

Update/Enumerate

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

Helping You Make Informed Decisions

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EXECUTIVE SUMMARY

The Update/Enumerate method of enumeration targeted communities with special enumeration needs and where most housing units may not have had house number and street name mailing addresses. These areas included resort areas with high concentrations of seasonally vacant housing units, selected American Indian reservations and colonias; the latter generally are Hispanic-occupied unincorporated communities near the Mexican border. Going directly to the field saves time and money in areas where we have concerns about responsiveness and address integrity.

In Update/Enumerate areas, enumerators updated their address registers and census maps and enumerated the housing unit at the time of their visit. The U.S. Census Bureau conducted the Update/Enumerate operation from March 13 to June 5, 2000.

Every regional census center except Detroit had areas enumerated using the Update/Enumerate methodology. The following 35 states had Update/Enumerate areas: Alabama, Alaska, Arizona, California, Colorado, Connecticut, Florida, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Mexico, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, Wisconsin, and Wyoming.

Nationwide, 183,889 blocks were covered by Update/Enumerate, and 75,827 of these blocks (41.2 percent) contained housing units. The Master Address File had 1,191,835 residential addresses in Update/Enumerate blocks. After removing known duplicates, there were 1,169,090 addresses. Of the 1,169,090 addresses, 1,056,317 addresses, or 90.4 percent, were delivered to the Decennial Master Address File. Ultimately, 956,214 Update/Enumerate addresses, or 90.5 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 Update/Enumerate areas, and timing and cost of the operation. The Update/Enumerate evaluation provides information to help determine whether the operation contributed to a successful Census 2000.

Did Update/Enumerate contribute to the success of Census 2000?

Yes. We improved the address list and identified areas suited to field enumeration.

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

- Of the 926,861 addresses in the address registers, 345,088 addresses, or 37.2 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 field enumeration. The most frequent updates,

corrections (change in the address), were made to 284,127 addresses, or 30.7 percent of the Update/Enumerate address registers. The remainder of the updates were nearly all deletions.

- There were 129,692 Update/Enumerate additions during field enumeration, a 14.0 percent increase to the addresses printed in the address registers.

How well was Update/Enumerate targeted?

Local Census Offices, using general guidelines, designated areas for Update/Enumerate. The targeting measures are objective results of subjective decisions.

- For 54,510 blocks out of 75,827 blocks with housing units in the census, or 71.9 percent of blocks, no more than 25 percent 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 579,665 housing units out of the 956,214 housing units in the census, or 60.6 percent of the Update/Enumerate housing units. Such blocks would presumably present mail delivery challenges.
- Of the addresses in the census, 145,295 (15.2 percent) had no address information; that is, the housing unit was missing the house number, street name, rural route, and post office box information.
- The Planning Database provided a 1990 census tract-level hard-to-count score, which is 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, 566,399 addresses, or 59.2 percent of the Update/Enumerate addresses in the census, were in census tracts that could be matched. While about one quarter of the addresses, 138,757 addresses, were in the top three hard-to-count classes and few addresses—3,462 addresses, or 0.6 percent—were in the bottom two hard-to-count classes, Update/Enumerate was not limited to the most difficult hard-to-count classes. These results show that we followed the 1995 census test recommendation to not target Update/Enumerate based on hard-to-enumerate criteria.
- The higher-than-national enumeration rates of American Indians/Alaska Natives, Hispanics, and vacant housing units indicate successful targeting of areas with special enumeration needs.

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

- The average household size in Update/Enumerate areas was 2.9 persons, compared to 2.6 persons nationally.

- The Update/Enumerate vacancy rate, 38.7 percent, was higher than the national vacancy rate, 9.0 percent. Most vacants—78.9 percent of vacants—were seasonal vacants.
- Of occupied housing units, 76.1 percent were owned, compared to 66.2 percent nationally.
- Of persons, 49.6 percent were male, compared to 49.1 percent nationally.
- Of persons, 31.9 percent were under 18 years old, compared to 25.7 percent nationally.
- Of persons, 23.6 percent were Hispanic, compared to 12.5 percent nationally.
- Of persons, 1.5 percent were African American, compared to 12.3 percent nationally.
- Of persons, 27.7 percent were American Indian/Alaska Native; nationally, 0.9 percent were American Indian/Alaska Native.

Was Update/Enumerate completed on time and at what cost?

- Update/Enumerate was conducted from March 13 to June 5, 2000, one week past the planned May 30, 2000, end date. The extra time was needed to enumerate an American Indian reservation at the bottom of the Grand Canyon accessible only by mule.
- The direct field cost of Update/Enumerate—including Reinterview and Update/Enumerate Field Followup— was \$31,986,343, or \$30.27 per housing unit for the 1,056,553 housing units on or added to the Update/Enumerate address registers. Reinterview and Update/Enumerate Field Followup are two quality assurance checks on the Update/Enumerate operation. Additional costs, not included here, were headquarters costs and local census office infrastructure costs.

1. BACKGROUND

1.1 The 1990 census

Urban Update/Enumerate (U/E) was a special enumeration procedure in urban areas in the 1990 census. In this operation, we field-verified concentrated areas of boarded-up housing units (95 percent or more), thus eliminating these areas from the Vacant/Delete Check operation. This operation occurred in 96 blocks in New York City and Detroit.

Of the 10,303 housing units in Urban U/E, 86.5 percent were occupied and 13.5 percent were vacant. Only 10.4 percent of these vacant housing units were boarded up. No conclusions were made as to the effectiveness of this procedure in areas consisting almost entirely of boarded-up housing units.

1.2 The 1995 census test

In the 1995 census test, Urban U/E took place in Oakland, CA. The operational design was different from 1990 (and somewhat similar to Census 2000). For the 1995 census test, Urban U/E was a targeted special enumeration procedure. Targeted areas were blocks where the Census Bureau thought the U.S. Postal Service (USPS) would have difficulty delivering census questionnaires and where we anticipated low mail response (referred to as hard-to-enumerate areas). The 1995 Planning Database Team identified the following variables associated with these barriers:

- percent vacant,
- percent multi-unit structures,
- percent of residents in poverty or on public assistance,
- percent non-white,
- percent Hispanic,
- projected Nonresponse Followup workload,
- percent boarded up,
- and percent unmailable or undeliverable addresses.

Staff from the Los Angeles Regional Office and the Oakland District Office reviewed the areas targeted for this method and participated in the final identification of the areas.

This method took place in 106 blocks in Oakland. The experiment had a control group of blocks paired with similar targeted characteristics and assigned to the Mailout/Mailback type-of-enumeration area (TEA). Results from the 1995 census test showed that although we were successful at targeting areas with low mail response, the Urban U/E operation did not seem to improve coverage or data quality. Therefore, a major recommendation from the 1995 census test was to concentrate this type of enumeration procedure in areas strictly due to the deliverability issue rather than targeting hard-to-enumerate areas.

1.3 Census 2000

Update/Enumerate primarily targeted communities with special enumeration needs and where most housing units may not have had house number and street name mailing addresses. These areas included resort areas with high concentrations of seasonally vacant housing units, selected American Indian reservations and colonias; the latter generally are Hispanic-occupied unincorporated communities near the Mexican border. Most U/E areas were originally Update/Leave areas, but some came from Mailout/Mailback areas with high concentrations of seasonally vacant housing units.

The Census Bureau assigned TEAs at the block level. In Census 2000, the TEA reflected both the enumeration method and the method of compiling the Decennial Master Address File (DMAF). Update/Enumerate took place in two TEAs:

- TEA 5, or “Rural” U/E (originally Update/Leave areas), and
- TEA 8, or “Urban” U/E (originally Mailout/Mailback areas).

Creation of the DMAF in Rural U/E began from scratch with Address Listing. In Urban U/E, we extracted the DMAF from the Master Address File (MAF). Before DMAF creation, we field-checked MAF addresses in areas with house number-street name addresses (referred to as city-style addresses) in the door-to-door Block Canvassing operation.

Update/Enumerate was similar to Update/Leave, except that interviewers enumerated the housing unit at the time of their visit—both occupied and vacant housing units—rather than leaving a questionnaire to be completed by a resident and mailed to a data capture center. In both operations, the enumerator updated the address registers and census maps. The operation was conducted from March 13 to June 5, 2000. Detroit was the only regional census center that did not participate in the U/E operation.

2. METHODOLOGY

2.1 Files used in this evaluation

The following are the data sources for this report:

- the March 2001 MAF extract,
- the DMAF,
- the Decennial Response File—Stage 2 (DRF2),
- the Hundred Percent Census Edited File with reinstated cases (HCEF_D’),
- 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, U/E, and census universes using the March 2001 MAF extract. We defined the MAF universe as all housing units in U/E areas: variable GQ_HUF=0 or 3 and variable TEA=5 or 8. 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 U/E areas as the U/E 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, U/E, and census universes.

Using the MAFID variable, we matched the U/E universe with the DMAF housing units (variable GQFLG=0 or 3) to identify which U/E 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 U/E universe became our DMAF universe. See Appendix B for more detailed DMAF variable descriptions.

The DRF2 provided data at the census questionnaire return level. First, we pulled off return-level records from the DRF2 (variable RRT=2 or 3). Then we matched the DRF2 return-level records to the U/E universe by the variables MAFID and RUID, the MAFID variable equivalent on the DRF2. Records common to both files became our DRF2 universe. See Appendix C for more-detailed DRF2 variable descriptions.

The HCEF_D' contributed the demographic characteristics of the households and people in U/E 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 U/E universe by the variable MAFID, and records common to both files became the HCEF_D' universe. See Appendix D for more detailed HCEF_D' variable descriptions.

The Planning Database provided a 1990 census tract-level hard-to-count score for the U/E universe. We matched the Planning Database and U/E 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 U/E 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 U/E operation.

The PAMS/ADAMS provided the cost numbers for the U/E operation.

2.2 Levels of geography used to analyze numbers

During U/E, 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 U/E (Appendix Q), 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 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 Subjective designation of Update/Enumerate areas measured objectively

Local Census Offices, using general guidelines, designated areas for Update/Enumerate. There were no requirements for Local Census Offices to include or justify inclusion of areas as Update/Enumerate. The targeting measures in the results section are objective results of subjective decisions.

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 Spanish interview variable not documented

The variable used to determine whether an interview was conducted in Spanish did not have documentation about the values of the variable. We assumed that if any value appeared in this field, then a Spanish interview had been conducted. This may have overstated Spanish interviews. This variable could also underrepresent the number of Spanish interviews if the information was not recorded.

3.5 Comparing results to previous censuses not trivial

The 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 U/E areas, the degree of targeting in U/E areas, and the demographics of households and people enumerated in U/E areas.

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

Table 1 shows what happened during field enumeration to U/E addresses that were printed in the U/E address registers. Our universe approximating the U/E address registers is U/E addresses on the DMAF less U/E addresses added during field enumeration. 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 U/E operation. If an address was both corrected and moved, we classify the address as a block move. We designate addresses not classified by the enumerator or not data entered by the data entry clerk as undetermined.

Table 1. Address verification and updates during field enumeration for addresses printed in the Update/Enumerate address registers

Update/Enumerate action code	Number	Percent
Total housing units	926,861	100.0
Verification (acceptable)	573,699	61.9
Update	345,088	37.2
Correction	284,127	30.7
Block move*	25	0.0
Nonexistent	49,294	5.3
Nonresidential	11,642	1.3
Undetermined	8,074	0.9

Data sources: March 2001 MAF extract and DMAF

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

Over half of the addresses, 61.9 percent, were verified, and 37.2 percent of the addresses were updated. The most frequent update was correction, 30.7 percent of all addresses. Appendixes G and H contain the state-level and in-census state-level totals for Table 1, respectively.

There were 129,692 U/E additions during field enumeration, a 14.0 percent increase to the addresses printed in the address registers. Of these additions, 129,456 made it to the DMAF, and 122,735 were in the census. The 236 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 6,721 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 183,889 U/E collection blocks. A total of 154,045 of these blocks, or 83.8 percent, did not have any additions during field enumeration. Table 2 presents the clustering of additions for the 29,844 blocks with at least one addition. Most of the blocks with additions—27,410 blocks, or 91.8 percent—contained nine or fewer additions. Of the blocks with additions, 3,386 blocks, or 11.3 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	29,844	100.0
1	13,456	45.1
2-9	13,954	46.8
10-19	1,478	5.0
20-59	773	2.6
60-99	97	0.3
100+	86	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 P.O. 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 address 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, 2001e.

The U/E additions fall into three categories: complete city-style, incomplete address, or no address—67.8 percent, 13.4 percent, and 18.8 percent, respectively. (Not all additions had a complete address.) Appendix J has the state-level totals for Table 3.

Table 3. Type of address: additions

Address type	Number	Percent
Total housing units	129,692	100.0
Complete city-style	87,888	67.8
With location	24,611	19.0
Without location	63,277	48.8
Complete rural route	0	0.0
With location	0	0.0
Without location	0	0.0
Complete post office box	2	0.0
With location	1	0.0
Without location	1	0.0
Incomplete address	17,423	13.4
With location	14,304	11.0
Without location	3,119	2.4
No address	24,379	18.8
With location	21,107	16.3
Without location	3,272	2.5

Data source: March 2001 MAF extract

Table 4 shows the U/E additions by number of housing units at the basic street address. Most of the additions, 79.3 percent, were single units. Of the multi-unit basic street addresses, 41.2 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	129,692	100.0
Single unit	102,875	79.3
Multi-unit	26,817	20.7
2-4 units	11,045	8.5
5-9 units	2,680	2.1
10-19 units	2,275	1.8
20-49 units	3,553	2.7
50+ units	7,264	5.6

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, 2001a.

For additions, we collapsed the original source based on whether or not the original source included U/E 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 U/E address register (pre-AR),
- original source of U/E,
- original source of U/E and an original source that post-dated the creation of the U/E address register (post-AR), and
- original source is 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 U/E address register. The U/E 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 U/E address register.

Most of the additions, 93.1 percent, had U/E as the only original source. A pre-AR original source was the original source for 6.5 percent of the additions. For addresses with U/E as the only original source, U/E was the first and perhaps only source for that address.

Table 5. Original source: additions

Original source	Number	Percent
Total housing units	129,692	100.0
Pre-AR*	8,488	6.5
U/E	120,706	93.1
U/E and post-AR**	34	0.0
Post-AR**	464	0.4

Data source: March 2001 MAF extract

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

**Post-AR appears in two original source categories: (1) U/E and post-AR and (2) post-AR. For original source of U/E and post-AR, the post-AR original source is New Construction or LUCA 1999 appeals. For original source of post-AR, the post-AR original source includes the November 1999 DSF, special place/group quarters, Supplemental LUCA 1998, and LUCA 1999 relisting.

4.1.2 Characteristics of deletions

There were 183,889 U/E collection blocks. A total of 108,225 U/E blocks had no housing units in the address registers. Of the 75,664 U/E blocks with housing units in the address registers, 54,878 blocks, or 72.5 percent, did not have any deletions during field enumeration. Table 6 presents the clustering of deletions for the 20,786 blocks with at least one deletion.

About half, 53.5 percent, of the blocks with at least one deletion had only one deletion. The other category with a large percentage of deletions was blocks with 2-9 deletions, 42.2 percent of blocks with at least one deletion.

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	20,786	100.0
1	11,119	53.5
2-9	8,773	42.2
10-19	604	2.9
20-59	239	1.2
60-99	31	0.1
100+	20	0.1

Data source: March 2001 MAF extract

Table 7 shows the type of address for deletions. About half of the deletions, 53.5 percent were complete city-style addresses. The majority of the remaining addresses had no 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	60,936	100.0
Complete city-style	32,593	53.5
With location	4,404	7.2
Without location	28,189	46.3
Complete rural route	2,197	3.6
With location	2,120	3.5
Without location	77	0.1
Complete post office box	5,408	8.9
With location	5,060	8.3
Without location	348	0.6
Incomplete address	2,027	3.3
With location	813	1.3
Without location	1,214	2.0
No address	18,711	30.7
With location	18,710	30.7
Without location	1	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, 81.2 percent, were single-unit structures. Of the deletions in multi-unit basic street addresses, 60.3 percent were at basic street addresses with 2-4 units. 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	60,936	100.0
Single unit	49,450	81.2
Multi-unit	11,486	18.8
2-4 units	6,926	11.4
5-9 units	986	1.6
10-19 units	682	1.1
20-49 units	1,149	1.9
50+ units	1,743	2.9

Data source: March 2001 MAF extract

Table 9 shows that the greatest number of deletions, 82.8 percent, affected addresses acquired originally from the address listing operation.

Table 9. Original source: deletions

Original source	Number	Percent
Total housing units	60,936	100.0
1990 Address Control File	1,945	3.2
November 1997 DSF	2,470	4.1
Address listing	50,469	82.8
Block canvassing	1,936	3.2
LUCA 1998 or Supplemental LUCA 1998	769	1.3
LUCA 1999 relisting	2,587	4.2
Special place/group quarters	561	0.9
Dress rehearsal or Telephone Questionnaire Assistance	6	0.0
Block canvassing and LUCA 1998	41	0.1
September 1998 DSF	149	0.2
LUCA 1998 and September 1998 DSF	3	0.0

Data source: March 2001 MAF extract

4.1.3 Characteristics of corrections

There were 183,889 U/E collection blocks. Of these, 108,225 had no housing units printed in the address registers. Of the 75,664 U/E blocks with housing units in the address registers, 29,792 blocks, or 39.4 percent, did not have any corrections during field enumeration.

Table 10 presents the clustering of corrections for the 45,872 blocks with at least one correction. Most of the blocks with corrections—38,730, or 84.4 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	45,872	100.0
1	15,080	32.9
2-9	23,650	51.6
10-19	4,391	9.6
20-59	2,337	5.1
60-99	267	0.6
100+	147	0.3

Data source: March 2001 MAF extract

Table 11 contains a breakdown of type of address for the corrections. More than half of the U/E corrections, 59.6 percent, were complete city-style addresses. The other U/E corrections were split relatively closely between complete rural route, complete post office box, and no address: 9.1 percent, 13.9 percent, and 15.4 percent, respectively. Appendix L has the state-level totals for Table 11.

Table 11. Type of address: corrections

Address type	Number	Percent
Total housing units	284,127	100.0
Complete city-style	169,256	59.6
With location	75,594	26.6
Without location	93,662	33.0
Complete rural route	25,902	9.1
With location	25,641	9.0
Without location	261	0.1
Complete post office box	39,611	13.9
With location	38,626	13.6
Without location	985	0.3
Incomplete address	5,552	2.0
With location	3,251	1.1
Without location	2,301	0.8
No address	43,806	15.4
With location	43,806	15.4
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 (89.2 percent) occurred for single units. 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	284,127	100.0
Single unit	253,451	89.2
Multi-unit	30,676	10.8
2-4 units	12,375	4.4
5-9 units	2,537	0.9
10-19 units	2,545	0.9
20-49 units	5,348	1.9
50+ units	7,871	2.8

Data source: March 2001 MAF extract

Table 13 shows that most of the corrections, 94.5 percent, had address listing as the original source.

Table 13. Original source: corrections

Original source	Number	Percent
Total housing units	284,127	100.0
1990 Address Control File	4,133	1.5
November 1997 DSF	2,087	0.7
September 1998 DSF	157	0.1
Dress rehearsal	31	0.0
Address listing	268,501	94.5
Block canvassing	1,912	0.7
LUCA 1998 or Supplemental LUCA 1998	345	0.1
Block canvassing and LUCA 1998	84	0.0
LUCA 1998 and September 1998 DSF	14	0.0
LUCA 1999 relisting	6,606	2.3
Special place/group quarters	257	0.1

Data source: March 2001 MAF extract

4.1.4 Characteristics of block moves

There were 183,889 U/E collection blocks. Of these, 108,225 had no housing units printed in the address registers. Of the 75,664 U/E blocks with housing units in the address registers, 75,643 blocks, or nearly 100.0 percent, did not have any block moves during field enumeration. Of the 21 blocks with at least one block move, 17 blocks, or 81.0 percent had only one block move, and 4 blocks, or 19.0 percent, had 2 block moves.

All of the 25 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.

The majority of the block moves (80.0 percent) occurred for single units. Appendix N has the state-level totals.

For 22 of the 25 blocks moves, the original source was a file, either the 1990 Address Control File or the November 1997 DSF. These files did not provide the geocode for the addresses; TIGER provided the geocode. The original source for the remaining 3 block moves was Block Canvassing and LUCA 1998.

4.2 How well was Update/Enumerate targeted?

The MAF had 1,191,835 residential addresses in U/E blocks (1,091,848 in Rural U/E and 99,987 in Urban U/E). After removing known duplicates, there were 1,169,090 addresses (1,072,744 in Rural U/E and 96,346 in Urban U/E). Of the 1,169,090 addresses, 1,056,317 addresses (973,721 in Rural U/E and 82,596 in Urban U/E), or 90.4 percent, were delivered to the DMAF. Ultimately, 956,214 U/E addresses, or 90.5 percent of the DMAF addresses, were enumerated in the census as either occupied or vacant housing units (886,231 in Rural U/E and 69,983 in Urban U/E).

The 112,773 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 100,103 addresses on the DMAF and not in the census were deleted addresses; that is, they were determined not to be valid housing units. This section discusses the 956,214 addresses that were in the census.

Table 14 shows the number of collection blocks and housing units (HUs) in U/E. Nationally, 11 regional census centers designated 183,889 blocks as U/E. Not all U/E blocks had housing units; 108,062 blocks, 58.8 percent, had no housing units.

The average number of housing units per block with housing units was 12.6. The regional census centers had averages ranging from 8.2 to 25.7 housing units per block with housing units. Appendixes O and P show the number of collection blocks and housing units in Rural U/E and Urban U/E, respectively. Appendix Q has the state-level totals for Table 14.

Table 14. Number of Update/Enumerate blocks and Update/Enumerate housing units in the census by regional census center

Regional census center	Update/Enumerate blocks			Number of housing units	Average number of housing units per block*
	Total	With housing units	Without housing units		
Total	183,889	75,827	108,062	956,214	12.6
Atlanta	4,084	2,705	1,379	69,455	25.7
Boston	6,577	4,805	1,772	85,054	17.7
Charlotte	3,862	2,420	1,442	42,554	17.6
Chicago	12,011	7,440	4,571	81,561	11.0
Dallas	6,317	4,621	1,696	114,639	24.8
Denver	119,094	35,347	83,747	295,221	8.4
Detroit	0	0	0	0	NA
Kansas City	3,607	2,064	1,543	16,862	8.2
Los Angeles	8,594	5,284	3,310	95,446	18.1
New York	2,297	1,864	433	39,624	21.3
Philadelphia	8,448	6,311	2,137	90,497	14.3
Seattle	8,998	2,966	6,032	25,301	8.5

Data source: March 2001 MAF extract

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

NA—not applicable

In Table 15, 67.7 percent of U/E housing units in the census were complete city-style and 18.4 percent of U/E housing units in the census had incomplete or no address information. These high rates of incomplete or no address information indicate successful targeting of areas with mail delivery problems. The overall address rates were driven by the rural component of U/E. Appendix R has the state-level totals for Table 15.

Table 15. Type of address for Update/Enumerate housing units in the census

Address type	Total Update/Enumerate		Rural Update/Enumerate		Urban Update/Enumerate	
	Number	Percent	Number	Percent	Number	Percent
Total housing units	956,214	100.0	886,231	100.0	69,983	100.0
Complete city-style	647,164	67.7	578,310	65.3	68,854	98.4
With location	124,336	13.0	120,844	13.6	3,492	5.0
Without location	522,828	54.7	457,466	51.6	65,362	93.4
Complete rural route	54,657	5.7	54,655	6.2	2	0.0
With location	53,464	5.6	53,462	6.0	2	0.0
Without location	1,193	0.1	1,193	0.1	0	0.0
Complete post office box	78,602	8.2	78,600	8.9	2	0.0
With location	75,088	7.9	75,086	8.5	2	0.0
Without location	3,514	0.4	3,514	0.4	0	0.0
Incomplete address	30,496	3.2	29,641	3.3	855	1.2
With location	19,816	2.1	19,180	2.2	636	0.9
Without location	10,680	1.1	10,461	1.2	219	0.3
No address	145,295	15.2	145,025	16.4	270	0.4
With location	142,168	14.9	142,009	16.0	159	0.2
Without location	3,127	0.3	3,016	0.3	111	0.2

Data source: March 2001 MAF extract

Tables 16 and 17 show the number of U/E housing units in the census as a percent of each U/E block for two characteristics: matches to a residential address on the DSF and multi-unit addresses. The DSF is a list of the addresses serviced by the USPS. A multi-unit address is a housing unit with more than one unit designation at one basic street address; for example, an apartment building. Appendixes S and T present the state-level totals for Tables 16 and 17, respectively.

Table 16. Number of Update/Enumerate housing units in the census that match the Delivery Sequence File as a percent of each Update/Enumerate 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	75,827	100.0	956,214	100.0
0%	50,121	66.1	451,157	47.2
Greater than 0% to 25%	4,389	5.8	128,508	13.4
Greater than 25% to 50%	5,895	7.8	112,825	11.8
Greater than 50% to 75%	5,192	6.8	114,540	12.0
Greater than 75% up to 100%	3,994	5.3	107,003	11.2
100%	6,236	8.2	42,181	4.4

Data source: March 2001 MAF extract

Table 17. Number of multi-unit Update/Enumerate housing units in the census as a percent of each Update/Enumerate 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	75,827	100.0	956,214	100.0
0%	61,859	81.6	519,303	54.3
Greater than 0% to 25%	7,524	9.9	269,951	28.2
Greater than 25% to 50%	3,295	4.3	76,007	7.9
Greater than 50% to 75%	1,294	1.7	34,055	3.6
Greater than 75% up to 100%	777	1.0	47,640	5.0
100%	1,078	1.4	9,258	1.0

Data source: March 2001 MAF extract

Table 16 shows that many of the addresses were not on the DSF. In Table 16, 13.5 percent of blocks and 15.6 percent of housing units were in blocks with more than 75 percent of the housing units in the block matching the DSF. These are blocks for which we would expect successful mail delivery. On the other hand, 71.9 percent of blocks and 60.6 percent of housing units were in blocks where no more than 25 percent of the housing units in the block matched the DSF. Such blocks, which in this case were a substantial percentage of all U/E blocks, would presumably present mail delivery challenges for the USPS.

While mail delivery to the correct unit designation within a multi-unit structure may also be problematic, U/E did not have blocks with high concentrations of multi-unit basic street addresses. Table 17 shows that 91.5 percent of blocks and 82.5 percent of housing units were in blocks where no more than 25 percent of the housing units in the block were located at multi-unit structures. Relatively few—2.4 percent of blocks and 6.0 percent of housing units—were in blocks with more than 75 percent of the housing units in such structures.

Table 18 compares the percentages of single-unit and multi-unit basic street addresses in Rural U/E and Urban U/E. Most of the U/E housing units were single-unit basic street addresses, with an unsurprising higher percentage of single-unit basic street addresses in Rural U/E than Urban U/E, 87.4 percent vs. 78.0 percent.

Table 18. Number of housing units at the basic street address in the census

Number of housing units at the basic street address	Total		Rural		Urban	
	Update/Enumerate		Update/Enumerate		Update/Enumerate	
	Number	Percent	Number	Percent	Number	Percent
Total housing units	956,214	100.0	886,231	100.0	69,983	100.0
Single unit	828,848	86.7	774,246	87.4	54,602	78.0
Multi-unit	127,366	13.3	111,985	12.6	15,381	22.0

Data source: March 2001 MAF extract

Table 19 crosses the number of housing units at the basic street address with DSF match status. Multi-unit U/E housing units were more likely to match the DSF than single-unit U/E housing units—36.3 percent vs. 26.5 percent, respectively. Addresses in U/E include seasonal housing units, selected American Indian reservations, and colonias; each of which may have non-city-style (complete rural route or complete post office box), incomplete, or no addresses. The overall DSF match rate was a low 27.8 percent. Appendix U has the state-level totals for Table 19.

Table 19. Number of housing units at the basic street address for Update/Enumerate 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	956,214	100.0	NA
DSF match	265,816	27.8	NA
Not DSF match	690,398	72.2	NA
Single unit	828,848	86.7	100.0
DSF match	219,535	23.0	26.5
Not DSF match	609,313	63.7	73.5
Multi unit	127,366	13.3	100.0
DSF match	46,281	4.8	36.3
Not DSF match	81,085	8.5	63.7

Data source: March 2001 MAF extract; NA—not applicable

Matching the Census 2000 census tracts to the Planning Database, 566,399 addresses, 59.2 percent of U/E addresses in the census, were in tracts that could be matched.

Table 20 shows the hard-to-count classes for U/E addresses that match to a census tract on the Planning Database. Of the 1,051 census tracts that had U/E housing units in the census, 572, or 54.4 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.

Table 20 shows that U/E encompassed a wide range of hard-to-count classes. While about one quarter of the U/E addresses were in the top three hard-to-count classes (classes 1, 2, and 3) and few U/E addresses (0.6 percent) were in the least hard-to-count classes (classes 9 and 10), U/E was not limited to the most difficult hard-to-count classes; 74.9 percent were in the middle range (classes 4-8), with 60.7 percent in classes 5-7. These results show that we followed the 1995 Census Test recommendation to not target U/E based on hard-to-enumerate criteria. Appendix V presents the state-level totals for Table 20.

Table 20. Hard-to-count classes for Update/Enumerate housing units in the census

Hard-to-count class	Number	Percent	Cumulative Percent
Total housing units	566,399	100.0	
1 hardest-to-count	42,398	7.5	7.5
2	55,632	9.8	17.3
3	40,727	7.2	24.5
4	55,552	9.8	34.3
5	82,327	14.5	48.8
6	143,528	25.3	74.2
7	117,947	20.8	95.0
8	24,826	4.4	99.4
9	1,411	0.2	99.6
10 easiest-to-count	2,051	0.4	100.0

Data sources: March 2001 MAF extract and Planning Database

The results for Tables 21 and 22 are for housing units on the DRF2. The variables of interest from this file were the number of proxy interviews and the number of interviews conducted in Spanish. We report the results in terms of the number of returns (census questionnaires) on the DRF2. There were 1,056,046 returns on the DRF2, and 110,559 housing units, 10.5 percent, had more than one return.

Table 21 shows that, overall, 41.6 percent of returns were proxies. The high proxy rate is probably due to the high vacancy rate for the seasonal housing in U/E areas. Appendix W has the state-level totals for Table 21.

Table 21. Proxy interviews

	Total Update/Enumerate returns		Rural Update/Enumerate returns		Urban Update/Enumerate returns	
	Number	Percent	Number	Percent	Number	Percent
Total returns	1,056,046	100.0	978,799	100.0	77,247	100.0
Household member	531,374	50.3	485,717	49.6	45,657	59.1
Proxy	439,572	41.6	416,086	42.5	23,486	30.4
In mover	5,088	0.5	4,610	0.5	478	0.6
Neighbor	434,484	41.1	411,476	42.0	23,008	29.8
Information not collected	85,100	8.1	76,996	7.9	8,104	10.5

Data source: DRF2

We interviewed household members and proxies in Spanish. In Rural U/E, we conducted 3.6 percent of interviews in Spanish. Part of the Rural U/E universe was colonias, which may be linguistically isolated. Appendix X has the state-level totals for Table 22.

Table 22. Interviews conducted in Spanish

	Total Update/Enumerate returns		Rural Update/Enumerate returns		Urban Update/Enumerate returns	
	Number	Percent	Number	Percent	Number	Percent
Total returns	1,056,046	100	978,799	100.0	77,247	100.0
Spanish interview	36,934	3.5	35,629	3.6	1,305	1.7
Not Spanish interview	1,019,112	96.5	943,170	96.4	75,942	98.3

Data source: DRF2

Table 23 shows the occupancy status for those housing units in the census. Most vacants—78.9 percent of vacants—were seasonal vacants. The “vacant other” category includes the following:

- for rent,
- for sale,
- rented or sold and not occupied,
- for migrant workers,
- and other vacant.

The U/E vacancy rate, 38.7 percent was higher than the national vacancy rate, 9.0 percent. (For national comparisons, see U.S. Census Bureau, 2001d.) Appendix Y has the state-level totals for Table 23.

Table 23. Occupancy status

Occupancy status	Total housing units	
	Number	Percent
Total	956,214	100.0
Vacant	370,221	38.7
Seasonal	292,167	30.6
Other	78,054	8.2
Occupied	585,993	61.3

Data source: HCEF_D'

Table 24 shows the number of housing units in the census that responded by either Telephone Questionnaire Assistance 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 or the Be Counted program, which are respondent-initiated enumerations. Appendix Z provides the state-level totals for Table 24.

Table 24. Telephone Questionnaire Assistance and Be Counted responses by whether only response or response in combination with other types of responses

	Total	Only	In combination
Telephone Questionnaire Assistance	1,451	399	1,052
Be Counted	2,873	799	2,074

Data source: DMAF

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

4.3.1 Household demographics

Of the 956,214 U/E housing units in the census, 585,993 were occupied and 370,221 were vacant. The average household size in U/E areas was 2.9 persons, compared to 2.6 persons nationally. Table 25 shows the number and percent of owned and rented U/E housing units for the occupied housing units. Appendix AA has the state-level totals for Table 25.

Table 25. Tenure

Tenure	Occupied housing units	
	Number	Percent
Total occupied housing units	585,993	100.0
Owned	445,907	76.1
Rented	140,086	23.9

Data source: HCEF_D'

U/E had a greater percent of owned than rented housing units: 76.1 percent vs. 23.9 percent. Nationally, 66.2 percent of occupied housing units were owned.

4.3.2 Person-level demographics

Tables 26-29 show the number and percent of persons broken down by sex, age, Hispanic origin, and race. We enumerated 1,727,361 persons in U/E. Appendixes BB, CC, DD, and EE have the state-level totals for Tables 26-29, respectively.

Table 26. Sex

Sex	Persons	
	Number	Percent
Total	1,727,361	100.0
Male	856,096	49.6
Female	871,265	50.4

Data source: HCEF_D'

Table 26 shows that we enumerated males and females in U/E areas at nearly the same rate, 49.6 percent vs. 50.4 percent, respectively. Nationally, 49.1 percent were male.

Table 27. Age

Age	Persons	
	Number	Percent
Total	1,727,361	100.0
<18 years old	551,742	31.9
18 to 24 years old	147,279	8.5
25 to 34 years old	208,435	12.1
35 to 44 years old	255,366	14.8
45 to 54 years old	216,846	12.6
55 to 64 years old	153,751	8.9
65+ years old	193,942	11.2

Data source: HCEF_D'

Table 27 has age breakdowns of persons enumerated in U/E. More U/E persons were less than 18 years old, 551,742 or 31.9 percent, than any other category. Nationally, 25.7 percent were under 18 years old. The smallest number of persons were 18 to 24 years old, 147,279 or 8.5 percent of persons enumerated in U/E areas. Note: each age category does not contain the same number of years.

Table 28. Hispanic origin

Hispanic origin	Persons	
	Number	Percent
Total	1,727,361	100.0
Non-Hispanic	1,320,087	76.4
Hispanic	407,274	23.6

Data source: HCEF_D'

Table 28 shows that almost one quarter of the persons enumerated in U/E were Hispanic. Nationally, 12.5 percent were Hispanic.

Table 29. Race

Race	Persons	
	Number	Percent
Total	1,727,361	100.0
White	1,094,851	63.4
African American	26,393	1.5
American Indian/Alaska Native	478,742	27.7
Asian	5,743	0.3
Native Hawaiian/Pacific Islander	882	0.1
Some other race	87,843	5.1
Two or more races	32,907	1.9

Data source: HCEF_D'

Table 29 shows we enumerated 1,094,851 whites, 63.4 percent of persons enumerated in U/E. Of U/E persons, 1.5 percent were African American; nationally, 12.3 percent were African American. American Indian/Alaska Native were 27.7 percent of persons enumerated in U/E areas; nationally, 0.9 percent were American Indian/Alaska Native. We enumerated many persons as “some other race,” 87,843 persons or 5.1 percent. From Census Bureau research, we know Hispanics sometimes choose this category.

The U/E operation had a greater percentage under 18 years old, a greater percentage of Hispanics, and a greater percentage of American Indian/Alaska Native than nationwide. The Hispanics and American Indian/Alaska Natives were traditionally undercounted groups that we enumerated by targeting colonias and selected American Indian reservations.

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

Update/Enumerate was conducted from March 13 to June 5, 2000, running a week past the scheduled May 30, 2000, end date. The extra time was needed to enumerate an American Indian reservation at the bottom of the Grand Canyon accessible only by mule.

The direct field cost of U/E—including Reinterview and U/E Field Followup—was \$31,986,343, or \$30.27 per housing unit for the 1,056,553 housing units on or added to the U/E address registers. Reinterview and U/E Field Followup are two quality assurance checks on the U/E operation. Additional costs, not included here, were headquarters costs and local census office infrastructure costs.

Table 30 shows the field cost by expenditure category.

Table 30. Field cost by expenditure category

Expenditure category	Field cost	Percent
Total	\$31,986,343	100.0
Salaries	\$26,315,874	82.3
Regular	\$19,616,455	61.3
Training	\$5,860,409	18.3
Overtime	\$778,282	2.4
Night Differential	\$60,728	0.2
Reimbursables	\$5,670,469	17.7
Mileage	\$5,541,624	17.3
Telephone	\$79,496	0.2
Other	\$49,349	0.2

Data source: PAMS/ADAMS

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

- Salaries: \$26,315,874 (82.3 percent of the total cost)
- Reimbursables: \$5,670,469 (17.7 percent of the total cost)

Most of the cost of the operation was the regular salary, training salary, and mileage reimbursable: \$19,616,455, 61.3 percent; \$5,860,409, 18.3 percent; and \$5,541,624, 17.3 percent, respectively.

5. CONCLUSIONS

We measured the success of U/E by determining if we improved the address list and identified areas ripe for field enumeration. Going directly to the field saves time and money in areas where we have concerns about responsiveness and address integrity. Overall, we were successful in these respects.

We verified 61.9 percent of the address list and updated 37.2 percent. We added 129,692 addresses, a 14.0 percent increase to the address registers.

We deemed selected American Indian reservations, colonias, and seasonal housing units suited for field enumeration. The higher-than-national enumeration rates of American Indians/Alaska Natives, Hispanics, and vacant housing units indicate successful targeting. We would not have been able to successfully mail census questionnaires to these addresses, as demonstrated by the high rate of incomplete or no address information for the U/E addresses, 18.4 percent. We did not target U/E by trying to identify hard-to-enumerate areas, so we are not surprised that U/E addresses were in a wide range of hard-to-count classes.

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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

Processing ID (PID)

Appendix C: Decennial Response File–Stage 2 variables

Return-level Records

Record type (RRT)

2=return-level record for short form in housing unit

3=return-level record for long form in housing unit

Unit ID number (RUID)

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

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

characters 6-12=sequence ID

Appendix D: 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 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 field enumeration for addresses printed in the Update/Enumerate address registers, state-level totals for Table 1

Area	Update/Enumerate action code							
	Total	Verification	Correction	Updates			Non-residential	Undetermined
				Block move	Nonexistent			
United States	926,861	573,699	284,127	25	49,294	11,642	8,074	
Alabama	10,041	8,062	1,282	0	673	17	7	
Alaska	122	3	108	0	11	0	0	
Arizona	79,095	41,352	28,437	1	6,349	2,514	442	
California	96,196	62,794	26,646	0	4,833	473	1,450	
Colorado	30,285	17,417	10,031	0	2,338	208	291	
Connecticut	96	84	8	0	2	1	1	
Florida	54,230	36,891	12,945	0	2,930	350	1,114	
Idaho	13,942	7,520	5,736	0	411	119	156	
Indiana	4,575	3,508	360	4	562	18	123	
Iowa	231	191	22	0	17	0	1	
Kansas	2,506	1,593	845	0	49	11	8	
Kentucky	14,533	11,437	2,332	1	489	161	113	
Louisiana	21,115	17,091	1,975	5	1,668	272	104	
Maine	7,277	3,567	2,935	7	668	92	8	
Massachusetts	66,170	52,577	10,526	0	2,525	419	123	
Minnesota	14,216	8,259	5,272	0	403	103	179	
Mississippi	1,537	413	1,082	0	11	21	10	
Montana	26,397	14,867	9,927	0	841	373	389	
Nebraska	3,544	2,649	778	0	81	24	12	
Nevada	20,512	12,575	6,333	0	1,061	403	140	
New Mexico	63,259	32,946	22,269	0	4,492	2,938	614	

Appendix G: Address verification and updates during field enumeration for addresses printed in the Update/Enumerate address registers, state-level totals for Table 1

Area	Update/Enumerate action code							
	Total	Verification	Updates				Non-residential	Undetermined
			Correction	Block move	Nonexistent			
New York	45,524	32,545	10,662	0	1,876	247	194	
North Carolina	19,673	13,327	4,789	0	1,131	228	198	
North Dakota	16,018	10,325	4,782	0	728	157	26	
Oregon	1,870	776	893	0	141	15	45	
Pennsylvania	87,254	47,062	35,302	0	4,007	271	612	
Rhode Island	1,532	728	778	0	5	20	1	
South Carolina	5,983	4,853	878	0	238	3	11	
South Dakota	21,490	12,034	8,097	0	753	350	256	
Texas	87,218	49,791	31,203	0	4,551	811	862	
Utah	20,911	11,279	8,132	2	1,194	191	113	
Virginia	28	25	3	0	0	0	0	
Washington	5,717	2,176	3,119	0	307	72	43	
Wisconsin	74,000	44,954	24,421	5	3,651	606	363	
Wyoming	9,764	8,028	1,219	0	298	154	65	

Data source: March 2001 MAF extract

Appendix H: Address verification and updates during field enumeration for addresses printed in the Update/Enumerate address registers, in-census state-level totals for Table 1

Area	Update/Enumerate action code							
	Total	Updates					Non-residential	Undetermined
		Verification	Correction	Block move	Nonexistent			
United States	833,479	562,782	260,852	2	380	5,037	4,426	
Alabama	9,095	8,034	1,056	0	0	1	4	
Alaska	106	3	103	0	0	0	0	
Arizona	66,548	39,815	24,821	0	22	1,661	229	
California	87,877	61,975	24,685	0	24	54	1,139	
Colorado	27,064	17,293	9,521	0	6	28	216	
Connecticut	86	83	3	0	0	0	0	
Florida	48,723	36,514	11,284	0	23	21	881	
Idaho	12,776	7,439	5,276	0	3	23	35	
Indiana	3,745	3,385	315	0	10	0	35	
Iowa	197	189	8	0	0	0	0	
Kansas	2,308	1,539	761	0	2	4	2	
Kentucky	13,420	11,240	2,063	0	3	30	84	
Louisiana	18,262	16,652	1,462	1	6	100	41	
Maine	6,351	3,502	2,842	0	0	5	2	
Massachusetts	62,317	52,276	9,962	0	7	32	40	
Minnesota	13,144	8,059	4,989	0	6	26	64	
Mississippi	978	85	890	0	0	2	1	
Montana	24,048	14,612	9,211	0	13	138	74	
Nebraska	3,287	2,614	657	0	0	12	4	
Nevada	17,547	12,441	4,959	0	0	95	52	
New Mexico	53,260	31,189	19,914	0	74	1,822	261	

Appendix H: Address verification and updates during field enumeration for addresses printed in the Update/Enumerate address registers, in-census state-level totals for Table 1

Area	Update/Enumerate action code								
	Total	Verification	Updates					Non-residential	Undetermined
			Correction	Block move	Nonexistent				
New York	42,555	32,304	10,138	0	3	34	76		
North Carolina	17,821	13,145	4,475	0	6	107	88		
North Dakota	14,504	10,199	4,220	0	0	83	2		
Oregon	1,537	740	757	0	1	0	39		
Pennsylvania	81,366	46,742	34,355	0	34	31	204		
Rhode Island	1,485	717	762	0	0	5	1		
South Carolina	5,272	4,614	638	0	8	1	11		
South Dakota	19,344	11,737	7,250	0	1	179	177		
Texas	79,172	48,792	29,574	0	40	358	408		
Utah	18,461	10,806	7,565	0	6	46	38		
Virginia	28	25	3	0	0	0	0		
Washington	5,118	2,137	2,945	0	0	16	20		
Wisconsin	66,911	44,121	22,449	1	82	84	174		
Wyoming	8,766	7,764	939	0	0	39	24		

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	129,692	129,456	99.8	122,735	94.6
Alabama	1,000	999	99.9	936	93.6
Alaska	20	20	100.0	14	70.0
Arizona	11,653	11,634	99.8	11,106	95.3
California	11,334	11,329	100.0	10,575	93.3
Colorado	7,224	7,218	99.9	6,928	95.9
Connecticut	7	7	100.0	7	100.0
Florida	11,336	11,317	99.8	10,701	94.4
Idaho	1,566	1,565	99.9	1,492	95.3
Indiana	2,493	2,493	100.0	2,150	86.2
Iowa	37	37	100.0	22	59.5
Kansas	117	117	100.0	110	94.0
Kentucky	1,501	1,494	99.5	1,407	93.7
Louisiana	1,921	1,920	99.9	1,679	87.4
Maine	1,209	1,208	99.9	1,171	96.9
Massachusetts	6,550	6,518	99.5	6,295	96.1
Minnesota	1,108	1,108	100.0	1,081	97.6
Mississippi	565	564	99.8	468	82.8
Montana	3,119	3,114	99.8	3,027	97.1
Nebraska	140	140	100.0	136	97.1
Nevada	4,765	4,747	99.6	4,550	95.5
New Mexico	9,955	9,932	99.8	9,614	96.6
New York	4,428	4,409	99.6	4,290	96.9

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
North Carolina	3,194	3,194	100.0	3,034	95.0
North Dakota	1,574	1,566	99.5	1,504	95.6
Oregon	602	602	100.0	533	88.5
Pennsylvania	9,479	9,461	99.8	9,131	96.3
Rhode Island	121	121	100.0	121	100.0
South Carolina	1,595	1,594	99.9	1,572	98.6
South Dakota	2,487	2,484	99.9	2,402	96.6
Texas	14,783	14,774	99.9	14,080	95.2
Utah	2,677	2,667	99.6	2,421	90.4
Virginia	0	0	NA	0	NA
Washington	758	758	100.0	719	94.9
Wisconsin	9,592	9,563	99.7	8,755	91.3
Wyoming	782	782	100.0	704	90.0

Data sources: March 2001 MAF extract and DMAF

NA—not applicable

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	129,692	24,611	63,277	0	0	1	1	14,304	3,119	21,107	3,272
Alabama	1,000	78	822	0	0	0	0	32	15	34	19
Alaska	20	0	19	0	0	0	0	0	0	0	1
Arizona	11,653	1,242	2,431	0	0	0	0	1,443	292	5,750	495
California	11,334	1,656	7,544	0	0	0	0	1,181	105	674	174
Colorado	7,224	1,277	5,338	0	0	0	0	163	31	61	354
Connecticut	7	0	3	0	0	0	0	4	0	0	0
Florida	11,336	1,819	8,698	0	0	0	0	273	83	128	335
Idaho	1,566	331	545	0	0	0	0	310	43	301	36
Indiana	2,493	589	1,502	0	0	0	0	202	146	54	0
Iowa	37	1	31	0	0	0	0	1	2	0	2
Kansas	117	24	80	0	0	0	0	2	7	3	1
Kentucky	1,501	303	816	0	0	0	0	261	58	35	28
Louisiana	1,921	444	1,318	0	0	0	0	52	17	25	65
Maine	1,209	73	300	0	0	0	0	489	34	297	16
Massachusetts	6,550	2,000	3,488	0	0	0	0	719	140	142	61
Minnesota	1,108	217	241	0	0	0	0	173	18	423	36
Mississippi	565	89	443	0	0	0	0	16	3	13	1
Montana	3,119	639	918	0	0	0	0	459	98	865	140
Nebraska	140	16	51	0	0	0	0	8	2	59	4
Nevada	4,765	423	3,321	0	0	0	0	523	84	289	125
New Mexico	9,955	1,983	1,864	0	0	1	1	1,129	279	4,291	407
New York	4,428	1,336	2,136	0	0	0	0	485	131	243	97
North Carolina	3,194	454	2,084	0	0	0	0	223	209	99	125
North Dakota	1,574	282	572	0	0	0	0	102	32	530	56
Oregon	602	50	492	0	0	0	0	5	29	13	13
Pennsylvania	9,479	2,474	3,239	0	0	0	0	2,334	249	1,055	128
Rhode Island	121	3	2	0	0	0	0	48	7	58	3
South Carolina	1,595	1,246	328	0	0	0	0	1	3	1	16
South Dakota	2,487	285	218	0	0	0	0	264	45	1,575	100
Texas	14,783	2,367	6,763	0	0	0	0	2,092	578	2,695	288
Utah	2,677	261	1,305	0	0	0	0	317	37	695	62
Virginia	0	0	0	0	0	0	0	0	0	0	0
Washington	758	211	302	0	0	0	0	136	38	53	18
Wisconsin	9,592	2,199	5,591	0	0	0	0	826	297	636	43
Wyoming	782	239	472	0	0	0	0	31	7	10	23

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	60,936	4,404	28,189	2,120	77	5,060	348	813	1,214	18,710	1
Alabama	690	20	393	0	0	2	1	0	249	25	0
Alaska	11	3	7	0	0	0	0	0	0	1	0
Arizona	8,863	243	1,929	100	6	1,969	118	191	172	4,135	0
California	5,306	249	3,705	194	12	81	10	8	31	1,016	0
Colorado	2,546	169	2,060	0	0	13	3	10	22	269	0
Connecticut	3	0	3	0	0	0	0	0	0	0	0
Florida	3,280	75	2,656	0	0	17	16	0	104	412	0
Idaho	530	36	186	54	5	23	1	6	6	213	0
Indiana	580	6	536	3	0	0	0	34	0	1	0
Iowa	17	4	9	0	0	0	2	0	2	0	0
Kansas	60	4	36	5	0	0	0	2	0	13	0
Kentucky	650	59	390	0	0	0	0	7	5	189	0
Louisiana	1,940	53	1,699	0	0	5	1	85	9	88	0
Maine	760	6	327	54	1	50	3	75	8	236	0
Massachusetts	2,944	167	1,821	7	1	61	8	11	40	828	0
Minnesota	506	40	166	66	0	30	0	7	3	194	0
Mississippi	32	0	6	3	0	0	0	0	0	23	0
Montana	1,214	174	257	33	1	204	8	19	19	499	0
Nebraska	105	12	40	12	0	21	0	6	0	14	0
Nevada	1,464	113	555	35	5	62	9	10	34	641	0
New Mexico	7,430	595	1,023	163	13	1,423	107	65	266	3,774	1
New York	2,123	119	1,470	4	0	47	1	1	5	476	0
North Carolina	1,359	57	870	6	0	28	8	10	13	367	0
North Dakota	885	89	176	40	0	125	6	6	16	427	0
Oregon	156	20	103	3	0	4	2	0	3	21	0
Pennsylvania	4,278	1,247	1,039	245	4	108	3	9	27	1,596	0
Rhode Island	25	0	2	1	2	0	12	0	2	6	0
South Carolina	241	1	235	0	0	0	0	3	2	0	0
South Dakota	1,103	40	78	121	3	203	2	34	36	586	0
Texas	5,362	285	2,027	906	15	308	3	86	66	1,666	0
Utah	1,385	124	737	9	1	203	1	15	2	293	0
Virginia	0	0	0	0	0	0	0	0	0	0	0
Washington	379	56	119	6	0	25	6	1	2	164	0
Wisconsin	4,257	305	3,196	50	6	43	12	102	58	485	0
Wyoming	452	33	333	0	2	5	5	10	12	52	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	284,127	75,594	93,662	25,641	261	38,626	985	3,251	2,301	43,806	0
Alabama	1,282	361	805	0	0	6	0	0	0	110	0
Alaska	108	11	97	0	0	0	0	0	0	0	0
Arizona	28,437	4,863	4,375	1,297	14	11,971	332	615	477	4,493	0
California	26,646	4,074	19,981	304	1	709	71	27	64	1,415	0
Colorado	10,031	3,403	6,043	33	0	94	2	46	17	393	0
Connecticut	8	0	7	0	0	0	0	1	0	0	0
Florida	12,945	2,941	9,002	5	1	48	13	74	151	710	0
Idaho	5,736	1,369	1,368	1,413	15	616	4	55	15	881	0
Indiana	360	89	265	0	0	0	0	6	0	0	0
Iowa	22	8	13	0	0	0	0	0	0	1	0
Kansas	845	456	252	64	0	7	0	1	0	65	0
Kentucky	2,332	717	1,190	7	0	15	1	18	10	374	0
Louisiana	1,975	248	1,540	0	0	15	2	16	2	152	0
Maine	2,935	206	150	853	1	507	0	57	2	1,159	0
Massachusetts	10,526	5,177	3,770	42	0	120	4	44	10	1,359	0
Minnesota	5,272	1,966	811	1,098	1	639	3	55	9	690	0
Mississippi	1,082	571	266	159	0	4	0	0	0	82	0
Montana	9,927	2,551	2,053	598	2	2,886	21	117	75	1,624	0
Nebraska	778	245	191	75	19	144	0	21	0	83	0
Nevada	6,333	1,802	2,794	151	1	284	16	35	47	1,203	0
New Mexico	22,269	6,019	4,423	900	14	6,972	244	443	247	3,007	0
New York	10,662	4,281	2,453	80	0	525	1	28	8	3,286	0
North Carolina	4,789	1,244	2,227	198	4	451	28	60	36	541	0
North Dakota	4,782	1,164	819	297	6	1,453	60	85	49	849	0
Oregon	893	186	620	3	3	42	0	1	1	37	0
Pennsylvania	35,302	11,641	3,999	5,959	37	2,148	8	181	75	11,254	0
Rhode Island	778	34	29	33	7	161	94	14	10	396	0
South Carolina	878	224	654	0	0	0	0	0	0	0	0
South Dakota	8,097	1,030	1,112	1,244	51	2,740	54	181	68	1,617	0
Texas	31,203	6,544	5,770	9,157	68	3,773	7	531	831	4,522	0
Utah	8,132	1,137	4,366	430	1	1,241	1	76	9	871	0
Virginia	3	1	2	0	0	0	0	0	0	0	0
Washington	3,119	1,292	440	135	0	452	8	26	7	759	0
Wisconsin	24,421	9,393	11,012	1,103	15	587	9	431	71	1,800	0
Wyoming	1,219	346	763	3	0	16	2	6	10	73	0

Data source: March 2001 MAF extract

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

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	25	8	17	0	0	0	0	0	0	0	0
Alabama	0	0	0	0	0	0	0	0	0	0	0
Alaska	0	0	0	0	0	0	0	0	0	0	0
Arizona	1	0	1	0	0	0	0	0	0	0	0
California	0	0	0	0	0	0	0	0	0	0	0
Colorado	0	0	0	0	0	0	0	0	0	0	0
Connecticut	0	0	0	0	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0	0	0	0
Indiana	4	2	2	0	0	0	0	0	0	0	0
Iowa	0	0	0	0	0	0	0	0	0	0	0
Kansas	0	0	0	0	0	0	0	0	0	0	0
Kentucky	1	0	1	0	0	0	0	0	0	0	0
Louisiana	5	2	3	0	0	0	0	0	0	0	0
Maine	7	2	5	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	0	0	0	0	0	0	0	0
Minnesota	0	0	0	0	0	0	0	0	0	0	0
Mississippi	0	0	0	0	0	0	0	0	0	0	0
Montana	0	0	0	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0	0	0	0
New York	0	0	0	0	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	0	0	0	0
Texas	0	0	0	0	0	0	0	0	0	0	0
Utah	2	2	0	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0	0	0	0
Wisconsin	5	0	5	0	0	0	0	0	0	0	0
Wyoming	0	0	0	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, and 12

Area	Additions			Deletions			Corrections			Block moves		
	# housing units	# single unit housing units	% single unit housing units	# housing units	# single unit housing units	% single unit housing units	# housing units	# single unit housing units	% single unit housing units	# housing units	# single unit housing units	% single unit housing units
United States	129,692	102,875	79.3	60,936	49,450	81.2	284,127	253,451	89.2	25	20	80.0
Alabama	1,000	546	54.6	690	464	67.2	1,282	758	59.1	0	0	NA
Alaska	20	15	75.0	11	9	81.8	108	88	81.5	0	0	NA
Arizona	11,653	10,776	92.5	8,863	8,114	91.5	28,437	26,194	92.1	1	1	100.0
California	11,334	8,261	72.9	5,306	3,985	75.1	26,646	22,785	85.5	0	0	NA
Colorado	7,224	3,123	43.2	2,546	1,336	52.5	10,031	6,389	63.7	0	0	NA
Connecticut	7	7	100.0	3	1	33.3	8	8	100.0	0	0	NA
Florida	11,336	6,852	60.4	3,280	1,885	57.5	12,945	7,947	61.4	0	0	NA
Idaho	1,566	1,401	89.5	530	459	86.6	5,736	5,463	95.2	0	0	NA
Indiana	2,493	1,879	75.4	580	480	82.8	360	258	71.7	4	3	75.0
Iowa	37	32	86.5	17	8	47.1	22	11	50.0	0	0	NA
Kansas	117	91	77.8	60	51	85.0	845	781	92.4	0	0	NA
Kentucky	1,501	1,309	87.2	650	514	79.1	2,332	2,185	93.7	1	1	100.0
Louisiana	1,921	1,499	78.0	1,940	1,152	59.4	1,975	1,409	71.3	5	4	80.0
Maine	1,209	1,148	95.0	760	708	93.2	2,935	2,907	99.0	7	4	57.1
Massachusetts	6,550	4,764	72.7	2,944	2,133	72.5	10,526	8,602	81.7	0	0	NA
Minnesota	1,108	1,045	94.3	506	452	89.3	5,272	5,087	96.5	0	0	NA
Mississippi	565	546	96.6	32	31	96.9	1,082	1,073	99.2	0	0	NA
Montana	3,119	2,808	90.0	1,214	1,080	89.0	9,927	9,410	94.8	0	0	NA
Nebraska	140	130	92.9	105	78	74.3	778	730	93.8	0	0	NA
Nevada	4,765	3,529	74.1	1,464	1,268	86.6	6,333	5,141	81.2	0	0	NA
New Mexico	9,955	9,265	93.1	7,430	7,042	94.8	22,269	21,096	94.7	0	0	NA
New York	4,428	3,207	72.4	2,123	1,422	67.0	10,662	9,909	92.9	0	0	NA
North Carolina	3,194	2,103	65.8	1,359	921	67.8	4,789	4,238	88.5	0	0	NA
North Dakota	1,574	1,412	89.7	885	802	90.6	4,782	4,295	89.8	0	0	NA
Oregon	602	526	87.4	156	126	80.8	893	802	89.8	0	0	NA
Pennsylvania	9,479	9,187	96.9	4,278	3,890	90.9	35,302	34,916	98.9	0	0	NA

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, and 12

Area	Additions			Deletions			Corrections			Block moves		
	# housing units	# single unit housing units	% single unit housing units	# housing units	# single unit housing units	% single unit housing units	# housing units	# single unit housing units	% single unit housing units	# housing units	# single unit housing units	% single unit housing units
Rhode Island	121	121	100.0	25	24	96.0	778	764	98.2	0	0	NA
South Carolina	1,595	704	44.1	241	176	73.0	878	382	43.5	0	0	NA
South Dakota	2,487	2,423	97.4	1,103	1,077	97.6	8,097	7,903	97.6	0	0	NA
Texas	14,783	12,755	86.3	5,362	4,549	84.8	31,203	29,153	93.4	0	0	NA
Utah	2,677	2,364	88.3	1,385	1,151	83.1	8,132	7,200	88.5	2	2	100.0
Virginia	0	0	NA	0	0	NA	3	3	100.0	0	0	NA
Washington	758	677	89.3	379	328	86.5	3,119	2,931	94.0	0	0	NA
Wisconsin	9,592	7,753	80.8	4,257	3,383	79.5	24,421	21,749	89.1	5	5	100.0
Wyoming	782	617	78.9	452	351	77.7	1,219	884	72.5	0	0	NA

Data source: March 2001 MAF extract

NA—not applicable

Appendix O: Number of Rural Update/Enumerate blocks and Rural Update/Enumerate housing units in the census by regional census center for Table 14

Regional census center	Rural Update/Enumerate blocks			Number of housing units	Average number of housing units per block*
	Total	With housing units	Without housing units		
Total	177,739	71,740	105,999	886,231	12.4
Atlanta	4,077	2,702	1,375	69,418	25.7
Boston	6,361	4,637	1,724	81,516	17.6
Charlotte	3,676	2,275	1,401	35,075	15.4
Chicago	9,454	5,692	3,762	54,956	9.7
Dallas	4,623	3,753	870	100,172	26.7
Denver	117,844	34,341	83,503	278,405	8.1
Detroit	0	0	0	0	NA
Kansas City	3,442	1,941	1,501	16,030	8.3
Los Angeles	8,579	5,273	3,306	95,369	18.1
New York	2,297	1,864	433	39,624	21.3
Philadelphia	8,448	6,311	2,137	90,497	14.3
Seattle	8,938	2,951	5,987	25,169	8.5

Data source: March 2001 MAF extract

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

NA– not applicable

Appendix P: Number of Urban Update/Enumerate blocks and Urban Update/Enumerate housing units in the census by regional census center for Table 14

Regional census center	Urban Update/Enumerate blocks		Number of housing units	Average number of housing units per block*	
	Total	With housing units			Without housing units
Total	6,150	4,087	2,063	69,983	17.1
Atlanta	7	3	4	37	12.3
Boston	216	168	48	3,538	21.1
Charlotte	186	145	41	7,479	51.6
Chicago	2,557	1,748	809	26,605	15.2
Dallas	1,694	868	826	14,467	16.7
Denver	1,250	1,006	244	16,816	16.7
Detroit	0	0	0	0	NA
Kansas City	165	123	42	832	6.8
Los Angeles	15	11	4	77	7.0
New York	0	0	0	0	NA
Philadelphia	0	0	0	0	NA
Seattle	60	15	45	132	8.8

Data source: March 2001 MAF extract

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

NA– not applicable

Appendix Q: Number of Update/Enumerate blocks and Update/Enumerate housing units in the census, state-level totals for Table 14

Area	Update/Enumerate blocks		Number of housing units	Average number of housing units per block*
	Total	With housing units		
United States	183,889	75,827	108,062	12.6
Alabama	316	240	76	41.8
Alaska	18	16	2	7.5
Arizona	37,295	9,807	27,488	7.9
California	9,524	5,614	3,910	17.5
Colorado	2,594	1,241	1,353	27.4
Connecticut	9	5	4	18.6
Florida	3,768	2,465	1,303	24.1
Idaho	3,523	1,591	1,932	9.0
Indiana	342	256	86	23.0
Iowa	88	23	65	9.5
Kansas	911	573	338	4.2
Kentucky	2,269	1,359	910	10.9
Louisiana	2,188	1,164	1,024	17.1
Maine	891	628	263	12.0
Massachusetts	4,864	3,682	1,182	18.6
Minnesota	2,608	1,468	1,140	9.7
Mississippi	252	139	113	10.4
Montana	9,089	3,417	5,672	7.9
Nebraska	1,144	717	427	4.8
Nevada	8,163	2,091	6,072	10.6
New Mexico	32,557	7,491	25,066	8.4
New York	3,047	2,306	741	20.3
North Carolina	1,447	947	500	22.0

Appendix Q: Number of Update/Enumerate blocks and Update/Enumerate housing units in the census, state-level totals for Table 14

Area	Update/Enumerate blocks		Number of housing units	Average number of housing units per block*	
	Total	With housing units			Without housing units
North Dakota	5,281	2,672	2,609	16,008	6.0
Oregon	1,317	258	1,059	2,070	8.0
Pennsylvania	8,448	6,311	2,137	90,497	14.3
Rhode Island	63	48	15	1,606	33.5
South Carolina	143	111	32	6,844	61.7
South Dakota	13,436	4,653	8,783	21,746	4.7
Texas	3,877	3,318	559	93,252	28.1
Utah	6,000	2,108	3,892	20,882	9.9
Virginia	3	3	0	28	9.3
Washington	3,210	771	2,439	5,837	7.6
Wisconsin	11,669	7,184	4,485	75,666	10.5
Wyoming	3,535	1,150	2,385	9,470	8.2

Data source: March 2001 MAF extract

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

Appendix R: Type of address for Update/Enumerate housing units in the census, 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	956,214	124,336	522,828	53,464	1,193	75,088	3,514	19,816	10,680	142,168	3,127
Alabama	10,031	540	8,920	0	0	14	1	32	55	452	17
Alaska	120	10	109	0	0	0	0	0	0	0	1
Arizona	77,654	6,941	19,954	1,963	50	22,654	879	2,384	1,538	20,817	474
California	98,452	7,045	81,806	235	0	1,334	90	1,245	518	6,020	159
Colorado	33,992	5,110	27,338	32	0	126	12	214	60	755	345
Connecticut	93	0	83	0	0	0	0	10	0	0	0
Florida	59,424	4,973	50,898	9	1	73	39	353	532	2,235	311
Idaho	14,268	2,257	5,133	2,593	53	1,098	82	401	91	2,525	35
Indiana	5,895	643	4,818	0	0	0	0	253	130	51	0
Iowa	219	58	150	0	0	3	0	2	2	4	0
Kansas	2,418	626	1,513	151	0	8	0	4	8	106	2
Kentucky	14,827	1,676	10,875	13	1	36	1	300	114	1,786	25
Louisiana	19,941	768	18,409	0	0	45	4	109	29	514	63
Maine	7,522	294	1,330	1,291	7	990	4	654	40	2,897	15
Massachusetts	68,612	8,530	52,831	96	0	429	20	813	300	5,535	58
Minnesota	14,225	3,439	2,185	2,407	33	1,624	18	320	89	4,074	36
Mississippi	1,446	574	586	188	0	5	1	15	3	73	1
Montana	27,075	5,741	9,233	1,018	7	5,294	80	670	254	4,645	133
Nebraska	3,423	431	1,140	657	131	638	7	101	7	307	4
Nevada	22,097	2,885	15,931	201	5	531	129	582	243	1,473	117
New Mexico	62,874	10,491	16,958	1,708	131	13,092	1,091	1,790	1,620	15,603	390
New York	46,845	7,203	31,044	380	1	975	17	534	170	6,430	91
North Carolina	20,855	1,904	14,185	294	12	761	101	296	542	2,636	124
North Dakota	16,008	2,538	5,302	1,328	21	3,203	137	234	121	3,070	54
Oregon	2,070	272	1,608	15	4	58	1	7	28	65	12
Pennsylvania	90,497	17,449	23,499	11,069	125	3,894	45	2,566	744	30,983	123
Rhode Island	1,606	39	108	44	73	212	325	63	29	710	3
South Carolina	6,844	1,547	5,273	0	0	0	0	3	3	3	15
South Dakota	21,746	1,986	3,400	3,392	112	5,813	200	728	224	5,791	100
Texas	93,252	11,219	34,187	21,217	377	7,729	87	3,092	2,486	12,580	278
Utah	20,882	2,070	11,504	830	3	2,373	15	407	78	3,544	58
Virginia	28	1	27	0	0	0	0	0	0	0	0
Washington	5,837	1,733	2,128	144	0	510	23	162	59	1,060	18
Wisconsin	75,666	12,313	52,394	2,186	46	1,495	70	1,423	503	5,193	43
Wyoming	9,470	1,030	7,969	3	0	71	35	49	60	231	22

Data source: March 2001 MAF extract

Appendix S: Number of Delivery Sequence File matching Update/Enumerate housing units in the census as a percent of each Update/Enumerate block, state-level totals for Table 16

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	
	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs	#blks	#HUs
United States	75,827	956,214	50,121	451,157	4,389	128,508	5,895	112,825	5,192	114,540	3,994	107,003	6,236	42,181
Alabama	240	10,031	75	618	49	2,200	68	2,834	30	3,865	6	474	12	40
Alaska	16	120	13	89	1	10	1	8	0	0	1	13	0	0
Arizona	9,807	77,654	9,021	59,811	89	2,754	165	2,859	184	3,842	159	6,328	189	2,060
California	5,614	98,452	3,944	65,057	397	11,855	386	6,097	304	6,163	255	6,990	328	2,290
Colorado	1,241	33,992	765	20,126	98	5,956	128	2,762	115	3,492	53	1,467	82	189
Connecticut	5	93	2	73	0	0	1	16	1	3	0	0	1	1
Florida	2,465	59,424	491	5,926	225	8,539	397	12,363	505	13,760	491	16,160	356	2,676
Idaho	1,591	14,268	1,259	8,784	84	2,075	93	1,731	68	1,015	27	513	60	150
Indiana	256	5,895	55	548	31	851	46	1,056	59	1,822	23	1,314	42	304
Iowa	23	219	3	5	0	0	1	4	9	111	4	77	6	22
Kansas	573	2,418	283	752	17	184	36	147	37	214	23	235	177	886
Kentucky	1,359	14,827	192	499	63	644	290	3,218	318	5,568	201	3,957	295	941
Louisiana	1,164	19,941	159	1,425	63	1,371	81	1,685	109	3,071	233	5,722	519	6,667
Maine	628	7,522	559	6,107	12	231	17	187	19	629	12	318	9	50
Massachusetts	3,682	68,612	1,703	19,246	436	12,173	501	11,721	511	15,182	330	9,228	201	1,062
Minnesota	1,468	14,225	1,027	7,939	186	3,494	154	2,128	42	483	10	99	49	82
Mississippi	139	1,446	89	552	22	457	13	298	6	94	3	25	6	20
Montana	3,417	27,075	2,363	13,840	119	2,236	230	2,871	203	3,042	186	3,455	316	1,631
Nebraska	717	3,423	593	2,866	10	178	20	136	14	57	3	23	77	163
Nevada	2,091	22,097	923	6,643	74	846	253	2,501	396	6,455	206	4,246	239	1,406
New Mexico	7,491	62,874	6,941	47,933	206	7,653	107	2,276	81	2,066	60	2,370	96	576
New York	2,306	46,845	829	10,718	328	10,753	355	7,397	289	7,552	282	7,749	223	2,676
North Carolina	947	20,855	514	7,421	139	5,692	160	6,335	56	900	25	390	53	117
North Dakota	2,672	16,008	1,867	9,191	133	2,174	192	1,120	104	1,355	51	837	325	1,331
Oregon	258	2,070	130	1,023	5	60	17	78	20	235	23	451	63	223
Pennsylvania	6,311	90,497	4,941	63,307	392	13,595	390	5,951	315	5,224	130	1,926	143	494
Rhode Island	48	1,606	47	1,432	1	174	0	0	0	0	0	0	0	0
South Carolina	111	6,844	1	11	2	135	6	1,978	8	316	44	3,784	50	620
South Dakota	4,653	21,746	4,032	18,464	69	1,272	127	747	61	382	10	263	354	618
Texas	3,318	93,252	1,594	33,853	435	19,719	357	13,761	340	12,249	389	11,540	203	2,130
Utah	2,108	20,882	1,425	10,328	21	338	40	1,173	66	1,318	171	4,016	385	3,709
Virginia	3	28	0	0	0	0	0	0	0	0	1	18	2	10
Washington	771	5,837	606	3,762	48	831	49	462	18	251	10	266	40	265
Wisconsin	7,184	75,666	3,318	21,230	576	9,314	1,080	16,091	797	12,914	453	10,283	960	5,834
Wyoming	1,150	9,470	357	1,578	58	744	134	834	107	910	119	2,466	375	2,938

Data source: March 2001 MAF extract

Appendix T: Number of multi-unit Update/Enumerate housing units in the census as a percent of each Update/Enumerate block, state-level totals for Table 17

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	75,827	956,214	61,859	519,303	7,524	269,951	3,295	76,007	1,294	34,055	777	47,640	1,078	9,258
Alabama	240	10,031	154	1,501	35	2,321	19	1,666	4	84	17	4,351	11	108
Alaska	16	120	13	89	1	8	0	0	0	0	2	23	0	0
Arizona	9,807	77,654	9,336	61,211	183	6,881	97	2,609	48	1,459	41	3,365	102	2,129
California	5,614	98,452	4,087	48,611	842	31,542	287	6,585	135	3,338	101	6,338	162	2,038
Colorado	1,241	33,992	655	5,193	222	10,451	128	4,797	78	3,813	89	9,030	69	708
Connecticut	5	93	4	77	0	0	1	16	0	0	0	0	0	0
Florida	2,465	59,424	1,442	15,716	453	17,576	232	10,119	120	4,810	135	10,404	83	799
Idaho	1,591	14,268	1,401	10,050	100	3,108	41	518	21	383	12	144	16	65
Indiana	256	5,895	191	3,000	32	1,944	10	253	5	256	8	269	10	173
Iowa	23	219	9	39	5	69	6	72	2	38	0	0	1	1
Kansas	573	2,418	533	1,968	21	234	6	51	6	85	3	75	4	5
Kentucky	1,359	14,827	1,091	8,604	172	4,823	50	692	17	342	8	337	21	29
Louisiana	1,164	19,941	596	6,128	272	6,366	180	4,947	78	1,874	21	442	17	184
Maine	628	7,522	588	6,186	30	1,227	8	94	2	15	0	0	0	0
Massachusetts	3,682	68,612	2,204	20,818	837	33,698	374	8,190	143	3,337	69	2,385	55	184
Minnesota	1,468	14,225	1,325	10,648	103	3,265	25	184	3	69	3	30	9	29
Mississippi	139	1,446	126	1,331	9	95	1	11	1	7	0	0	2	2
Montana	3,417	27,075	2,938	17,729	259	6,794	132	1,767	37	377	18	223	33	185
Nebraska	717	3,423	678	2,836	16	314	13	154	7	83	3	36	0	0
Nevada	2,091	22,097	1,500	10,293	287	6,581	150	2,209	67	1,314	37	1,485	50	215
New Mexico	7,491	62,874	6,667	42,208	412	15,004	215	3,778	100	1,261	22	467	75	156
New York	2,306	46,845	1,540	20,262	524	19,519	145	3,959	50	1,700	24	1,062	23	343
North Carolina	947	20,855	679	7,946	134	6,732	70	2,653	22	2,081	18	1,037	24	406
North Dakota	2,672	16,008	2,452	12,459	85	1,576	70	955	19	246	13	476	33	296
Oregon	258	2,070	204	1,192	23	635	18	152	5	29	0	0	8	62
Pennsylvania	6,311	90,497	5,840	73,429	359	15,670	78	1,120	8	84	5	121	21	73
Rhode Island	48	1,606	32	726	15	874	1	6	0	0	0	0	0	0
South Carolina	111	6,844	93	2,876	11	1,995	2	225	1	215	2	1,528	2	5
South Dakota	4,653	21,746	4,548	20,023	41	953	28	348	9	145	11	209	16	68
Texas	3,318	93,252	2,191	44,906	788	37,093	249	7,618	55	2,327	20	1,174	15	134
Utah	2,108	20,882	1,792	13,329	182	4,803	68	1,308	25	511	19	762	22	169
Virginia	3	28	3	28	0	0	0	0	0	0	0	0	0	0
Washington	771	5,837	649	3,911	51	1,204	39	582	11	69	2	10	19	61
Wisconsin	7,184	75,666	5,459	39,141	883	23,944	467	7,422	183	3,332	61	1,428	131	399
Wyoming	1,150	9,470	839	4,839	137	2,652	85	947	32	371	13	429	44	232

Data source: March 2001 MAF extract

Appendix U: Number of housing units at the basic street address for Update/Enumerate housing units in the census by Delivery Sequence File match, state-level totals for Table 19

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	956,214	27.8	86.7	219,535	609,313	46,281	81,085
Alabama	10,031	44.5	51.6	1,901	3,276	2,562	2,292
Alaska	120	14.2	81.7	5	93	12	10
Arizona	77,654	14.7	90.2	7,747	62,325	3,679	3,903
California	98,452	16.2	85.2	12,505	71,332	3,476	11,139
Colorado	33,992	14.9	58.1	3,551	16,191	1,523	12,727
Connecticut	93	9.7	93.5	6	81	3	3
Florida	59,424	52.2	68.2	23,744	16,781	7,267	11,632
Idaho	14,268	14.9	93.3	1,848	11,469	282	669
Indiana	5,895	53.1	86.6	2,987	2,119	146	643
Iowa	219	74.4	72.6	124	35	39	21
Kansas	2,418	54.7	93.0	1,221	1,028	102	67
Kentucky	14,827	63.1	91.9	8,683	4,950	676	518
Louisiana	19,941	73.8	78.1	11,535	4,048	3,172	1,186
Maine	7,522	10.9	98.0	763	6,607	55	97
Massachusetts	68,612	35.9	83.9	20,263	37,291	4,384	6,674
Minnesota	14,225	11.8	96.9	1,583	12,206	99	337
Mississippi	1,446	18.5	98.5	262	1,162	5	17
Montana	27,075	29.6	92.6	6,887	18,180	1,123	885
Nebraska	3,423	8.6	94.8	280	2,965	13	165
Nevada	22,097	47.1	81.9	8,583	9,511	1,820	2,183
New Mexico	62,874	8.8	93.2	4,925	53,680	622	3,647

Appendix U: Number of housing units at the basic street address for Update/Enumerate housing units in the census by Delivery Sequence File match, state-level totals for Table 19

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
New York	46,845	38.8	88.2	16,020	25,299	2,150	3,376
North Carolina	20,855	19.4	79.6	3,300	13,301	750	3,504
North Dakota	16,008	22.8	91.2	2,883	11,710	763	652
Oregon	2,070	39.8	90.2	774	1,093	49	154
Pennsylvania	90,497	9.8	98.3	8,501	80,467	399	1,130
Rhode Island	1,606	0.1	97.9	1	1,572	0	33
South Carolina	6,844	71.9	74.2	4,314	761	604	1,165
South Dakota	21,746	7.0	97.3	1,363	19,806	168	409
Texas	93,252	28.8	90.5	22,709	61,679	4,168	4,696
Utah	20,882	41.4	89.5	7,085	11,601	1,556	640
Virginia	28	92.9	100.0	26	2	0	0
Washington	5,837	15.7	92.4	798	4,594	117	328
Wisconsin	75,666	40.6	87.8	27,301	39,171	3,393	5,801
Wyoming	9,470	65.1	84.3	5,057	2,927	1,104	382

Data source: March 2001 MAF extract

**Appendix V-1: Hard-to-count classes for Update/Enumerate housing units in the census, state-level totals for Table 20,
Part 1: hard-to-count classes 1-5**

Area	Total housing units	Hard-to-count class									
		1		2		3		4		5	
		#	%	#	%	#	%	#	%	#	%
United States	566,399	42,398	7.5	55,632	9.8	40,727	7.2	55,552	9.8	82,327	14.5
Alabama	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Alaska	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Arizona	10,044	2,550	0.5	2,234	0.4	1,855	0.3	1,995	0.4	407	0.1
California	63,972	0	0.0	3,793	0.7	10,748	1.9	12,204	2.2	18,161	3.2
Colorado	168	0	0.0	0	0.0	3	0.0	97	0.0	67	0.0
Connecticut	93	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Florida	57,770	45	0.0	3,756	0.7	4,427	0.8	14,793	2.6	8,821	1.6
Idaho	12,455	0	0.0	1,673	0.3	0	0.0	3,006	0.5	6,789	1.2
Indiana	5,213	0	0.0	0	0.0	407	0.1	51	0.0	104	0.0
Iowa	219	0	0.0	0	0.0	0	0.0	0	0.0	155	0.0
Kansas	2,418	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Kentucky	14,827	0	0.0	0	0.0	0	0.0	5,018	0.9	1,404	0.2
Louisiana	19,941	3,610	0.6	4,137	0.7	5,386	1.0	2,645	0.5	1,259	0.2
Maine	7,522	0	0.0	0	0.0	0	0.0	263	0.0	0	0.0
Massachusetts	66,334	0	0.0	3,890	0.7	0	0.0	2,275	0.4	3,820	0.7
Minnesota	13,958	1,388	0.2	5,126	0.9	2,419	0.4	103	0.0	1,666	0.3
Mississippi	71	0	0.0	0	0.0	15	0.0	56	0.0	0	0.0
Montana	1,057	0	0.0	0	0.0	0	0.0	128	0.0	0	0.0
Nebraska	276	0	0.0	0	0.0	0	0.0	34	0.0	0	0.0
Nevada	6,750	381	0.1	1,426	0.3	1,634	0.3	1,851	0.3	767	0.1
New Mexico	12,086	1,002	0.2	8,049	1.4	1,625	0.3	293	0.1	36	0.0
New York	45,907	0	0.0	977	0.2	0	0.0	6,091	1.1	1,761	0.3
North Carolina	19,259	0	0.0	0	0.0	1,876	0.3	204	0.0	6,995	1.2

**Appendix V-1: Hard-to-count classes for Update/Enumerate housing units in the census, state-level totals for Table 20,
Part 1: hard-to-count classes 1-5**

Area	Total housing units	Hard-to-count class									
		1		2		3		4		5	
		#	%	#	%	#	%	#	%	#	%
North Dakota	10,474	1,911	0.3	1,104	0.2	0	0.0	133	0.0	616	0.1
Oregon	2,070	0	0.0	674	0.1	1,065	0.2	0	0.0	331	0.1
Pennsylvania	60,463	0	0.0	0	0.0	0	0.0	101	0.0	16,646	2.9
Rhode Island	1,606	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South Carolina	6,844	0	0.0	0	0.0	0	0.0	0	0.0	1,939	0.3
South Dakota	4,340	21	0.0	1,232	0.2	1,430	0.3	124	0.0	830	0.1
Texas	41,496	29,293	5.2	10,624	1.9	977	0.2	172	0.0	315	0.1
Utah	691	0	0.0	228	0.0	0	0.0	11	0.0	71	0.0
Virginia	28	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Washington	5,837	99	0.0	3,994	0.7	1,348	0.2	188	0.0	145	0.0
Wisconsin	72,147	2,098	0.4	2,715	0.5	5,449	1.0	3,716	0.7	9,222	1.6
Wyoming	63	0	0.0	0	0.0	63	0.0	0	0.0	0	0.0

Data sources: Planning Database and March 2001 MAF extract

**Appendix V-2: Hard-to-count classes for Update/Enumerate housing units in the census, state-level totals for Table 20,
Part 2: hard-to-count classes 6-10**

Area	Total housing units	Hard-to-count class									
		6		7		8		9		10	
		#	%	#	%	#	%	#	%	#	%
United States	566,399	143,528	25.3	117,947	20.8	24,826	4.4	1,411	0.2	2,051	0.4
Alabama	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Alaska	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Arizona	10,044	999	0.2	4	0.0	0	0.0	0	0.0	0	0.0
California	63,972	19,066	3.4	0	0.0	0	0.0	0	0.0	0	0.0
Colorado	168	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Connecticut	93	0	0.0	4	0.0	0	0.0	19	0.0	70	0.0
Florida	57,770	25,205	4.5	723	0.1	0	0.0	0	0.0	0	0.0
Idaho	12,455	1	0.0	982	0.2	3	0.0	1	0.0	0	0.0
Indiana	5,213	2,090	0.4	2,561	0.5	0	0.0	0	0.0	0	0.0
Iowa	219	0	0.0	10	0.0	54	0.0	0	0.0	0	0.0
Kansas	2,418	0	0.0	1,931	0.3	0	0.0	487	0.1	0	0.0
Kentucky	14,827	7,241	1.3	1,164	0.2	0	0.0	0	0.0	0	0.0
Louisiana	19,941	815	0.1	2,089	0.4	0	0.0	0	0.0	0	0.0
Maine	7,522	6,280	1.1	480	0.1	499	0.1	0	0.0	0	0.0
Massachusetts	66,334	20,591	3.6	32,195	5.7	3,563	0.6	0	0.0	0	0.0
Minnesota	13,958	1,358	0.2	1,452	0.3	178	0.0	0	0.0	268	0.0
Mississippi	71	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Montana	1,057	245	0.0	642	0.1	42	0.0	0	0.0	0	0.0
Nebraska	276	44	0.0	190	0.0	8	0.0	0	0.0	0	0.0
Nevada	6,750	432	0.1	105	0.0	0	0.0	0	0.0	154	0.0
New Mexico	12,086	924	0.2	0	0.0	0	0.0	157	0.0	0	0.0
New York	45,907	3,349	0.6	24,658	4.4	9,051	1.6	20	0.0	0	0.0
North Carolina	19,259	6,262	1.1	3,922	0.7	0	0.0	0	0.0	0	0.0

**Appendix V-2: Hard-to-count classes for Update/Enumerate housing units in the census, state-level totals for Table 20,
Part 2: hard-to-count classes 6-10**

Area	Total housing units	Hard-to-count class									
		6		7		8		9		10	
		#	%	#	%	#	%	#	%	#	%
North Dakota	10,474	2,984	0.5	3,696	0.7	30	0.0	0	0.0	0	0.0
Oregon	2,070	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pennsylvania	60,463	12,729	2.2	23,291	4.1	7,696	1.4	0	0.0	0	0.0
Rhode Island	1,606	1,606	0.3	0	0.0	0	0.0	0	0.0	0	0.0
South Carolina	6,844	4,731	0.8	0	0.0	174	0.0	0	0.0	0	0.0
South Dakota	4,340	511	0.1	126	0.0	66	0.0	0	0.0	0	0.0
Texas	41,496	115	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Utah	691	148	0.0	231	0.0	2	0.0	0	0.0	0	0.0
Virginia	28	28	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Washington	5,837	0	0.0	0	0.0	0	0.0	63	0.0	0	0.0
Wisconsin	72,147	25,773	4.6	17,491	3.1	3,460	0.6	664	0.1	1,559	0.3
Wyoming	63	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 W: Proxy, state-level totals for Table 21

Area	Household member									Information not collected	
	Total persons	Household member		Total		Proxy		Neighbor		Number	Percent
		Number	Percent	Number	Percent	Number	Percent	Number	Percent		
United States	1,056,046	531,374	50.3	439,572	41.6	5,088	0.5	434,484	41.1	85,100	8.1
Alabama	11,015	2,417	21.9	8,081	73.4	23	0.2	8,058	73.2	517	4.7
Alaska	132	107	81.1	21	15.9	1	0.8	20	15.2	4	3.0
Arizona	90,166	51,855	57.5	30,155	33.4	443	0.5	29,712	33.0	8,156	9.0
California	108,859	43,918	40.3	56,530	51.9	468	0.4	56,062	51.5	8,411	7.7
Colorado	36,716	14,378	39.2	20,408	55.6	153	0.4	20,255	55.2	1,930	5.3
Connecticut	100	66	66.0	24	24.0	0	0.0	24	24.0	10	10.0
Florida	70,064	26,801	38.3	37,509	53.5	460	0.7	37,049	52.9	5,754	8.2
Idaho	15,528	10,438	67.2	4,126	26.6	79	0.5	4,047	26.1	964	6.2
Indiana	5,754	2,376	41.3	2,952	51.3	55	1.0	2,897	50.3	426	7.4
Iowa	253	167	66.0	77	30.4	2	0.8	75	29.6	9	3.6
Kansas	0	0	NA	0	NA	0	NA	0	NA	0	NA
Kentucky	16,077	8,965	55.8	6,291	39.1	98	0.6	6,193	38.5	821	5.1
Louisiana	22,396	15,977	71.3	4,230	18.9	125	0.6	4,105	18.3	2,189	9.8
Maine	7,890	2,895	36.7	4,718	59.8	38	0.5	4,680	59.3	277	3.5
Massachusetts	72,043	30,302	42.1	39,331	54.6	267	0.4	39,064	54.2	2,410	3.3
Minnesota	15,507	8,058	52.0	5,505	35.5	125	0.8	5,380	34.7	1,944	12.5
Mississippi	1,529	1,299	85.0	181	11.8	8	0.5	173	11.3	49	3.2
Montana	29,954	20,522	68.5	7,942	26.5	199	0.7	7,743	25.8	1,490	5.0
Nebraska	3,751	2,874	76.6	703	18.7	19	0.5	684	18.2	174	4.6
Nevada	24,654	16,248	65.9	6,469	26.2	171	0.7	6,298	25.5	1,937	7.9
New Mexico	72,831	43,698	60.0	21,511	29.5	310	0.4	21,201	29.1	7,622	10.5
New York	50,260	20,250	40.3	27,394	54.5	143	0.3	27,251	54.2	2,616	5.2
North Carolina	24,354	6,715	27.6	14,966	61.5	149	0.6	14,817	60.8	2,673	11.0
North Dakota	17,966	11,986	66.7	5,116	28.5	115	0.6	5,001	27.8	864	4.8
Oregon	2,333	1,803	77.3	316	13.5	10	0.4	306	13.1	214	9.2
Pennsylvania	96,043	34,202	35.6	52,141	54.3	229	0.2	51,912	54.1	9,700	10.1

Appendix W: Proxy, state-level totals for Table 21

Area	Total persons	Household member		Proxy						Information not collected	
		Number	Percent	Total		In mover		Neighbor		Number	Percent
				Number	Percent	Number	Percent	Number	Percent		
Rhode Island	1,636	388	23.7	1,128	68.9	3	0.2	1,125	68.8	120	7.3
South Carolina	7,901	1,572	19.9	5,328	67.4	66	0.8	5,262	66.6	1,001	12.7
South Dakota	24,063	16,430	68.3	6,025	25.0	123	0.5	5,902	24.5	1,608	6.7
Texas	106,442	69,992	65.8	21,713	20.4	679	0.6	21,034	19.8	14,737	13.8
Utah	23,040	15,232	66.1	6,950	30.2	149	0.6	6,801	29.5	858	3.7
Virginia	29	26	89.7	1	3.4	0	0.0	1	3.4	2	6.9
Washington	6,294	4,520	71.8	1,546	24.6	21	0.3	1,525	24.2	228	3.6
Wisconsin	79,984	37,122	46.4	38,075	47.6	278	0.3	37,797	47.3	4,787	6.0
Wyoming	10,482	7,775	74.2	2,109	20.1	79	0.8	2,030	19.4	598	5.7

Data source: DRF2

NA—not applicable

Appendix X: Interview conducted in Spanish, state-level totals for Table 22

Area	Total returns	Spanish Interview		Not Spanish Interview	
		Number	Percent	Number	Percent
United States	1,056,046	36,934	3.5	1,019,112	96.5
Alabama	11,015	1	0.0	11,014	100.0
Alaska	132	0	0.0	132	100.0
Arizona	90,166	316	0.4	89,850	99.7
California	108,859	405	0.4	108,454	99.6
Colorado	36,716	67	0.2	36,649	99.8
Connecticut	100	0	0.0	100	100.0
Florida	70,064	245	0.4	69,819	99.7
Idaho	15,528	4	0.0	15,524	100.0
Indiana	5,754	2	0.0	5,752	100.0
Iowa	253	0	0.0	253	100.0
Kansas	0	0	NA	0	NA
Kentucky	16,077	5	0.0	16,072	100.0
Louisiana	22,396	5	0.0	22,391	100.0
Maine	7,890	0	0.0	7,890	100.0
Massachusetts	72,043	22	0.0	72,021	100.0
Minnesota	15,507	6	0.0	15,501	100.0
Mississippi	1,529	0	0.0	1,529	100.0
Montana	29,954	14	0.0	29,940	100.0
Nebraska	3,751	3	0.1	3,748	99.9
Nevada	24,654	68	0.3	24,586	99.7
New Mexico	72,831	56	0.1	72,775	99.9
New York	50,260	128	0.3	50,132	99.7
North Carolina	24,354	2	0.0	24,352	100.0
North Dakota	17,966	6	0.0	17,960	100.0
Oregon	2,333	0	0.0	2,333	100.0
Pennsylvania	96,043	15	0.0	96,028	100.0
Rhode Island	1,636	0	0.0	1,636	100.0
South Carolina	7,901	2	0.0	7,899	100.0

Appendix X: Interview conducted in Spanish, state-level totals for Table 22

Area	Total returns	Spanish Interview		Not Spanish Interview	
		Number	Percent	Number	Percent
South Dakota	24,063	27	0.1	24,036	99.9
Texas	106,442	35,453	33.3	70,989	66.7
Utah	23,040	7	0.0	23,033	100.0
Virginia	29	0	0.0	29	100.0
Washington	6,294	39	0.6	6,255	99.4
Wisconsin	79,984	34	0.0	79,950	100.0
Wyoming	10,482	2	0.0	10,480	100.0

Data source: DRF2

NA—not applicable

Appendix Y: Occupancy status, state-level totals for Table 23

Area	Total HUs	Vacant						Occupied	
		Total		Seasonal		Other		Number	Percent
		Number	Percent	Number	Percent	Number	Percent		
United States	956,214	370,221	38.7	292,167	30.6	78,054	8.2	585,993	61.3
Alabama	10,031	7,393	73.7	6,703	66.8	690	6.9	2,638	26.3
Alaska	120	11	9.2	0	0.0	11	9.2	109	90.8
Arizona	77,654	21,851	28.1	12,373	15.9	9,478	12.2	55,803	71.9
California	98,452	49,889	50.7	41,691	42.3	8,198	8.3	48,563	49.3
Colorado	33,992	18,033	53.1	15,513	45.6	2,520	7.4	15,959	46.9
Connecticut	93	11	11.8	7	7.5	4	4.3	82	88.2
Florida	59,424	30,131	50.7	21,709	36.5	8,422	14.2	29,293	49.3
Idaho	14,268	2,747	19.3	1,614	11.3	1,133	7.9	11,521	80.7
Indiana	5,895	2,992	50.8	2,625	44.5	367	6.2	2,903	49.2
Iowa	219	30	13.7	0	0.0	30	13.7	189	86.3
Kansas	2,418	207	8.6	25	1.0	182	7.5	2,211	91.4
Kentucky	14,827	4,960	33.5	3,939	26.6	1,021	6.9	9,867	66.5
Louisiana	19,941	1,986	10.0	165	0.8	1,821	9.1	17,955	90.0
Maine	7,522	4,330	57.6	4,014	53.4	316	4.2	3,192	42.4
Massachusetts	68,612	36,217	52.8	33,452	48.8	2,765	4.0	32,395	47.2
Minnesota	14,225	5,118	36.0	4,498	31.6	620	4.4	9,107	64.0
Mississippi	1,446	45	3.1	1	0.1	44	3.0	1,401	96.9
Montana	27,075	4,958	18.3	2,884	10.7	2,074	7.7	22,117	81.7
Nebraska	3,423	394	11.5	119	3.5	275	8.0	3,029	88.5
Nevada	22,097	3,351	15.2	655	3.0	2,696	12.2	18,746	84.8
New Mexico	62,874	13,117	20.9	5,937	9.4	7,180	11.4	49,757	79.1
New York	46,845	24,524	52.4	22,465	48.0	2,059	4.4	22,321	47.6
North Carolina	20,855	13,405	64.3	11,320	54.3	2,085	10.0	7,450	35.7
North Dakota	16,008	3,398	21.2	1,545	9.7	1,853	11.6	12,610	78.8
Oregon	2,070	121	5.8	28	1.4	93	4.5	1,949	94.2
Pennsylvania	90,497	53,999	59.7	50,421	55.7	3,578	4.0	36,498	40.3

Appendix Y: Occupancy status, state-level totals for Table 23

Area	Total HUs	Vacant						Occupied	
		Total		Seasonal		Other		Number	Percent
		Number	Percent	Number	Percent	Number	Percent		
Rhode Island	1,606	1,134	70.6	1,109	69.1	25	1.6	472	29.4
South Carolina	6,844	5,162	75.4	3,837	56.1	1,325	19.4	1,682	24.6
South Dakota	21,746	3,674	16.9	1,647	7.6	2,027	9.3	18,072	83.1
Texas	93,252	15,213	16.3	5,968	6.4	9,245	9.9	78,039	83.7
Utah	20,882	4,894	23.4	2,983	14.3	1,911	9.2	15,988	76.6
Virginia	28	1	3.6	0	0.0	1	3.6	27	96.4
Washington	5,837	958	16.4	488	8.4	470	8.1	4,879	83.6
Wisconsin	75,666	34,933	46.2	32,201	42.6	2,732	3.6	40,733	53.8
Wyoming	9,470	1,034	10.9	231	2.4	803	8.5	8,436	89.1

Data source: HCEF_D'

Appendix Z: Telephone Questionnaire Assistance and Be Counted responses by whether only response or response in combination with other types of responses, state-level totals for Table 24

Area	Telephone Questionnaire Assistance			Be Counted		
	Total	Only	In Combination	Total	Only	In Combination
United States	1,451	399	1,052	2,873	799	2,074
Alabama	12	4	8	5	1	4
Alaska	0	0	0	0	0	0
Arizona	64	21	43	239	68	171
California	151	52	99	170	54	116
Colorado	46	15	31	18	10	8
Connecticut	0	0	0	1	0	1
Florida	77	14	63	45	3	42
Idaho	10	5	5	37	11	26
Indiana	15	4	11	36	6	30
Iowa	0	0	0	1	0	1
Kansas	21	2	19	11	1	10
Kentucky	9	2	7	100	17	83
Louisiana	41	14	27	22	5	17
Maine	2	0	2	6	1	5
Massachusetts	42	4	38	35	5	30
Minnesota	82	15	67	53	11	42
Mississippi	3	2	1	1	0	1
Montana	30	5	25	121	19	102
Nebraska	5	0	5	0	0	0
Nevada	26	10	16	83	29	54
New Mexico	118	53	65	608	242	366
New York	46	7	39	33	5	28
North Carolina	27	3	24	87	21	66

Appendix Z: Telephone Questionnaire Assistance and Be Counted responses by whether only response or response in combination with other types of responses, state-level totals for Table 24

Area	Telephone Questionnaire Assistance			Be Counted		
	Total	Only	In Combination	Total	Only	In Combination
North Dakota	5	0	5	5	0	5
Oregon	4	0	4	23	10	13
Pennsylvania	111	29	82	237	89	148
Rhode Island	1	1	0	0	0	0
South Carolina	15	4	11	14	2	12
South Dakota	10	0	10	7	1	6
Texas	270	97	173	215	76	139
Utah	7	2	5	36	8	28
Virginia	0	0	0	0	0	0
Washington	4	1	3	17	5	12
Wisconsin	183	29	154	600	97	503
Wyoming	14	4	10	7	2	5

Data source: DMAF

Appendix AA: Tenure, state-level totals for Table 25

Area	Occupied housing units	Tenure			
		Owned housing units		Rented housing units	
		Number	Percent	Number	Percent
United States	585,993	445,907	76.1	140,086	23.9
Alabama	2,638	2,033	77.1	605	22.9
Alaska	109	85	78.0	24	22.0
Arizona	55,803	40,449	72.5	15,354	27.5
California	48,563	35,783	73.7	12,780	26.3
Colorado	15,959	10,362	64.9	5,597	35.1
Connecticut	82	79	96.3	3	3.7
Florida	29,293	21,438	73.2	7,855	26.8
Idaho	11,521	8,935	77.6	2,586	22.4
Indiana	2,903	2,502	86.2	401	13.8
Iowa	189	168	88.9	21	11.1
Kansas	2,211	1,685	76.2	526	23.8
Kentucky	9,867	8,312	84.2	1,555	15.8
Louisiana	17,955	12,957	72.2	4,998	27.8
Maine	3,192	2,482	77.8	710	22.2
Massachusetts	32,395	24,413	75.4	7,982	24.6
Minnesota	9,107	7,007	76.9	2,100	23.1
Mississippi	1,401	1,121	80.0	280	20.0
Montana	22,117	14,503	65.6	7,614	34.4
Nebraska	3,029	1,839	60.7	1,190	39.3
Nevada	18,746	14,132	75.4	4,614	24.6
New Mexico	49,757	39,401	79.2	10,356	20.8
New York	22,321	16,984	76.1	5,337	23.9
North Carolina	7,450	5,992	80.4	1,458	19.6
North Dakota	12,610	8,869	70.3	3,741	29.7

Appendix AA: Tenure, state-level totals for Table 25

Area	Occupied housing units	Tenure			
		Owned housing units		Rented housing units	
		Number	Percent	Number	Percent
Oregon	1,949	1,320	67.7	629	32.3
Pennsylvania	36,498	31,486	86.3	5,012	13.7
Rhode Island	472	320	67.8	152	32.2
South Carolina	1,682	1,560	92.7	122	7.3
South Dakota	18,072	10,476	58.0	7,596	42.0
Texas	78,039	64,532	82.7	13,507	17.3
Utah	15,988	12,702	79.4	3,286	20.6
Virginia	27	25	92.6	2	7.4
Washington	4,879	3,355	68.8	1,524	31.2
Wisconsin	40,733	32,492	79.8	8,241	20.2
Wyoming	8,436	6,108	72.4	2,328	27.6

Data source: HCEF_D'

Appendix BB: Sex, state-level totals for Table 26

Area	Sex				
	Total persons	Males		Females	
		Number	Percent	Number	Percent
United States	1,727,361	856,096	49.6	871,265	50.4
Alabama	5,766	2,987	51.8	2,779	48.2
Alaska	354	187	52.8	167	47.2
Arizona	200,489	98,010	48.9	102,479	51.1
California	119,997	59,935	49.9	60,062	50.1
Colorado	39,980	21,977	55.0	18,003	45.0
Connecticut	229	114	49.8	115	50.2
Florida	63,547	32,709	51.5	30,838	48.5
Idaho	30,204	15,142	50.1	15,062	49.9
Indiana	7,091	3,620	51.1	3,471	48.9
Iowa	647	319	49.3	328	50.7
Kansas	5,818	2,904	49.9	2,914	50.1
Kentucky	22,763	11,314	49.7	11,449	50.3
Louisiana	48,471	23,414	48.3	25,057	51.7
Maine	7,233	3,530	48.8	3,703	51.2
Massachusetts	70,911	34,228	48.3	36,683	51.7
Minnesota	26,417	13,216	50.0	13,201	50.0
Mississippi	5,192	2,482	47.8	2,710	52.2
Montana	65,854	32,523	49.4	33,331	50.6
Nebraska	9,165	4,566	49.8	4,599	50.2
Nevada	47,377	24,008	50.7	23,369	49.3
New Mexico	163,268	79,545	48.7	83,723	51.3
New York	55,313	27,114	49.0	28,199	51.0
North Carolina	18,187	8,884	48.8	9,303	51.2
North Dakota	37,166	18,581	50.0	18,585	50.0
Oregon	6,545	3,219	49.2	3,326	50.8
Pennsylvania	97,754	49,084	50.2	48,670	49.8
Rhode Island	1,007	488	48.5	519	51.5
South Carolina	3,533	1,708	48.3	1,825	51.7

Appendix BB: Sex, state-level totals for Table 26

Area	Sex				
	Total persons	Males		Females	
		Number	Percent	Number	Percent
South Dakota	60,968	30,423	49.9	30,545	50.1
Texas	318,318	156,266	49.1	162,052	50.9
Utah	49,046	24,258	49.5	24,788	50.5
Virginia	58	26	44.8	32	55.2
Washington	14,381	7,356	51.2	7,025	48.8
Wisconsin	101,442	50,645	49.9	50,797	50.1
Wyoming	22,870	11,314	49.5	11,556	50.5

Data source: HCEF_D'

Appendix CC-1: Age, state-level totals for Table 27, Part 1: ages 0-44

Area	Age								
	Total persons	<18 years old		18 to 24 years old		25 to 34 years old		35 to 44 years old	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	1,727,361	551,742	31.9	147,279	8.5	208,435	12.1	255,366	14.8
Alabama	5,766	966	16.8	359	6.2	621	10.8	899	15.6
Alaska	354	107	30.2	39	11.0	39	11.0	47	13.3
Arizona	200,489	79,086	39.4	19,692	9.8	24,734	12.3	26,998	13.5
California	119,997	30,873	25.7	7,042	5.9	10,503	8.8	18,663	15.6
Colorado	39,980	8,476	21.2	4,704	11.8	8,252	20.6	7,242	18.1
Connecticut	229	87	38.0	18	7.9	29	12.7	31	13.5
Florida	63,547	10,843	17.1	3,324	5.2	6,580	10.4	10,838	17.1
Idaho	30,204	8,447	28.0	2,149	7.1	3,148	10.4	4,419	14.6
Indiana	7,091	1,611	22.7	458	6.5	796	11.2	1,104	15.6
Iowa	647	234	36.2	71	11.0	80	12.4	89	13.8
Kansas	5,818	1,741	29.9	431	7.4	651	11.2	787	13.5
Kentucky	22,763	4,709	20.7	1,369	6.0	2,438	10.7	3,250	14.3
Louisiana	48,471	14,470	29.9	4,173	8.6	6,154	12.7	7,799	16.1
Maine	7,233	1,736	24.0	384	5.3	778	10.8	1,137	15.7
Massachusetts	70,911	13,297	18.8	3,337	4.7	6,996	9.9	11,307	15.9
Minnesota	26,417	9,124	34.5	2,214	8.4	2,682	10.2	3,674	13.9
Mississippi	5,192	2,186	42.1	624	12.0	767	14.8	661	12.7
Montana	65,854	22,820	34.7	5,626	8.5	7,138	10.8	9,849	15.0
Nebraska	9,165	3,305	36.1	739	8.1	1,019	11.1	1,175	12.8
Nevada	47,377	12,636	26.7	2,960	6.2	5,151	10.9	7,220	15.2
New Mexico	163,268	57,367	35.1	15,748	9.6	20,738	12.7	24,405	14.9
New York	55,313	13,335	24.1	3,338	6.0	5,892	10.7	8,814	15.9
North Carolina	18,187	4,297	23.6	1,555	8.6	2,102	11.6	2,642	14.5
North Dakota	37,166	13,188	35.5	2,911	7.8	3,794	10.2	5,767	15.5
Oregon	6,545	2,369	36.2	610	9.3	826	12.6	942	14.4
Pennsylvania	97,754	26,355	27.0	5,860	6.0	10,295	10.5	17,070	17.5
Rhode Island	1,007	185	18.4	47	4.7	131	13.0	183	18.2
South Carolina	3,533	387	11.0	101	2.9	207	5.9	274	7.8
South Dakota	60,968	24,012	39.4	5,645	9.3	7,040	11.5	8,185	13.4

Appendix CC-1: Age, state-level totals for Table 27, Part 1: ages 0-44

Area	Total persons	Age							
		<18 years old		18 to 24 years old		25 to 34 years old		35 to 44 years old	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Texas	318,318	128,086	40.2	37,351	11.7	49,019	15.4	41,637	13.1
Utah	49,046	17,278	35.2	5,059	10.3	5,602	11.4	6,653	13.6
Virginia	58	12	20.7	6	10.3	5	8.6	8	13.8
Washington	14,381	4,926	34.3	1,250	8.7	1,802	12.5	2,069	14.4
Wisconsin	101,442	26,369	26.0	6,011	5.9	9,871	9.7	16,141	15.9
Wyoming	22,870	6,822	29.8	2,074	9.1	2,555	11.2	3,387	14.8

Data source: HCEF_D'

Appendix CC-2: Age, state-level totals for Table 27, Part 2: ages 45+

Area	Total persons	Ages					
		45 to 54 years old		55 to 64 years old		65+	
		Number	Percent	Number	Percent	Number	Percent
United States	1,727,361	216,846	12.6	153,751	8.9	193,942	11.2
Alabama	5,766	977	16.9	889	15.4	1,055	18.3
Alaska	354	57	16.1	34	9.6	31	8.8
Arizona	200,489	20,422	10.2	13,921	6.9	15,636	7.8
California	119,997	18,659	15.6	14,145	11.8	20,112	16.8
Colorado	39,980	6,090	15.2	3,069	7.7	2,147	5.4
Connecticut	229	29	12.7	13	5.7	22	9.6
Florida	63,547	11,689	18.4	9,116	14.3	11,157	17.6
Idaho	30,204	4,447	14.7	3,365	11.1	4,229	14.0
Indiana	7,091	1,155	16.3	938	13.2	1,029	14.5
Iowa	647	64	9.9	56	8.7	53	8.2
Kansas	5,818	754	13.0	557	9.6	897	15.4
Kentucky	22,763	3,352	14.7	3,443	15.1	4,202	18.5
Louisiana	48,471	6,173	12.7	4,423	9.1	5,279	10.9
Maine	7,233	1,115	15.4	787	10.9	1,296	17.9
Massachusetts	70,911	11,855	16.7	8,184	11.5	15,935	22.5
Minnesota	26,417	3,257	12.3	2,553	9.7	2,913	11.0
Mississippi	5,192	474	9.1	287	5.5	193	3.7
Montana	65,854	8,517	12.9	5,519	8.4	6,385	9.7
Nebraska	9,165	1,001	10.9	765	8.3	1,161	12.7
Nevada	47,377	6,297	13.3	5,953	12.6	7,160	15.1
New Mexico	163,268	19,315	11.8	12,494	7.7	13,201	8.1
New York	55,313	8,048	14.6	5,966	10.8	9,920	17.9
North Carolina	18,187	2,592	14.3	2,232	12.3	2,767	15.2
North Dakota	37,166	4,628	12.5	3,054	8.2	3,824	10.3
Oregon	6,545	801	12.2	514	7.9	483	7.4
Pennsylvania	97,754	13,907	14.2	10,621	10.9	13,646	14.0
Rhode Island	1,007	168	16.7	118	11.7	175	17.4
South Carolina	3,533	549	15.5	824	23.3	1,191	33.7
South Dakota	60,968	6,326	10.4	4,360	7.2	5,400	8.9

Appendix CC-2: Age, state-level totals for Table 27, Part 2: ages 45+

Area	Total persons	Ages					
		45 to 54 years old		55 to 64 years old		65+	
		Number	Percent	Number	Percent	Number	Percent
Texas	318,318	28,527	9.0	16,252	5.1	17,446	5.5
Utah	49,046	5,602	11.4	3,810	7.8	5,042	10.3
Virginia	58	11	19.0	7	12.1	9	15.5
Washington	14,381	1,796	12.5	1,265	8.8	1,273	8.9
Wisconsin	101,442	14,976	14.8	12,043	11.9	16,031	15.8
Wyoming	22,870	3,216	14.1	2,174	9.5	2,642	11.6

Data source: HCEF_D'

Appendix DD: Hispanic origin, state-level totals for Table 28

Area	Hispanic origin				
	Total persons	not Hispanic		Hispanic	
		Number	Percent	Number	Percent
United States	1,727,361	1,320,087	76.4	407,274	23.6
Alabama	5,766	5,649	98.0	117	2.0
Alaska	354	344	97.2	10	2.8
Arizona	200,489	183,110	91.3	17,379	8.7
California	119,997	104,921	87.4	15,076	12.6
Colorado	39,980	36,028	90.1	3,952	9.9
Connecticut	229	225	98.3	4	1.7
Florida	63,547	57,603	90.6	5,944	9.4
Idaho	30,204	29,312	97.0	892	3.0
Indiana	7,091	7,011	98.9	80	1.1
Iowa	647	616	95.2	31	4.8
Kansas	5,818	5,687	97.7	131	2.3
Kentucky	22,763	22,598	99.3	165	0.7
Louisiana	48,471	47,421	97.8	1,050	2.2
Maine	7,233	7,194	99.5	39	0.5
Massachusetts	70,911	70,119	98.9	792	1.1
Minnesota	26,417	26,093	98.8	324	1.2
Mississippi	5,192	5,144	99.1	48	0.9
Montana	65,854	64,482	97.9	1,372	2.1
Nebraska	9,165	8,976	97.9	189	2.1
Nevada	47,377	42,809	90.4	4,568	9.6
New Mexico	163,268	126,787	77.7	36,481	22.3
New York	55,313	51,284	92.7	4,029	7.3
North Carolina	18,187	17,876	98.3	311	1.7
North Dakota	37,166	36,747	98.9	419	1.1
Oregon	6,545	6,274	95.9	271	4.1
Pennsylvania	97,754	92,554	94.7	5,200	5.3
Rhode Island	1,007	996	98.9	11	1.1

Appendix DD: Hispanic origin, state-level totals for Table 28

Area	Hispanic origin				
	Total persons	not Hispanic		Hispanic	
		Number	Percent	Number	Percent
South Carolina	3,533	3,502	99.1	31	0.9
South Dakota	60,968	60,149	98.7	819	1.3
Texas	318,318	16,395	5.2	301,923	94.8
Utah	49,046	46,433	94.7	2,613	5.3
Virginia	58	58	100.0	0	0.0
Washington	14,381	13,548	94.2	833	5.8
Wisconsin	101,442	100,442	99.0	1,000	1.0
Wyoming	22,870	21,700	94.9	1,170	5.1

Data source: HCEF_D'

Appendix EE-1: Race, state-level totals for Table 29, Part 1: total, white, African American, American Indian/Alaska Native

Area	Total persons	Race					
		White		African American		American Indian/Alaska Native	
		Number	Percent	Number	Percent	Number	Percent
United States	1,727,361	1,094,851	63.4	26,393	1.5	478,742	27.7
Alabama	5,766	5,502	95.4	17	0.3	52	0.9
Alaska	354	50	14.1	1	0.3	278	78.5
Arizona	200,489	29,827	14.9	719	0.4	159,127	79.4
California	119,997	100,601	83.8	952	0.8	6,914	5.8
Colorado	39,980	34,123	85.4	124	0.3	2,893	7.2
Connecticut	229	27	11.8	14	6.1	181	79.0
Florida	63,547	60,216	94.8	951	1.5	448	0.7
Idaho	30,204	22,078	73.1	43	0.1	7,016	23.2
Indiana	7,091	6,950	98.0	11	0.2	4	0.1
Iowa	647	34	5.3	2	0.3	588	90.9
Kansas	5,818	4,259	73.2	30	0.5	1,359	23.4
Kentucky	22,763	21,881	96.1	461	2.0	57	0.3
Louisiana	48,471	31,066	64.1	14,609	30.1	757	1.6
Maine	7,233	6,609	91.4	8	0.1	492	6.8
Massachusetts	70,911	67,367	95.0	925	1.3	354	0.5
Minnesota	26,417	11,250	42.6	22	0.1	13,958	52.8
Mississippi	5,192	139	2.7	20	0.4	4,944	95.2
Montana	65,854	27,505	41.8	47	0.1	35,969	54.6
Nebraska	9,165	4,606	50.3	18	0.2	4,320	47.1
Nevada	47,377	36,195	76.4	522	1.1	6,860	14.5
New Mexico	163,268	36,188	22.2	337	0.2	109,468	67.0
New York	55,313	44,693	80.8	1,179	2.1	6,862	12.4
North Carolina	18,187	10,890	59.9	89	0.5	6,705	36.9
North Dakota	37,166	16,896	45.5	26	0.1	19,481	52.4
Oregon	6,545	1,546	23.6	6	0.1	4,675	71.4
Pennsylvania	97,754	88,737	90.8	4,283	4.4	243	0.2

Appendix EE-1: Race, state-level totals for Table 29, Part 1: total, white, African American, American Indian/Alaska Native

Area	Total persons	Race					
		White		African American		American Indian/Alaska Native	
		Number	Percent	Number	Percent	Number	Percent
Rhode Island	1,007	988	98.1	3	0.3	0	0.0
South Carolina	3,533	3,053	86.4	27	0.8	368	10.4
South Dakota	60,968	19,144	31.4	52	0.1	40,599	66.6
Texas	318,318	263,149	82.7	671	0.2	1,356	0.4
Utah	49,046	37,075	75.6	63	0.1	9,713	19.8
Virginia	58	12	20.7	0	0.0	46	79.3
Washington	14,381	3,793	26.4	31	0.2	9,527	66.2
Wisconsin	101,442	82,939	81.8	109	0.1	16,645	16.4
Wyoming	22,870	15,463	67.6	21	0.1	6,483	28.3

Data source: HCEF_D'

Appendix EE-2: Race, state-level totals for Table 29, Part 2: Asian, native Hawaiian/Pacific Islander, some other race, two or more races

Area	Total persons	Race							
		Asian		Native Hawaiian/Pacific Islander		Some other race		Two or more races	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States	1,727,361	5,743	0.3	882	0.1	87,843	5.1	32,907	1.9
Alabama	5,766	14	0.2	1	0.0	77	1.3	103	1.8
Alaska	354	1	0.3	0	0.0	0	0.0	24	6.8
Arizona	200,489	331	0.2	82	0.0	6,878	3.4	3,525	1.8
California	119,997	851	0.7	145	0.1	5,568	4.6	4,966	4.1
Colorado	39,980	224	0.6	30	0.1	1,608	4.0	978	2.4
Connecticut	229	0	0.0	0	0.0	4	1.7	3	1.3
Florida	63,547	345	0.5	25	0.0	585	0.9	977	1.5
Idaho	30,204	86	0.3	18	0.1	366	1.2	597	2.0
Indiana	7,091	18	0.3	2	0.0	48	0.7	58	0.8
Iowa	647	0	0.0	0	0.0	7	1.1	16	2.5
Kansas	5,818	17	0.3	0	0.0	25	0.4	128	2.2
Kentucky	22,763	40	0.2	2	0.0	48	0.2	274	1.2
Louisiana	48,471	817	1.7	11	0.0	454	0.9	757	1.6
Maine	7,233	29	0.4	0	0.0	29	0.4	66	0.9
Massachusetts	70,911	301	0.4	32	0.0	720	1.0	1,212	1.7
Minnesota	26,417	25	0.1	6	0.0	52	0.2	1,104	4.2
Mississippi	5,192	3	0.1	0	0.0	23	0.4	63	1.2
Montana	65,854	154	0.2	25	0.0	263	0.4	1,891	2.9
Nebraska	9,165	11	0.1	1	0.0	83	0.9	126	1.4
Nevada	47,377	395	0.8	154	0.3	1,609	3.4	1,642	3.5
New Mexico	163,268	197	0.1	71	0.0	13,730	8.4	3,277	2.0
New York	55,313	346	0.6	38	0.1	1,246	2.3	949	1.7
North Carolina	18,187	33	0.2	6	0.0	90	0.5	374	2.1
North Dakota	37,166	35	0.1	37	0.1	60	0.2	631	1.7
Oregon	6,545	9	0.1	5	0.1	60	0.9	244	3.7

Appendix EE-2: Race, state-level totals for Table 29, Part 2: Asian, native Hawaiian/Pacific Islander, some other race, two or more races

Area	Total persons	Race							
		Asian		Native Hawaiian/Pacific Islander		Some other race		Two or more races	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pennsylvania	97,754	605	0.6	16	0.0	2,012	2.1	1,858	1.9
Rhode Island	1,007	8	0.8	0	0.0	3	0.3	5	0.5
South Carolina	3,533	4	0.1	7	0.2	8	0.2	66	1.9
South Dakota	60,968	40	0.1	16	0.0	128	0.2	989	1.6
Texas	318,318	387	0.1	73	0.0	49,931	15.7	2,751	0.9
Utah	49,046	90	0.2	29	0.1	1,173	2.4	903	1.8
Virginia	58	0	0.0	0	0.0	0	0.0	0	0.0
Washington	14,381	32	0.2	17	0.1	370	2.6	611	4.2
Wisconsin	101,442	259	0.3	25	0.0	253	0.2	1,212	1.2
Wyoming	22,870	36	0.2	8	0.0	332	1.5	527	2.3

Data source: HCEF_D'