

Urban Update/Leave

FINAL REPORT

This evaluation study reports the results of research and analysis undertaken by the U.S. Census Bureau. It is part of a broad program, the Census 2000 Testing, Experimentation, and Evaluation (TXE) Program, designed to assess Census 2000 and to inform 2010 Census planning. Findings from the Census 2000 TXE Program reports are integrated into topic reports that provide context and background for broader interpretation of results.

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U S C E N S U S B U R E A U

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EXECUTIVE SUMMARY

The U.S. Census Bureau conducted the Urban Update/Leave operation from March 3 to March 31, 2000. The objective of the Urban Update/Leave operation was to improve coverage in the following ways:

- improving the deliverability of the questionnaires, and
- updating address information and census maps.

The Urban Update/Leave operation targeted areas deemed unsuitable for Mailout/Mailback. Primarily, these are 1) multi-unit buildings where the United States Postal Service delivers the mail to a drop point instead of individual unit designations, and 2) urban communities that had city-style addresses but many residents picked up their mail at a post office box. The Urban Update/Leave operation relied on the local regions to identify areas based on their knowledge of whether the United States Postal Service could adequately deliver the census questionnaires. Ethnographic studies encourage local involvement, including tapping community-based organizations, in planning and conducting the census.

In Urban Update/Leave areas, enumerators delivered the census questionnaires and updated their address registers and census maps concurrently. Residents were asked to complete and mail their census questionnaires. Housing units for which the U.S. Census Bureau did not receive a completed questionnaire on or before April 18, 2000, were visited and enumerated during Nonresponse Followup.

The eight participating regions were Atlanta, Boston, Chicago, Dallas, Denver, Detroit, Philadelphia, and Seattle. The four regions that chose not to participate were Charlotte, Kansas City, Los Angeles, and New York. Twelve states (California, Colorado, Delaware, Florida, Idaho, Illinois, Louisiana, Michigan, New Jersey, Pennsylvania, Rhode Island, and Washington) and the District of Columbia had Urban Update/Leave areas. Individual regions had the prerogative of whether to participate. In the future, we recommend areas be designated for Urban Update/Leave based on headquarters' objective requirements supplemented by regional office input instead of the current practice of the regions designating areas as Urban Update/Leave subjectively.

Nationwide, 12,843 blocks were covered by Urban Update/Leave, and 7,657 of these blocks, or 59.6 percent, contained housing units. The Master Address File had 314,059 residential addresses in Urban Update/Leave blocks. After removing known duplicates, there were 310,114 addresses. Of the 310,114 addresses, 280,086 addresses, or 90.3 percent, were delivered to the Decennial Master Address File. Ultimately, 238,216 addresses, or 85.1 percent of the Decennial Master Address File addresses, were enumerated in the census as either occupied or vacant housing units.

This evaluation looks at the extent of address updating, descriptive statistics of the addresses,

demographic characteristics of the households and people living in Urban Update/Leave areas, and timing and cost of the operation. The Urban Update/Leave evaluation provides information to help determine whether the operation was a success.

Did Urban Update/Leave contribute to the success of Census 2000?

Yes. We improved the address list and successfully targeted hard-to-enumerate areas.

What was the extent of address updating in Urban Update/Leave areas?

- Of the 267,005 addresses in the address registers, 48,233 addresses, or 18.1 percent, were updated. An update is a deletion or change in the address or the block in which it is located by an enumerator during census questionnaire delivery.
- There were 13,131 additions during questionnaire delivery, a 4.9 percent increase to the addresses printed in the address registers.

How well was Urban Update/Leave targeted?

- There were 2,114 blocks out of 7,657 blocks with housing units in the census, or 27.6 percent of blocks, where 75 percent or less of the housing units in the block matched the Delivery Sequence File, a list of the addresses serviced by the United States Postal Service. These blocks contained 36,541 housing units out of the 238,216 housing units in the census, or 15.3 percent of the housing units in the census. Such blocks would presumably present mail delivery challenges for the United States Postal Service.
- Like other type-of-enumeration areas that return their completed questionnaire by mail, 0.9 percent of Urban Update/Leave housing units in the census—or 2,065 housing units—were drop delivery; that is, mail is delivered to a central location instead of individual units of a multi-unit structure. While these addresses should be included in Urban Update/Leave, they do not make up a large part of the Urban Update/Leave housing units in the census. Furthermore, the variable used to identify drop delivery status is not robust. We recommend more field work or better United States Postal Service input to identify drop delivery status.
- Close to one-quarter of the housing units in the census with hard-to-count scores, 45,877 housing units, were in the hardest hard-to-count class. The Planning Database provided a 1990 census tract-level hard-to-count score, a composite measure of characteristics correlated with success in counting people. We classified each hard-to-count score into one of ten hard-to-count classes. Matching the Census 2000 census tracts to the Planning Database, 189,045 addresses, or 79.4 percent of the Urban Update/Leave housing units in the census, were in census tracts that could be matched. We should expand our use of the Planning Database to target hard-to-count areas deemed suitable for Urban Update/Leave.

What were the demographic characteristics of the households and people living in Urban Update/Leave areas?

- Persons under 18 years old, African Americans, and renters were over-represented in Urban Update/Leave areas as compared to the nation:
 - Of persons, 27.3 percent were under 18 years old in Urban Update/Leave versus 25.7 percent nationally;
 - Of persons, 17.4 percent were African American in Urban Update/Leave versus 12.3 percent nationally;
 - Of occupied housing units, 43.1 percent were rented in Urban Update/Leave versus 33.8 percent nationally.

These traditionally undercounted persons were enumerated by mail at lower percentages than the average household or persons in Urban Update/Leave areas:

- For persons under 18 years old in Urban Update/Leave areas, 63.7 percent were enumerated by mail. For all persons in Urban Update/Leave areas, 68.3 percent were enumerated by mail;
- For African Americans in Urban Update/Leave areas, 51.4 percent were enumerated by mail. For all persons in Urban Update/Leave areas, 68.3 percent were enumerated by mail;
- For renters in Urban Update/Leave areas, 57.1 percent were enumerated by mail. For all households in Urban Update/Leave areas, 68.7 percent were enumerated by mail.

More gains in enumerating areas with these traditionally undercounted persons may possibly be achieved by Update/Enumerate methods. In Update/Enumerate, the housing unit is enumerated at the time of questionnaire delivery, instead of leaving a questionnaire and perhaps having to revisit the housing unit in Nonresponse Followup and/or Coverage Improvement Followup.

Was Urban Update/Leave completed on time and at what cost?

- Urban Update/Leave was conducted from March 3 to March 31, 2000, as planned.
- The total field cost of Urban Update/Leave was \$1,284,506, or \$4.59 per housing unit for the 280,136 housing units on or added to the Urban Update/Leave address registers. Additional costs, not included here, were headquarters costs, local census office infrastructure costs, and costs for housing units that required visits during census

followup operations.

Recommendations

In the future, we recommend areas be designated for Urban Update/Leave based on headquarters' objective requirements supplemented by regional office input instead of the current practice of the regions designating areas as Urban Update/Leave subjectively.

We recommend more field work or better United States Postal Service input to identify drop delivery status.

We should expand our use of the Planning Database to target hard-to-count areas deemed suitable for Urban Update/Leave.

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1. BACKGROUND

1.1 The 1990 census

In the 1990 census, Urban Update/Leave (UU/L) was a special enumeration procedure in urban areas. It targeted urban areas with potential questionnaire mail delivery problems. The Census Bureau conducted UU/L in pre-identified census blocks consisting almost entirely of inner city public housing developments containing 500 or more units. In addition, an outreach program was an integral part of this operation. The outreach program provided direct and detailed information to the targeted population. Outreach staff recruited residents of the housing projects to distribute literature and brochures and to hang census posters in high-visibility areas. Outreach staff also attended local resident meetings to raise census awareness.

The UU/L operation began on March 8, 1990, and was completed by Census Day, April 1, 1990. Enumerators used address registers and census maps from the Precanvass operation. At each address, the enumerator conducted a brief interview to verify the address. Based on this information, the enumerator made corrections and additions to the address register and annotated questionnaires for all deleted units. The enumerator left a pre-labeled questionnaire for the household, if any, to complete and mail. For addresses not in the register, the enumerator addressed a blank questionnaire.

The UU/L operation covered 346 census blocks and 55,365 housing units in Chicago, Detroit, Los Angeles, Baltimore, Cleveland, and Philadelphia. Initially, New York city and the District of Columbia were in the UU/L workload, but their regional census center (RCC) directors chose to exclude the cities from this special urban enumeration.

Contrary to the operational design, the results documented from 1990 showed that only 77.2 percent of the units in UU/L were within multi-unit structures; no data were available to determine the proportion of these units that were public housing. Thus, no conclusions were made as to the effectiveness of this procedure within the defined targeted area (public housing). (See U.S. Census Bureau, 1993b.)

1.2 Census 2000

The objective of the UU/L operation was to improve coverage in the following ways:

- improving the deliverability of the questionnaires, and
- updating address information and census maps.

The UU/L blocks were originally Mailout/Mailback blocks. Mailout/Mailback was the enumeration methodology for most areas that had mail delivery to city-style addresses (addresses with a house number and street name). In Mailout/Mailback areas, housing units received the census questionnaires by mail and were asked to return the completed questionnaires by mail.

The UU/L operation targeted areas deemed unsuitable for Mailout/Mailback. Primarily, these are 1) multi-unit buildings where the United States Postal Service delivers the mail to a drop point instead of individual unit designations, and 2) urban communities that had city-style addresses but many residents picked up their mail at a post office box. The Urban Update/Leave operation relied on the local regions to identify areas based on their knowledge of whether the United States Postal Service could adequately deliver the census questionnaires. Ethnographic studies encourage local involvement, including tapping community-based organizations, in planning and conducting the census.

Eight of the twelve RCCs identified blocks for UU/L. The eight participating RCCs were Atlanta, Boston, Chicago, Dallas, Denver, Detroit, Philadelphia, and Seattle. The four RCCs that did not participate were Charlotte, Kansas City, Los Angeles, and New York. There were UU/L areas in California, Colorado, Delaware, the District of Columbia, Florida, Idaho, Illinois, Louisiana, Michigan, New Jersey, Pennsylvania, Rhode Island, and Washington.

Operationally in UU/L areas, enumerators delivered the census questionnaires and updated their address registers and census maps concurrently. Residents were asked to complete and mail their census questionnaires. The operation was conducted from March 3 to March 31, 2000. Housing units for which the Census Bureau did not receive a completed questionnaire on or before

April 18, 2000, were visited during Nonresponse Followup.

2. METHODOLOGY

2.1 Files used in this evaluation

The following are the data sources for this report:

- the March 2001 Master Address File (MAF) extract,
- the Decennial Master Address File (DMAF),
- the Hundred Percent Census Edited File with reinstated cases (HCEF_D'),
- the Hundred Percent Census Unedited File (HCUF),
- the Planning Database,
- the Master Activity Schedule (MAS), and
- the Pre-appointment Management System/Automated Decennial Administrative Management System (PAMS/ADAMS).

The Census Bureau created the MAF, UU/L, and census universes using the March 2001 MAF extract. We defined the MAF universe as all housing units in UU/L areas: variable GQ_HUF=0 or 3 and variable TEA=7. After identifying the MAF universe, we limited analysis to addresses without a surviving MAFID: variable SW_COID=blank. In this way, we excluded from our analysis any housing units that were known to be a duplicate of another address on the MAF. We refer to the unduplicated MAF addresses in UU/L areas as the UU/L universe. We refer to all addresses with variable CENFLG=Y as the census universe. See Appendix A for a complete description of the March 2001 MAF extract variables used to create the MAF, UU/L, and census universes.

Using the MAFID variable, we matched the UU/L universe with the DMAF housing units (variable GQFLG=0 or 3) to identify which UU/L addresses were on the DMAF. The MAFID variable is a unique identifier assigned to each housing unit on the MAF. The records on both the DMAF and in the UU/L universe became our DMAF universe. See Appendix B for more detailed DMAF variable descriptions.

The HCEF_D' contributed the demographic characteristics of the households and people in UU/L areas. First, we removed from the analysis all HCEF_D' person records in group quarters (variable RT= 5), thus limiting the analysis to people in housing units. We merged together the HCEF_D' person and housing unit records by variables PUID and MAFID, respectively. We matched the HCEF_D' records to the UU/L universe by the variable MAFID, and records common to both files became the HCEF_D' universe. See Appendix C for more detailed HCEF_D' variable descriptions.

The HCUF identified the mail return status of UU/L addresses. We matched the housing unit-level HCUF records to the UU/L universe by variable MAFID. Records in common to both files became our HCUF universe. See Appendix D for more detailed HCUF variable descriptions.

The Planning Database provided a 1990 census tract-level hard-to-count score for the UU/L universe. We matched the Planning Database and UU/L universe by two equivalent measures: variable GIDTRACT on the Planning Database and the concatenation of variables state, county, and Census 2000 census tract on the UU/L universe. If the Census 2000 census tract number had fewer than six digits, we filled the tract number with zeros to make it equivalent to the 11-digit GIDTRACT variable. See Appendix E for a more detailed description of GIDTRACT.

The MAS identified the timing of the UU/L operation, and the PAMS/ADAMS provided the cost numbers for the UU/L operation.

2.2 Levels of geography used to analyze numbers

During UU/L, collection geography, based on features shown on census maps, was used to help enumerators identify their assignment areas in the field. When reporting the state-level number of blocks and housing units in UU/L (Appendix O), we use collection geography. For other state-level appendixes, we report tabulation geography, which is a housing unit's location for data tabulation purposes. In general, collection state and county would not be different from tabulation state and county, but they could be different, on occasion, because of keying, mapping, or other errors.

2.3 Reporting of self-initiated responses as mail returns

We referred to paper mailback questionnaires, Be Counted forms, Internet, Telephone Questionnaire Assistance, and Coverage Edit Followup responses as mail returns, RSOURCE on the HCUF=01, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 30, 31, 32, 33, 34, 35, or 36. Appendix D gives a complete description of the RSOURCE values.

2.4 Applying quality assurance procedures

We applied quality assurance procedures throughout the creation of this report. They encompassed how we determined evaluation methods, created specifications for project procedures and software, designed and reviewed computer systems, developed computer procedures, analyzed data, and prepared this report.

3. LIMITATIONS

3.1 Questionnaire delivery status of “verify” not data captured

The questionnaire delivery action code variable on the March 2001 MAF extract had the following possible outcomes:

- addition
- correction
- block move
- deletion (nonexistent)
- nonresidential
- verify

For the UU/L universe, the verify code was not data captured. We assumed housing units with a missing questionnaire delivery status were verified. Using this assumption, the number verified is probably overstated.

3.2 Hard-to-count scores not available for every Census 2000 census tract

The Planning Database has hard-to-count scores for 1990 census tracts. For 1990 census tracts that do not geographically correspond to Census 2000 census tracts, a hard-to-count score is not available.

3.3 Number of housing units at the basic street address overstated

The “Number of Units at This Basic Street Address” variable is overstated. It is based on addresses that are eligible to be in the census instead of on addresses included in the census. We used this variable to determine whether an address belonged to a single- or multi-unit basic street address.

3.4 Number of families served at drop point overstated

The “Number of Families Served at Drop Point” variable is used to determine whether the housing unit is drop delivery; that is, mail is delivered to a central location instead of individual units of a multi-unit structure. The variable also indicates when there are multiple families at an individual housing unit. Therefore, the variable overstates the number of drop delivery points.

3.5 Comparing results to previous censuses not trivial

The type-of-enumeration areas (TEAs), enumeration methodologies, and analysis variables for Census 2000 can differ from previous censuses. Caution should be taken when comparing results across censuses. An example of an analysis variable that has changed from 1990 is size of structure—the closest approximation being number of housing units at the basic street address in Census 2000. In the 1990 census, we had a census question asking the respondent about the number of housing units in the structure. In Census 2000, we defined the number of housing units at the basic street address based on an address-level algorithm.

4. RESULTS

The results section answers questions at the national level concerning the extent of address updating in UU/L areas, the degree of targeting in UU/L areas, and the demographics of households and people enumerated in UU/L areas.

4.1 What was the extent of address updating in Urban Update/Leave areas?

Table 1 shows what happened during questionnaire delivery to UU/L addresses that were printed in the UU/L address registers. Our universe approximating the UU/L address registers is UU/L addresses on the DMAF less UU/L addresses added during questionnaire delivery. For each address in an address register, an enumerator compared the address information in the register to what was on the ground. The enumerator either verified (i.e., accepted) the house number and street name address/location description or updated the address. Enumerators performed the following address updates: correction of street name and/or unit designation of an address or deletion of nonexistent or nonresidential addresses. A block move took place when an address was deleted in one block and added in another. The classification of block move occurred during processing and not during the UU/L operation. If an address was both corrected and moved, we classify the address as a block move.

Table 1. Address verification and updates during questionnaire delivery for addresses printed in the Urban Update/Leave address registers

Questionnaire delivery action during Urban Update/Leave		Number	Percent
Total housing units		267,005	100.0
Verification	(acceptable)	218,772	81.9
Update		48,233	18.1
	Correction	7,371	2.8
	Block move*	1,851	0.7
	Nonexistent	35,376	13.2
	Nonresidential	3,635	1.4

Data sources: March 2001 MAF extract and DMAF

*If an address was both corrected and moved, we classify the address as a block move.

Most addresses—81.9 percent—were acceptable as listed in the address registers. A total of 18.1 percent of addresses had updates. The most frequent update was deletion, 14.6 percent (nonexistent or nonresidential addresses). Appendixes G and H contain the state-level and in-census state-level totals for Table 1, respectively.

There were 13,131 UU/L additions during questionnaire delivery, a 4.9 percent increase to the addresses printed in the address registers. Of these additions, 13,081 made it to the DMAF, and 10,455 were in the census. The 50 additions that did not make it to the DMAF either could not be geocoded—that is, linked to an address range in the Topologically Integrated Geographic Encoding and Referencing (TIGER) database—or were deleted by two or more census operations. The 2,626 additions on the DMAF and not in the census were deleted addresses; that is, they were determined not to be valid housing units. Addresses either excluded from or included in the census may have been categorized erroneously. The DMAF and in-census state-level tables for additions are in Appendix I.

In the following sections, we give some descriptive statistics about the additions, deletions (nonexistent and nonresidential addresses), corrections, and block moves.

4.1.1 Characteristics of additions

There were 12,843 UU/L collection blocks. A total of 9,884 of these blocks, or 77.0 percent, did not have any additions during questionnaire delivery. Table 2 presents the clustering of additions for the 2,959 blocks with at least one addition. Most of the blocks with additions—2,697 blocks, or 91.1 percent—contained nine or fewer additions. Of the blocks with additions, 125 blocks, or 4.2 percent, did not have any housing units in the block prior to the address updating process.

Table 2. Counts of collection blocks by number of additions per block

Number of housing units added	Number of blocks	Percent of blocks
1 or more	2,959	100.0
1	1,240	41.9
2-9	1,457	49.2
10-19	167	5.6
20-59	81	2.7
60-99	6	0.2
100+	8	0.3

Data source: March 2001 MAF extract

Table 3 is a description of the addresses by type of address. We classify addresses into five categories based on the highest criterion met. The categories are complete city-style, complete rural route, complete post office box, incomplete address, and no address information.

- The complete city-style category includes all housing units that had a complete city-style address, which consists of a house number and street name.
- The complete rural route category includes housing units that did not have a complete city-style address, but did have a complete rural route (or highway contract route) address, such as Rural Route 2, Box 3.
- The complete post office box category includes housing units that did not have a complete city-style or complete rural route address, but did have a complete post office box address, such as P.O. Box 5.
- The incomplete category includes housing units that had some address information, but did not have a complete address of any type.

- The no address information category includes housing units that are missing house number, street name, rural route, and post office box information.

Addresses are further delineated by whether or not the address had a physical/location description provided during a census field operation. For additional information on how this variable was defined, see U.S. Census Bureau, 2001h.

Most of the UU/L additions, 91.0 percent, were complete city-style addresses. The majority of the remaining addresses had incomplete address information. Appendix J has the state-level totals for Table 3.

Table 3. Type of address: additions

Address type	Number	Percent
Total housing units	13,131	100.0
Complete city-style	11,954	91.0
With location	39	0.3
Without location	11,915	90.7
Complete rural route	0	0.0
With location	0	0.0
Without location	0	0.0
Complete post office box	0	0.0
With location	0	0.0
Without location	0	0.0
Incomplete address	1,021	7.8
With location	6	0.0
Without location	1,015	7.7
No address	156	1.2
With location	131	1.0
Without location	25	0.2

Data source: March 2001 MAF extract

Table 4 shows the UU/L additions by number of housing units at the basic street address. Most of the additions, 63.9 percent, were single units. Of the multi-unit basic street addresses, 45.4 percent were 2-4 units. Appendix N has the state-level totals for Table 4.

Table 4. Number of housing units at the basic street address: additions

Number of housing units at the basic street address	Number	Percent
Total housing units	13,131	100.0
Single unit	8,395	63.9
Multi-unit	4,736	36.1
2-4 units	2,149	16.4
5-9 units	634	4.8
10-19 units	387	2.9
20-49 units	458	3.5
50+ units	1,108	8.4

Data source: March 2001 MAF extract

Table 5 identifies the original source for additions. The original source is the first operation or file to add the address to the MAF, with the following three qualifications:

- If one operation added an address, but a later operation also identified the address in a different TEA, the first operation does not receive credit for adding this address.
- An address may not have sufficient operation information to indicate how the address was added to the MAF.
- In cases where one MAF-building operation overlapped with at least one other MAF-building operation and the address was added independently in each operation, we give credit to each operation. An example of this is the original source category, “Local Update of Census Addresses (LUCA) 1998 and Block Canvassing.”

Therefore, the original source variable identifies the first operation or operations to add the address to the TEA in which it exists for the census, provided there is sufficient information to identify a TEA and an operation. For additional information on how this variable was defined, see U.S. Census Bureau, 2001b.

For additions, we collapsed the original source based on whether or not the original source included UU/L and whether the original source(s) pre- or post-dated the address register (AR). The following four categories emerged:

- original source(s) that provided an address before creation of the UU/L address register (pre-AR),
- original source of UU/L,
- original source of UU/L and original source(s) that post-dated the creation of the UU/L address register (post-AR), and
- original source(s) post-AR.

For pre-AR original sources, a housing unit address was on the MAF but was not DMAF deliverable, and therefore was left off the UU/L address register. The UU/L program independently added these housing units. For post-AR original sources, the file or operation credited as the original source coincided with or post-dated the UU/L address register. The fact that the original source was not UU/L for all of the additions highlights the multiplicity of overlapping operations and file sources in the census in general and UU/L areas in particular.

Nearly two-thirds of added addresses, 65.6 percent, had UU/L as one of the original sources. For addresses with UU/L as the only original source, UU/L was the first and perhaps only source for that address.

Table 5. Original source: additions

Original source	Number	Percent
Total housing units	13,131	100.0
Pre-AR*	3,398	25.9
UU/L	8,113	61.8
UU/L and post-AR**	501	3.8
Post-AR**	1,119	8.5

Data source: March 2001 MAF extract

* Pre-AR includes the 1990 Address Control File, November 1997 Delivery Sequence File (DSF), September 1998 DSF, block canvassing, LUCA 1998, and Supplemental LUCA 1998.

**Post-AR appears in two original source categories: (1) UU/L and post-AR, and (2) post-AR. For original source of UU/L and post-AR, the post-AR original source is the April 2000 DSF and/or New Construction. For original source of post-AR, the post-AR original source includes the November 1999 DSF, February 2000 DSF, and New Construction.

4.1.2 *Characteristics of deletions*

There were 12,843 UU/L collection blocks. A total of 5,045 UU/L blocks had no housing units printed in the address registers at the time of questionnaire delivery. Of the 7,798 UU/L blocks with housing units in the address registers, 3,441 blocks, or 44.1 percent, did not have any deletions during questionnaire delivery. Table 6 presents the clustering of deletions for the 4,357 blocks with at least one deletion.

About half, 50.7 percent, of the blocks with at least one deletion had 2-9 housing units deleted.

Table 6. Counts of collection blocks by number of deletions per block

Number of housing units deleted	Number of blocks	Percent of blocks
1 or more	4,357	100.0
1	1,434	32.9
2-9	2,210	50.7
10-19	373	8.6
20-59	256	5.9
60-99	42	1.0
100+	42	1.0

Data source: March 2001 MAF extract

Table 7 shows the type of address for deletions. Nearly all, 97.5 percent, of deletions were complete city-style addresses. The majority of the remaining addresses had incomplete address information. Appendix K has the state-level totals for Table 7.

Table 7. Type of address: deletions

Address type	Number	Percent
Total housing units	39,011	100.0
Complete city-style	38,034	97.5
With location	258	0.7
Without location	37,776	96.8
Complete rural route	6	0.0
With location	6	0.0
Without location	0	0.0
Complete post office box	10	0.0
With location	10	0.0
Without location	0	0.0
Incomplete address	961	2.5
With location	957	2.5
Without location	4	0.0
No address	0	0.0
With location	0	0.0
Without location	0	0.0

Data source: March 2001 MAF extract

Table 8 shows the number of housing units at the basic street address for deletions. Most of the

deletions, 56.1 percent, were in multi-unit structures. Of the multi-unit basic street addresses, 20.3 percent were 2-4 units and 63.3 percent were 50+ units. Looking back to UU/L additions (Table 4), the majority of additions were single unit, 63.9 percent. The greater number of multi-unit deletions versus single-unit deletions may be a function of enumerators cleaning up duplication introduced during the creation of the Master Address File. Multiple file sources were used to create the Master Address File, and the same unit within a multi-unit structure may have been put on the file more than once because of variations in the basic street address, unit designations, or the absence of unit designations. Appendix N has the state-level totals for Table 8.

Table 8. Number of housing units at the basic street address: deletions

Number of housing units at the basic street address	Number	Percent
Total housing units	39,011	100.0
Single unit	17,110	43.9
Multi-unit	21,901	56.1
2-4 units	4,439	11.4
5-9 units	1,475	3.8
10-19 units	887	2.3
20-49 units	1,234	3.2
50+ units	13,866	35.5

Data source: March 2001 MAF extract

Table 9 shows that the greatest number of deletions had the original source as the 1990 Address

Control File, which was also the most dated source.

Table 9. Original source: deletions

Original source	Number	Percent
Total housing units	39,011	100.0
1990 Address Control File	19,422	49.8
November 1997 DSF	6,276	16.1
September 1998 DSF	559	1.4
Block canvassing	5,657	14.5
LUCA 1998 or Supplemental LUCA 1998	6,628	17.0
Block canvassing and LUCA 1998	417	1.1
LUCA 1998 and September 1998 DSF	40	0.1
Address listing	12	0.0

Data source: March 2001 MAF extract

4.1.3 Characteristics of corrections

There were 12,843 UU/L collection blocks. Of these, 5,045 had no housing units printed in the address registers at the time of questionnaire delivery. Of the 7,798 UU/L blocks with housing units in the address registers, 6,407 blocks, or 82.2 percent, did not have any corrections during questionnaire delivery.

Table 10 presents the clustering of corrections for the 1,391 blocks with at least one correction. Most of the blocks with corrections—1,226, or 88.1 percent—were blocks with nine or fewer corrections. Corrections include changing the street name and/or unit designation of an address, which might affect multiple housing units.

Table 10. Counts of collection blocks by number of corrections per block

Number of housing units corrected	Number of blocks	Percent of blocks
1 or more	1,391	100.0
1	590	42.4
2-9	636	45.7
10-19	111	8.0
20-59	45	3.2
60-99	5	0.4
100+	4	0.3

Data source: March 2001 MAF extract

Table 11 contains a breakdown of type of address for the corrections. Most of the UU/L corrections, 95.1 percent, were complete city-style addresses. The majority of the remaining addresses had incomplete address information. Appendix L has the state-level totals for Table 11.

Table 11. Type of address: corrections

Address type	Number	Percent
Total housing units	7,371	100.0
Complete city-style	7,008	95.1
With location	152	2.1
Without location	6,856	93.0
Complete rural route	1	0.0
With location	1	0.0
Without location	0	0.0
Complete post office box	3	0.0
With location	3	0.0
Without location	0	0.0
Incomplete address	359	4.9
With location	357	4.8
Without location	2	0.0
No address	0	0.0
With location	0	0.0
Without location	0	0.0

Data source: March 2001 MAF extract

Table 12 contains a breakdown for the corrections by number of housing units at the basic street

address. The majority of the corrections (57.7 percent) occurred in single units. For multi-units, 38.2 percent of the corrections were 2-4 units in size. Appendix N has the state-level totals for Table 12.

Table 12. Number of housing units at the basic street address: corrections

Number of housing units at the basic street address	Number	Percent
Total housing units	7,371	100.0
Single unit	4,254	57.7
Multi-unit	3,117	42.3
2-4 units	1,190	16.1
5-9 units	465	6.3
10-19 units	229	3.1
20-49 units	435	5.9
50+ units	798	10.8

Data source: March 2001 MAF extract

Table 13 shows that corrections occurred for a sizable number of addresses whose original

source was the 1990 Address Control File, the November 1997 DSF, and block canvassing.

Table 13. Original source: corrections

Original source	Number	Percent
Total housing units	7,371	100.0
1990 Address Control File	3,301	44.8
November 1997 DSF	2,024	27.5
September 1998 DSF	141	1.9
Block canvassing	1,651	22.4
LUCA 1998 or Supplemental LUCA 1998	85	1.2
Block canvassing and LUCA 1998	138	1.9
LUCA 1998 and September 1998 DSF	30	0.4
Address listing	1	0.0

Data source: March 2001 MAF extract

4.1.4 Characteristics of block moves

There were 12,843 UU/L collection blocks. Of these, 5,045 had no housing units printed in the address registers at the time of questionnaire delivery. Of the 7,798 UU/L blocks with housing units in the address registers, 7,186 blocks, or 92.2 percent, did not have any block moves during questionnaire delivery. Table 14 presents the clustering of block moves for the 612 blocks with at least one block move.

About half, 54.6 percent of the blocks with at least one housing unit moved to another block had only one move; and 93.3 percent of the blocks had nine or fewer moves.

Table 14. Counts of collection blocks by number of block moves per block

Number of housing units moved	Number of blocks	Percent of blocks
1 or more	612	100.0
1	334	54.6
2-9	237	38.7
10-19	34	5.6
20-59	7	1.1

Data source: March 2001 MAF extract

Table 15 shows that all of the block moves were complete city-style addresses. For an address to be identified as a block move, it has to be identified as the same unit during processing, which

could be done only for complete addresses. Appendix M has the state-level totals for Table 15.

Table 15. Type of address: block moves

Address type	Number	Percent
Total housing units	1,851	100.0
Complete city-style	1,851	100.0
With location	3	0.2
Without location	1,848	99.8
Complete rural route	0	0.0
With location	0	0.0
Without location	0	0.0
Complete post office box	0	0.0
With location	0	0.0
Without location	0	0.0
Incomplete address	0	0.0
With location	0	0.0
Without location	0	0.0
No address	0	0.0
With location	0	0.0
Without location	0	0.0

Data source: March 2001 MAF extract

Table 16 contains a breakdown for the moves by number of housing units at the basic street address. The majority of the moves (79.8 percent) occurred in single units. For multi-units, 50.0 percent of the moves were 2-4 units in size. Appendix N has the state-level totals for

Table 16.

Table 16. Number of housing units at the basic street address: block moves

Number of housing units at the basic street address	Number	Percent
Total housing units	1,851	100.0
Single unit	1,477	79.8
Multi-unit	374	20.2
2-4 units	187	10.1
5-9 units	40	2.2
10-19 units	42	2.3
20-49 units	53	2.9
50+ units	52	2.8

Data source: March 2001 MAF extract

Table 17 shows that block moves occurred for a sizable number of addresses whose original source was the 1990 Address Control File, the November 1997 DSF, and block canvassing.

Table 17. Original source: block moves

Original source	Number	Percent
Total housing units	1,851	100.0
1990 Address Control File	909	49.1
November 1997 DSF	658	35.5
September 1998 DSF	29	1.6
Block canvassing	206	11.1
LUCA 1998	20	1.1
Block canvassing and LUCA 1998	21	1.1
LUCA 1998 and September 1998 DSF	8	0.4

Data source: March 2001 MAF extract

4.2 How well was Urban Update/Leave targeted?

The MAF had 314,059 residential addresses in UU/L blocks. After removing known duplicates,

there were 310,114 addresses. Of the 310,114 addresses, 280,086 addresses, or 90.3 percent, were delivered to the DMAF. Ultimately, 238,216 UU/L addresses, or 85.1 percent of the DMAF addresses, were enumerated in the census as either occupied or vacant housing units.

The 30,028 addresses that did not make it from the MAF to the DMAF either could not be geocoded or were deleted by two or more census operations. The 41,870 addresses on the DMAF and not in the census were deleted addresses; that is, they were determined not to be valid housing units. Addresses either excluded from or included in the census may have been categorized erroneously. This section discusses the 238,216 addresses that were in the census.

Nationally, eight RCCs designated 12,843 blocks as UU/L. Of the UU/L blocks with housing units, the majority, 86.7 percent, were in three regions: Boston, Dallas, and Seattle.

Not all UU/L blocks had housing units; 5,186 blocks, 40.4 percent, had no housing units. In two RCCs, Dallas and Seattle, over half of the UU/L blocks had no housing units. The high percentage of blocks with no housing units indicates that many blocks did not have the high housing unit densities expected for UU/L areas. The blocks with no housing units could be blocks consisting of only commercial structures and may be included in the UU/L areas to create contiguous assignment areas.

The average number of housing units per block with housing units was 31.1. This number varied widely by RCC. Chicago, Detroit, and Atlanta had the densest UU/L blocks with an average of 312.1, 97.4, and 82.3 housing units per block with housing units, respectively. The other RCCs had averages ranging from 21.5 to 35.6 housing units per block with housing units. Appendix O has the state-level totals for Table 18.

Table 18. Number of Urban Update/Leave blocks and Urban Update/Leave housing units in the census by regional census center

Regional census center	Urban Update/Leave blocks			Number of housing units	Average number of housing units per block*
	Total	With housing units	Without housing units		
Total	12,843	7,657	5,186	238,216	31.1
Atlanta	414	357	57	29,390	82.3
Boston	3,520	2,854	666	66,278	23.2
Chicago	79	76	3	23,723	312.1
Dallas	4,554	2,141	2,413	51,274	23.9
Denver	88	76	12	1,636	21.5
Detroit	9	7	2	682	97.4
Philadelphia	579	502	77	17,859	35.6
Seattle	3,600	1,644	1,956	47,374	28.8

Data source: March 2001 MAF extract

*Average is for blocks with at least one housing unit.

Most of the UU/L addresses, 99.1 percent, were complete city-style addresses (see Table 19). Overall, 128 UU/L housing units, or 0.1 percent of the UU/L housing units in the census, had complete post office box addresses (not shown). Though not surprising—because this operation occurred in urban areas of the country, which typically have complete city-style addresses—targeting areas for Urban Update/Leave where many residents picked up their mail at post office boxes was not successful. The majority of the remaining addresses in the address hierarchy had incomplete address information. Appendix P has the state-level totals for Table 19.

Table 19. Type of address for Urban Update/Leave housing units in the census

Address type	Number	Percent
Total housing units	238,216	100.0
Complete city-style	236,090	99.1
With location	871	0.4
Without location	235,219	98.7
Complete rural route	6	0.0
With location	6	0.0
Without location	0	0.0
Complete post office box	23	0.0
With location	23	0.0
Without location	0	0.0
Incomplete address	1,960	0.8
With location	1,352	0.6
Without location	608	0.3
No address	137	0.1
With location	120	0.1
Without location	17	0.0

Data source: March 2001 MAF extract

Tables 20-22 show the number of UU/L housing units in the census as a percent of each UU/L block with housing units for three characteristics: matches to a residential address on the DSF (a list of the addresses serviced by the USPS), multi-unit addresses, and drop delivery addresses. Appendixes Q, R, and S present the state-level totals for Tables 20, 21 and 22, respectively.

Table 20. Number of Urban Update/Leave housing units in the census that match the Delivery Sequence File as a percent of each Urban Update/Leave block

Percent of housing units in a block that match the Delivery Sequence File	Number of blocks	Percent of blocks	Number of housing units	Percent of housing units
Total	7,657	100.0	238,216	100.0
0%	625	8.2	3,835	1.6
Greater than 0% to 25%	187	2.4	5,675	2.4
Greater than 25% to 50%	503	6.6	8,069	3.4
Greater than 50% to 75%	799	10.4	18,962	8.0
Greater than 75% up to 100%	2,602	34.0	151,712	63.7
100%	2,941	38.4	49,963	21.0

Data source: March 2001 MAF extract

Table 21. Number of multi-unit Urban Update/Leave housing units in the census as a percent of each Urban Update/Leave block

Percent of housing units in a block that are multi-unit	Number of blocks	Percent of blocks	Number of housing units	Percent of housing units
Total	7,657	100.0	238,216	100.0
0%	3,925	51.3	47,091	19.8
Greater than 0% to 25%	1,610	21.0	69,196	29.0
Greater than 25% to 50%	910	11.9	27,385	11.5
Greater than 50% to 75%	476	6.2	18,346	7.7
Greater than 75% up to 100%	453	5.9	64,381	27.0
100%	283	3.7	11,817	5.0

Data source: March 2001 MAF extract

Table 22. Number of drop delivery Urban Update/Leave housing units in the census as a percent of each Urban Update/Leave block

Percent of housing units in a block that are drop delivery	Number of blocks	Percent of blocks	Number of housing units	Percent of housing units
Total	7,657	100.0	238,216	100.0
0%	6,917	90.3	185,117	77.7
Greater than 0% to 25%	715	9.3	52,858	22.2
Greater than 25% to 50%	23	0.3	236	0.1
Greater than 50% to 75%	1	0.0	3	0.0
Greater than 75% up to 100%	0	0.0	0	0.0
100%	1	0.0	2	0.0

Data source: March 2001 MAF extract

Tables 20-22 measure how well we targeted areas deemed unsuitable for mail delivery. According to our metrics—the percent of housing units in each UU/L block that match the DSF (Table 20), the percent of housing units in each UU/L block that are in multi-unit structures (Table 21), and the percent of housing units in each UU/L block that are drop delivery (Table 22), we visited many blocks that had no mail delivery problems.

In Table 20, 72.4 percent of blocks and 84.7 percent of housing units were in blocks with greater than 75 percent of the housing units in the block matching the DSF. These are blocks that we would expect the USPS to have success in delivering the mail. On the other hand, 27.6 percent of blocks and 15.3 percent of housing units were in blocks where 75 percent or less of the housing units in the block matched the DSF. Such blocks would presumably present mail delivery challenges for the USPS.

In Table 21, 72.3 percent of blocks and 48.8 percent of housing units were in blocks where 25 percent or less of the housing units in the block were multi-unit addresses. A multi-unit structure has multiple unit designations at the same basic street address; for example, an apartment building. We would expect it to be easier to deliver mail to the correct unit in blocks with lower multi-unit concentrations.

In Table 22, 99.7 percent of blocks and 99.9 percent of housing units were in blocks where 25 percent or less of the housing units in the blocks were drop delivery. In areas where the USPS delivers to a drop delivery point, we have low confidence in the delivery of the right census questionnaire to the corresponding unit within a multi-unit structure.

Overall, there were 2,065 drop delivery addresses, or 0.9 percent of UU/L housing units in the census—the same rate as other TEAs that return their completed questionnaire by mail. Of the

2,065 drop delivery addresses, 613 addresses, or 29.7 percent, were single-unit housing units. The fact that we identified drop delivery addresses at single-unit structures highlights the limitations of the drop delivery and number of housing units at the basic street address variables. Very few areas had high concentrations of drop delivery addresses, and the measure itself was suspect.

Table 23 crosses the number of housing units at the basic street address by DSF match status. Single-unit UU/L housing units in the census were slightly more likely to match the DSF than multi-unit UU/L housing units—87.2 percent versus 85.7 percent, respectively. Both percentages were close to the overall rate of 86.6 percent of UU/L addresses matching the DSF. Appendix T has the state-level totals for Table 23.

Table 23. Number of housing units at the basic street address for Urban Update/Leave housing units in the census by Delivery Sequence File match

Number of housing units at the basic street address	Total	Percent of total	Percent of subcategory
Total housing units	238,216	100.0	NA
DSF match	206,228	86.6	NA
Not DSF match	31,988	13.4	NA
Single unit	136,333	57.2	100.0
DSF match	118,947	49.9	87.2
Not DSF match	17,386	7.3	12.8
Multi unit	101,883	42.8	100.0
DSF match	87,281	36.6	85.7
Not DSF match	14,602	6.1	14.3

Data source: March 2001 MAF extract

NA-not applicable

Matching the Census 2000 census tracts to the Planning Database, 189,045 addresses, 79.4 percent of UU/L addresses in the census, were in tracts that could be matched.

Table 24 shows the hard-to-count classes for UU/L addresses that match to a census tract on the Planning Database. Of the 424 census tracts that had UU/L housing units in the census, 355, or 83.7 percent, could be matched to a census tract on the Planning Database.

The hard-to-count scores are a composite measure of characteristics correlated with success in counting people. The list of variables used to create the hard-to-count score is in Appendix F. The scores, from 0 to 132, are grouped into ten classes, with one being the most difficult to count and ten being the easiest to count.

Close to one-quarter of the addresses were in the hardest hard-to-count class. Nearly half of the addresses, 47.1 percent, were in the top three hard-to-count classes (classes 1, 2, and 3). Nearly one-quarter of the addresses were in the bottom three hard-to-count classes (classes 8, 9, and 10). So, while we identified addresses in the hardest-to-count classes, we also identified addresses in tracts not considered hard-to-count. Appendix U presents the state-level totals for Table 24.

Table 24. Hard-to-count classes for Urban Update/Leave housing units in the census

Hard-to-count class	Number	Percent	Cumulative Percent
Total housing units	189,045	100.0	
1 hardest-to-count	45,877	24.3	24.3
2	28,237	14.9	39.2
3	14,913	7.9	47.1
4	14,991	7.9	55.0
5	12,874	6.8	61.8
6	7,627	4.0	65.9
7	17,952	9.5	75.4
8	20,816	11.0	86.4
9	17,203	9.1	95.5
10 easiest-to-count	8,555	4.5	100.0

Data sources: March 2001 MAF extract and Planning Database

Table 25 shows how many UU/L census addresses were in Nonresponse Followup and Coverage Improvement Followup operations. The analysis includes all UU/L addresses delivered to the DMAF, 280,086 addresses.

A greater percent of UU/L addresses on the DMAF required contact in Nonresponse Followup than in Coverage Improvement Followup, 45.2 percent versus 16.2 percent, respectively.

Table 25. Nonresponse Followup and Coverage Improvement Followup status

Status	Nonresponse Followup		Coverage Improvement Followup	
	Number	Percent	Number	Percent
Total	280,086	100.0	280,086	100.0
In operation	249,954	89.2	274,171	97.9
Required contact	126,677	45.2	45,391	16.2
In census	106,015	37.9	22,505	8.0
Not in census	20,662	7.4	22,886	8.2
Did not require contact	123,277	44.0	228,780	81.7
In census	122,095	43.6	212,967	76.0
Not in census	1,182	0.4	15,813	5.6
Not in operation	30,132	10.8	5,915	2.1

Data source: HCEF_D'

Table 26 shows the occupancy status for those housing units in the census. The UU/L vacancy rate, 14.9 percent, was higher than the national rate, 9.0 percent. (For national comparisons, see U.S. Census Bureau, 2001e.) Appendix V presents the state-level data for Table 26.

Table 26. Occupancy status

Occupancy status	Total housing units	
	Number	Percent
Total	238,216	100.0
Vacant	35,467	14.9
Occupied	202,749	85.1

Data source: HCEF_D'

Collectively, Tables 25 and 26 show that maybe some UU/L areas should have been designated as Update/Enumerate areas to save the additional visits to the housing unit during Nonresponse Followup and/or Coverage Improvement Followup. In Update/Enumerate areas, enumerators administer the census questionnaire during the same visit that they are updating their address registers and census maps, instead of leaving the questionnaire and perhaps having to revisit the housing unit in Nonresponse Followup and/or Coverage Improvement Followup.

Table 27 contains a breakdown of the number of housing units at the basic street address (single-unit versus multi-unit) by whether the housing unit returned a questionnaire by mail. The analysis is limited to occupied housing units because only occupied housing units have the ability to respond by mail. (Appendix W has the state-level totals for Table 27.) Overall, 68.7 percent of occupied housing units returned their questionnaires by mail. Single units were more likely to respond by mail, 74.3 percent, than addresses in multi-unit structures, 60.1 percent. Note that these numbers are not the official mail response or mail return rates for UU/L. For additional information on the official mail response and mail return rates, see U.S. Census Bureau, 2001f and U.S. Census Bureau, 2001g, respectively.

Table 27. Number of housing units at the basic street address by mail return status

Number of housing units at the basic street address	Total	Occupied housing units enumerated by mail	
		Number	Percent
Total occupied housing units	202,749	139,194	68.7
Single unit	122,150	90,722	74.3
Multi-unit	80,599	48,472	60.1
2-4 units	22,792	12,324	54.1
5-9 units	7,540	3,828	50.8
10-19 units	5,539	3,086	55.7
20-49 units	9,197	5,730	62.3
50+ units	35,531	23,504	66.2

Data sources: HCEF_D' and HCUF

Table 28 shows the number of housing units in the census that responded by either Telephone Questionnaire Assistance, Internet, or Be Counted. The table distinguishes between housing units that responded exclusively by the indicated method (“Only” column) and those that responded in combination with one or more other types of responses (“In combination” column). Few housing units responded by Telephone Questionnaire Assistance, Internet, or the Be Counted program, which are respondent-initiated enumerations. Appendix X provides the state-level totals for Table 28.

Table 28. Telephone Questionnaire Assistance, Internet, Be Counted responses by whether only response or response in combination with other types of responses

	Total	Only	In combination
Telephone Questionnaire Assistance	340	82	258
Internet	107	101	6
Be Counted	1,374	306	1,068

Data source: DMAF

4.3 What were the demographic characteristics of the households and people living in Urban Update/Leave areas?

The analysis in this section looks at people enumerated in the census. So, the analysis is limited to occupied housing units in the census.

4.3.1 Household demographics

Table 29 shows the number and percent of owned and rented UU/L housing units that returned their questionnaires by mail. Appendix Y has the state-level totals for Table 29.

Table 29. Tenure by mail return status

Tenure	Total	Occupied housing units enumerated by mail	
		Number	Percent
Total occupied housing units	202,749	139,194	68.7
Owned	115,334	89,322	77.4
Rented	87,415	49,872	57.1

Data sources: HCEF_D' and HCUF

A greater percent of UU/L owner-occupied housing units returned their questionnaires by mail, 77.4 percent, than UU/L renter-occupied housing units, 57.1 percent.

Here are summary statistics for UU/L enumerated households and comparisons to national totals:

- The average household size in UU/L areas was 2.5 persons, compared to 2.6 persons nationally.
- Of occupied housing units, 43.1 percent were rented, compared to 33.8 percent nationally.

4.3.2 Person-level demographics

Tables 30-33 show the number and percent of persons broken down by sex, age, Hispanic origin, and race that were enumerated on questionnaires returned by mail in UU/L. Appendixes Z, AA, BB, and CC have the state-level totals for Tables 30-33, respectively.

Table 30. Sex by mail return status

Sex	Total	Persons enumerated by mail	
		Number	Percent
Total	511,195	349,123	68.3
Male	247,770	167,007	67.4
Female	263,425	182,116	69.1

Data sources: HCEF_D' and HCUF

Table 30 shows that females were more likely than males to be enumerated by mail, 69.1 percent versus 67.4 percent, respectively. In addition, females were more likely than the average, 68.3 percent, to be enumerated by mail.

Table 31. Age by mail return status

Age	Total	Persons enumerated by mail	
		Number	Percent
Total	511,195	349,123	68.3
<18 years old	139,811	89,019	63.7
18 to 24 years old	44,951	25,921	57.7
25 to 34 years old	66,775	41,377	62.0
35 to 44 years old	82,253	56,114	68.2
45 to 54 years old	71,147	52,174	73.3
55 to 64 years old	44,002	33,937	77.1
65+ years old	62,256	50,581	81.2

Data sources: HCEF_D' and HCUF

Table 31 shows that persons aged 45 and over were more likely than the average to be enumerated by mail. Persons under 35 years old were less likely than average to be enumerated by mail. Persons 35 to 44 years in age were as likely as the total to be enumerated by mail, 68.2 percent compared to 68.3 percent, respectively. Note: each age category does not contain the same number of years.

Table 32. Hispanic origin by mail return status

Hispanic origin	Total	Persons enumerated by mail	
		Number	Percent
Total	511,195	349,123	68.3
Non-Hispanic	446,916	309,436	69.2
Hispanic	64,279	39,687	61.7

Data sources: HCEF_D' and HCUF

Table 32 shows that non-Hispanics were more likely than average to be enumerated by mail, 69.2 percent for non-Hispanics versus 68.3 percent overall.

Table 33. Race by mail return status

Race	Total	Persons enumerated by mail	
		Number	Percent
Total	511,195	349,123	68.3
White	359,894	267,300	74.3
African American	88,923	45,670	51.4
American Indian/Alaska Native	4,823	2,697	55.9
Asian	13,667	9,578	70.1
Native Hawaiian/Pacific Islander	657	245	37.3
Some other race	30,343	16,366	53.9
Two or more races	12,888	7,267	56.4

Data sources: HCEF_D' and HCUF

Table 33 shows whites and Asians were more likely than average to be enumerated by mail, 74.3 percent and 70.1 percent, respectively. Other races were less likely than average to be enumerated by mail.

The Census Bureau enumerated 511,195 persons in UU/L, 68.3 percent on questionnaires returned by mail. The percent of enumerated persons who responded by mail shows how often different groups responded by the prescribed method. In terms of the demographics listed in Tables 30-33, persons 65 years and over were the most compliant, 81.2 percent. Persons 18 to 24 years old had the lowest percent of the different age groups, 57.7 percent. Most nonwhite groups had a lower percent enumerated by mail relative to total persons enumerated by mail.

Here are summary statistics for the UU/L enumerated persons and comparisons to national totals:

- Of UU/L persons, 48.5 percent were male. Nationally, 49.1 percent were male.
- Of UU/L persons, 27.3 percent were under 18 years old. Nationally, 25.7 percent were under 18 years old.
- Of UU/L persons, 12.6 percent were Hispanic. Nationally, 12.5 percent were Hispanic.
- Of UU/L persons, 17.4 percent were African American. Nationally, 12.3 percent were African American.
- Of UU/L persons, 0.9 percent were American Indian/Alaska Native, the same rate as nationally.

The UU/L operation had a higher percentage of renters, a lower percentage of males, a greater percentage under 18 years old, and a greater percentage of African Americans than nationwide. The greater percentage of renters, persons under 18 years old, and African Americans were

encouraging numbers in terms of potentially improving coverage in traditionally undercounted groups.

4.4 Was Urban Update/Leave completed on time and at what cost?

Urban Update/Leave was conducted from March 3 to March 31, 2000, as planned.

The total field cost of UU/L was \$1,284,506, or \$4.59 per housing unit for the 280,136 housing units on or added to the UU/L address registers. Additional costs, not included here, were headquarters costs, local census office infrastructure costs, and costs for housing units that required visits during census followup operations.

Table 34 shows the field cost by expenditure category.

Table 34. Field cost by expenditure category

Expenditure category	Field cost	Percent
Total	\$1,284,506	100.0
Salaries	\$1,149,861	89.5
Regular	\$774,570	60.3
Training	\$355,652	27.7
Overtime	\$18,200	1.4
Night Differential	\$1,439	0.1
Reimbursables	\$134,645	10.5
Mileage	\$128,363	10.0
Telephone	\$721	0.1
Other	\$5,561	0.4

Data source: PAMS/ADAMS

Field costs can be divided into salaries (regular, training, overtime, night differential) and reimbursable costs (mileage, telephone, other):

- Salaries: \$1,149,861 (89.5 percent of the total cost)
- Reimbursables: \$134,645 (10.5 percent of the total cost)

Most of the cost of the operation was the regular salary, training salary, and mileage reimbursable: \$774,570, 60.3 percent; \$355,652, 27.7 percent; and \$128,363, 10.0 percent, respectively.

Another way to evaluate costs is to compare the mail response rate needed to conduct the enumeration in UU/L areas using the Mailout/Mailback methodology and keeping the cost constant. The UU/L cost for the 280,136 housing units on or added to the UU/L address registers is \$5,022,977. The two components of the UU/L cost are the total field cost for the UU/L operation, \$1,284,506, and the cost of NRFU, \$3,738,471. (The unit cost for NRFU is \$26.96 (U.S. Census Bureau, 2002b), and the mail response rate in UU/L areas as of April 18, the NRFU cutoff date, is 50.5 percent (U.S. Census Bureau, 2002d).)

In order for the cost of the Mailout/Mailback scenario to equal the cost of the UU/L scenario (\$5,022,977), the mail response rate would need to be 37.6 percent. This rate is a decrease of 12.9 percentage points from the 50.5 percent observed in UU/L areas using UU/L methodology. Under the Mailout/Mailback scenario, the total cost is equal to the cost of postage plus the cost of NRFU. Postage costs are as follows (U.S. Census Bureau, 2002c):

- \$0.305 postage for the advance letter,
- \$0.525 postage for the short form questionnaire,
- \$1.139 postage for the long form questionnaire, and
- \$0.180 postage for the reminder postcard.

The postage calculation for the Mailout/Mailback scenario assumes a long form sampling rate of one-in-six.

The UU/L enumeration is cost efficient if the differential mail response rate were actually greater than 12.9 percent. This could happen if the census questionnaires are undeliverable by the USPS at a rate of over 12.9 percent or hand delivery of the questionnaires inflates the mail response rate in the UU/L areas by 12.9 percent. Traditionally, the USPS undeliverable rate is about 10 percent.

5. CONCLUSIONS AND RECOMMENDATIONS

We measured the success of UU/L by determining if we improved the address list, identified areas deemed unsuitable for mail delivery, and enumerated at a high rate traditionally undercounted groups. Overall, we were successful in these respects.

We verified 81.9 percent of the address list and updated the remaining 18.1 percent (of which 14.6 percentage points were nonexistent or nonresidential). We added 13,131 addresses, a 4.9 percent increase to the UU/L address registers.

We examined targeting of areas deemed unsuitable for mail delivery by looking at the DSF match rate, number of multi-units, number of post office boxes, and number of drop delivery addresses. We found 27.6 percent of the blocks and 15.3 percent of the housing units had 75 percent or less of the block matching the DSF. These areas might present census questionnaire delivery challenges for the USPS.

The highest average number of UU/L housing units per block with housing units were in Chicago, Detroit, and Atlanta, 312.1, 97.4, and 82.3 housing units per block with housing units,

respectively. The other five regions, Boston, Dallas, Denver, Philadelphia, and Seattle, averaged under 40 housing units per block with housing units. Most areas did not identify blocks with a high concentration of multi-unit structures, 72.3 percent of blocks had 25 percent or less of the block as multi-unit structures.

Most of the UU/L addresses, 99.1 percent, were complete city-style addresses. The majority of the remaining addresses had incomplete address information. Though not surprising—because this operation occurred in urban areas of the country, which typically have complete city-style addresses—targeting areas for Urban Update/Leave where many residents picked up their mail at post office boxes was not successful.

Fewer than one percent of addresses were drop delivery. While these addresses should be included in UU/L, they do not make up a large part of the UU/L housing units in the census. Furthermore, the variable used to identify drop delivery status is not robust. We recommend more field work or better USPS input to identify drop delivery status.

In terms of hard-to-count classes, about one-quarter of the addresses, 24.3 percent, were in the hardest class, and nearly half of the addresses, 47.1 percent, were in the top three classes. Additionally, about one-quarter of the addresses, 24.6 percent, were in the three easiest classes. We should expand our use of the Planning Database to target hard-to-count areas deemed suitable for UU/L.

We enumerated three groups of traditionally undercounted persons at a higher rate than nationally: renters, persons under 18 years old, and African Americans. We enumerated two groups of traditionally undercounted persons at nearly the same rate as nationally: Hispanics and American Indians/Alaska Natives. These traditionally undercounted groups were enumerated by mail at lower percentages than the average household or persons in UU/L areas.

More gains in enumerating areas with these traditionally undercounted groups may possibly be achieved by Update/Enumerate methods; that is, enumerating the housing unit at the time of questionnaire delivery. In addition, Update/Enumerate would eliminate revisiting housing units that do not mail back the questionnaire during Nonresponse Followup and/or Coverage Improvement Followup. UU/L areas had vacancy rates higher than the national average, and most vacant housing units require followup.

While the operation did include some areas that the operation was intended for, it included many areas where the operation was not intended, including the following:

- blocks without housing units,
- areas with higher than average vacancy rates,
- high percentages of blocks with high DSF match rates,
- low percentages of blocks with high concentrations of multi-unit structures,
- areas that did not use post office box delivery,
- and low percentages of blocks with high concentrations of drop delivery housing units.

Furthermore, there could have been places where UU/L should have been used and was not. In

the future, we recommend areas be designated for Urban Update/Leave based on headquarters' objective requirements supplemented by regional office input instead of the current practice of the regions designating areas as Urban Update/Leave subjectively.

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Appendix A: March 2001 Master Address File extract variables

Group Quarters/Housing Unit Flag (GQ_HUF)

- 0: Housing Unit
- 1: Special Place
- 2: Group Quarters
- 3: GQ Embedded Housing Unit

In Census Flag (CENFLG)

- Y: Final Census 2000 record
- N: Not a final Census 2000 record

MAFID

characters 1-2=state code when the MAFID was assigned
characters 3-5=county code when the MAFID was assigned
characters 6-12=control ID

Surviving Within-County ID (SW_COID)

starts with 0000001

Type-of-Enumeration Area (TEA)

Based on 2000 collection block:

- 1: Mailout/Mailback
- 2: Update/Leave
- 3: List/Enumerate
- 4: Remote Alaska
- 5: "Rural" Update/Enumerate (from TEA 2)
- 6: Military in Update/Leave area
- 7: Urban Update/Leave
- 8: "Urban" Update/Enumerate (from TEA 1)
- 9: Update/Leave (from TEA 1)

Appendix B: Decennial Master Address File variables

Group Quarters/Housing Unit Flag (GQFLG)

- 0: Housing Unit
- 1: Special Place
- 2: Group Quarters
- 3: GQ Embedded Housing Unit

MAFID

characters 1-2=state code when the MAFID was assigned
characters 3-5=county code when the MAFID was assigned
characters 6-12=control ID

Appendix C: Hundred Percent Census Edited File with reinstated cases variables

Person Records

Unit ID number (PUID)

characters 1-2=state code when the MAFID was assigned

characters 3-5=county code when the MAFID was assigned

characters 6-12=control ID

Record Type (RT)

3=Housing unit person record

5=Group quarters person record

Housing Unit Records

MAFID

characters 1-2=state code when the MAFID was assigned

characters 3-5=county code when the MAFID was assigned

characters 6-12=control ID

Appendix D: Hundred Percent Census Unedited File variables

Housing Unit Records

MAFID

characters 1-2=state code when the MAFID was assigned

characters 3-5=county code when the MAFID was assigned

characters 6-12=control ID

RSOURCE SOURCE OF RETURN (RECODE) (From DRF2 Processing)

blank	= Not computed
01	= Paper mail back questionnaire from mail out
02	= (not used)
03	= Paper mail back questionnaire from TQA mail out with NO ID
04	= Paper mail back questionnaire from Update Leave
05	= Paper mail back questionnaire from Update Leave ADD
06	= Paper mail back questionnaire from Update Leave SUBSTITUTE
07	= Paper mail back questionnaire from Urban Update Leave
08	= Paper mail back questionnaire from Urban Update Leave ADD
09	= Paper mail back questionnaire from Urban Update Leave SUBSTITUTE
10	= Paper mail back questionnaire from Request for Foreign Language
11	= Paper mail back questionnaire from BCF marked as whole household
12	= Paper mail back questionnaire from BCF partial household (i.e., NOT marked as whole household)
13	= Paper enumerator questionnaire from List Enumerate
14	= Paper enumerator questionnaire from Update Enumerate
15	= Paper enumerator questionnaire from Update Enumerate ADD
16	= Paper enumerator questionnaire from Update Enumerate SUBSTITUTE
17	= Paper enumerator questionnaire from Nonresponse Follow-up (NRFU)
18	= Paper enumerator questionnaire from NRFU ADD
19	= Paper enumerator questionnaire from NRFU SUBSTITUTE
20	= Paper enumerator questionnaire from NRFU Whole Household Usual Home Elsewhere (WHUHE)
21	= Paper enumerator questionnaire from NRFU In-mover
22	= Paper enumerator questionnaire from Coverage Improvement Follow-up (CIFU)
23	= Paper enumerator questionnaire from CIFU ADD
24	= Paper enumerator questionnaire from CIFU SUBSTITUTE
25	= Paper enumerator questionnaire from T-Night
26	= Paper questionnaire for UHE from Service-based Enumeration (SBE) (Individual Census Questionnaire (ICQ))
27	= Paper questionnaire for UHE from Group Quarters (GQ) enumeration (Individual Census Report (ICR))
28	= Paper questionnaire for UHE from Military GQ enumeration (Military Census Report (MCR))
29	= Paper questionnaire for UHE from Shipboard GQ enumeration (Shipboard Census Report (SCR))
30	= Electronic short form from IDC
31	= Electronic TQA reverse-CATI short form
32	= Electronic TQA reverse-CATI BCF for whole household
33	= Electronic TQA reverse-CATI BCF for partial household
34	= Electronic Coverage Edit Follow-up (CEFU) from long or short form
35	= Electronic CEFU from BCF for whole household
36	= Electronic CEFU from IDC
37	= Paper enumerator continuation form – unlinked “orphan”

Appendix E: Planning Database variables

GIDTRACT

State/County/Tract or BNA Code—An 11-digit code. The first two digits denote state, the next three digits denote county, and the last six digits denote 1990 census tract or 1990 block numbering area.

Appendix F: Variables used to compute hard-to-count scores at the 1990 census tract level on the Planning Database

Percent vacant housing units

Percent two or more housing units in structure

Percent occupied housing units rented

Percent occupied housing units with more than one person per room

Percent not husband/wife households

Percent occupied housing units without a telephone

Percent persons 25+ years old who are not high school graduates (no diploma)

Percent persons below poverty level

Percent households receiving public assistance income

Percent of civilian labor force unemployed

Percent linguistically isolated households(no person 14+ years old speaks English very well)

Percent occupied housing units whose householder moved into housing unit 1989 or 1990

Appendix G: Address verification and updates during questionnaire delivery for addresses printed in the Urban Update/Leave address registers, state-level totals for Table 1

Area	Urban Update/Leave action codes						
	Total		Verification	Updates			
	# housing units	% verified		Correction	Block move	Nonexistent	Non-residential
United States	267,005	81.9	218,772	7,371	1,851	35,376	3,635
California	50,043	84.9	42,464	1,206	380	5,623	370
Colorado	1,837	81.9	1,504	91	12	207	23
Delaware	773	77.4	598	5	81	89	0
District of Columbia	304	85.9	261	0	0	37	6
Florida	33,351	78.9	26,322	968	41	4,300	1,720
Idaho	420	46.9	197	109	1	109	4
Illinois	30,436	70.3	21,401	362	0	8,347	326
Louisiana	56,059	84.0	47,094	2,025	821	5,890	229
Michigan	1,212	21.2	257	176	0	776	3
New Jersey	132	69.7	92	0	0	37	3
Pennsylvania	22,131	70.5	15,604	398	2	5,444	683
Rhode Island	69,132	89.6	61,931	1,983	511	4,454	253
Washington	1,175	89.1	1,047	48	2	63	15

Data sources: March 2001 MAF extract and DMAF

Appendix H: Address verification and updates during questionnaire delivery for addresses printed in the Urban Update/Leave address registers, in-census state-level totals for Table 1

Area	Urban Update/Leave action codes						
	Total		Verification	Updates			
	# housing units	% verified		Correction	Block move	Nonexistent	Non-residential
United States	227,761	90.6	206,238	6,653	1,800	12,284	786
California	43,698	92.2	40,277	1,090	362	1,840	129
Colorado	1,465	89.2	1,307	81	11	58	8
Delaware	702	82.5	579	5	81	37	0
District of Columbia	275	92.7	255	0	0	14	6
Florida	28,135	88.8	24,976	949	41	2,045	124
Idaho	306	53.9	165	107	1	33	0
Illinois	23,426	84.4	19,777	321	0	3,121	207
Louisiana	48,253	90.1	43,470	1,731	800	2,189	63
Michigan	606	40.9	248	163	0	193	2
New Jersey	116	77.6	90	0	0	25	1
Pennsylvania	16,390	90.9	14,891	321	2	998	178
Rhode Island	63,494	93.5	59,376	1,847	500	1,708	63
Washington	895	92.4	827	38	2	23	5

Data source: March 2001 MAF extract

Appendix I: Additions by Decennial Master Address File deliverability status and in-census status, state-level totals

Area	Total additions	Delivered to DMAF		In census	
		Number	% of total additions	Number	% of total additions
United States	13,131	13,081	99.6	10,455	79.6
California	3,017	3,005	99.6	2,350	77.9
Colorado	211	209	99.1	171	81.0
Delaware	162	162	100.0	141	87.0
District of Columbia	3	3	100.0	2	66.7
Florida	1,453	1,451	99.9	1,255	86.4
Idaho	87	87	100.0	66	75.9
Illinois	349	349	100.0	297	85.1
Louisiana	4,007	3,981	99.4	3,021	75.4
Michigan	78	78	100.0	76	97.4
New Jersey	0	0	NA	0	NA
Pennsylvania	309	309	100.0	233	75.4
Rhode Island	3,383	3,375	99.8	2,784	82.3
Washington	72	72	100.0	59	81.9

Data sources: March 2001 MAF extract and DMAF

Appendix J: Type of address: additions, state-level totals for Table 3

Area	Total housing units	Complete city-style address		Complete rural route address		Complete post office box address		Incomplete address		No address	
		(1) with location	(2) without location	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
United States	13,131	39	11,915	0	0	0	0	6	1,015	131	25
California	3,017	16	2,666	0	0	0	0	6	275	47	7
Colorado	211	0	187	0	0	0	0	0	12	12	0
Delaware	162	0	151	0	0	0	0	0	10	1	0
D.C.	3	0	3	0	0	0	0	0	0	0	0
Florida	1,453	3	1,415	0	0	0	0	0	16	16	3
Idaho	87	0	66	0	0	0	0	0	18	3	0
Illinois	349	0	304	0	0	0	0	0	42	3	0
Louisiana	4,007	1	3,510	0	0	0	0	0	455	29	12
Michigan	78	0	71	0	0	0	0	0	6	0	1
New Jersey	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	309	0	294	0	0	0	0	0	14	1	0
Rhode Island	3,383	19	3,181	0	0	0	0	0	165	16	2
Washington	72	0	67	0	0	0	0	0	2	3	0

Data source: March 2001 MAF extract

Appendix K: Type of address: deletions, state-level totals for Table 7

Area	Total housing units	Complete city-style address		Complete rural route address		Complete post office box address		Incomplete address		No address	
		(1) with location	(2) without location	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
United States	39,011	258	37,776	6	0	10	0	957	4	0	0
California	5,993	98	5,625	0	0	7	0	263	0	0	0
Colorado	230	0	212	0	0	0	0	18	0	0	0
Delaware	89	0	84	0	0	0	0	5	0	0	0
D.C.	43	0	43	0	0	0	0	0	0	0	0
Florida	6,020	7	6,011	0	0	0	0	2	0	0	0
Idaho	113	0	112	0	0	0	0	1	0	0	0
Illinois	8,673	2	8,671	0	0	0	0	0	0	0	0
Louisiana	6,119	47	5,527	4	0	3	0	538	0	0	0
Michigan	779	0	779	0	0	0	0	0	0	0	0
New Jersey	40	0	40	0	0	0	0	0	0	0	0
Pennsylvania	6,127	0	6,127	0	0	0	0	0	0	0	0
Rhode Island	4,707	102	4,471	2	0	0	0	128	4	0	0
Washington	78	2	74	0	0	0	0	2	0	0	0

Data source: March 2001 MAF extract

Appendix L: Type of address: corrections, state-level totals for Table 11

Area	Total housing units	Complete city-style address		Complete rural route address		Complete post office box address		Incomplete address		No address	
		(1) with location	(2) without location	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
United States	7,371	152	6,856	1	0	3	0	357	2	0	0
California	1,206	26	1,115	1	0	1	0	62	1	0	0
Colorado	91	1	69	0	0	0	0	21	0	0	0
Delaware	5	0	5	0	0	0	0	0	0	0	0
D.C.	0	0	0	0	0	0	0	0	0	0	0
Florida	968	0	967	0	0	0	0	1	0	0	0
Idaho	109	1	104	0	0	0	0	4	0	0	0
Illinois	362	0	362	0	0	0	0	0	0	0	0
Louisiana	2,025	20	1,793	0	0	1	0	211	0	0	0
Michigan	176	0	176	0	0	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	398	1	397	0	0	0	0	0	0	0	0
Rhode Island	1,983	102	1,822	0	0	1	0	58	0	0	0
Washington	48	1	46	0	0	0	0	0	1	0	0

Data source: March 2001 MAF extract

Appendix M: Type of address: block moves, state-level totals for Table 15

Area	Total housing units	Complete city-style address		Complete rural route address		Complete post office box address		Incomplete address		No address	
		(1) with location	(2) without location	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
United States	1,851	3	1,848	0	0	0	0	0	0	0	0
California	380	0	380	0	0	0	0	0	0	0	0
Colorado	12	0	12	0	0	0	0	0	0	0	0
Delaware	81	0	81	0	0	0	0	0	0	0	0
D.C.	0	0	0	0	0	0	0	0	0	0	0
Florida	41	0	41	0	0	0	0	0	0	0	0
Idaho	1	0	1	0	0	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	0	0	0	0	0
Louisiana	821	0	821	0	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	2	0	2	0	0	0	0	0	0	0	0
Rhode Island	511	3	508	0	0	0	0	0	0	0	0
Washington	2	0	2	0	0	0	0	0	0	0	0

Data source March 2001 MAF extract

Appendix N: Number of housing units at the basic street address for additions, deletions, corrections, and block moves, state-level totals for Tables 4, 8, 12, and 16

Area	Additions			Deletions			Corrections			Block moves		
	Total housing units	# single unit housing units	% single unit housing units	Total housing units	# single unit housing units	% single unit housing units	Total housing units	# single unit housing units	% single unit housing units	Total housing units	# single unit housing units	% single unit housing units
United States	13,131	8,395	63.9	39,011	17,110	43.9	7,371	4,254	57.7	1,851	1,477	79.8
California	3,017	1,764	58.5	5,993	3,339	55.7	1,206	674	55.9	380	180	47.4
Colorado	211	174	82.5	230	152	66.1	91	69	75.8	12	11	91.7
Delaware	162	151	93.2	89	83	93.3	5	5	100.0	81	80	98.8
District of Columbia	3	0	0.0	43	8	18.6	0	0	NA	0	0	NA
Florida	1,453	452	31.1	6,020	516	8.6	968	763	78.8	41	20	48.8
Idaho	87	59	67.8	113	86	76.1	109	99	90.8	1	1	100.0
Illinois	349	112	32.1	8,673	113	1.3	362	24	6.6	0	0	NA
Louisiana	4,007	3,211	80.1	6,119	4,620	75.5	2,025	1,432	70.7	821	744	90.6
Michigan	78	19	24.4	779	110	14.1	176	36	20.5	0	0	NA
New Jersey	0	0	NA	40	40	100.0	0	0	NA	0	0	NA
Pennsylvania	309	137	44.3	6,127	5,325	86.9	398	37	9.3	2	2	100.0
Rhode Island	3,383	2,280	67.4	4,707	2,666	56.6	1,983	1,077	54.3	511	437	85.5
Washington	72	36	50.0	78	52	66.7	48	38	79.2	2	2	100.0

Data source: March 2001 MAF extract

Appendix O: Number of Urban Update/Leave blocks and Urban Update/Leave housing units in the census, state-level totals for Table 18

Area	Urban Update/Leave blocks			Number of housing units	Average number of housing units per block*
	Total	With housing units	Without housing units		
United States	12,843	7,657	5,186	238,216	31.1
California	3,511	1,569	1,942	46,048	29.3
Colorado	88	76	12	1,636	21.5
Delaware	58	52	6	843	16.2
District of Columbia	1	1	0	277	277.0
Florida	414	357	57	29,390	82.3
Idaho	38	29	9	372	12.8
Illinois	79	76	3	23,723	312.1
Louisiana	4,554	2,141	2,413	51,274	23.9
Michigan	9	7	2	682	97.4
New Jersey	4	4	0	116	29.0
Pennsylvania	516	445	71	16,623	37.4
Rhode Island	3,520	2,854	666	66,278	23.2
Washington	51	46	5	954	20.7

Data source: March 2001 MAF extract

*Average is for blocks with at least one housing unit.

Appendix P: Type of address for Urban Update/Leave housing units in the census, state-level totals for Table 19

Area	Total housing units	Complete city-style address		Complete rural route address		Complete post office box address		Incomplete address		No address	
		(1) with location	(2) without location	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
United States	238,216	871	235,219	6	0	23	0	1,352	608	120	17
California	46,048	275	45,152	2	0	14	0	354	182	63	6
Colorado	1,636	4	1,572	0	0	0	0	43	9	8	0
Delaware	843	5	827	0	0	1	0	5	5	0	0
D.C.	277	0	277	0	0	0	0	0	0	0	0
Florida	29,390	63	29,309	0	0	0	0	1	8	6	3
Idaho	372	1	344	0	0	0	0	13	11	3	0
Illinois	23,723	4	23,682	0	0	0	0	0	33	2	2
Louisiana	51,274	93	50,106	3	0	7	0	776	267	20	2
Michigan	682	0	677	0	0	0	0	0	4	0	1
New Jersey	116	0	116	0	0	0	0	0	0	0	0
Pennsylvania	16,623	5	16,609	0	0	0	0	0	9	0	0
Rhode Island	66,278	416	65,608	1	0	1	0	159	77	13	3
Washington	954	5	940	0	0	0	0	1	3	5	0

Data source: March 2001 MAF extract

Appendix Q: Number of Urban Update/Leave housing units in the census that match the Delivery Sequence File as a percent of each Urban Update/Leave block, state-level totals for Table 20

Area	Total		0% DSF match		Greater than 0% to 25% DSF match		Greater than 25% to 50% DSF match		Greater than 50% to 75% DSF match		Greater than 75% up to 100% DSF match		100% DSF match	
	# blocks (blks)	# housing units (HUs)	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs
United States	155,218	52,136	625	3,835	187	5,675	503	8,069	799	18,962	2,602	151,712	2,941	49,963
California	1,569	46,048	211	1,117	65	1,789	137	2,115	182	5,676	349	23,907	625	11,444
Colorado	1,631	76	60	679	1	259	4	121	6	318	3	254	2	5
Delaware	829	52	27	284	3	70	4	45	4	154	11	276	3	14
D.C.	277	1	0	0	0	0	0	0	0	0	1	277	0	0
Florida	23,572	357	10	29	11	864	26	673	28	1,255	133	20,751	149	5,818
Idaho	366	29	15	135	5	43	2	5	2	24	1	159	4	6
Illinois	21,079	76	0	0	0	0	1	128	3	246	59	20,705	13	2,644
Louisiana	36,201	2,141	134	646	30	579	114	1,249	205	3,669	644	30,058	1,014	15,073
Michigan	593	7	0	0	0	0	0	0	1	398	2	195	4	89
New Jersey	94	4	0	0	0	0	0	0	0	0	3	94	1	22
Pennsylvania	12,655	445	4	5	0	0	7	146	37	973	256	11,531	141	3,968
Rhode Island	55,412	2,854	149	870	63	1,826	197	3,069	325	6,151	1,139	43,496	981	10,866
Washington	940	46	15	70	9	245	11	518	6	98	1	9	4	14

Data source: March 2001 MAF extract

Appendix R: Number of multi-unit Urban Update/Leave housing units in the census as a percent of each Urban Update/Leave block, state-level totals for Table 21

Area	Total		0% multi-unit		Greater than 0% to 25% multi-unit		Greater than 25% to 50% multi-unit		Greater than 50% to 75% multi-unit		Greater than 75% up to 100% multi-unit		100% multi-unit	
	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs
United States	184,105	52,136	3,925	47,091	1,610	69,196	910	27,385	476	18,346	453	64,381	283	11,817
California	1,569	46,048	738	6,129	286	12,475	231	6,832	123	5,151	97	13,276	94	2,185
Colorado	1,636	76	42	394	20	1,000	8	52	2	32	4	158	0	0
Delaware	843	52	41	607	9	206	2	30	0	0	0	0	0	0
D.C.	277	1	0	0	0	0	0	0	1	277	0	0	0	0
Florida	25,389	357	106	2,413	31	2,394	24	856	35	1,075	108	18,651	53	4,001
Idaho	369	29	21	121	2	27	4	221	0	0	0	0	2	3
Illinois	20,602	76	0	0	0	0	0	0	0	0	58	20,602	18	3,121
Louisiana	50,500	2,141	1,389	18,809	454	20,023	177	6,738	59	3,177	26	1,753	36	774
Michigan	682	7	4	107	2	177	0	0	0	0	1	398	0	0
New Jersey	116	4	2	53	2	63	0	0	0	0	0	0	0	0
Pennsylvania	16,521	445	139	3,662	186	7,728	74	3,013	25	758	16	1,360	5	102
Rhode Island	64,657	2,854	1,411	14,578	611	24,962	385	9,058	231	7,876	143	8,183	73	1,621
Washington	944	46	32	218	7	141	5	585	0	0	0	0	2	10

Data source: March 2001 MAF extract

Appendix S: Number of drop delivery Urban Update/Leave housing units in the census as a percent of each Urban Update/Leave block, state-level totals for Table 22

Area	Total		0% drop delivery		Greater than 0% to 25% drop delivery		Greater than 25% to 50% drop delivery		Greater than 50% to 75% drop delivery		Greater than 75% up to 100% drop delivery		100% drop delivery	
	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs
United States	193,735	52,136	6,917	185,117	715	52,858	23	236	1	3	0	0	1	2
California	1,569	46,048	1,554	43,072	15	2,976	0	0	0	0	0	0	0	0
Colorado	1,636	76	76	1,636	0	0	0	0	0	0	0	0	0	0
Delaware	843	52	52	843	0	0	0	0	0	0	0	0	0	0
D.C.	277	1	1	277	0	0	0	0	0	0	0	0	0	0
Florida	29,390	357	243	17,376	110	11,962	4	52	0	0	0	0	0	0
Idaho	372	29	29	372	0	0	0	0	0	0	0	0	0	0
Illinois	23,723	76	42	12,277	32	11,424	2	22	0	0	0	0	0	0
Louisiana	51,274	2,141	2,072	47,852	67	3,417	2	5	0	0	0	0	0	0
Michigan	682	7	7	682	0	0	0	0	0	0	0	0	0	0
New Jersey	116	4	4	116	0	0	0	0	0	0	0	0	0	0
Pennsylvania	16,623	445	342	12,368	101	4,217	1	35	1	3	0	0	0	0
Rhode Island	66,276	2,854	2,450	47,708	389	18,446	14	122	0	0	0	0	1	2
Washington	954	46	45	538	1	416	0	0	0	0	0	0	0	0

Data source: March 2001 MAF extract

Appendix T: Number of housing units at the basic street address for Urban Update/Leave housing units in the census by Delivery Sequence File match, state-level totals for Table 23

Area	Number of housing units at the basic street address						
	Total			Single-unit		Multi-unit	
	# housing units	% DSF match	% single unit	DSF match	not DSF match	DSF match	not DSF match
United States	238,216	86.6	57.2	118,947	17,386	87,281	14,602
California	46,048	82.8	52.5	20,030	4,140	18,114	3,764
Colorado	1,636	31.7	84.8	444	944	75	173
Delaware	843	44.5	96.7	369	446	6	22
District of Columbia	277	97.5	28.5	79	0	191	7
Florida	29,390	88.9	20.4	5,706	293	20,412	2,979
Idaho	372	40.9	70.2	91	170	61	50
Illinois	23,723	96.3	1.9	326	130	22,518	749
Louisiana	51,274	89.6	83.1	38,857	3,752	7,066	1,599
Michigan	682	81.7	41.2	260	21	297	104
New Jersey	116	94.0	96.6	107	5	2	2
Pennsylvania	16,623	92.3	78.1	12,662	319	2,676	966
Rhode Island	66,278	83.8	70.0	39,709	6,717	15,844	4,008
Washington	954	34.2	79.2	307	449	19	179

Data source: March 2001 MAF extract

**Appendix U-1: Hard-to-count classes for Urban Update/Leave housing units in the census, state-level totals for Table 24,
Part 1: hard-to-count classes 1-5**

Area	Total housing units	Hard-to-count class									
		1		2		3		4		5	
		#	%	#	%	#	%	#	%	#	%
United States	189,045	45,877	24.3	28,237	14.9	14,913	7.9	14,991	7.9	12,874	6.8
California	33,158	5,770	17.4	6,010	18.1	7,186	21.7	3,151	9.5	5,697	17.2
Colorado	1,270	0	0.0	315	24.8	0	0.0	0	0.0	0	0.0
Delaware	298	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
District of Columbia	277	0	0.0	277	100.0	0	0.0	0	0.0	0	0.0
Florida	15,983	8,015	50.1	1,338	8.4	306	1.9	5,448	34.1	100	0.6
Idaho	372	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Illinois	23,723	18,750	79.0	3,522	14.8	1,276	5.4	175	0.7	0	0.0
Louisiana	45,244	1,492	3.3	5,157	11.4	4,793	10.6	3,767	8.3	6,098	13.5
Michigan	682	682	100.0	0	0.0	0	0.0	0	0.0	0	0.0
New Jersey	116	116	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Pennsylvania	12,976	4,253	32.8	6,354	49.0	1,331	10.3	248	1.9	627	4.8
Rhode Island	53,992	6,799	12.6	5,264	9.8	7	0.0	1,262	2.3	352	0.7
Washington	954	0	0.0	0	0.0	14	1.5	940	98.5	0	0.0

Data sources: Planning Database and March 2001 MAF extract

**Appendix U-2: Hard-to-count classes for Urban Update/Leave housing units in the census, state-level totals for Table 24,
Part 2: hard-to-count classes 6-10**

Area	Total housing units	Hard-to-count class									
		6		7		8		9		10	
		#	%	#	%	#	%	#	%	#	%
United States	189,045	7,627	4.0	17,952	9.5	20,816	11.0	17,203	9.1	8,555	4.5
California	33,158	1,262	3.8	1,123	3.4	2,298	6.9	661	2.0	0	0.0
Colorado	1,270	0	0.0	268	21.1	0	0.0	687	54.1	0	0.0
Delaware	298	298	100.0	0	0.0	0	0.0	0	0.0	0	0.0
District of Columbia	277	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Florida	15,983	441	2.8	335	2.1	0	0.0	0	0.0	0	0.0
Idaho	372	372	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Illinois	23,723	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Louisiana	45,244	4,931	10.9	5,261	11.6	10,114	22.4	3,082	6.8	549	1.2
Michigan	682	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
New Jersey	116	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pennsylvania	12,976	131	1.0	0	0.0	0	0.0	0	0.0	32	0.2
Rhode Island	53,992	192	0.4	10,965	20.3	8,404	15.6	12,773	23.7	7,974	14.8
Washington	954	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Data sources: Planning Database and March 2001 MAF extract

Appendix V: Occupancy status, state-level totals for Table 26

Area	Total housing units	Number vacant	Percent of total housing units
United States	238,216	35,467	14.9
California	46,048	4,393	9.5
Colorado	1,636	112	6.8
Delaware	843	50	5.9
District of Columbia	277	23	8.3
Florida	29,390	9,387	31.9
Idaho	372	36	9.7
Illinois	23,723	6,095	25.7
Louisiana	51,274	4,412	8.6
Michigan	682	245	35.9
New Jersey	116	32	27.6
Pennsylvania	16,623	2,877	17.3
Rhode Island	66,278	7,677	11.6
Washington	954	128	13.4

Data source: HCEF_D'

Appendix W: Number of housing units at the basic street address by mail return status, state-level totals for Table 27

Area	Number of housing units at the basic street address								
	Occupied housing units			Single-unit structure			Multi-unit structure		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
		#	%		#	%		#	%
United States	202,749	139,194	68.7	122,150	90,722	74.3	80,599	48,472	60.1
California	41,655	29,026	69.7	21,803	16,044	73.6	19,852	12,982	65.4
Colorado	1,524	1,153	75.7	1,307	1,026	78.5	217	127	58.5
Delaware	793	564	71.1	767	548	71.4	26	16	61.5
District of Columbia	254	133	52.4	71	46	64.8	183	87	47.5
Florida	20,003	13,035	65.2	5,173	3,310	64.0	14,830	9,725	65.6
Idaho	336	213	63.4	239	163	68.2	97	50	51.5
Illinois	17,628	9,972	56.6	426	246	57.7	17,202	9,726	56.5
Louisiana	46,862	34,011	72.6	39,386	29,817	75.7	7,476	4,194	56.1
Michigan	437	291	66.6	267	173	64.8	170	118	69.4
New Jersey	84	55	65.5	80	54	67.5	4	1	25.0
Pennsylvania	13,746	7,208	52.4	10,826	6,091	56.3	2,920	1,117	38.3
Rhode Island	58,601	42,973	73.3	41,136	32,710	79.5	17,465	10,263	58.8
Washington	826	560	67.8	669	494	73.8	157	66	42.0

Data sources HCEF_D' and HCUF

Appendix X: Telephone Questionnaire Assistance, Internet, Be Counted responses by whether only response or response in combination with other types of responses, state-level totals for Table 28

Area	Telephone Questionnaire Assistance			Internet			Be Counted		
	Total	Only	In Combination	Total	Only	In Combination	Total	Only	In Combination
United States	340	82	258	107	101	6	1,374	306	1,068
California	64	19	45	40	37	3	261	67	194
Colorado	6	2	4	2	2	0	12	11	1
Delaware	0	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	2	0	2
Florida	27	10	17	8	7	1	136	32	104
Idaho	0	0	0	0	0	0	0	0	0
Illinois	107	14	93	3	3	0	395	69	326
Louisiana	33	7	26	36	35	1	226	42	184
Michigan	1	0	1	0	0	0	18	9	9
New Jersey	0	0	0	0	0	0	2	0	2
Pennsylvania	42	11	31	5	5	0	226	50	176
Rhode Island	59	18	41	13	12	1	95	26	69
Washington	1	1	0	0	0	0	1	0	1

Data source: DMAF

Appendix Y: Tenure by mail return status, state-level totals for Table 29

Area	Tenure								
	Occupied housing units			Owned housing units			Rented housing units		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
		#	%		#	%		#	%
United States	202,749	139,194	68.7	115,334	89,322	77.4	87,415	49,872	57.1
California	41,655	29,026	69.7	20,290	15,773	77.7	21,365	13,253	62.0
Colorado	1,524	1,153	75.7	1,200	963	80.3	324	190	58.6
Delaware	793	564	71.1	664	496	74.7	129	68	52.7
District of Columbia	254	133	52.4	62	44	71.0	192	89	46.4
Florida	20,003	13,035	65.2	8,780	6,568	74.8	11,223	6,467	57.6
Idaho	336	213	63.4	246	173	70.3	90	40	44.4
Illinois	17,628	9,972	56.6	1,108	763	68.9	16,520	9,209	55.7
Louisiana	46,862	34,011	72.6	36,222	27,890	77.0	10,640	6,121	57.5
Michigan	437	291	66.6	2	2	100.0	435	289	66.4
New Jersey	84	55	65.5	53	43	81.1	31	12	38.7
Pennsylvania	13,746	7,208	52.4	6,701	4,108	61.3	7,045	3,100	44.0
Rhode Island	58,601	42,973	73.3	39,441	32,056	81.3	19,160	10,917	57.0
Washington	826	560	67.8	565	443	78.4	261	117	44.8

Data sources: HCEF_D' and HCUF

Appendix Z: Sex by mail return status, state-level totals for Table 30

Area	Sex								
	Persons			Male			Female		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
	Total	#	%	Total	#	%	Total	#	%
United States	511,195	349,123	68.3	247,770	167,007	67.4	263,425	182,116	69.1
California	96,538	66,763	69.2	47,917	32,429	67.7	48,621	34,334	70.6
Colorado	3,869	2,951	76.3	1,960	1,475	75.3	1,909	1,476	77.3
Delaware	2,074	1,432	69.0	987	679	68.8	1,087	753	69.3
District of Columbia	740	399	53.9	333	183	55.0	407	216	53.1
Florida	40,581	25,847	63.7	19,019	11,786	62.0	21,562	14,061	65.2
Idaho	833	531	63.7	443	281	63.4	390	250	64.1
Illinois	39,744	21,139	53.2	17,923	9,319	52.0	21,821	11,820	54.2
Louisiana	126,640	92,298	72.9	61,777	44,675	72.3	64,863	47,623	73.4
Michigan	1,085	723	66.6	430	289	67.2	655	434	66.3
New Jersey	313	198	63.3	170	109	64.1	143	89	62.2
Pennsylvania	43,916	23,572	53.7	20,748	10,989	53.0	23,168	12,583	54.3
Rhode Island	152,692	111,816	73.2	74,925	54,045	72.1	77,767	57,771	74.3
Washington	2,170	1,454	67.0	1,138	748	65.7	1,032	706	68.4

Data sources: HCEF_D' and HCUF

Appendix AA-1: Age by mail return status, state-level totals for Table 31, Part 1: total, ages 0-24

Area	Age								
	Persons			<18 years old			18 to 24 years old		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
	#	%	#	%	#	%	#	%	
United States	511,195	349,123	68.3	139,811	89,019	63.7	44,951	25,921	57.7
California	96,538	66,763	69.2	22,777	14,802	65.0	7,527	4,458	59.2
Colorado	3,869	2,951	76.3	931	701	75.3	254	173	68.1
Delaware	2,074	1,432	69.0	570	367	64.4	149	96	64.4
District of Columbia	740	399	53.9	276	144	52.2	63	43	68.3
Florida	40,581	25,847	63.7	8,425	4,546	54.0	2,625	1,369	52.2
Idaho	833	531	63.7	214	129	60.3	67	37	55.2
Illinois	39,744	21,139	53.2	13,601	6,281	46.2	4,119	1,903	46.2
Louisiana	126,640	92,298	72.9	35,933	25,090	69.8	11,226	7,314	65.2
Michigan	1,085	723	66.6	446	292	65.5	95	61	64.2
New Jersey	313	198	63.3	111	57	51.4	34	21	61.8
Pennsylvania	43,916	23,572	53.7	16,861	8,536	50.6	5,108	2,516	49.3
Rhode Island	152,692	111,816	73.2	39,056	27,680	70.9	13,461	7,830	58.2
Washington	2,170	1,454	67.0	610	394	64.6	223	100	44.8

Data sources: HCEF_D' and HCUF

Appendix AA-2: Age by mail return status, state-level totals for Table 31, Part 2: ages 25-54

Area	Age								
	25 to 34 years old			35 to 44 years old			45 to 54 years old		
	enumerated by mail			enumerated by mail			enumerated by mail		
	Total	#	%	Total	#	%	Total	#	%
United States	66,775	41,377	62.0	82,253	56,114	68.2	71,147	52,174	73.3
California	12,952	7,960	61.5	15,388	10,214	66.4	16,077	11,612	72.2
Colorado	463	334	72.1	745	558	74.9	797	628	78.8
Delaware	275	170	61.8	357	230	64.4	286	220	76.9
District of Columbia	68	40	58.8	125	57	45.6	86	53	61.6
Florida	5,041	2,723	54.0	5,487	3,249	59.2	4,806	3,086	64.2
Idaho	90	62	68.9	124	63	50.8	151	102	67.6
Illinois	5,321	2,619	49.2	4,518	2,378	52.6	3,340	1,919	57.5
Louisiana	16,566	11,353	68.5	21,846	15,862	72.6	18,015	13,788	76.5
Michigan	119	72	60.5	114	79	69.3	63	47	74.6
New Jersey	43	23	53.5	33	25	75.8	27	20	74.1
Pennsylvania	6,438	3,250	50.5	5,869	3,234	55.1	4,240	2,484	58.6
Rhode Island	19,139	12,630	66.0	27,318	19,949	73.0	22,914	17,946	78.3
Washington	260	141	54.2	329	216	65.7	345	269	78.0

Data sources: HCEF_D' and HCUF

Appendix AA-3: Age by mail return status, state-level totals for Table 31, Part 3: ages 55+

Area	Age					
	55 to 64 years old			65+		
	Total	enumerated by mail		Total	enumerated by mail	
		#	%		#	%
United States	44,002	33,937	77.1	62,256	50,581	81.2
California	9,183	7,132	77.7	12,634	10,585	83.8
Colorado	385	311	80.8	294	246	83.7
Delaware	142	105	73.9	295	244	82.7
District of Columbia	57	22	38.6	65	40	61.5
Florida	4,283	3,042	71.0	9,914	7,832	79.0
Idaho	82	54	65.9	105	84	80.0
Illinois	2,678	1,642	61.3	6,167	4,397	71.3
Louisiana	10,858	8,672	79.9	12,196	10,219	83.8
Michigan	84	54	64.3	164	118	72.0
New Jersey	34	22	64.7	31	30	96.8
Pennsylvania	2,739	1,783	65.1	2,661	1,769	66.5
Rhode Island	13,270	10,929	82.4	17,534	14,852	84.7
Washington	207	169	81.6	196	165	84.2

Data sources: HCEF_D' and HCUF

Appendix BB: Hispanic origin by mail return status, state-level totals for Table 32

Area	Hispanic origin								
	Persons			Not Hispanic			Hispanic		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
	Total	#	%	Total	#	%	Total	#	%
United States	511,195	349,123	68.3	446,916	309,436	69.2	64,279	39,687	61.7
California	96,538	66,763	69.2	86,402	60,484	70.0	10,136	6,279	61.9
Colorado	3,869	2,951	76.3	3,429	2,693	78.5	440	258	58.6
Delaware	2,074	1,432	69.0	2,015	1,400	69.5	59	32	54.2
District of Columbia	740	399	53.9	659	345	52.4	81	54	66.7
Florida	40,581	25,847	63.7	28,907	17,248	59.7	11,674	8,599	73.7
Idaho	833	531	63.7	830	528	63.6	3	3	100.0
Illinois	39,744	21,139	53.2	37,427	19,897	53.2	2,317	1,242	53.6
Louisiana	126,640	92,298	72.9	124,149	90,460	72.9	2,491	1,838	73.8
Michigan	1,085	723	66.6	1,078	717	66.5	7	6	85.7
New Jersey	313	198	63.3	82	52	63.4	231	146	63.2
Pennsylvania	43,916	23,572	53.7	19,067	8,835	46.3	24,849	14,737	59.3
Rhode Island	152,692	111,816	73.2	140,968	105,423	74.8	11,724	6,393	54.5
Washington	2,170	1,454	67.0	1,903	1,354	71.2	267	100	37.5

Data sources: HCEF_D' and HCUF

Appendix CC-1: Race by mail return status, state-level totals for Table 33, Part 1: total, white, African American

Area	Race								
	Persons			White			African American		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
	Total	#	%	Total	#	%	Total	#	%
United States	511,195	349,123	68.3	359,894	267,300	74.3	88,923	45,670	51.4
California	96,538	66,763	69.2	70,435	51,524	73.2	7,096	3,291	46.4
Colorado	3,869	2,951	76.3	3,460	2,712	78.4	14	5	35.7
Delaware	2,074	1,432	69.0	1,825	1,307	71.6	175	80	45.7
District of Columbia	740	399	53.9	14	14	100.0	663	348	52.5
Florida	40,581	25,847	63.7	25,530	18,370	72.0	11,730	5,789	49.4
Idaho	833	531	63.7	798	509	63.8	2	0	0.0
Illinois	39,744	21,139	53.2	6,114	4,047	66.2	30,482	15,197	49.9
Louisiana	126,640	92,298	72.9	101,197	76,472	75.6	22,050	13,562	61.5
Michigan	1,085	723	66.6	8	8	100.0	1,064	702	66.0
New Jersey	313	198	63.3	44	32	72.7	154	58	37.7
Pennsylvania	43,916	23,572	53.7	10,912	6,998	64.1	12,087	5,125	42.4
Rhode Island	152,692	111,816	73.2	137,668	103,989	75.5	3,397	1,506	44.3
Washington	2,170	1,454	67.0	1,889	1,318	69.8	9	7	77.8

Data sources: HCEF_D' and HCUF

Appendix CC-2: Race by mail return status, state-level totals for Table 33, Part 2: American Indian/Alaska Native, Asian, native Hawaiian/Pacific Islander

Area	Race								
	American Indian/Alaska Native			Asian			Native Hawaiian/Pacific Islander		
	Total	enumerated by mail		Total	enumerated by mail		Total	enumerated by mail	
		#	%		#	%		#	%
United States	4,823	2,697	55.9	13,667	9,578	70.1	657	245	37.3
California	2,269	1,205	53.1	7,793	5,839	74.9	467	144	30.8
Colorado	47	34	72.3	22	21	95.5	4	3	75.0
Delaware	10	4	40.0	3	3	100.0	1	1	100.0
District of Columbia	1	1	100.0	3	3	100.0	0	0	NA
Florida	576	222	38.5	300	181	60.3	20	8	40.0
Idaho	5	2	40.0	10	6	60.0	2	2	100.0
Illinois	91	72	79.1	1,581	1,052	66.5	20	11	55.0
Louisiana	483	315	65.2	872	618	70.9	27	21	77.8
Michigan	2	2	100.0	0	0	NA	0	0	NA
New Jersey	0	0	NA	1	0	0.0	0	0	NA
Pennsylvania	312	231	74.0	1,674	889	53.1	45	16	35.6
Rhode Island	937	564	60.2	1,393	954	68.5	62	34	54.8
Washington	90	45	50.0	15	12	80.0	9	5	55.6

Data sources: HCEF_D' and HCUF; NA-not applicable

Appendix CC-3: Race by mail return status, state-level totals for Table 33, Part 3: some other race, two or more races

Area	Race					
	Some other race			Two or more races		
	Total	enumerated by mail		Total	enumerated by mail	
	Total	#	%	Total	#	%
United States	30,343	16,366	53.9	12,888	7,267	56.4
California	4,620	2,606	56.4	3,858	2,154	55.8
Colorado	242	122	50.4	80	54	67.5
Delaware	18	9	50.0	42	28	66.7
District of Columbia	31	7	22.6	28	26	92.9
Florida	1,010	605	59.9	1,415	672	47.5
Idaho	2	2	100.0	14	10	71.4
Illinois	892	408	45.7	564	352	62.4
Louisiana	625	400	64.0	1,386	910	65.7
Michigan	0	0	NA	11	11	100.0
New Jersey	111	105	94.6	3	3	100.0
Pennsylvania	16,540	9,094	55.0	2,346	1,219	52.0
Rhode Island	6,135	2,959	48.2	3,100	1,810	58.4
Washington	117	49	41.9	41	18	43.9

Data sources: HCEF_D' and HCUF
 NA-not applicable