.1
Los Angeles	202 79.5	45 17.7	4 1.6	3 1.2	1 100.0	- -	- -	- -	255 6.6
NATIONAL	2,927	854	67	17	13	0	0	0	3,878
TOTAL	75.7	22.0	1.7	0.4	0.3	0.0	0.0	0.0	100.0

Source: DSSD ETL Data File

Table A3. Total Number of Questionnaires Completed at Transitory Location at RCC Level

RCC	Number of Questionnaires						RCC Total (# / %)
	None (# / %)	1 - 49 (# / %)	50 - 99 (# / %)	100 - 149 (# / %)	150 - 199 (# / %)	200 + (# / %)	
Puerto Rico	73 57.5	54 42.5	- -	- -	- -	- -	127 0.3
Boston	2,533 67.8	1,191 31.9	14 0.4	- -	- -	- -	3,738 9.2
New York City	324 46.4	358 51.2	9 1.3	5 0.7	2 0.3	1 0.1*	699 1.7
Philadelphia	1,413 59.0	970 40.5	5 0.2	5 0.2	1 0.0	- -	2,394 5.9
Detroit	1,795 72.2	689 27.7	3 0.1	1 0.0	- -	- -	2,488 6.1
Chicago	1,442 63.3	822 36.1	11 0.5	2 0.1	- -	- -	2,277 5.6
Kansas City	2,769 86.6	1,382 33.3	3 0.1	- -	1 0.0	- -	4,155 10.2
Seattle	3,140 52.4	2,802 46.8	42 0.7	3 0.1	1 0.0	1 0.0	5,989 14.7
Charlotte	1,933 54.2	1,629 45.6	7 0.2	- -	- -	- -	3,569 8.8
Atlanta	1,579 46.0	1,834 53.3	27 0.8	1 0.0	1 0.0	- -	3,442 8.5
Dallas	1,780 46.0	2,090 53.8	11 0.3	3 0.1	1 0.0	- -	3,885 9.6
Denver	3,045 58.3	2,141 41.0	30 0.6	4 0.1	- -	2 0.0	5,222 12.9
Los Angeles	1,087 41.2	1,496 56.8	48 1.8	3 0.1	1 0.0	1 0.0	2,636 6.5
NATIONAL	22,913	17,458	210	27	8	5	40,621
TOTAL	56.4	43.0	0.5	0.1	0.0	0.0	100.0

Source: DSSD ETL Data File

Table A4. Enumerator Questionnaire Reinterview Outcome at RCC Level

RCC	Reinterview Outcome			RCC Total (# / %)
	Pass (# / %)	Fail (# / %)	Unable to Contact (# / %)	
Puerto Rico	8 100.0	- -	- -	8 0.1
Boston	320 80.8	10 2.5	66 16.7	396 4.3
New York City	266 82.9	5 1.6	50 15.6	321 3.5
Philadelphia	457 84.9	14 2.6	67 12.5	538 5.8
Detroit	233 79.8	28 9.6	31 10.6	292 3.2
Chicago	360 79.0	6 1.3	90 19.7	456 4.9
Kansas City	416 84.2	19 3.9	59 11.9	494 5.4
Seattle	1,462 83.1	25 1.4	272 15.5	1,759 19.1
Charlotte	516 77.8	12 1.8	135 20.4	663 7.2
Atlanta	828 78.6	50 4.7	176 16.7	1,054 11.4
Dallas	779 82.8	32 3.4	130 13.8	941 10.2
Denver	928 78.5	32 2.7	222 18.8	1,182 12.8
Los Angeles	880 79.4	39 3.5	189 17.1	1,108 12.0
NATIONAL TOTAL	7,453 80.9	272 3.0	1,487 16.1	9,212 100.0

Source: DSSD ETL Data File