

PRELIMINARY RESULTS FROM THE CENSUS 2000 NEW CONSTRUCTION OPERATION

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Abstract: The New Construction operation enlisted governmental partners to identify missing addresses on the Census 2000 address list, including new construction. The Census Bureau invited local and tribal governmental partners within the Mailout/Mailback, Urban Update/Leave, and Urban Update/Enumerate areas to participate. Each participating entity received a copy of the current census address list, prepared as of December 1, 1999, and a map from the Census Bureau. Their goal was to identify specific missing addresses. The Census Bureau matched and unduplicated the submitted addresses with the census address list. Enumerators will visit each unmatched address during July/August 2000 to determine if it exists. This paper reports on preliminary results from the New Construction operation.

Introduction to the New Construction Operation

Conducting a thorough census depends on a complete address list. Census questionnaires were labeled using a census address list that was current as of November 1999, whereas Census Day is April 1, 2000. Originally, the last updating process for the mailout portion of the census was a U.S. Postal Service Delivery Sequence File (DSF) in February 2000. Concerns over new construction not being included in the mailout portion of the census prompted the addition of the New Construction operation. (Areas where census questionnaires were hand-delivered had an address updating process built in, new addresses in these areas were added to the list during the questionnaire delivery process and also were delivered a questionnaire as they were identified.) The New Construction operation provided local and tribal governments the opportunity to identify addresses missing from a late 1999-vintage census address list.

The New Construction operation was limited to active, functioning governmental units (GUs) with one or more Census 2000 collection blocks inside the "blue line" (i.e., in Type of Enumeration Areas (TEAs) 1, 6, 7, and 8--Mailout/Mailback, family housing in military bases, Urban Update/Leave, and Urban Update/Enumerate,

respectively). An active, functioning GU is a general-purpose government that has elected or appointed officials and can raise revenues, provide services, and enter into contracts.

This paper discusses New Construction as follows:

- Flow of the New Construction Operation
- Local and Tribal Governmental Unit Participation in New Construction
- New Construction Submissions
- New Construction Overlap with Other Operations
- Conclusions about the Efficacy of the New Construction Operation

Flow of the New Construction Operation

Local and tribal New Construction-eligible GUs were invited to participate in the New Construction operation in October 1999. New Construction-participating GUs were sent the following materials from mid-January through early March 2000, prepared as of December 1, 1999:

- their current, inside the blue line residential address list;
- a block summary list showing a count of residential addresses in eligible Census 2000 collection blocks and a listing of ineligible blocks. The blocks are eligible if they are in TEAs 1, 6, 7, or 8;
- a set of map products for reference and for updating missing or out-of-date information: index maps, subject area map sheets, inset maps, a map sheet to block number relationship list.

The New Construction-participating GUs returned the updated maps and New Construction address submissions by April 3, 2000. The submitted addresses were matched to the Master Address File (MAF) in May 2000. They were included on the June 15, 2000 MAF, which is the November MAF updated with addresses from the February and April 2000 DSF, the results of the Local Update of Census Addresses (LUCA) appeal process, some late LUCA field verification results, and the results from Update/Leave and Urban Update/Leave

This paper reports the results of research and analysis undertaken by U.S. Census Bureau staff. It has undergone a Census Bureau review more limited in scope than that given to official Census Bureau publications. This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress.

census field operations. The MAF itself is an inventory of all addresses in the United States. The following outcomes were possible:

1. The address wasn't accepted.
2. The address was accepted but didn't meet the criteria to be part of the census address list.
3. The address met the census address list criteria but was already on the census address list.
4. The address met the census address list criteria and wasn't already on the census address list. These are potential new census addresses.

New Construction addresses weren't accepted if they couldn't be geocoded, e.g., blank house number and illegal block; or if they didn't meet the New Construction criteria, e.g., the block was not in TEA 1, 6, 7, or 8. Table 1 gives a detailed list of reasons submitted addresses were not processed into the MAF.

Table 1: Reasons for Skipping Submitted New Construction Addresses

Reason
Blank street name
Block TEA is not 1, 6, 7, or 8
TEA not verified because of either bad state/county or block
Blank house number and illegal block
Illegal block and illegal ZIP code
Location description is present and block is illegal
Action code is not A
MAF identification number is not blank
Illegal state code
Illegal county code
Block not found due to invalid state/county

New Construction addresses that met census address list-building criteria were compared to a census address list prepared for Nonresponse Followup (NRFU). A matching address that had a questionable census status was resolved in the NRFU field operation. Unmatched addresses were potential new census addresses that were sent to a census field operation conducted in July/August 2000. The census field operation will determine whether the housing unit existed on Census Day, and those that did will be added to the census.

Local and Tribal Governmental Unit Participation in New Construction

In December 1999, close to the time that New Construction-eligible GUs were sent a letter inviting them to participate in the New Construction operation, there were 39,370 total active, functioning GUs. There were 18,689 New Construction-eligible GUs, and 5,876 of these GUs chose to participate in New Construction. New Construction-participating GUs are those that signed up for the New Construction program, returned a confidentiality agreement, didn't subsequently drop out of the program at any stage, and didn't become an inactive government.

Table 2 lists the number of active, functioning GUs by GU entity type and New Construction outcome. Table 3 breaks down the New Construction participants by region. [Note: Seven of the Consolidated Cities are tallied as GU-equivalent Counties. One Consolidated City is tallied as a GU-equivalent Minor Civil Division. New York City is divided into its 5 counties and tallied as 5 GU Counties. Washington, DC is tallied as a GU-equivalent Incorporated Place/Independent City.]

Table 2: New Construction Universe

GU Entity Type	Active, Functioning GUs	New Construction Outcome		
		Eligible GUs*	Participating GUs	%
County	3,057	2,058	650	31.6
Minor Civil Division	16,576	7,242	1,577	21.8
Incorporated Place/Independent City	19,409	9,260	3,627	39.2
American Indian Area	328	129	22	17.1
TOTAL	39,370	18,689	5,876	31.4

*active, functioning GUs with one or more Census 2000 blocks inside the blue line

Of the New Construction-eligible GUs, 31.4 percent participated in the New Construction operation. The greatest participation rate, 39.2 percent, was amongst the

Incorporated Place/Independent City GUs. Regionally, the West had the greatest participation rate, 47.8% of the eligible GUs participated (table 3).

Table 3: New Construction Regional Participation

GU Entity Type	North-east (NE)	South (S)	Mid-west (MW)	West (W)	Total
County	42	297	202	109	650
Minor Civil Division*	702	0	875	0	1,577
Incorporated Place/Independent City	398	1,042	1,583	604	3,627
American Indian Area	1	0	4	17	22
TOTAL	1,143	1,339	2,664	730	5,876
Total (and % of) Eligible GUs	3,459 (33.0)	3,078 (43.5)	10,624 (25.1)	1,528 (47.8)	18,689 (31.4)

*No Minor Civil Divisions in the South and West participated because none were eligible.

The LUCA 1998 program was a Census 2000 operation in Mailout/Mailback areas that enlisted local and tribal government participation to review the census address list prior to labeling of the census questionnaires. Table 4 identifies the overlap between the New Construction and LUCA 1998 participants by region. Overall, 71.3% of New Construction participants had also participated in LUCA 1998.

Table 4: New Construction/LUCA 1998 Regional Participation

Region	New Construction Participant	New Construction/LUCA 1998 Participant	%
NE	1,143	888	77.7
S	1,339	966	72.1
MW	2,664	1,778	66.7
W	730	559	76.6
TOTAL	5,876	4,191	71.3

New Construction Submissions

Of the 5,876 New Construction participants, 2,857 GUs submitted 660,084 addresses. Table 5 profiles the New Construction entities that submitted addresses, and table 6 identifies how many addresses, by region, each GU entity type submitted.

Table 5: New Construction Entities that Submitted Addresses: GU Entity Type by Region

GU Entity Type	NE	S	MW	W	Total
County	17	136	82	56	291
Minor Civil Division	305	0	453	0	758
Incorporated Place/Independent City	146	533	823	305	1,807
American Indian Area	0	0	0	1	1
TOTAL	468	669	1,358	362	2,857
% of Participating GUs	40.9	50.0	51.0	49.6	48.6
% of Eligible GUs	13.5	21.7	12.8	23.7	15.3

The greatest submission rates were in the West and South, where 23.7% and 21.7%, respectively, of all New Construction-eligible GUs submitted New Construction addresses.

Table 6 is at the end of the report. It is limited to GU entities that submitted addresses. The South had the most submissions, 299,221, and the highest average number of submissions, 447. In terms of GU entity type, Incorporated Place/Independent City had the most submissions, 332,948, and County had the highest average number of submissions, 961.

Of the 660,084 submitted addresses, 600,736 addresses were accepted and either matched an address already on the MAF or didn't match and will be added, pending verification by a census field operation. The same address could be submitted by the same governmental unit multiple times or by multiple governmental units.

The following is a breakdown of the number of times an accepted address was submitted and the number of GUs submitting the address:

- 594,254 addresses were submitted once by one GU;
- 3,789 addresses were submitted two or more times by one GU (7,713 submissions; 3,924 duplicates);
- 2,679 addresses were submitted one time by two GUs (5,358 submissions; 2,679 duplicates);
- 14 addresses were submitted two or more times by two GUs (54 submissions; 40 duplicates).

As detailed above, 6,643 of the original 660,084 addresses, or 1.0 percent, were duplicates. Another 55,949 addresses weren't accepted for the reasons described in table 1. This leaves a discrepancy of 3,244 addresses. Perhaps some of the skipped addresses were accepted and were dropped later in the process.

Of the 600,736 accepted addresses, 6,368 addresses were subsequently dropped because they weren't associated with any Census 2000 block and weren't locatable through other means, including machine coding, Regional Census Center office research, U.S. Postal Service inquiry, or a census field check. Twenty-seven addresses were excluded from analysis because they were part of a separate response mode incentive experiment. The outcomes for the remaining 594,341 addresses were as follows:

1. 592,528, or 99.7%, of the New Construction accepted addresses met the criteria to be part of the census address list.
2. 164,035 or 27.7% of 1., were matched to an address on the NRFU universe-vintage census address list.
3. 428,493, or 72.3% of 1., were potential adds that were sent to census field operation to determine their census status. Probably somewhat fewer addresses were sent, but an actual number is not yet available.

New Construction Overlap with Other Operations

Even though the New Construction operation was implemented because of local and tribal concern that DSF updates alone would not include all new construction in the census, there were other opportunities for new construction and other missing addresses to be included in the census. These opportunities included the following:

- Individuals who were not mailed a census questionnaire could pick up a Be Counted Form at a Questionnaire Assistance Center.
- Individuals could request a census

questionnaire by calling a Telephone Questionnaire Assistance Center.

- Housing units were added to the census address list when the February 2000 and April 2000 DSFs were used to update the census address list.
- Housing units could be added to the census address list during the appeals of LUCA 1998 finding. LUCA 1998 appeal addresses wouldn't be on the census address list sent to the New Construction participants and could be resubmitted in New Construction.
- Housing units could be added by Census Bureau field staff during the update processes of the Urban Update/Leave or Urban Update/Enumerate.

As stated in the "New Construction Submissions" section, 164,035 New Construction addresses were matched to an existing address on the NRFU universe-vintage census address list. 428,493 New Construction Addresses weren't matched. The non-matches were either New Construction-only submissions or were submitted by New Construction and another source.

- 304,840 (71.1%) of the addresses to be sent to a census field operation to determine their census status were on the census address list solely because of the New Construction operation.
- 123,653 (28.9%) of the addresses to be sent were provided by New Construction and another source.

Table 7 displays the number of New Construction addresses (whether they were sent to a census field operation to determine their census status) that were also February 2000 DSF adds, April 2000 DSF adds, or both as the only other source.

Table 7: Addresses Submitted by New Construction and February/April 2000 DSF Only

SOURCE	New Construction
February 2000 DSF Only	887
April 2000 DSF Only	39,917
February/April 2000 DSF Only	25,341
TOTAL	66,145

Table 8 displays the number of New Construction adds that were also LUCA 1998 adds or LUCA 1998 appeal adds.

Table 8: Addresses Submitted by New Construction and LUCA 1998

SOURCE	New Construction
LUCA 1998 Adds	56,592
LUCA 1998 Appeal Adds	3,272
TOTAL	59,864

Conclusions about the Efficacy of the New Construction Operation

The results discussed here are preliminary. The outcomes for the New Construction addresses sent to a census field operation to determine their census status are not yet available. At present, we can identify how many participants there were and how many submissions they made. Furthermore, we can identify overlap between New Construction and some of the other sources for these addresses. Unquantifiable is the good will gained by soliciting local and tribal governments to identify missing addresses.

The New Construction operation had 5,876 participating GUs, 2,857 of which submitted addresses. Overall, 15.3% of the New Construction-eligible GUs submitted addresses. Most, 71.3%, of the New Construction participants had also participated in LUCA 1998.

New Construction participation was greatest in the West. GUs in the West participated at a 47.8% rate and a 23.7% submission rate and submitted 145,334 addresses. The South had the most submissions; 299,221; and the highest average number of submissions, 447.

New Construction GU entity participation was greatest amongst Incorporated Place/Independent Cities. Incorporated Place/Independent Cities participated at a 39.2% rate. Incorporated Place/Independent Cities had the most submissions, 332,948. Counties had the highest average number of submissions, 961.

The number of New Construction address submissions eligible for the census address list was 592,528. One percent of the submissions were duplicate submissions. New Construction was the only source for many of the addresses. About half--304,840 or 51.4%--were submitted by New Construction only. New Construction and only the February or April 2000 DSF submitted 66,145 addresses in common, or 11.2% of the New Construction addresses. New Construction and the LUCA 1998 or LUCA 1998 appeal submitted 59,864 addresses in common, or 10.1% of the New Construction addresses.

The census field operations in July/August 2000 will establish the outcome of all New Construction submissions that are new to the census address list. This determination of the quality of submitted addresses will give a more complete picture of the impact of the New Construction operation. From a preliminary viewpoint, the New Construction operation appears to be worthwhile.

Table 6: New Construction Submissions: GU Entity Type by Region

GU Entity Type	NE	S	MW	W	Total	Average Number of Submissions
County	16,365	165,928	46,352	50,929	279,574	961
Minor Civil Division	24,147	0	23,414	0	47,561	63
Incorporated Place/Independent City	7,391	133,293	97,860	94,404	332,948	184
American Indian Area	0	0	0	1	1	1
TOTAL	47,903	299,221	167,626	145,334	660,084	231
Average Number of Submissions	102	447	123	401	231	