Census 2000 Mail Return Rates

FINAL REPORT

This evaluation 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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EXECUTIVE SUMMARY

The return rate is a measure of respondent cooperation in Census 2000. Preliminary analysis indicates that self-enumerated returns have a lower imputation rate than enumerator returns.¹ Due to the higher level of data quality and the lower cost associated with self-enumerated responses relative to enumerator-collected responses, it is important for return rates to be as high as possible.

The mail return rate is defined as the number of mail returns received prior to the cut date for the Nonresponse Followup universe divided by the total number of occupied housing units in mailback areas that were on the Decennial Master Address File prior to Nonresponse Followup. The final return rate is similar but includes all mail returns through the end of the year. Mail returns included in the return rates include actual paper questionnaires, interviews during the Telephone Questionnaire Assistance program, Internet data captures, Be Counted forms, and Coverage Edit Followup returns.

The mail return rate is different from the mail response rate. Mail response rate is essentially a measure of the percentage of the Nonresponse Followup-eligible housing unit workload that was returned by April 18, 2000. The denominator of the mail response rate is calculated from the Decennial Master Address File. It includes all housing units in mailback type of enumeration areas that were eligible for Nonresponse Followup and had addresses that were considered adequate to attempt delivery by either the United States Postal Service or census field staff. The response rate denominator is larger than the return rate denominator, largely because the response rate denominator includes vacant housing units, Undeliverable As Addressed addresses, some addresses deleted in Update/Leave and Urban Update/Leave delivery, and deleted in either Nonresponse Followup or Coverage Improvement Followup.

What were the national mail return rates?

The mail return rate as of April 18, 2000 was 74.1 percent, which was approximately the same as the 1990 mail return rate of 74.1 percent.² This rate represents 75,163,020 mail returns that were received by April 18, 2000 out of a return rate denominator of 101,398,131 households. Another 4,367,080 questionnaires were returned after April 18, resulting in a final return rate as of December 31, 2000 of 78.4 percent. The final return rate in 1990, which included late mail returns received through the end of the census, was 75.0 percent.

¹U.S. Bureau of the Census, *Study Plan for B.1: Evaluation of the Analysis of the Imputation Process for 100 Percent Household Population Items*, Decennial Statistical Studies Division Census 2000 Procedures and Operations Memorandum Series #Y-1, October 1, 2001.

²U.S. Bureau of the Census, *Documentation of the 1990 Census Mail Return Rates*, Decennial Statistical Studies Division 1990 REX Memorandum Series #Q13, October 15, 1992.

Reflecting the higher response burden of the long form questionnaire, the short form mail return rate (as of April 18, 2000) of 76.4 percent was 13.4 percentage points higher than the long form mail return rate of 63.0 percent. The mail return rates for short forms and longs forms in 1990 were 74.9 percent and 70.4 percent, respectively.³

In Census 2000, approximately 14.4 percent of mail returns were long forms, a substantially lower percentage than the overall 16.9 percent sampling rate. However, many residents with long forms held onto them and returned them after April 18. After that date, a larger proportion of long forms were returned than short forms. The final return rate was 80.1 percent for short forms and 70.5 percent for long forms.

Mailout/Mailback areas had a mail return rate of 75.1 percent, which is higher than either the mail return rate for Update/Leave areas (69.6 percent) or the mail return rate for Urban Update/Leave areas (63.7 percent). Final return rates by type of enumeration area were 78.6 percent for Mailout/Mailback, 77.9 percent for Update/Leave, and 70.8 percent for Urban Update/Leave.

Most questionnaires were returned in the period between March 15, when questionnaires in Mailout/Mailback areas were mailed, and March 28. There were slight surges in the number of mail returns corresponding to the delivery of reminder postcards beginning on March 20 and on Census Day (April 1). These two surges in response were more pronounced for long forms than short forms.

Between the initial cut for the Nonresponse Followup universe on April 10 and the final cut on April 18, 2,541,308 questionnaires (2.5 percent) were received. Had the final Nonresponse Followup cut been on April 10, the Nonresponse Followup workload would have increased by this number of housing units.

After April 18, the number of mail returns declined until very few forms were being received by May 6. For the final return rate, 4,367,080 mail returns were checked in after April 18. This was an increase in the return rate of 4.3 percentage points. The last date on which questionnaires were checked in was October 19, 2000. The last date on which enough forms were received that resulted in an increase in the rate was July 22 for short forms and August 19 for long forms.

Differential return rates were observed for different demographic groups. The likelihood of responding to the census increased with householder's age. Householders older than age 64 had the highest return rate and those few householders younger than 18 had an extremely low return rate.

³U.S. Bureau of the Census, *Documentation of the 1990 Census Mail Return Rates*, Decennial Statistical Studies Division 1990 REX Memorandum Series #Q13, October 15, 1992.

Whites had a higher mail return rate (77.5 percent) than the total mail return rate, while all other race groups had lower return rates than the total mail return rate. The lowest mail return rates were those of Pacific Islander (54.6 percent) and Multi-racial (57.7 percent) householders. All race groups, with the exception of Whites, also had relatively high differences between short form and long form mail return rates. However, the discrepancy between Whites and all other race groups declined between April 18 and December 31, as all other race groups returned a higher proportion of their questionnaires after the cut for Nonresponse Followup than Whites.

Non-Hispanic householders had a mail return rate of 75.0 percent, 10.5 percentage points higher than the Hispanic mail return rate of 64.5 percent. The relatively high level of mail response by non-Hispanic households was particularly true in the case of households receiving long forms. Fewer than half (49.7 percent) of all Hispanic householders returned their long form questionnaires before April 18, compared to 64.1 percent of non-Hispanic householders.

Households consisting of two persons had the largest proportion of residents who responded to the census. Following two-person households in respondent cooperation are four-person, three-person, and one-person households, respectively. Larger households of five persons or more have increasingly lower mail return rates as household size increases. A different pattern is evident for long form mail return rates by household size. For households with more than two persons, long form mail return rates are inversely related to household size.

The mail return rate was compared to the mail response rate. The mail response rate as of April 18 was 64.3 percent, 9.9 percentage points lower than the mail return rate. The difference between the two rates is greater for short forms than long forms and even greater for Urban Update/Leave and Update/Leave than for Mailout/Mailback areas.

The final return rate was compared to the final response rate. The final response rate is similar to the mail response rate but includes all mail returns through the end of the year 2000. The total final response rate was 67.4 percent, 11.0 percentage points lower than the final return rate of 78.4 percent. This is a greater difference than the difference in the mail response and return rates. The difference between the final return and the final response rates for long forms is about the same as the difference for short forms. However, the difference between the final return rate and the final response rate is greater in Urban Update/Leave and Update/Leave areas than in Mailout/Mailback areas.

1. BACKGROUND

This evaluation provides the return rates for Census 2000 and an analysis of the rates at the national level. The mail return rate identifies the percentage of Census 2000 questionnaires received by households that were returned by April 18, 2000, the cut for the Nonresponse Followup universe. The mail and final return rates are a measure of respondent cooperation at two points in time (April 18 and December 31, 2000). The final return rate is similar but also includes mail returns through the end of the year. This report also examines return rate differentials for long and short forms, for different type of enumeration areas, and for various demographic groups.

1.1 Previous Censuses

Mail return rates were first measured for the 1970 Census. In 1970, the mail return rate was 87.0 percent. The mail return rate for short forms and long forms was 88.0 percent and 83.0 percent, respectively. Thus, a 5.0 percentage point difference resulted between form types. (U.S. Bureau of the Census, 1992a)

In 1980, the mail return rate was 81.3 percent, which is a decrease from the 1970 mail return rate. The short form mail return rate was 81.6 percent and the long form mail return rate was 80.1 percent, resulting in a 1.5 percentage point differential between form type (U.S. Bureau of the Census, 1992a). The decrease in return rate from 1970 to 1980 was the beginning of a trend of decline in respondent cooperation, as a decrease in return rates also occurred between the 1980 and the 1990 censuses.

In the 1990 Census, the United States Postal Service (USPS) was the primary vehicle for delivering census questionnaires. Based on a master address list, the Census Bureau mailed questionnaires to about 86.2 million housing units in areas designated as being Mailout/Mailback. Occupants were asked to complete the forms and mail them back in the provided postage paid envelope. In areas designated as Update/Leave, enumerators visited approximately 10.3 million housing units, verified addresses, and left questionnaires for occupants to complete and mail back in the provided postage paid envelope (U.S. Bureau of the Census, 1999a).

In the 1990 Census, both a questionnaire and a mail reminder card were delivered to all housing units in the Mailout/Mailback universe. The reminder card was delivered on March 30, approximately seven days after the questionnaire mailout. Census Day was officially April 1.

The mail return rate was defined as the ratio of the number of households returning a census questionnaire by mail to the total number of occupied housing units that received a census questionnaire delivered by mail or by a census enumerator (U.S. Bureau of the Census, 1999a).

The date for the mail return rate varied by District Office (DO) type (Type 1, 2, 2A, and 3). District Offices are similar to Local Census Offices in 2000. There were 449 stateside DOs in 1990. Of these, 103 were Type 1 DOs, which were located in urban areas. Type 2 DOs were located in small cities, suburbs, and rural areas, accounting for 276 of the 449 DOs. Seventy-nine of these were Type 2A, which handled the Update/Leave operation in addition to the Mailout/Mailback Questionnaires. Most of the 70 Type 3 DOs were located in rural, sparsely settled areas, and few were located in small cities. The date for the mail return rates in 1990 was April 19 for Type 1 DOs and April 28 for Type 2, 2A, and 3 (U.S. Bureau of the Census, 1991).

For the 1990 Census the overall mail return rate was approximately 74.1 percent. The mail return rate was 74.9 percent for short forms and 70.4 percent for long forms, resulting in a difference of 4.5 percentage points between the form types. The final mail return rate, which included late mail returns through the end of the census, was 75.0 percent. This is 0.9 percentage points higher than the mail return rate as of April 28, 1990. (U.S. Bureau of the Census, 1992b)

1.2 Census 2000 Dress Rehearsal

The Census 2000 Dress Rehearsal was conducted in three areas: Sacramento, California; Columbia, South Carolina, and 11 surrounding counties; and Menominee County, Wisconsin, including the Menominee American Indian Reservation. Each site was selected because of its demographic and geographic characteristics to provide experience with some of the expected Census 2000 environments. The Sacramento site was entirely Mailout/Mailback, the South Carolina site was a mixture of Mailout/Mailback and Update/Leave addresses, and the Menominee site was entirely Update/Leave.

There were four components of Mailout/Mailback delivery: an advance letter, an initial questionnaire, a reminder card, and a "blanket" replacement questionnaire (mailed to all addresses). These items used first-class postage and were distributed by the USPS as part of their delivery routes. The advance letter was mailed to each address between March 24 and 27, 1998. The initial questionnaire was mailed between March 28 and 31. The reminder card was sent to housing units between April 3 and 6. Replacement questionnaires were mailed between April 15 and 17. Census Day was officially April 18.

The Update/Leave methodology involved Census Bureau enumerators delivering questionnaires at the same time they updated maps and the list of addresses. Update/Leave delivery of questionnaires took place between March 14 and April 10, 1998. In ZIP codes that consisted entirely of Update/Leave housing units, the USPS delivered an advance letter to "postal patrons" using third-class postage.

Under both methodologies, respondents were asked to mail back their questionnaires in provided postage paid envelopes.

Short and long form questionnaires were included in both delivery methodologies. Every housing unit received either a short or a long form. The long form sampling rate for the dress rehearsal varied within site.

Return rate was defined to include in its numerator the number of occupied housing units in the mailback universe that returned a questionnaire that was not blank. The return rate denominator included the number of occupied housing units in the mailback universe that were either mailed a questionnaire or - in Update/Leave areas - received one delivered by a census enumerator.

Table 1 contains the mail return rates for the three Dress Rehearsal test sites by form type (short versus long). Dress Rehearsal return rates are typically lower than those for the census. This is due to the fact that the dress rehearsal does not have a "census environment." A "census environment" allows for a higher return rate due to the publicity surrounding the census.

		Form Type	
Site	Total	Short	Long
Sacramento	60.6 %	63.1 %	47.7 %
South Carolina	62.7 %	64.7 %	51.9 %
Menominee	57.6 %	59.1 %	48.3 %

Table 1. Dress Rehearsal Mail Return Rates

1.3 Census 2000

In Census 2000, the questionnaire Mailout/Mailback system was the primary means of census taking. Cities, towns, and suburban areas with city-style addresses (house number and street name) as well as rural areas where city-style addresses are used for mail delivery comprised the Mailout/Mailback areas. Update/Leave areas consisted of addresses that are predominantly not city-style. Census enumerators delivered addressed questionnaires to Update/Leave housing units. Update/Leave enumerators also made any necessary corrections or additions to census maps and address lists as they delivered the questionnaires. In both delivery methodologies, the housing units were provided with first-class postage paid envelopes for returning their questionnaires.

1.3.1 Types of Mailback Questionnaires

Census 2000 included two types of questionnaires for mailback:

• A short form was delivered to approximately 83 percent of all housing units. This form allowed the respondent to list up to 12 household members. It provided space for

reporting the basic population and housing data (i.e. name, relationship, age, sex, race, Hispanic origin, and tenure) for up to six household members in the housing unit.

• A long form was delivered to a sample – approximately 17 percent – of all housing units. This form allowed the respondent to list up to 12 household members. It included all the questions on the short form, as well as additional housing unit questions and additional person questions for up to six household members.

There is one difference between the Mailout/Mailback questionnaire and the Update/Leave questionnaire. The Update/Leave questionnaire gave the respondent the opportunity to correct address information.

1.3.2 Multiple Mailing Strategy

The Census Bureau used a mail strategy consisting of multiple contacts for Census 2000 in Mailout/Mailback areas. These contacts were:

- an advance notice letter to every mailout address that alerted households that the census form would be sent to them soon,
- a questionnaire to every mailout address, and
- a postcard to every mailout address that served as a thank you for respondents who had mailed back their questionnaire or as a reminder to those who had not.

This multiple mailing strategy used first-class postage for all mailing pieces in Mailout/Mailback areas. The volume for Mailout/Mailback areas was approximately 100 million pieces for each mailing.

The mailout strategy used in Update/Leave areas consisted of advance notice letters and reminder postcards. Advance notice letters were mailed to Update/Leave housing units that had "good" addresses using first-class mail. Reminder cards were sent to housing units in ZIP codes that consist entirely of Update/Leave housing units. The reminder postcards were addressed to "Residential Customer" and delivered using third-class postage. Consequently, some housing units received the advance notice letter and not the reminder card, some received the reminder card and not the advance notice letter, some received both, and some received neither. The expected volume for Update/Leave areas was about 22 million questionnaires (U.S. Bureau of the Census, 2001a).

1.3.3 Key Dates in Mailback Schedule

Mailout/Mailback Enumeration Areas:

Event	Date
Advance notice letter delivered	March 6 - March 8
Mailout of Questionnaire	March 13 - March 15
Delivery of Reminder Cards	March 20 - March 22
Census Day	April 1
Cut for Nonresponse Followup (NRFU)	April 11
Late Cut for NRFU	April 18

Update/Leave Enumeration Areas:

Event	Date
Delivery of Advance Notice Letters	March 1 - March 3
Delivery of Questionnaires	March 3 - March 30
Delivery of Reminder Cards	March 27 - March 29
Census Day	April 1
Initial Cut for NRFU	April 11
Late Cut for NRFU	April 18

1.3.4 Delivery of Questionnaires in Other Languages

The Census Bureau mailed census forms in five other languages (Chinese, Korean, Spanish, Tagalog, and Vietnamese) to housing units that requested them. The advance notice letter provided the respondent with the opportunity to make this request.

2. METHODOLOGY

The data files used to calculate the mail return rates are:

- Hundred percent Census Edited File with the reinstated housing units (HCEF_D')
- March 2001 Master Address File (MAF) Extract
- Decennial Response File Stage 2 (DRF-2)
- Decennial Master Address File (DMAF)

2.1 Hundred Percent Census Edited File with the Reinstated Housing Units (HCEF_D')

The primary file used to calculate the mail return rates was the HCEF_D'. We used this file to identify the housing units to include in the return rates. The HCEF_D' contained variables that were used to limit the return rate denominator to occupied housing units in mailback areas which were deliverable. The MAILD variable from the HCEF_D' identifies the date on which a mail

return questionnaire was checked into the Data Capture Centers. The HCEF_D' also contains information on which form type (short versus long) was received by each housing unit. The definitions of the HCEF_D' variables can be found in Appendix A.

2.2 March 2001 Master Address File (MAF) Extract

The March 2001 MAF extract determined which addresses had been added to the DMAF through an operation prior to Nonresponse Followup (NRFU). Only these addresses were eligible for the return rate denominator. We merged the action code variables for these operations onto the HCEF_D' from the March 2001 MAF extract. One of these MAF action code variables also was used to eliminate addresses deleted during Update/Leave (U/L) and Urban Update/Leave (UU/L) questionnaire delivery or deleted from either NRFU or Coverage Improvement Followup (CIFU) from the return rate denominator. These deleted addresses could not have received questionnaires and thus were ineligible to respond. The definitions of the MAF variables used in calculating return rates can be found in Appendix B.

2.3 Decennial Response File Stage 2 (DRF-2)

The DRF-2 is the file representing the capture of questionnaire data from Census 2000 and was used to determine which housing units had a valid mail return. We created a variable called DC_DRF from the RSOURCE variable on the DRF-2 to identify those addresses with a mail return. The DC_DRF variable was created based on all returns for an address on the DRF-2. This variable was merged onto the HCEF_D' in order to calculate the return rates. For information on the variables used to create the DC_DRF variable, see Appendix C. In addition, Appendix C contains the logic used to create the DC_DRF variable.

2.4 Decennial Master Address File (DMAF)

We did not use DMAF variables to calculate the return rates. However, the mail response rates mentioned in this evaluation were calculated using DMAF data. For information on DMAF variables see U.S. Census Bureau, 2000b.

2.5 Calculation of the Mail Return Rate

The mail return rate denominator included occupied housing units in mailback areas that were added to the DMAF by operations prior to NRFU and were neither undeliverable by the USPS nor deleted during the Census Bureau delivery operation. The mail return rate numerator included housing units in the denominator that had a valid mail return and a mail return check-in date of April 18, 2000 (the date of the cut for the NRFU universe) or earlier (variable MAILD, values of '0101' through '0418', inclusive). Addresses with a valid mail return but no MAILD date (MAILD values of '0000', '0099', and '2000') were included in the mail return rate numerator if they did not have a NRFU or CIFU data capture as determined using the DRF-2. The mail return rate was calculated for the geographic levels of tract, county, and state by

summing the housing units up to each geographic level, dividing the numerator by the denominator, and rounding to the nearest tenth of a percentage point. The national mail return rate was created by summing the state numerators and denominators to the national level.

2.5.1 Mail Return Rate Denominator

Several criteria were used to identify addresses on the HCEF_D' for the mail return rate denominator. Only housing units in mailback areas (TEA variable, values of 1, 2, 6, 7, or 9) were included in the denominator. Additionally, only addresses that were not identified by the USPS and the Census Bureau as undeliverable were included in the denominator (UAA variable value of 0 or 5). The NPHU variable (value>00) was used to determine that a housing unit was occupied. The definitions of these HCEF_D' variables can be found in Appendix A. One of the MAF action code variables, the Questionnaire Delivery Action Code (QSTDELAC \neq D), was used to eliminate addresses deleted during U/L and UU/L questionnaire delivery from the return rate denominator.

Several variables from the March 2001 MAF Extract also were used in the calculation of the denominator. We excluded housing units from the return rate denominators unless the record had an action code variable indicating that it was added, corrected, moved to a new block, verified, or edited (values=A, C, M, V, or E) in one of the following operations that occurred prior to NRFU:

Address Listing
Block Canvassing
Local Update of Census Addresses 1998 (LUCA 98)
LUCA 98 Field Verification
LUCA 99 Relisting
LUCA 98 Appeals
LUCA 99 Appeals
U/L or UU/L Questionnaire Delivery
1990 Address Control File
Dress Rehearsal-specific Operations

An address that was added through one of the first three Delivery Sequence Files (DSFs) also was eligible for the return rate denominator.

Separate mail return rate denominators were created for each of three Type of Enumeration Areas (TEAs), for each of the two form types (short versus long), and for each TEA by form type. The three TEAs are Mailout/Mailback (TEA variable value of 1 or 6), U/L (value of 2 or 9) and UU/L (value of 7). Questionnaire form type was determined using the ASAM variable (value of 1 for short form and 6 for long forms).

2.5.2 Mail Return Rate Numerator

For a housing unit to be in the mail return rate numerator, it had to be a mail return that was in the return rate denominator. Mail returns were determined using the DC_DRF variable from the DRF-2. An address had a valid mail return if this variable indicated that it had a data capture in the form of a paper mail return, an Internet return, a Be Counted form, a Telephone Questionnaire Assistance (TQA) return, or a Coverage Edit Followup return.

The MAILD variable from the HCEF_D' was used to determine the date of a mail return's check-in. If the MAILD variable indicated that a return for the housing unit was received on or before April 18, 2000 ('0101' \leq MAILD \leq '0418'), then the address also was in the mail return rate numerator.

There were some addresses with mail returns according to DC_DRF but no MAILD date (values of '0000', '0099', or '2000'). These addresses were assigned to the mail return rate numerator based on whether or not they had data captures in the NRFU or CIFU operations (DC_DRF variable digits 6 or 7). Only addresses with no mail returns on April 18, 2000 were supposed to be included in those two followup operations. Therefore, addresses with neither a NRFU nor a CIFU data capture were assigned to the mail return rate numerator.

2.6 Calculation of the Final Return Rate

Like the mail return rate, the final return rate is a measure of resident cooperation and participation in Census 2000. The difference is that the final return rate is not restricted to mail returns received before the cut for the NRFU universe. As with the mail return rates, the final return rates were calculated by dividing the numerator by the denominator and rounding to the nearest tenth of a percentage point.

2.6.1 Final Return Rate Denominator

The final return rate has the same denominator calculated from the HCEF_D' as the mail return rates. See Section 2.5.1.

2.6.2 Final Return Rate Numerator

The final return rate numerator was calculated by including all valid mail returns as determined by the DC_DRF variable from the DRF-2 that were in the return rate denominator. Most of these mail returns had MAILD check-in dates between January 1 and October 19, 2000. Mail returns with no MAILD date which the DC_DRF variable showed with NRFU or CIFU data captures were assigned to the final return rate and not the mail return rate.

2.7 Calculation of the Daily Return Rates

The daily return rates were calculated in a manner similar to the mail and final return rates. For the cumulative daily return rates, the denominators were the same for all rates. The numerators for each date of the year 2000 were calculated by limiting the numerators to addresses with mail return check-in dates on or before the particular date. For instance, the cumulative daily return rate numerator for May 5 was limited to addresses with a MAILD value less than or equal to '0505'. As previously stated, the final date on which questionnaires with a MAILD date were received was October 19 (MAILD='1019'). To determine the daily increase in the return rate, the numerators were calculated by limiting the numerators to addresses with mail return check-in dates on a particular date. For those mail returns in the denominator that did not have a valid MAILD date on the HCEF_D', we assigned a date of either April 18 or December 31 based on the existence of a NRFU or CIFU data capture. If these mail returns had neither a NRFU nor a CIFU data capture, then they were assigned to the December 31 return suith either a NRFU or a CIFU data capture were assigned to the December 31 return rate.

2.8 Calculation of the Return Rates for Demographic Groups

The denominators and numerators for the return rates for the demographic groups were calculated similarly to the total return rates except that the denominators and numerators were limited by the demographic or housing characteristic of interest using the person and housing unit variables from the HCEF_D'. These variables reflect the residents' responses to the census questionnaire. After merging the person variables onto the housing unit and block variables, the denominator was limited to records with a relationship of householder (variable QREL=01). The householder is defined as the household member in whose name the housing unit was owned or rented on Census Day and is usually the person who filled out the questionnaire. Only the householder in each housing unit was used in order to have one set of characteristics for each household.

We calculated the return rates by tenure using the STENURE variable with a value of 1 or 2 representing owner-occupied housing units and values of 3 and 4 for rented housing units. Records were characterized by household size using the NPHU variable which indicates the number of residents of each housing unit. Householders were divided into two groups by Hispanic ethnicity with Non-Hispanic householders having a QSPANX variable value of 1 and Hispanics householders having a QSPANX variable value of 2, 3, 4, 5, 6, or 7.

Householders included in the return rates were divided into seven racial groups. The six single race groups were those that did not indicate more than one race (QRACE2 variable='000'). In addition, we identified a race category for householders who reported more than one race (QRACE2>'000'). We determined the six single race groups using the QRACE1 variable. These races are White ('100' \leq QRACE1 \leq '199'), Black or African American ('200' \leq QRACE1 \leq '299'), American Indian and Alaska Native ('300' \leq QRACE1 \leq '399' or QRACE1 \geq 'A01'),

Asian ('400' \leq QRACE1 \leq '499'), Native Hawaiian and Other Pacific Islander ('500' \leq QRACE1 \leq '599'), and Some other race ('600' \leq QRACE1 \leq '999').

Householders were divided into five age categories based on the values of the QAGE variable. These groups are 15 to 17 years old, 18 to 24 years, 25 to 44 years, 45 to 64 years, and 65 and older. By definition, householders must be at least 15 years old. The definitions of the HCEF_D' variables used in calculating return rates can be found in Appendix A.

2.9 Application of Quality Assurance Procedures

Quality Assurance procedures were applied to the design, implementation, analysis, and preparation of this report. A description of the procedures used is provided in the "Census 2000 Evaluation Program Quality Assurance Process."

3. LIMITATIONS

3.1 Missing Check-in Dates for Some Mail Returns

Appendix D shows a table with nineteen categories into which all addresses in the return rate denominator could be grouped based on their values for the DRF-2 variable DC_DRF and the HCEF_D' variable MAILD. The rows of data in the table depend on the values of the DC_DRF variable from the DRF-2. The columns in the table are the values of MAILD on the HCEF_D'.

There were 404,355 valid mail returns (0.4 percent of the return rate denominator) for which the HCEF_D' variable MAILD did not indicate a check-in date (cells 1A, 1B, 2A, 2B, 6A, 6B, 7A, and 7B). These returns were assigned to either the mail return rate or the final return rate based on whether or not their addresses also had a NRFU or CIFU return. Housing units with a valid mail return, no check-in date, and no data capture for NRFU and CIFU were assigned a date of April 18 and included in the mail return rate. These 41,928 mail returns are shown in cells 1A, 2A, 6A, and 7A of the table in Appendix D. Mail returns without a valid MAILD value and with a data capture for NRFU or CIFU were assigned a date of December 31 and included in the final return rate. These 362,427 housing units are shown in cells 1B, 2B, 6B, and 7B in the table in Appendix D. The other problem with the MAILD variable is that it only reflects the date of check-in at the DCC, not the date on which a questionnaire was completed, mailed or even the date on which the form was received by the DCC.

3.2 No Precise Cut-off Date for Nonresponse Followup Universe

A housing unit was counted toward the mail return rate numerator if MAILD indicated a check-in date prior to the late cut for NRFU. That date was set at April 18, 2000 but users of the rates should keep in mind that there was some noise in the data with respect to the date since the NRFU universe was generated on a flow basis. That is, the NRFU universe of all the housing

units was not set instantaneously at midnight of April 18. The actual cut might have fallen on either side of that date for some housing units.

3.3 Housing Units in Denominator Not in Mailout

Some occupied housing units on the HCEF_D' from Mailout/Mailback and Update/Leave areas were added after the mailback universe was set. Hence, they are being counted toward the return rate denominator but did not have a chance to respond by mailback means prior to the late cut for NRFU.

3.4 Issues with Comparison of Results to Previous Censuses

The definition of mail return rate for Census 2000 is not exactly the same as that from previous censuses. These differences are the following:

- The TEAs in previous censuses were defined differently than those in 2000 and included different parts of the country.
- The timing of the mailout and the cut for NRFU were different for each of the 1970, 1980, 1990, and 2000 censuses.

Specifically for comparing 2000 to 1990:

• Like the 2000 final return rates, 1990 mail return rates at the state, county, and tract levels in 1990 were calculated based on all returns during the year. The 1990 national return rate was calculated with returns through the cut for NRFU.

3.5 Form Type of Mail Returns Based on Form Type Received by Respondent

Since this report does not analyze item non-response on valid mail returns, it is possible that some long forms that were returned did not contain complete data. The return rate analysis by form type was done based on which form the respondents received from the Census Bureau.

4. RESULTS

4.1 What were the Return Rates for the Nation?

The results presented in this report are for the fifty states and the District of Columbia. They do not include Puerto Rico. There were 101,398,131 occupied housing units in mailback areas in Census 2000 that were added to the DMAF prior to NRFU and to which the United States Postal Service or the Census Bureau delivered questionnaires. This number is the national return rate denominator. Of this number, 17,144,689 housing units or 16.9 percent of the housing units received a long form questionnaire. Thus, the sampling rate for the long forms was just slightly above one in six or 16.7 percent.

Table 2 shows the total mail return rates and these rates by form type based on mail returns received on or before April 18, 2000. The data presented in the table are grouped into three TEAs - Mailout/Mailback (MO/MB) (TEAs 1 and 6), U/L (TEAs 2 and 9), and UU/L (TEA 7). The national mail return rate was 74.1 percent, meaning that 75,163,020 households returned their questionnaires in time to avoid the necessity of enumeration in Nonresponse Followup. This mail return rate is about the same as the 1990 mail return rate of 74.1 percent (U.S. Bureau of the Census, 1992b), halting the decades of decline in respondent cooperation as described in Section 1.1.

The table shows that 76.4 percent or 64,357,968 housing units who received short forms returned them by April 18, 2000. In contrast, only about 63.0 percent of households who were delivered long forms returned them by that date. This 13.4 percentage point discrepancy means that a higher proportion of the data was collected by Census Bureau interviewers in NRFU on long forms than was the case for short form households. For information about the quality of data collected during NRFU for long and short forms, see Census 2000 Evaluation B.1: Analysis of the Imputation Process for 100 Percent Household Population Item (U.S. Bureau of the Census, 2001b). Approximately 14.4 percent of mail returns were long forms, a substantially lower percentage than the overall 16.9 percent sampling rate.

	Form Type				
Type of Enumeration	Total	Short	Long	Difference	
TOTAL	74.1%	76.4%	63.0%	13.4%	
Mailout/Mailback	75.1%	77.2%	63.4%	13.7%	
Update/Leave	69.6%	72.3%	61.9%	10.4%	
Urban Update/Leave	63.7%	65.7%	52.3%	13.3%	

 Table 2. National Mail Return Rates on or before April 18, 2000 by Form Type and Type of Enumeration Area for the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

The difference in return rates by form type is not surprising, given the difference in response burden between the short form and the long form. The short form only includes seven questions. Person one was asked for name, age, sex, race, Hispanic ethnicity, and tenure. In addition to name, age, sex, race, and Hispanic ethnicity, persons two through six were also asked relationship to person one. In comparison, the long form has a total of 53 questions on a variety of topics including income, utilities, ancestry, and occupation. This gap between short form mail return rates and long form mail return rates varies by TEA, with MO/MB households having the greatest difference in return rates by form type and households in U/L areas having the smallest gap.

Another noticeable variation in return rates is that housing units in MO/MB areas returned a much greater proportion (75.1 percent) of their forms than those in U/L (69.6 percent) and, especially, UU/L (63.7 percent) areas. One explanation for this difference is that MO/MB areas

are generally more prosperous and have greater exposure to media advertising the census than more sparsely populated U/L areas and inner-city UU/L areas. Another potential explanation is the delivery schedule for U/L and UU/L areas is longer than the schedule for MO/MB (March 3-30 vs. March 13-15). Residents in U/L and UU/L areas that received their questionnaires at the end of the delivery schedule had less time to fill them out than residents in MO/MB areas that received their questionnaires at the end of the delivery schedule had less time to fill them out than residents in MO/MB areas that received their questionnaires at the end of the MO/MB schedule.

Additionally, there are often problems with postal delivery in UU/L and U/L areas and those households were less likely to receive the advance notice and reminder postcard. As a result of this discrepancy, a smaller proportion of residents of U/L and UU/L areas were self-enumerated than residents of primarily urban and suburban MO/MB areas with city-style addresses. For the mail return rates by form type for each of the fifty states, the District of Columbia, and Puerto Rico, see U.S. Bureau of the Census, 2002b.

Table 3 shows the final return rates as of December 31, 2000 by TEA and form type. The number of households in mailback areas that returned their questionnaires after April 18, 2000 was 4,367,080, increasing the final return rate by 4.3 percentage points over the mail return rate. The final return rate of 78.4 percent indicates the percentage of households in mailback areas that returned their questionnaires by the end of the year. Note the last form which was received and process was on October 19, 2000. In 1990, the final return rate was 75.0 percent, which included returns that were received through the end of the census.

Table 5. National Final Keturn Kates u	on or before December 51, 2000 by Form Type	anu
Type of Enumeration Area for the Fifty	ty States and the District of Columbia	
	Form Type	

Table 3 National Final Datum Dates on or before December 31, 2000 by Form Type and

		Forn	Form Type	
Type of Enumeration	Total	Short	Long	Difference
TOTAL	78.4%	80.1%	70.5%	9.6%
Mailout/Mailback	78.6%	80.1%	69.9%	10.2%
Update/Leave	77.9%	79.9%	72.1%	7.8%
Urban Update/Leave	70.8%	72.3%	62.5%	9.8%

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Most of the patterns in the return rates revealed in Table 3 are similar to those in Table 2, though final return rates for all groups are, of course, higher. Short form final return rates (80.1 percent) are higher than long form final return rates (70.5 percent) and this difference is greatest in MO/MB areas. The MO/MB areas have the highest final return rate (78.6 percent) among TEAs and UU/L areas have the lowest (70.8 percent). One noteworthy difference between final and mail return rates is that the discrepancy between short form return rates and long form return rates is substantially lower for final return rates (9.6 percent) than for mail return rates (13.4 percent). Many households with long forms returned those forms at a later date than households who received short forms. The form type gap decline in the final return rates was true for all TEAs.

Table 4 compares the mail return rates and the final return rates for the national total and for each of the three TEAs. The data reveal that there was a greater increase in U/L and UU/L areas between April 18 and the end of the year than in MO/MB areas. Thus, the gap among the TEAs that is evident in the mail return rates is not as great for the final return rates. The MO/MB mail return rate is 5.5 percentage points higher than the U/L mail return rate, while the MO/MB final return rate is about 0.6 percentage points higher than the U/L final return rate.

Table 4. Comparison of Mail Return Rates as of April 18, 2000 and Final Return Rates as of December 31, 2000 by Type of Enumeration Area for the Fifty States and the District of Columbia

	A		
Type of Enumeration	April 18, 2000	December 31, 2000	Difference
TOTAL	74.1%	78.4%	4.3%
Mailout/Mailback	75.1%	78.6%	3.4%
Update/Leave	69.6%	77.9%	8.3%
Urban Update/Leave	63.7%	70.8%	7.2%

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

In Table 5, we compare mail return rates and final return rates by TEA for short forms. The patterns of these data are similar to those observed in Table 4.

Table 5. Comparison of Mail Return Rates as of April 18, 2000 and Final Return Rates	as
of December 31, 2000 for Short Forms by Type of Enumeration Area for the Fifty States and	nd
the District of Columbia	

	I		
_	April 18, 2000	December 31, 2000	Difference
TOTAL	76.4%	80.1%	3.7%
Mailout/Mailback	77.2%	80.1%	2.9%
Update/Leave	72.3%	79.9%	7.6%
Urban Update/Leave	65.7%	72.3%	6.6%

Source: HCEF_D'', DRF-2, and March 2001 MAF Extract.

Table 6 shows the same rates as Tables 4 and 5 but for long forms. It is clear that a particularly large proportion of long form households in UU/L and U/L areas returned mailback questionnaires after April 18. Another interesting pattern in these data is that the late return of long form U/L questionnaires actually increases the U/L long form final return rate to a higher level (72.1 percent) than the equivalent rate (69.9 percent) in MO/MB areas.

_	A	As of	
_	April 18, 2000	December 31, 2000	Difference
TOTAL	63.0%	70.5%	7.4%
Mailout/Mailback	63.4%	69.9%	6.4%
Update/Leave	61.9%	72.1%	10.2%
Urban Update/Leave	52.3%	62.5%	10.2%

Table 6. Comparison of Mail Return Rates as of April 18, 2000 and Final Return Rates as of December 31, 2000 for Long Forms by Type of Enumeration Area for the Fifty States and the District of Columbia

Source: HCEF_D'', DRF-2, and March 2001 MAF Extract.

4.2 What were the Daily Return Rates?

Figure 1 (in Appendix E) shows the cumulative mail return rates by form type for each day from March 3 until April 18, 2000. These dates correspond to beginning of questionnaire delivery by Census Bureau staff in U/L areas and the cut for the NRFU universe, respectively. Addresses for which mail returns were received after April 18 were still visited by enumerators in NRFU. The x-axis on the figure shows the date and the y-axis shows the cumulative mail return rate for each date. The light-shaded line indicates the return rates for long forms, the medium-shaded line for short forms, and the thickest and darkest line is the total cumulative daily return rate. The data for Figures 1 through 4 can be found in Appendices F and G. Appendix F shows the daily increase and cumulative mail returns for both the return rate numerator and the return rate, as well as key census dates. Appendix G-1 shows the same data for short forms and Appendix G-2 for long forms.

As indicated by Figure 1, the return rates gradually increased after the beginning of U/L delivery until about March 15. On that date, the mailout of questionnaires (March 13 - 15) in MO/MB areas caused a surge in the return rates as a large majority of households received their questionnaires and many began to return them. Due to the time required for the USPS to deliver mail, there is approximately a two day lag between the date that householders mailed their form and their check-in at the Data Capture Centers (DCCs). As expected based on the lower overall return rates for long forms, the line indicating long form return rates increases more gradually than the lines for total and short form return rates. Within a week of the mailout of questionnaires, a substantial gap is evident between long form return rates and the higher short form and total return rates. Since most questionnaires are short forms, it is not surprising that the pattern of returns for short forms is parallel but slightly higher than that for the total return rate.

Aside from the initial surge in mail returns beginning March 15, the general pattern evident in Figure 1 is one in which the return rate increased rapidly for a few weeks and then began to level off. A second period of accelerated returns occurred around March 20 with declines in the slope of the lines after March 23 and March 28. By the cut for the NRFU universe on April 18, the increase in the return rates has become gradual, indicating that most households who are likely to return their forms had done so on that date.

Figure 2 (in Appendix E) better reveals some of the patterns mentioned above. This figure shows the daily increase of the return rates rather than the cumulative rates for each date from March 3 through April 18, 2000. As in Figure 1, different lines indicate the mail returns for the total and for each form type. This figure reveals certain interesting patterns in the daily return of questionnaires. As described before, a higher proportion of short form mail returns were received at earlier dates. Due to the greater amount of time and effort in filling out the long form, many long form households took longer to return their questionnaires. The initial peak period of returns after the mailout was much greater for short forms than long forms and occurred on earlier days. On March 15, 3.2 percent of short forms were returned compared to 1.2 percent of long forms. Two days later, on March 17, 5.3 percent of short forms were checked in compared to 2.3 percent of long forms.

As Figures 1 and 2 show, most short form mail returns came in between March 15 and March 28. Long forms were returned in the greatest numbers between March 20 and April 1. In fact, contrary to the short form pattern, the March 27/28 spike in returns was relatively much greater for long forms than the March 16/17 spike. For most of the period after March 28, long forms were actually being returned at a higher rate than short forms and the gap between the cumulative return rates for the two form types decreased. This can be seen in Figure 2 which shows the line for long forms to be higher than that for short forms for almost every date after March 28. This indicates that the late cut for NRFU (April 18) resulted in a lower long form workload for NRFU (as compared to an April 10 date), reducing respondent burden. However the rate of returns for both form types was well below one percent for every date after April 10.

The data indicate an increase in mail returns after the reminder postcards were mailed (March 20 and March 22). For both long forms and short forms, the greatest increase in mail return rates occurred on these dates and the days immediately following. The DCCs received short form returns at an especially high rate from March 20 through March 23, with a peak daily increase of 6.0 percentage points on March 22, 2000. For long forms, this peak occurred from March 21 through March 24 with the greatest daily increase of 4.9 percentage points on March 23 and 24.

Figure 2 also indicates that households, particularly those with long forms, exhibited some tendency to hold their questionnaires until Census Day (April 1, 2000). Figure 2 shows a spike in long form returns on April 3 and 4 and a smaller increase in short form returns on April 3, two days after Census Day. Between the initial cut for NRFU on April 10 and the final cut on April 18, households continued to send in mail returns at a substantial, though relatively low and dwindling, rate. During that period, 629,296 long forms or 3.7 percent of long forms were returned and 1,912,012 short forms or 2.3 percent of short forms were checked in. Without a final NRFU universe cut on April 18, the NRFU workload would have been increased by this number of housing units.

Figure 3 (in Appendix E) shows the increase in return rates by form type for the entire year of 2000. The left side of this figure is the same as Figure 1 but Figure 3 extends the timeline of cumulative mail returns from April 18 to December 31. The figure reveals that the return rates

leveled off after April 18 with a gradually flattening slope for all three lines. The pattern was similar for the different form types although the gap in rates between long and short forms was gradually narrowed as time passed. For the total return rate, 4,367,080 mail returns were checked in after April 18. These forms resulted in an increase in the return rate of 4.3 percentage points. Between April 18 and the end of the year, the short form return rate increased by 3.7 percentage points (3,092,295 households) and the long form increased by 7.4 percentage points (1,274,785 households). For nearly every single date after March 28, the daily percentage increase in return rate was greater for long forms than for short forms. As Appendices A and B show, the last confirmed date on which questionnaires were checked in was October 19, 2000, when three short forms were received. Prior to that day, 39 short forms and 9 long forms were checked in to the DCCs on September 15. The last date for which we have check-ins which resulted in a rate increase was July 22 for short forms when the short form return rate leveled off at 69.9 percent.

Figure 4 (in Appendix E) is an extension of Figure 2 through the end of 2000. It shows the daily increase in the return rates by form type for the entire year. After April 18, the number of mail returns continued to decline until very few forms were being received by May 6. As noted above, a relatively higher increase was observed for long forms than short forms for these mail returns in late April, May, and June. The figure shows several small weekly peaks on Fridays in May when a substantial number of forms were checked in to the DCCs. It appears that shipments of mail returns during the week to check in on Friday. The largest single-day receipt of mail returns after April 18 was on June 15 when 257,889 long forms and 667,951 short forms were checked in.

The final increase in the return rates that appears on Figure 4 is on December 31, 2000. Those 404,342 questionnaires are the mail returns for which no mail return check-in date was recorded and for which there was a NRFU or CIFU data capture in addition to a mail return data capture. Since only mail returns received after April 18 could be in the NRFU or CIFU workloads, we determined that these mail returns came in after that date. We assigned a check-in date of December 31 to these mail returns and they were included in the final return rate. Mail returns without a check-in date that were not in the NRFU and CIFU universe were assigned a date of April 18 and included in the mail return rate.

Some of the daily fluctuation of mail returns observed in Figures 2 and 4 can be explained by the effect of the day of the week. More questionnaires were checked in on Thursdays (18.4 percent of all mail returns during the year), Fridays (16.2 percent), and Wednesdays (16.1 percent) than on other days of the week. Relatively few questionnaires came in on Sundays (9.2 percent) and Saturdays (11.0 percent). The dearth of check-ins on Sunday is probably the result of the fact that the USPS does not normally deliver mail on Sunday and that the DCCs worked fewer hours on weekends and thus checked in fewer forms on those days. Also, if respondents held their questionnaires until the beginning of a work week (Monday) to mail, then their forms would

likely have arrived Wednesday or Thursday at the DCCs, explaining the increase in check-ins on those days.

4.3 What were the Return Rates for Various Demographic Groups?

Table 7 presents the mail return rates as of April 18, 2000 for five different categories classified by age of householder. The householder is defined as the household member in whose name the housing unit was owned or rented on Census Day and is usually the person who filled out the questionnaire. By definition, there is exactly one householder for every occupied housing unit. The second, third, and fourth columns in Table 7 list the total mail return rate, short form return rate, and long form return rate respectively for each of the age groups. The last column is the difference between the short form and long form mail return rates for the various groups. The five age categories are 15 to 17 years old, 18 to 24 years, 25 to 44 years, 45 to 64 years, and 65 years and over. Householders must be at least 15 years old.

This table shows that the propensity to respond increases with age. The oldest householders had the highest return rate (86.1 percent) and the youngest group had an extremely low return rate (31.3 percent). Householders in the two age groups older than 45 were substantially more likely to return their forms than younger householders. As a result census data for younger households may be of a lower quality than that for older households. Persons under 25 made up 5.1 percent of all householders and 3.6 percent of all mail returns. Conversely, persons over 65 were 21.0 percent of all householders but were 24.4 percent of all respondents by mail. The numerators and denominators for the mail return rates by age of householder can be found in Appendix H.

As expected, short form return rates were higher than long form return rates for all age groups. The 25 to 44 year age groups had the largest form type disparity and the 15 to 17 year age group had the smallest form type return rate disparity.

		Form		
Age in Years	Total	Short	Long	Difference
TOTAL	74.1%	76.4%	63.0%	13.4%
15-17	31.3%	32.0%	28.0%	3.9%
18-24	52.2%	54.6%	39.6%	14.9%
25-44	67.4%	70.1%	54.1%	16.0%
45-64	78.0%	80.4%	66.5%	13.8%
65 or older	86.1%	87.7%	78.8%	8.9%

 Table 7. Mail Return Rates as of April 18, 2000 by Age of Householder and Form Type for

 the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Table 8 is similar to Table 7 but shows the final return rates as of December 31 for each of the age categories. The patterns seen in the table are similar to Table 7, with older age groups having

higher return rates. The increase in the mail return rates after April 18 was greatest for the 25 to 44 year group (4.9 percentage points) and least for the 65 and older age group (2.9 percentage points). For all age groups, the long form return rates increased more than the short form return rates after the cut for NRFU. The 18 to 24 year age group had the largest form type gap in final return rates. For long forms, the least increase from the mail return rates to the final return rates came in the youngest and smallest age group.

	_			
Age in Years	Total	Short	Long	Difference
TOTAL	78.4%	80.1%	70.5%	9.6%
15-17	34.8%	35.2%	33.0%	2.1%
18-24	56.9%	58.8%	46.8%	12.0%
25-44	72.3%	74.3%	62.4%	11.9%
45-64	82.4%	84.0%	74.4%	9.7%
65 or older	89.1%	90.1%	84.0%	6.1%

 Table 8. Final Return Rates as of December 31, 2000 by Age of Householder and Form

 Type for the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Table 9 compares the mail return rates as of April 18 for seven groups of respondents classified by race. The first six race categories included householders who identified as a member of only one race. All householders who identified as being of more than one race are including in the last row in the table. The second column in Table 9 gives the total mail return rate for each racial group and the third and fourth columns give the mail return rates for short and long forms respectively. The last column is the difference between the short form and long form return rates for each group. The six single race categories are White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and persons reporting some other race. These data are only for householders, not for other household members.

	_	Form		
Race	Total	Short	Long	Difference
TOTAL	74.1%	76.4%	63.0%	13.4%
White	77.5%	79.8%	66.6%	13.2%
Black	59.7%	62.0%	47.3%	14.7%
American Indian	64.5%	67.5%	51.0%	16.5%
Asian	69.8%	72.0%	57.2%	14.7%
Pacific Islander	54.6%	56.8%	42.2%	14.6%
Some Other Race	58.7%	61.5%	44.1%	17.4%
Two or More Races	57.7%	60.4%	44.1%	16.3%

Table 9. Mail Return Rates as of April 18, 2000 by Race of Householder and Form Type for the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Whites have a higher mail return rate (77.5 percent) than the total return rate. All of the other race groups have lower return rates than the total mail return rate. Asians have the highest return rate (69.8 percent) after Whites. The lowest mail return rates are those of Pacific Islander (54.6 percent) and Multi-racial (57.7 percent) householders. Compared to Whites, all of the other races have relatively high differences between short form and long form mail return rates. In contrast, the gap between short and long form return rates for Whites is only 13.2 percent. Householders of some other race, most of whom are Hispanic, have a short form return rate that is 17.4 percentage points higher than their long form return rate. In addition, the long form mail return rates for Pacific Islander, Some other race, Two or more races, and Black householders is actually below fifty percent. The majority of the long form data for those groups had to be collected by enumerators.

Whites made up 79.5 percent (80,586,586) of all householders and 83.1 percent (62,485,180) of all mail returns. The remaining race groups were under-represented in mail returns, particularly long form mail returns. For example, American Indians made up 0.6 percent of all householders and 0.5 percent of all mail returns, Blacks made up 11.5 percent of all householders and 9.3 percent of all mail returns, and Asians were 2.9 percent and 2.8 percent of all mail returns. For numerators and denominators of the return rates for each race category, see Appendix H.

Table 10 shows the final return rates as of December 31 for each form type for each of the seven race categories. The patterns evident in this table are similar to those in Table 9. Whites have, by far, the highest final return rate (81.8 percent), with the other race groups all having return rates below the total final return rate of 78.4 percent. The smallest group, Pacific Islanders, had the lowest final return rate (59.4 percent). However, the discrepancy between White and all other householders declined between April 18 and December 31 as race groups, other than white, returned a higher proportion of their questionnaires after the cut for NRFU. American Indians showed the greatest increase (6.2 percentage points) from a mail return rate of 64.5 percent to a final return rate of 70.7 percent. In contrast, the White final return rate was only 4.2 percentage

points higher than the White mail return rate. The differential in return rates by form type declined for every race as households returned a higher proportion of long forms than short forms after April 18. American Indians had the largest percentage point increase (9.1 percentage points) in long form return rates and Blacks had the smallest long form increase (6.8 percentage points).

	_	Form	n Туре	
Race	Total	Short	Long	Difference
TOTAL	78.4%	80.1%	70.5%	9.6%
White	81.8%	83.3%	74.1%	9.2%
Black	64.3%	66.2%	54.1%	12.1%
American Indian	70.7%	73.0%	60.1%	12.9%
Asian	74.6%	76.1%	65.7%	10.4%
Pacific Islander	59.4%	61.1%	49.8%	11.3%
Some Other Race	63.3%	65.6%	51.0%	14.6%
Two or More Races	62.5%	64.8%	51.3%	13.5%

 Table 10. Final Return Rates as of December 31, 2000 by Race of Householder and Form

 Type for the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Table 11 shows the mail return rates as of April 18 by form type for householders by Hispanic ethnicity. Householders were categorized by whether or not they identified as being of Hispanic or Latino origin. Non-Hispanic householders had a mail return rate of 75.0 percent, 10.5 percentage points higher than the Hispanic mail return rate of 64.5 percent. This difference is not surprising, given the fact that the questionnaires were printed in English and many Hispanics have limited proficiency or literacy in English. Persons of Hispanic origin also have lower average household incomes and larger households, both characteristics associated with lower levels of respondent cooperation in censuses and surveys. While Hispanics made up 8.7 percent (8,818,956) of all householders in the return rate denominator, their responses comprised only 7.6 percent (5,691,968) of all mail returns.

The data presented in Table 11 show that the relatively high level of mail response by non-Hispanic households was particularly true in the case of households receiving long forms. Fewer than half (49.7 percent) of all Hispanic householders returned their long form questionnaires before April 18, 2000. The form type differential for Hispanic householders was 17.5 percentage points, versus 13.1 percentage points for Non-Hispanics.

_	Form		
Total	Short	Long	Difference
74.1%	76.4%	63.0%	13.4%
75.0%	77.3%	64.1%	13.1%
64.5%	67.2%	49.7%	17.5%
10.5%	10.1%	14.5%	
	Total 74.1% 75.0% 64.5% 10.5%	Form Total Short 74.1% 76.4% 75.0% 77.3% 64.5% 67.2% 10.5% 10.1%	Form Type Total Short Long 74.1% 76.4% 63.0% 75.0% 77.3% 64.1% 64.5% 67.2% 49.7% 10.5% 10.1% 14.5%

 Table 11. Mail Return Rates as of April 18, 2000 by Ethnicity of Householder and Form

 Type for the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Table 12 shows the final return rates as of December 31 by Hispanic origin by form type. Non-Hispanic householders had a final return rate of 79.3 percent and Hispanic householders had a final return rate of 69.2 percent. The increase from April 18 to the end of the year was greater for Hispanics (4.7 percentage points) than for Non-Hispanics (4.3 percentage points), resulting in a decline in the difference between the two ethnic groups from 10.5 to 10.1 percentage points. While both groups had a relatively higher increase in their long form return rates than in short form return rates, it was only in late short form mail returns that Hispanics closed the gap between themselves and Non-Hispanic respondents. Thus, the disparity between Non-Hispanic and Hispanic residents in long form final return rates (14.6 percentage points) was even higher than that for mail return rates (14.5 percentage points). The response burden of the long form had a particularly negative effect on self-response by Hispanic householders.

 Table 12. Final Return Rates as of December 31, 2000 by Ethnicity of Householder and

 Form Type for the Fifty States and the District of Columbia

		Form		
Hispanic or Latino Origin	Total	Short	Long	Difference
TOTAL	78.4%	80.1%	70.5%	9.6%
Non-Hispanic	79.3%	80.9%	71.6%	9.3%
Hispanic	69.2%	71.4%	57.0%	14.4%
Difference	10.1%	9.5%	14.6%	

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

The mail return rates as of April 18 categorized by household size are presented in Table 13. The table shows the mail return rates by form type for each of seven categories based on the number of persons in each housing unit. Households consisting of two persons, with a mail return rate of 78.4 percent, had the largest proportion of residents who responded by April 18, 2000. Two-person households, who made up 32.6 percent (33,049,202) of all households in the return rate denominator and 34.5 percent (25,906,605) of all mail returns, were the only group that had a mail return rate higher than the total mail return rate. Following two-person households in respondent cooperation are four-person (73.3 percent), three-person (73.1 percent), and

one-person (72.2 percent) households, respectively. Larger households of five persons or more have increasingly lower mail return rates as household size increases. Households with seven or more people had the lowest mail return rate of 65.0 percent. These large households, who had to provide some of their data through Coverage Edit Followup because the mailback questionnaires did not have enough space for more than six people, comprised 1.7 percent (1,772,525) of all households and 1.5 percent (1,152,531) of mail returns.

		Form	Form Type	
Persons in Housing Unit	Total	Short	Long	Difference
TOTAL	74.1%	76.4%	63.0%	13.4%
One	72.2%	73.9%	64.0%	9.9%
Two	78.4%	80.4%	68.8%	11.6%
Three	73.1%	75.7%	60.1%	15.6%
Four	73.3%	76.2%	58.9%	17.3%
Five	69.4%	72.6%	53.7%	18.9%
Six	69.0%	72.1%	53.3%	18.7%
Seven or More	65.0%	68.2%	47.0%	21.2%

 Table 13. Mail Return Rates as of April 18, 2000 by Household Size and Form Type for the

 Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

These patterns of response by household size are interesting. One could speculate that, most two-person households consist of two adults, which increases the likelihood that one person will be available to fill out the questionnaire without greatly increasing the response burden. Households in the group with the next highest response, four-person households, are likely to contain two adults and two children. While the presence of children means that the adults in four-person households are busier than those in two-person households, having two adults present means that one is likely present and available to answer and mail the census form.

The relatively low return rate for one-person households compared to two-person households also makes sense. While a person who lives alone only has to fill out the questionnaire for himself or herself, a person who is busy, frequently away from home, or unwilling to respond also has no one else to fill out the questionnaire. People who live in households with five or more people have low return rates for several reasons. The response burden in terms of time and effort to fill out the questionnaire increases with each additional person living in the housing unit. Also, these households usually contain multiple children, which generally means that the household has a low socio-economic status and that adults in the household are pressed for time. Some of these large households contain a large number of unrelated adults, as in housing for immigrant laborers, who may not be willing to respond to the census or able to provide data for their housemates.

The patterns described above also are true for the short form mail return rates, although the short form return rates are higher. Additionally, the differentials in return rates by household size are not quite as large for short forms as for the total return rate. The difference between two-person households (80.4 percent) and seven or more person households (68.2 percent) is 12.2 percentage points, less than the 13.4 percentage point gap for the total mail return rates.

A different pattern is evident for long form mail return rates by household size. As in the total mail return rate, two-person households have the highest long form mail return rate. However, the second highest group is one-person households, followed by three-person households. For households with more than two persons, long form mail return rates are inversely related to household size. The more people in a household, the less likely they were to return their questionnaire. The reason for this is that the long form has a much higher response burden than the short form and that burden increases with each additional person in the household.

Long form return rates are, of course, lower than short form rates. The differentials between household size groups also is greater for long forms. The two-person long form return rate (68.8 percent) is 21.9 percentage points higher than the seven or more person long form return rate (47.0 percent). The last column in Table 13 shows the difference between short and long form mail return rates for each household size. There is a relatively small form type differential for one- and two-person households but a greater difference for each successively larger household size, with the slight exception of six-person households. The large households with low return rates have particularly low long form return rates.

Table 14 shows the final return rates as of December 31 by household size and form type. A comparison of Table 14 to Table 13 reveals how return rates for each household size category increased after April 18. The relationship between the different groups is similar to that observed in Table 13, except that six-person households actually had higher final return rates than five-person households. The range for the final return rates was considerably lower than in the mail return rates with only a 10.2 percentage point difference between the two-person (82.3 percent) and seven or more person (72.1 percent) rates. The differentials among the household size groups declined because larger households returned a higher proportion of their questionnaires after April 18. While the one-person household final return rate is only 3.6 percentage points higher than the group's mail return rate, the seven and greater household final return rate is 7.0 percentage points higher. Large households were more likely to hold onto their questionnaires and return them at a later date than smaller households.

One result of the relatively large number of post-April 18 mail returns in larger households is that the final short form return rates for one-person, five-person, and six-person household groups were equal at 77.2 percent. Thus, the final return rate difference between one-person, five-person, and six-person households is due solely to the difference in long form rates. As observed for the total return rate, long form return rates for the various household size groups increased by more percentage points in the latter part of the year than short form return rates. The difference column in Table 14 shows smaller differences than the difference column in

Table 13, indicating that the form type differential declined for all household sizes after April 18.

	_			
Persons in Housing Unit	Total	Short	Long	Difference
TOTAL	78.4%	80.1%	70.5%	9.6%
One	75.9%	77.2%	69.5%	7.6%
Two	82.3%	83.6%	75.6%	8.0%
Three	77.7%	79.5%	68.4%	11.1%
Four	78.2%	80.3%	68.1%	12.2%
Five	74.9%	77.2%	63.6%	13.6%
Six	75.1%	77.2%	64.1%	13.1%
Seven or More	72.1%	74.5%	58.2%	16.2%

 Table 14. Final Return Rates as of December 31, 2000 by Household Size and Form Type for the Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Table 15 presents the mail return rates as of April 18 by tenure and form type. We grouped the responses to the tenure question into two categories, housing units owned by someone in the household and housing units rented by a member of the household. The table shows that owner-occupied housing units had a higher mail return rate (80.4 percent) than renter-occupied housing units (61.8 percent). Owners were 66.4 percent (67,339,153) of all householders in the return rate denominator and 72.0 percent (54,122,900) of all households with mail returns. Some reasons that owners are more likely to respond to the census include the facts that owners have a high sense of community involvement compared to renters. As Table 15 shows, the difference between owners and renters is greater for short forms than long forms. The table also indicates that owners had a larger form type differential than renters.

	_	_		
Tenure	Total	Short	Long	Difference
TOTAL	74.1%	76.4%	63.0%	13.4%
Owner-occupied	80.4%	82.8%	68.8%	14.0%
Renter-occupied	61.8%	63.9%	50.6%	13.3%
Difference	18.6%	18.9%	18.2%	

 Table 15. Mail Return Rates as of April 18, 2000 by Tenure and Form Type for the Fifty

 States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Table 16 shows the final return rates as of December 31 by tenure and form type. A comparison of the final return rates and mail return rates reveals the manner in which mail returns after the

cut for NRFU differ from those prior to April 18, 2000. The final return rate for owners was 84.8 percent, 18.9 percentage points higher than the renter final return rate of 65.9 percent. The disparity in return rates by tenure increased after April 18. There was a greater increase in long form returns for owners (7.9 percentage points) than for renters (6.4 percentage points). Thus, the return rate difference between owners and renters increased after April 18. Also, the renter final return rates had a large disparity by form type relative to owners.

Tenure	Total	Short	Long	Difference
TOTAL	78.4%	80.1%	70.5%	9.6%
Owner-occupied	84.8%	86.5%	76.7%	9.7%
Renter-occupied	65.9%	67.6%	57.0%	10.6%
Difference	18.9%	18.9%	19.8%	

 Table 16. Final Return Rates as of December 31, 2000 by Tenure and Form Type for the

 Fifty States and the District of Columbia

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

4.4 How much did the return rates differ from Census 2000 response rates?

Table 17 compares the mail response rates for Census 2000 to the mail return rates. Mail response rate is essentially a measure of the percentage of the NRFU-eligible housing unit workload that was returned by April 18, 2000. It is a more useful rate for determining NRFU workloads and not as good as the return rate for measuring respondent cooperation. The denominator of the mail response rate is calculated from the DMAF. It includes all housing units in mailback TEAs that were eligible for NRFU and had addresses that were considered adequate to attempt delivery by either the USPS or census field staff. The response rate denominator (117,661,748 housing units) is larger than the return rate denominator (101,398,131), largely because the response rate denominator includes vacant housing units, Undeliverable As Addressed (UAA) addresses, some addresses deleted in U/L and UU/L delivery, and deleted in either NRFU or CIFU. The response rate numerator (75,608,035 housing units) is calculated similarly to the return rate numerator (75,163,020 housing units). For more information on mail response rates and their calculation see U.S. Bureau of the Census, 2002b.

The first column of data in Table 17 shows the mail response rates broken down by total, form type, TEA, and form type and TEA. The next column shows the equivalent mail return rates and the last column shows the difference between the two rates. The total national mail response rate was 64.3 percent, 9.9 percentage points lower than the mail return rate. The difference between the two rates is greater for short forms than long forms and even greater for UU/L and U/L than for MO/MB areas.

	-	Rate	Rate	
		Response	Return	Difference
TOTAL		64.3%	74.1%	9.9%
Form Type	Short	66.4%	76.4%	10.0%
	Long	53.9%	63.0%	9.2%
Type of	Mailout/Mailback	65.4%	75.1%	9.7%
Enumeration	Update/Leave	59.3%	69.6%	10.3%
	Urban Update/Leave	50.5%	63.7%	13.1%
Form Type	Short			
and Type of	Mailout/Mailback	67.3%	77.2%	9.9%
Enumeration	Update/Leave	61.9%	72.3%	10.4%
	Urban Update/Leave	52.2%	65.7%	13.5%
	Long			
	Mailout/Mailback	54.6%	63.4%	8.8%
	Update/Leave	51.9%	61.9%	10.0%
	Urban Update/Leave	41.2%	52.3%	11.1%

 Table 17. Mail Return and Mail Response Rates as of April 18, 2000 by Form Type and

 Type of Enumeration for the Fifty States and the District of Columbia

Source: HCEF_D', DMAF, DRF-2, and March 2001 MAF Extract.

Table 18 compares the final return and final response rates by form type and TEA. The final response rate is similar to the mail response rate but includes all mail returns through the end of the year 2000. The total final response rate was 67.4 percent (79,311,175 housing units), 11.0 percentage points lower than the 78.4 percent (79,530,100) final return rate. This is a greater difference than the difference in the mail response rates for long forms are about the same as the difference for short forms. However, the difference between the final return rate and the final response rate is greater in UU/L and U/L areas than in MO/MB areas.

	-	Itute		_
		Response	Return	Difference
TOTAL		67.4%	78.4%	11.0%
Form Type	Short	69.1%	80.1%	11.0%
	Long	59.4%	70.5%	11.1%
Type of	Mailout/Mailback	68.5%	78.6%	10.1%
Enumeration	Update/Leave	62.6%	77.9%	15.3%
	Urban Update/Leave	54.8%	70.8%	16.0%
Form Type	Short			
and Type of	Mailout/Mailback	70.0%	80.1%	10.1%
Enumeration	Update/Leave	64.6%	79.9%	15.4%
	Urban Update/Leave	56.1%	72.3%	16.2%
	Long			
	Mailout/Mailback	60.4%	69.9%	9.5%
	Update/Leave	57.0%	72.1%	15.1%
	Urban Update/Leave	47.5%	62.5%	15.0%

Table 18. Final Return and Final Response Rates as of December 31, 2000 by Form Typeand Type of Enumeration for the Fifty States and the District of ColumbiaRate

Source: HCEF_D', DMAF, DRF-2, and March 2001 MAF Extract.
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Appendix A: Hundred Percent Census Edited File with the Reinstated Housing Units (HCEF_D') Variable Definitions

BLOCK RECORD (Record Type 1)

ST	Collection FIPS State Code
COU	Collection FIPS County Code
TRACT	Census Tract (Collection)
TEA	Type of Enumeration Area 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 (converted from TEA 1) 9 = Update Leave (converted from TEA 1)

HOUSING UNIT RECORD (Record Type 2)

RT	Record Type 2 = Housing Unit Record
MAFID	MAF and DMAF ID 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
STENURE	 "Is this house, apartment, or mobile home-" 0 = Not in universe (vacant) 1 = Owned by you or someone in this household with a mortgage or loan 2 = Owned by you or someone in this household free and clear 3 = Rented for cash rent 4 = Occupied without payment of cash rent
NPHU	Number of Persons at This Housing Unit 00 = None 01-97= Persons at this Housing unit
ASAM	A Priori Sample 1 = Short form 6 = Long form

MAILD	Mail Return Check-in Month and Day
	0000 = No Mail Return Check-in
	0099 = Reverse Check-in
	0101 - 1231 = Check-in Day of 1 st Return
	2000 = Checked in but Date Unknown
UAA	Undeliverable As Addressed (UAA)
	0 = No UAA check-in
	1 = UAA check-in in NPC only
	2 = UAA check-in in NPC; in LCO check-in; no LCO check-out
	3 = UAA check-in in NPC; no LCO check-in; in LCO check-out
	4 = UAA check-in in NPC; in LCO check-in; in LCO check-out
	5 = No UAA check-in in NPC; in LCO check-in; no LCO check-out
	6 = No UAA check-in in NPC; no LCO check-in; in LCO check-out
	7 = No UAA check-in in NPC; in LCO check-in; in LCO check-out
	8 = Not enough Address information - Excluded from the Mailout
CEU	Coverage Edit Follow-up (CEFU) Universe
	0 = Not sent to CEFU
	1 = Sent for Large Household

- 2 = Sent for Possible Large Household 3 = Sent for Count Difference High
- 4 = Sent for Count Difference Low

PERSON RECORD (Record Types 3 and 5)

RT	Record Type
	3 = Housing unit person record
	5 = Group quarters person record
PUID	Unit ID Number
	characters $1-2 =$ state code when the MAFID was assigned
	characters $3-5 = \text{county code}$ when the MAFID was assigned
	characters $6-12 = $ control ID
QAGE	Age
	000-115 = Age
QSPANX	Hispanic Origin Edit/Allocation Group
-	1 = Not Hispanic
	2 = Mexican
	3 = Puerto Rican
	4 = Cuban
	5 = Central American, Dominican
	6 = Latin/South American
	7 = Other Hispanic

QRACE1 First Race Code 100-199 = White 200-299 = Black, African American, or Negro 300-399, A01-Z99 = American Indian or Alaska Native 400-499 = Asian 500-599 = Native Hawaiian or Other Pacific Islander 600-999 = Some Other Race

QRACE2 Second Race Code

000 = Single Race Respondent >=100 = Two or More Races

QREL Relationship

- 01 = Householder
- 02 = Husband/wife
- 03 = Natural born son/daughter
- 04 = Adopted son/daughter
- 05 =Stepson/stepdaughter
- 06 = Brother/sister
- 07 = Father/mother
- 08 = Grandchild
- 09 = Parent-in-law
- 10 = Son-in-law/daughter-in-law
- 11 = Other relative
- 12 = Brother-in-law/sister-in-law
- 13 = Nephew/niece
- 14 = Grandparent
- 15 = Uncle/aunt
- 16 = Cousin
- 17 = Roomer/boarder
- 18 = Housemate/roommate
- 19 = Unmarried partner
- 20 = Foster child
- 21 =Other nonrelative
- 22 = Institutional GQ person
- 23 =Noninstitutional GQ person

Appendix B: Master Address File (MAF) Variable Definitions

MAFID	MAF and DMAF ID characters $1-2 =$ state code when the MAF ID was assigned characters $3-5 =$ county code when the MAF ID was assigned characters $6-12 =$ control ID						
MAC(17)	MAF Action Codes						
	A = Add						
	C = Correction						
	D = Delete						
	M = Block Move						
	N = Nonresidential						
	U = Uninhabitable						
	V = Verify						
The 17 Operation	ations are -						
(1) Address l	Listing	(10) Postal Validation Check					
(2) Block Ca	nvassing	(11) Nonresponse Followup					
(3) LUCA 98	3	(12) Be Counted Verification					
(4) LUCA 98	Field Verification	(13) TQA Verification					
(5) LUCA 99	Relisting	(14) Coverage Improvement Followup					
(6) LUCA 98	3 Appeals	(15) New Construction					
(7) LUCA 99	Appeals	(16) 1990 ACF (A or blank)					
(8) Special P	lace/GQ	(17) DR - Specific (PALS,TC,TMUC)					
(9) Question	naire Delivery (UL, UE, UUL	, LE, or remote AK)					
MDGE							

MDSF

MAF DSF Flags

- 0 =Not indicated in the DSF
- 1 = Flagged as Residential in the Indicated DSF
- 2 = Flagged as Nonresidencial in the Indicated DSF
- 3 = Additional Residential Status in Indicated DSF

The 6 DSFs are -

(1) 11/97 or earlier	(4) 2/00
(2) 9/98	(5) 4/00
(3) 11/99	(6) unused

Appendix C: Decennial Response File Stage 2 (DRF-2) Variable Definitions

RST	Collection FIPS State Code
RUID	Unit ID Number (DMAF)
	characters 1-2 = state (when MAF ID was assigned)
	characters $3-5 = county$
	characters $6-12 =$ sequence ID
RSOURCE	Source of Return
	-1 = Not Computed
	1 = Paper mail back questionnaire from mail out
	2 = Paper mail back questionnaire from TQA mail out WITH ID
	3 = Paper mail back questionnaire from TQA mail out with NO ID
	4 = Paper mail back questionnaire from Update Leave
	5 = Paper mail back questionnaire from Update Leave ADD
	6 = Paper mail back questionnaire from Update Leave SUBSTITUTE
	7 = Paper mail back questionnaire from Urban Update Leave
	8 = Paper mail back questionnaire from Urban Update Leave ADD
	9 = Paper mail back questionnaire from Urban Update Leave SUBSTITUTE
	10 = Paper mail back questionnaire from Request for Foreign Language
	11 = Paper mail back questionnaire from BCF marked as whole household
	12 = Paper mail back questionnaire from BCF partial household (i.e., NOT
	marked as whole household)
	13 = Paper enumerator questionnaire from List Enumerate
	14 = Paper enumerator questionnaire from Update Enumerate
	15 = Paper enumerator questionnaire from Update Enumerate ADD
	10 = Paper enumerator questionnaire from Update Enumerate SUBSTITUTE
	17 – Paper enumerator questionnaire from NDEU ADD
	10 – Paper enumerator questionnaire from NRFU ADD
	19 – Paper enumerator questionnaire from NRFU SUBSTITUTE 20 – Dapar enumerator questionnaire from NDFU Whole Household Usual
	Home Elsewhere (WHITHE)
	21 – Paper enumerator questionnaire from NRFU In-mover
	22 – Paper enumerator questionnaire from Coverage Improvement Followup
	(CIFU)
	23 = Paper enumerator questionnaire from CIFU ADD
	24 = Paper enumerator questionnaire from CIFU SUBSTITUTE
	25 = Paper enumerator questionnaire from T-Night
	26 = Paper questionnaire for UHE from Service-based Enumeration (SBE)
	(Individual Census Questionnaire (ICQ))
	27 = Paper questionnaire for UHE from Group Quarters (GQ) enumeration
	(Individual Census Questionnaire (ICO))
	28 = Paper questionnaire for UHE from Military GO enumeration (Military
	Census Report (MCR))
	29 = Paper questionnaire for UHE from Shipboard GQ enumeration (Shipboard
	Census Report (SCR))
	1

30 = Electronic short form from IDC

31 = Electronic TQA reverse-CATI short form

32 = Electronic TQA reverse-CATI BCF for whole household

33 = Electronic TQA reverse-CATI BCF for partial household

34 = Electronic Coverage Edit Followup (CEFU) from long or short form

35 = Electronic CEFU from BCF for whole household

36 = Electronic CEFU from IDC

37 = Paper enumerator continuation form - unlinked "orphan"

DC_DRF(12) Source of Data Capture

0 = None

1 = Some Data Capture

The types of data capture for housing units are -

(1) Mail Return (*RSOURCE: 1, 4 - 10*)

(2) Telephone Questionnaire Assistance (TQA) (*RSOURCE: 31*)

(3) Internet (RSOURCE: 30)

(4) Be Counted Form (BCF) (RSOURCE: 11, 12)

(5) CEFU Data Capture (RSOURCE: 34 - 36)

(6) NRFU Data Capture (RSOURCE: 17 - 21)

(7) CIFU Data Capture (*RSOURCE: 22 - 24*)

(8) TQA/BCF (*RSOURCE: 3, 32, 33*)

(9) List Enumerate/Update Enumerate (RSOURCE: 13 - 16)

(10) Group Quarters (RSOURCE: 25 - 29)

(11) Orphans (RSOURCE: 37)

(12) Other (RSOURCE: -1)

		Mail Check in Date (MAILD from HCEF_D ²)							
	Data Capture Flags (DC_DRF from DRF-2)	No Mail (0000 c	Check in or 2000)	Reverse (00	Check in 99)	Mail Returns Jan 1 - Apr 10 (0101 - 0410)	Late Mail Returns Apr 11 - Apr 18 (0411 - 0418)	Late Late Mail Returns Apr 19 - Dec 31 (0419 - 1231)	Total
	Paper Mail Return	1A*	1 B *	2A*	2B*	3	4	5	
Mail	or TQA or Internet or Be Counted or TQA/Be Counted	32,105	356,752	8,751	2,595	71,502,686	2,436,346	3,957,673	78,296,908
Returns		6A*	6B*	7A*	7B*	8	9	10	
	CEFU	493	2,332	579	748	1,119,013	63,047	46,980	1,233,192
Non-	NRFU or CIFU or	1	1	1	2	13	14	15	
Mail Returns	No Data Capture or Other Data Capture	1	3,686,198		298,051	41,198	1,804	7,840,780	21,868,031
	Total	1	4,077,880		310,724	72,662,897	2,501,197	11,845,433	101,398,131
* A	* A - Neither NRFU nor CIFU data capture B - Either NRFU or CIFU data capture								

Appendix D: Nineteen Response Categories of Housing Units in the Return Rate Denominator

Appendix E: Four Figures Illustrating the Mail Return Rates as of April 18, 2000 and the Final Return Rates as of December 31, 2000 by Day and Form Type and Daily Percentage Increase in Return Rates by Day and Form Type





Figure 2. Daily Percentage Increase in Mail Return Rates by Form Type



Figure 3. Final Return Rates by Date by Form Type



		Mail Return Numerator		Retu	urn Rate	
Dav	Date	Daily Increase	Cumulative	Daily Increase	Cumulative	Key dates
Thursday	03/02/2000	-	-	0.0%	0.0%	
Friday	03/03/2000	1,376	1,376	0.0%	0.0%	U/L delivery begins
Saturday	03/04/2000	64	1,440	0.0%	0.0%	
Sunday	03/05/2000	51	1,491	0.0%	0.0%	
Monday	03/06/2000	148,153	149,644	0.1%	0.1%	Advance notice delivery begins
Tuesday	03/07/2000	61,719	211,363	0.1%	0.2%	
Wednesday	03/08/2000	175,279	386,642	0.2%	0.4%	Advanced notice delivery ends
Thursday	03/09/2000	233,636	620,278	0.2%	0.6%	
Friday	03/10/2000	418,498	1,038,776	0.4%	1.0%	
Saturday	03/11/2000	178,759	1,217,535	0.2%	1.2%	
Sunday	03/12/2000	215,272	1,432,807	0.2%	1.4%	
Monday	03/13/2000	748,616	2,181,423	0.7%	2.2%	Questionnaire mailout delivery begins
Tuesday	03/14/2000	545,358	2,726,781	0.5%	2.7%	
Wednesday	03/15/2000	2,902,469	5,629,250	2.9%	5.6%	Questionnaire mailout delivery ends
Thursday	03/16/2000	4,251,617	9,880,867	4.2%	9.7%	· ·
Friday	03/17/2000	4,832,109	14,712,976	4.8%	14.5%	
Saturday	03/18/2000	3,439,909	18,152,885	3.4%	17.9%	
Sunday	03/19/2000	2,909,891	21,062,776	2.9%	20.8%	
Monday	03/20/2000	5,233,824	26,296,600	5.2%	25.9%	Reminder card delivery begins
Tuesday	03/21/2000	5,298,718	31,595,318	5.2%	31.2%	
Wednesday	03/22/2000	5,756,819	37,352,137	5.7%	36.8%	Reminder card delivery ends
Thursday	03/23/2000	5,223,723	42,575,860	5.2%	42.0%	
Friday	03/24/2000	3,602,784	46,178,644	3.6%	45.5%	
Saturday	03/25/2000	2,405,111	48,583,755	2.4%	47.9%	
Sunday	03/26/2000	2,497,279	51,081,034	2.5%	50.4%	

		Mail Return	Numerator	Retu	ırn Rate	
Dev	Data	Doily Increase	Cumulativa	Daily	Cumulativa	Var datas
<u>Day</u>	Date	<u>Daily Increase</u>			52 20/	Key dates
Tuesday	03/27/2000	2,905,215	57,166,057	2.9%	55.5% 56.40/	
Wednesday	03/28/2000	5,122,710	50,002,572	3.1% 1.0%	58 30/	
Thursday	03/29/2000	1,920,010	59,095,575 60,008,837	1.9%	58.5% 60.1%	U/L delivery ends
Friday	03/31/2000	1,013,204	62 630 810	1.8%	61.8%	0/L delivery ends
Saturday	03/31/2000	1,750,975	63 005 230	1.7%	63.1%	Census Day
Sunday	04/02/2000	936 790	64 932 020	0.9%	64.0%	Census Day
Monday	04/03/2000	1 477 450	66 409 470	1.5%	65 5%	
Tuesday	04/04/2000	1 310 176	67 719 646	1.3%	66.8%	
Wednesday	04/05/2000	1 025 934	68 745 580	1.0%	67.8%	
Thursday	04/06/2000	1,029,951	69 966 545	1.0%	69.0%	
Friday	04/07/2000	793 630	70 760 175	0.8%	69.8%	
Saturday	04/08/2000	759,263	71,519,438	0.7%	70.5%	
Sunday	04/09/2000	416.447	71,935,885	0.4%	70.9%	
Monday	04/10/2000	685.827	72.621.712	0.7%	71.6%	Initial NRFU cut
Tuesday	04/11/2000	337.725	72,959,437	0.3%	72.0%	
Wednesday	04/12/2000	407,526	73,366,963	0.4%	72.4%	
Thursday	04/13/2000	298,993	73,665,956	0.3%	72.7%	
Friday	04/14/2000	518,440	74,184,396	0.5%	73.2%	
Saturday	04/15/2000	303,876	74,488,272	0.3%	73.5%	
Sunday	04/16/2000	166,471	74,654,743	0.2%	73.6%	
Monday	04/17/2000	348,694	75,003,437	0.3%	74.0%	
Tuesday	04/18/2000	159,583	75,163,020	0.2%	74.1%	Late mail return NRFU cut
Wednesday	04/19/2000	166,590	75,329,610	0.2%	74.3%	
Thursday	04/20/2000	207,464	75,537,074	0.2%	74.5%	

		Mail Return	Numerator	Retu	urn Rate	
D	D-4-		Converte these	Daily	Control the	17
Day		Dany Increase	Cumulative			Key dates
Friday	04/21/2000	212,855	75,749,907	0.2%	74.7%	
Saturday	04/22/2000	07,043	/5,81/,550	0.1%	74.8%	
Sunday	04/23/2000	80,915	/5,898,465	0.1%	74.9% 75.0%	
Monday	04/24/2000	1/3,/96	76,072,261	0.2%	/5.0%	
Tuesday	04/25/2000	89,764	76,162,025	0.1%	75.1%	
Wednesday	04/26/2000	180,904	76,342,929	0.2%	75.3%	
Thursday	04/27/2000	106,492	76,449,421	0.1%	75.4%	NRFU begins
Friday	04/28/2000	89,348	76,538,769	0.1%	75.5%	
Saturday	04/29/2000	27,696	76,566,465	0.0%	75.5%	
Sunday	04/30/2000	1,109	76,567,574	0.0%	75.5%	
Monday	05/01/2000	137,946	76,705,520	0.1%	75.6%	
Tuesday	05/02/2000	23,165	76,728,685	0.0%	75.7%	
Wednesday	05/03/2000	75,290	76,803,975	0.1%	75.7%	
Thursday	05/04/2000	91,908	76,895,883	0.1%	75.8%	
Friday	05/05/2000	124,357	77,020,240	0.1%	76.0%	
Saturday	05/06/2000	29,380	77,049,620	0.0%	76.0%	
Sunday	05/07/2000	1,833	77,051,453	0.0%	76.0%	
Monday	05/08/2000	24,429	77,075,882	0.0%	76.0%	
Tuesday	05/09/2000	8,947	77,084,829	0.0%	76.0%	
Wednesday	05/10/2000	15,340	77,100,169	0.0%	76.0%	
Thursday	05/11/2000	40,248	77,140,417	0.0%	76.1%	
Friday	05/12/2000	186,588	77,327,005	0.2%	76.3%	
Saturday	05/13/2000	4,174	77,331,179	0.0%	76.3%	
Sunday	05/14/2000	7,892	77,339,071	0.0%	76.3%	
Monday	05/15/2000	3,748	77,342,819	0.0%	76.3%	

Appendix F: Mail Return Numerators and Return Rates by Day

		Mail Return	Mail Return NumeratorReturn Rate			
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Tuesday	05/16/2000	11,563	77,354,382	0.0%	76.3%	
Wednesday	05/17/2000	16,662	77,371,044	0.0%	76.3%	
Thursday	05/18/2000	34,224	77,405,268	0.0%	76.3%	
Friday	05/19/2000	132,900	77,538,168	0.1%	76.5%	
Saturday	05/20/2000	27,670	77,565,838	0.0%	76.5%	
Sunday	05/21/2000	6,109	77,571,947	0.0%	76.5%	
Monday	05/22/2000	9,566	77,581,513	0.0%	76.5%	
Tuesday	05/23/2000	8,017	77,589,530	0.0%	76.5%	
Wednesday	05/24/2000	17,601	77,607,131	0.0%	76.5%	
Thursday	05/25/2000	32,703	77,639,834	0.0%	76.6%	
Friday	05/26/2000	97,088	77,736,922	0.1%	76.7%	
Saturday	05/27/2000	12,821	77,749,743	0.0%	76.7%	
Sunday	05/28/2000	6,532	77,756,275	0.0%	76.7%	
Monday	05/29/2000	970	77,757,245	0.0%	76.7%	
Tuesday	05/30/2000	7,783	77,765,028	0.0%	76.7%	
Wednesday	05/31/2000	7,419	77,772,447	0.0%	76.7%	
Thursday	06/01/2000	16,714	77,789,161	0.0%	76.7%	
Friday	06/02/2000	66,281	77,855,442	0.1%	76.8%	
Saturday	06/03/2000	14,018	77,869,460	0.0%	76.8%	
Sunday	06/04/2000	6,552	77,876,012	0.0%	76.8%	
Monday	06/05/2000	8,695	77,884,707	0.0%	76.8%	
Tuesday	06/06/2000	9,469	77,894,176	0.0%	76.8%	
Wednesday	06/07/2000	23,935	77,918,111	0.0%	76.8%	
Thursday	06/08/2000	32,259	77,950,370	0.0%	76.9%	
Friday	06/09/2000	17,056	77,967,426	0.0%	76.9%	

		Mail Return Numerator		Retu	ırn Rate	
Dav	Date	Date Daily Increase		Daily	Cumulative	V J. 4
Saturday	06/10/2000	<u>8.025</u>	77.975.451	0.0%	76.9%	ikey untes
Sunday	06/11/2000	5 633	77 981 084	0.0%	76.9%	
Monday	06/12/2000	20,164	78.001.248	0.0%	76.9%	
Tuesday	06/13/2000	10,358	78.011.606	0.0%	76.9%	
Wednesday	06/14/2000	11,605	78.023.211	0.0%	76.9%	
Thursday	06/15/2000	925.840	78,949,051	0.9%	77.9%	
Friday	06/16/2000	9.572	78.958.623	0.0%	77.9%	
Saturday	06/17/2000	3.541	78,962,164	0.0%	77.9%	
Sunday	06/18/2000	3.034	78,965,198	0.0%	77.9%	
Monday	06/19/2000	4.511	78,969,709	0.0%	77.9%	
Tuesday	06/20/2000	3.726	78,973,435	0.0%	77.9%	
Wednesday	06/21/2000	3.544	78,976,979	0.0%	77.9%	
Thursday	06/22/2000	3.292	78,980,271	0.0%	77.9%	
Friday	06/23/2000	2,394	78,982,665	0.0%	77.9%	
Saturday	06/24/2000	992	78,983,657	0.0%	77.9%	
Sunday	06/25/2000	470	78,984,127	0.0%	77.9%	
Monday	06/26/2000	2,499	78,986,626	0.0%	77.9%	NRFU complete
Tuesday	06/27/2000	1,848	78,988,474	0.0%	77.9%	1
Wednesday	06/28/2000	2,109	78,990,583	0.0%	77.9%	
Thursday	06/29/2000	23,521	79,014,104	0.0%	77.9%	
Friday	06/30/2000	1,477	79,015,581	0.0%	77.9%	
Saturday	07/01/2000	701	79,016,282	0.0%	77.9%	
Sunday	07/02/2000	120	79,016,402	0.0%	77.9%	
Monday	07/03/2000	-	79,016,402	0.0%	77.9%	
Tuesday	07/04/2000	-	79,016,402	0.0%	77.9%	

		Mail Return	Numerator	Return Rate		
Dav	Date	Daily Increase	Cumulative	Daily	Cumulative	Key dates
Wednesday	07/05/2000	Daily Increase	79 016 402	0.0%	77.9%	Rey untes
Thursday	07/06/2000	_	79,016,402	0.0%	77.9%	
Friday	07/07/2000	_	79,016,402	0.0%	77.9%	
Saturday	07/08/2000	_	79,016,402	0.0%	77.9%	
Sunday	07/09/2000	_	79.016.402	0.0%	77.9%	
Monday	07/10/2000	1.996	79.018.398	0.0%	77.9%	
Tuesday	07/11/2000	-,	79.018.398	0.0%	77.9%	
Wednesday	07/12/2000	-	79.018.398	0.0%	77.9%	
Thursday	07/13/2000	315	79.018,713	0.0%	77.9%	
Friday	07/14/2000	-	79,018,713	0.0%	77.9%	
Saturday	07/15/2000	-	79,018,713	0.0%	77.9%	
Sunday	07/16/2000	-	79,018,713	0.0%	77.9%	
Monday	07/17/2000	-	79,018,713	0.0%	77.9%	
Tuesday	07/18/2000	-	79,018,713	0.0%	77.9%	
Wednesday	07/19/2000	-	79,018,713	0.0%	77.9%	
Thursday	07/20/2000	-	79,018,713	0.0%	77.9%	
Friday	07/21/2000	-	79,018,713	0.0%	77.9%	
Saturday	07/22/2000	66,732	79,085,445	0.1%	78.0%	
Sunday	07/23/2000	1,004	79,086,449	0.0%	78.0%	
Monday	07/24/2000	-	79,086,449	0.0%	78.0%	
Tuesday	07/25/2000	-	79,086,449	0.0%	78.0%	
Wednesday	07/26/2000	-	79,086,449	0.0%	78.0%	
Thursday	07/27/2000	-	79,086,449	0.0%	78.0%	
Friday	07/28/2000	469	79,086,918	0.0%	78.0%	
Saturday	07/29/2000	-	79,086,918	0.0%	78.0%	

		Mail Return	Numerator	Return Rate		
	D (Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Sunday	07/30/2000	-	79,086,918	0.0%	78.0%	
Monday	07/31/2000	132	79,087,050	0.0%	78.0%	
Tuesday	08/01/2000	-	79,087,050	0.0%	78.0%	
Wednesday	08/02/2000	-	79,087,050	0.0%	78.0%	
Thursday	08/03/2000	-	79,087,050	0.0%	78.0%	
Friday	08/04/2000	-	79,087,050	0.0%	78.0%	
Saturday	08/05/2000	-	79,087,050	0.0%	78.0%	
Sunday	08/06/2000	-	79,087,050	0.0%	78.0%	
Monday	08/07/2000	-	79,087,050	0.0%	78.0%	
Tuesday	08/08/2000	-	79,087,050	0.0%	78.0%	
Wednesday	08/09/2000	531	79,087,581	0.0%	78.0%	
Thursday	08/10/2000	-	79,087,581	0.0%	78.0%	
Friday	08/11/2000	-	79,087,581	0.0%	78.0%	
Saturday	08/12/2000	-	79,087,581	0.0%	78.0%	
Sunday	08/13/2000	-	79,087,581	0.0%	78.0%	
Monday	08/14/2000	-	79,087,581	0.0%	78.0%	
Tuesday	08/15/2000	-	79,087,581	0.0%	78.0%	
Wednesday	08/16/2000	232	79,087,813	0.0%	78.0%	
Thursday	08/17/2000	-	79,087,813	0.0%	78.0%	
Friday	08/18/2000	667	79,088,480	0.0%	78.0%	
Saturday	08/19/2000	37,050	79,125,530	0.0%	78.0%	
Sunday	08/20/2000	-	79,125,530	0.0%	78.0%	
Monday	08/21/2000	-	79,125,530	0.0%	78.0%	
Tuesday	08/22/2000	-	79,125,530	0.0%	78.0%	
Wednesday	08/23/2000	-	79,125,530	0.0%	78.0%	

		Mail Return	Numerator	Retu	ırn Rate	
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Thursday	08/24/2000	-	79,125,530	0.0%	78.0%	
Friday	08/25/2000	64	79,125,594	0.0%	78.0%	
Saturday	08/26/2000	-	79,125,594	0.0%	78.0%	
Sunday	08/27/2000	-	79,125,594	0.0%	78.0%	
Monday	08/28/2000	-	79,125,594	0.0%	78.0%	
Tuesday	08/29/2000	-	79,125,594	0.0%	78.0%	
Wednesday	08/30/2000	-	79,125,594	0.0%	78.0%	
Thursday	08/31/2000	-	79,125,594	0.0%	78.0%	
Friday	09/01/2000	-	79,125,594	0.0%	78.0%	
Saturday	09/02/2000	94	79,125,688	0.0%	78.0%	
Sunday	09/03/2000	-	79,125,688	0.0%	78.0%	
Monday	09/04/2000	-	79,125,688	0.0%	78.0%	
Tuesday	09/05/2000	-	79,125,688	0.0%	78.0%	
Wednesday	09/06/2000	-	79,125,688	0.0%	78.0%	
Thursday	09/07/2000	-	79,125,688	0.0%	78.0%	
Friday	09/08/2000	19	79,125,707	0.0%	78.0%	
Saturday	09/09/2000	-	79,125,707	0.0%	78.0%	
Sunday	09/10/2000	-	79,125,707	0.0%	78.0%	
Monday	09/11/2000	-	79,125,707	0.0%	78.0%	
Tuesday	09/12/2000	-	79,125,707	0.0%	78.0%	
Wednesday	09/13/2000	-	79,125,707	0.0%	78.0%	
Thursday	09/14/2000	-	79,125,707	0.0%	78.0%	
Friday	09/15/2000	48	79,125,755	0.0%	78.0%	
Saturday	09/16/2000	-	79,125,755	0.0%	78.0%	
Sunday	09/17/2000	-	79,125,755	0.0%	78.0%	

		Mail Return	Numerator	Retu	urn Rate	
Dav	Date	Daily Increase	Cumulative	Daily Increase	Cumulative	Kev dates
Monday	09/18/2000	- Duny mercuse	79.125.755	0.0%	78.0%	itey dutes
Tuesday	09/19/2000	_	79.125.755	0.0%	78.0%	
Wednesday	09/20/2000	_	79.125.755	0.0%	78.0%	
Thursday	09/21/2000	_	79.125.755	0.0%	78.0%	
Friday	09/22/2000	-	79,125,755	0.0%	78.0%	
Saturday	09/23/2000	-	79,125,755	0.0%	78.0%	
Sunday	09/24/2000	-	79,125,755	0.0%	78.0%	
Monday	09/25/2000	-	79,125,755	0.0%	78.0%	
Tuesday	09/26/2000	-	79,125,755	0.0%	78.0%	
Wednesday	09/27/2000	-	79,125,755	0.0%	78.0%	
Thursday	09/28/2000	-	79,125,755	0.0%	78.0%	
Friday	09/29/2000	-	79,125,755	0.0%	78.0%	
Saturday	09/30/2000	-	79,125,755	0.0%	78.0%	
Sunday	10/01/2000	-	79,125,755	0.0%	78.0%	
Monday	10/02/2000	-	79,125,755	0.0%	78.0%	
Tuesday	10/03/2000	-	79,125,755	0.0%	78.0%	
Wednesday	10/04/2000	-	79,125,755	0.0%	78.0%	
Thursday	10/05/2000	-	79,125,755	0.0%	78.0%	
Friday	10/06/2000	-	79,125,755	0.0%	78.0%	
Saturday	10/07/2000	-	79,125,755	0.0%	78.0%	
Sunday	10/08/2000	-	79,125,755	0.0%	78.0%	
Monday	10/09/2000	-	79,125,755	0.0%	78.0%	
Tuesday	10/10/2000	-	79,125,755	0.0%	78.0%	
Wednesday	10/11/2000	-	79,125,755	0.0%	78.0%	
Thursday	10/12/2000	-	79,125,755	0.0%	78.0%	

		Mail Return Numerator		Return Rate		_
Dov	Data	Daily Increase	Cumulativa	Daily	Cumulativa	Key dates
 Friday	10/13/2000	Dany Increase	79.125.755	0.0%	78.0%	Key uaies
Saturday	10/14/2000	-	79,125,755	0.0%	78.0%	
Sunday	10/15/2000	-	79,125,755	0.0%	78.0%	
Monday	10/16/2000	-	79,125,755	0.0%	78.0%	
Tuesday	10/17/2000	-	79,125,755	0.0%	78.0%	
Wednesday	10/18/2000	-	79,125,755	0.0%	78.0%	
Thursday	10/19/2000	3	79,125,758	0.0%	78.0%	Last mail return with check-in date received
Sunday	12/31/2000	404,342	79,530,100	0.4%	78.4%	

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Note: Rates are based on a mail return rate denominator of 101,398,131 housing units.

Note: No forms with a valid check-in date were received after October 19, 2000. Mail returns from addresses which also were enumerated in NRFU or CIFU with no check-in date were assigned a date of December 31, 2000.

Note: These rates do not include Puerto Rico.

		Mail Return	Numerator	Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Thursday	03/02/2000	-	-	0.0%	0.0%	
Friday	03/03/2000	1,371	1,371	0.0%	0.0%	U/L delivery begins
Saturday	03/04/2000	64	1,435	0.0%	0.0%	
Sunday	03/05/2000	51	1,486	0.0%	0.0%	
Monday	03/06/2000	130,697	132,183	0.2%	0.2%	Advance notice delivery begins
Tuesday	03/07/2000	54,153	186,336	0.1%	0.2%	
Wednesday	03/08/2000	155,816	342,152	0.2%	0.4%	Advance notice delivery ends
Thursday	03/09/2000	205,140	547,292	0.2%	0.6%	
Friday	03/10/2000	361,605	908,897	0.4%	1.1%	
Saturday	03/11/2000	155,367	1,064,264	0.2%	1.3%	
Sunday	03/12/2000	185,154	1,249,418	0.2%	1.5%	
Monday	03/13/2000	634,653	1,884,071	0.8%	2.2%	Questionnaire mailout delivery begins
Tuesday	03/14/2000	472,885	2,356,956	0.6%	2.8%	
Wednesday	03/15/2000	2,704,879	5,061,835	3.2%	6.0%	Questionnaire mailout delivery ends
Thursday	03/16/2000	3,911,582	8,973,417	4.6%	10.7%	
Friday	03/17/2000	4,442,464	13,415,881	5.3%	15.9%	
Saturday	03/18/2000	3,211,439	16,627,320	3.8%	19.7%	
Sunday	03/19/2000	2,696,964	19,324,284	3.2%	22.9%	
Monday	03/20/2000	4,797,153	24,121,437	5.7%	28.6%	Reminder card delivery begins
Tuesday	03/21/2000	4,757,294	28,878,731	5.6%	34.3%	
Wednesday	03/22/2000	5,073,348	33,952,079	6.0%	40.3%	Reminder card delivery ends
Thursday	03/23/2000	4,387,083	38,339,162	5.2%	45.5%	
Friday	03/24/2000	2,766,993	41,106,155	3.3%	48.8%	
Saturday	03/25/2000	2,065,111	43,171,266	2.5%	51.2%	
Sunday	03/26/2000	2,186,418	45,357,684	2.6%	53.8%	
Monday	03/27/2000	2,523,851	47,881,535	3.0%	56.8%	

Appendix G-1: Mail Return Numerators and Rates by Day for Short Forms

		Mail Return	Mail Return Numerator		eturn Rate	
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Tuesday	03/28/2000	2,599,422	50,480,957	3.1%	59.9%	
Wednesday	03/29/2000	1,574,751	52,055,708	1.9%	61.8%	
Thursday	03/30/2000	1,432,374	53,488,082	1.7%	63.5%	U/L delivery ends
Friday	03/31/2000	1,384,870	54,872,952	1.6%	65.1%	
Saturday	04/01/2000	1,039,547	55,912,499	1.2%	66.4%	Census Day
Sunday	04/02/2000	729,436	56,641,935	0.9%	67.2%	
Monday	04/03/2000	1,100,861	57,742,796	1.3%	68.5%	
Tuesday	04/04/2000	984,837	58,727,633	1.2%	69.7%	
Wednesday	04/05/2000	764,259	59,491,892	0.9%	70.6%	
Thursday	04/06/2000	933,714	60,425,606	1.1%	71.7%	
Friday	04/07/2000	601,495	61,027,101	0.7%	72.4%	
Saturday	04/08/2000	587,749	61,614,850	0.7%	73.1%	
Sunday	04/09/2000	311,374	61,926,224	0.4%	73.5%	
Monday	04/10/2000	519,732	62,445,956	0.6%	74.1%	Initial NRFU cut
Tuesday	04/11/2000	269,341	62,715,297	0.3%	74.4%	
Wednesday	04/12/2000	308,559	63,023,856	0.4%	74.8%	
Thursday	04/13/2000	213,649	63,237,505	0.3%	75.1%	
Friday	04/14/2000	388,086	63,625,591	0.5%	75.5%	
Saturday	04/15/2000	221,736	63,847,327	0.3%	75.8%	
Sunday	04/16/2000	139,006	63,986,333	0.2%	75.9%	
Monday	04/17/2000	252,215	64,238,548	0.3%	76.2%	
Tuesday	04/18/2000	119,420	64,357,968	0.1%	76.4%	Late mail return NRFU cut
Wednesday	04/19/2000	122,252	64,480,220	0.1%	76.5%	
Thursday	04/20/2000	150,650	64,630,870	0.2%	76.7%	
Friday	04/21/2000	150,586	64,781,456	0.2%	76.9%	
Saturday	04/22/2000	53,610	64,835,066	0.1%	77.0%	

Appendix G-1: Mail Return Numerators and Rates by Day for Short Forms

		Mail Return Numerator		Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Sunday	04/23/2000	61,081	64,896,147	0.1%	77.0%	
Monday	04/24/2000	109,853	65,006,000	0.1%	77.2%	
Tuesday	04/25/2000	74,146	65,080,146	0.1%	77.2%	
Wednesday	04/26/2000	135,917	65,216,063	0.2%	77.4%	
Thursday	04/27/2000	77,011	65,293,074	0.1%	77.5%	NRFU begins
Friday	04/28/2000	61,905	65,354,979	0.1%	77.6%	_
Saturday	04/29/2000	26,936	65,381,915	0.0%	77.6%	
Sunday	04/30/2000	888	65,382,803	0.0%	77.6%	
Monday	05/01/2000	107,849	65,490,652	0.1%	77.7%	
Tuesday	05/02/2000	20,033	65,510,685	0.0%	77.8%	
Wednesday	05/03/2000	61,889	65,572,574	0.1%	77.8%	
Thursday	05/04/2000	74,666	65,647,240	0.1%	77.9%	
Friday	05/05/2000	59,537	65,706,777	0.1%	78.0%	
Saturday	05/06/2000	24,034	65,730,811	0.0%	78.0%	
Sunday	05/07/2000	1,170	65,731,981	0.0%	78.0%	
Monday	05/08/2000	13,051	65,745,032	0.0%	78.0%	
Tuesday	05/09/2000	7,007	65,752,039	0.0%	78.0%	
Wednesday	05/10/2000	13,030	65,765,069	0.0%	78.1%	
Thursday	05/11/2000	25,702	65,790,771	0.0%	78.1%	
Friday	05/12/2000	142,883	65,933,654	0.2%	78.3%	
Saturday	05/13/2000	2,564	65,936,218	0.0%	78.3%	
Sunday	05/14/2000	3,309	65,939,527	0.0%	78.3%	
Monday	05/15/2000	2,543	65,942,070	0.0%	78.3%	
Tuesday	05/16/2000	8,080	65,950,150	0.0%	78.3%	
Wednesday	05/17/2000	11,056	65,961,206	0.0%	78.3%	
Thursday	05/18/2000	21,036	65,982,242	0.0%	78.3%	

Appendix G-1: Mail Return Numerators and Rates by Day for Short Forms

		Mail Return	Mail Return Numerator Mail Return Rate			
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Friday	05/19/2000	90,123	66,072,365	0.1%	78.4%	
Saturday	05/20/2000	14,107	66,086,472	0.0%	78.4%	
Sunday	05/21/2000	3,724	66,090,196	0.0%	78.4%	
Monday	05/22/2000	5,029	66,095,225	0.0%	78.4%	
Tuesday	05/23/2000	4,110	66,099,335	0.0%	78.5%	
Wednesday	05/24/2000	11,222	66,110,557	0.0%	78.5%	
Thursday	05/25/2000	22,127	66,132,684	0.0%	78.5%	
Friday	05/26/2000	58,150	66,190,834	0.1%	78.6%	
Saturday	05/27/2000	8,163	66,198,997	0.0%	78.6%	
Sunday	05/28/2000	3,591	66,202,588	0.0%	78.6%	
Monday	05/29/2000	687	66,203,275	0.0%	78.6%	
Tuesday	05/30/2000	4,892	66,208,167	0.0%	78.6%	
Wednesday	05/31/2000	4,426	66,212,593	0.0%	78.6%	
Thursday	06/01/2000	8,759	66,221,352	0.0%	78.6%	
Friday	06/02/2000	38,839	66,260,191	0.0%	78.6%	
Saturday	06/03/2000	6,433	66,266,624	0.0%	78.7%	
Sunday	06/04/2000	3,816	66,270,440	0.0%	78.7%	
Monday	06/05/2000	5,083	66,275,523	0.0%	78.7%	
Tuesday	06/06/2000	6,419	66,281,942	0.0%	78.7%	
Wednesday	06/07/2000	14,266	66,296,208	0.0%	78.7%	
Thursday	06/08/2000	15,437	66,311,645	0.0%	78.7%	
Friday	06/09/2000	8,369	66,320,014	0.0%	78.7%	
Saturday	06/10/2000	3,947	66,323,961	0.0%	78.7%	
Sunday	06/11/2000	2,740	66,326,701	0.0%	78.7%	
Monday	06/12/2000	12,430	66,339,131	0.0%	78.7%	
Tuesday	06/13/2000	5,341	66,344,472	0.0%	78.7%	

Appendix G-1: Mail Return Numerators and Rates by Day for Short Forms

		Mail Return Numerator		Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Wednesday	06/14/2000	7,606	66,352,078	0.0%	78.8%	
Thursday	06/15/2000	667,951	67,020,029	0.8%	79.5%	
Friday	06/16/2000	4,144	67,024,173	0.0%	79.6%	
Saturday	06/17/2000	2,175	67,026,348	0.0%	79.6%	
Sunday	06/18/2000	1,214	67,027,562	0.0%	79.6%	
Monday	06/19/2000	1,443	67,029,005	0.0%	79.6%	
Tuesday	06/20/2000	2,049	67,031,054	0.0%	79.6%	
Wednesday	06/21/2000	2,144	67,033,198	0.0%	79.6%	
Thursday	06/22/2000	2,203	67,035,401	0.0%	79.6%	
Friday	06/23/2000	1,314	67,036,715	0.0%	79.6%	
Saturday	06/24/2000	634	67,037,349	0.0%	79.6%	
Sunday	06/25/2000	257	67,037,606	0.0%	79.6%	
Monday	06/26/2000	1,608	67,039,214	0.0%	79.6%	NRFU complete
Tuesday	06/27/2000	1,142	67,040,356	0.0%	79.6%	_
Wednesday	06/28/2000	1,456	67,041,812	0.0%	79.6%	
Thursday	06/29/2000	10,611	67,052,423	0.0%	79.6%	
Friday	06/30/2000	902	67,053,325	0.0%	79.6%	
Saturday	07/01/2000	567	67,053,892	0.0%	79.6%	
Sunday	07/02/2000	61	67,053,953	0.0%	79.6%	
Monday	07/03/2000	-	67,053,953	0.0%	79.6%	
Tuesday	07/04/2000	-	67,053,953	0.0%	79.6%	
Wednesday	07/05/2000	-	67,053,953	0.0%	79.6%	
Thursday	07/06/2000	-	67,053,953	0.0%	79.6%	
Friday	07/07/2000	-	67,053,953	0.0%	79.6%	
Saturday	07/08/2000	-	67,053,953	0.0%	79.6%	
Sunday	07/09/2000	-	67,053,953	0.0%	79.6%	

Appendix G-1: Mail Return Numerators and Rates by Day for Short Forms

		Mail Return	Numerator	Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Monday	07/10/2000	1,748	67,055,701	0.0%	79.6%	
Tuesday	07/11/2000	-	67,055,701	0.0%	79.6%	
Wednesday	07/12/2000	-	67,055,701	0.0%	79.6%	
Thursday	07/13/2000	209	67,055,910	0.0%	79.6%	
Friday	07/14/2000	-	67,055,910	0.0%	79.6%	
Saturday	07/15/2000	-	67,055,910	0.0%	79.6%	
Sunday	07/16/2000	-	67,055,910	0.0%	79.6%	
Monday	07/17/2000	-	67,055,910	0.0%	79.6%	
Tuesday	07/18/2000	-	67,055,910	0.0%	79.6%	
Wednesday	07/19/2000	-	67,055,910	0.0%	79.6%	
Thursday	07/20/2000	-	67,055,910	0.0%	79.6%	
Friday	07/21/2000	-	67,055,910	0.0%	79.6%	
Saturday	07/22/2000	64,252	67,120,162	0.1%	79.7%	
Sunday	07/23/2000	670	67,120,832	0.0%	79.7%	
Monday	07/24/2000	-	67,120,832	0.0%	79.7%	
Tuesday	07/25/2000	-	67,120,832	0.0%	79.7%	
Wednesday	07/26/2000	-	67,120,832	0.0%	79.7%	
Thursday	07/27/2000	-	67,120,832	0.0%	79.7%	
Friday	07/28/2000	293	67,121,125	0.0%	79.7%	
Saturday	07/29/2000	-	67,121,125	0.0%	79.7%	
Sunday	07/30/2000	-	67,121,125	0.0%	79.7%	
Monday	07/31/2000	82	67,121,207	0.0%	79.7%	
Tuesday	08/01/2000	-	67,121,207	0.0%	79.7%	
Wednesday	08/02/2000	-	67,121,207	0.0%	79.7%	
Thursday	08/03/2000	-	67,121,207	0.0%	79.7%	
Friday	08/04/2000	-	67,121,207	0.0%	79.7%	
Saturday	08/05/2000	-	67,121,207	0.0%	79.7%	

		Mail Return	Mail Return Numerator		eturn Rate	
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Sunday	08/06/2000	-	67,121,207	0.0%	79.7%	
Monday	08/07/2000	-	67,121,207	0.0%	79.7%	
Tuesday	08/08/2000	-	67,121,207	0.0%	79.7%	
Wednesday	08/09/2000	311	67,121,518	0.0%	79.7%	
Thursday	08/10/2000	-	67,121,518	0.0%	79.7%	
Friday	08/11/2000	-	67,121,518	0.0%	79.7%	
Saturday	08/12/2000	-	67,121,518	0.0%	79.7%	
Sunday	08/13/2000	-	67,121,518	0.0%	79.7%	
Monday	08/14/2000	-	67,121,518	0.0%	79.7%	
Tuesday	08/15/2000	-	67,121,518	0.0%	79.7%	
Wednesday	08/16/2000	162	67,121,680	0.0%	79.7%	
Thursday	08/17/2000	-	67,121,680	0.0%	79.7%	
Friday	08/18/2000	483	67,122,163	0.0%	79.7%	
Saturday	08/19/2000	23,596	67,145,759	0.0%	79.7%	
Sunday	08/20/2000	-	67,145,759	0.0%	79.7%	
Monday	08/21/2000	-	67,145,759	0.0%	79.7%	
Tuesday	08/22/2000	-	67,145,759	0.0%	79.7%	
Wednesday	08/23/2000	-	67,145,759	0.0%	79.7%	
Thursday	08/24/2000	-	67,145,759	0.0%	79.7%	
Friday	08/25/2000	25	67,145,784	0.0%	79.7%	
Saturday	08/26/2000	-	67,145,784	0.0%	79.7%	
Sunday	08/27/2000	-	67,145,784	0.0%	79.7%	
Monday	08/28/2000	-	67,145,784	0.0%	79.7%	
Tuesday	08/29/2000	-	67,145,784	0.0%	79.7%	
Wednesday	08/30/2000	-	67,145,784	0.0%	79.7%	
Thursday	08/31/2000	-	67,145,784	0.0%	79.7%	
Friday	09/01/2000	-	67,145,784	0.0%	79.7%	

		Mail Return Numerator		Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Saturday	09/02/2000	71	67,145,855	0.0%	79.7%	
Sunday	09/03/2000	-	67,145,855	0.0%	79.7%	
Monday	09/04/2000	-	67,145,855	0.0%	79.7%	
Tuesday	09/05/2000	-	67,145,855	0.0%	79.7%	
Wednesday	09/06/2000	-	67,145,855	0.0%	79.7%	
Thursday	09/07/2000	-	67,145,855	0.0%	79.7%	
Friday	09/08/2000	13	67,145,868	0.0%	79.7%	
Saturday	09/09/2000	-	67,145,868	0.0%	79.7%	
Sunday	09/10/2000	-	67,145,868	0.0%	79.7%	
Monday	09/11/2000	-	67,145,868	0.0%	79.7%	
Tuesday	09/12/2000	-	67,145,868	0.0%	79.7%	
Wednesday	09/13/2000	-	67,145,868	0.0%	79.7%	
Thursday	09/14/2000	-	67,145,868	0.0%	79.7%	
Friday	09/15/2000	39	67,145,907	0.0%	79.7%	
Saturday	09/16/2000	-	67,145,907	0.0%	79.7%	
Sunday	09/17/2000	-	67,145,907	0.0%	79.7%	
Monday	09/18/2000	-	67,145,907	0.0%	79.7%	
Tuesday	09/19/2000	-	67,145,907	0.0%	79.7%	
Wednesday	09/20/2000	-	67,145,907	0.0%	79.7%	
Thursday	09/21/2000	-	67,145,907	0.0%	79.7%	
Friday	09/22/2000	-	67,145,907	0.0%	79.7%	
Saturday	09/23/2000	-	67,145,907	0.0%	79.7%	
Sunday	09/24/2000	-	67,145,907	0.0%	79.7%	
Monday	09/25/2000	-	67,145,907	0.0%	79.7%	
Tuesday	09/26/2000	-	67,145,907	0.0%	79.7%	
Wednesday	09/27/2000	-	67,145,907	0.0%	79.7%	
Thursday	09/28/2000	-	67,145,907	0.0%	79.7%	

		Mail Return Numerator		Mail R	eturn Rate	
				Daily		-
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Friday	09/29/2000	-	67,145,907	0.0%	79.7%	
Saturday	09/30/2000	-	67,145,907	0.0%	79.7%	
Sunday	10/01/2000	-	67,145,907	0.0%	79.7%	
Monday	10/02/2000	-	67,145,907	0.0%	79.7%	
Tuesday	10/03/2000	-	67,145,907	0.0%	79.7%	
Wednesday	10/04/2000	-	67,145,907	0.0%	79.7%	
Thursday	10/05/2000	-	67,145,907	0.0%	79.7%	
Friday	10/06/2000	-	67,145,907	0.0%	79.7%	
Saturday	10/07/2000	-	67,145,907	0.0%	79.7%	
Sunday	10/08/2000	-	67,145,907	0.0%	79.7%	
Monday	10/09/2000	-	67,145,907	0.0%	79.7%	
Tuesday	10/10/2000	-	67,145,907	0.0%	79.7%	
Wednesday	10/11/2000	-	67,145,907	0.0%	79.7%	
Thursday	10/12/2000	-	67,145,907	0.0%	79.7%	
Friday	10/13/2000	-	67,145,907	0.0%	79.7%	
Saturday	10/14/2000	-	67,145,907	0.0%	79.7%	
Sunday	10/15/2000	-	67,145,907	0.0%	79.7%	
Monday	10/16/2000	-	67,145,907	0.0%	79.7%	
Tuesday	10/17/2000	-	67,145,907	0.0%	79.7%	
Wednesday	10/18/2000	-	67,145,907	0.0%	79.7%	
Thursday	10/19/2000	3	67,145,910	0.0%	79.7%	Last mail return with check-in date received
Sunday	12/31/2000	304,353	67,450,263	0.4%	80.1%	

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Note: Short form return rates are based on a denominator of 84,253,442.

Note: No forms with a valid check-in date were received after October 19, 2000. Mail returns from addresses which also were enumerated in NRFU or CIFU with no check-in date were assigned a date of December 31, 2000.

Note: These rates do not include Puerto Rico.

		Mail Return Numerator		Mail R	Return Rate		
				Daily			
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates	
Thursday	03/02/2000	-	-	0.0%	0.0%		
Friday	03/03/2000	5	5	0.0%	0.0%	U/L delivery begins	
Saturday	03/04/2000	-	5	0.0%	0.0%		
Sunday	03/05/2000	-	5	0.0%	0.0%		
Monday	03/06/2000	17,456	17,461	0.1%	0.1%	Advance notice delivery begins	
Tuesday	03/07/2000	7,566	25,027	0.0%	0.1%		
Wednesday	03/08/2000	19,463	44,490	0.1%	0.3%	Advance notice delivery ends	
Thursday	03/09/2000	28,496	72,986	0.2%	0.4%		
Friday	03/10/2000	56,893	129,879	0.3%	0.8%		
Saturday	03/11/2000	23,392	153,271	0.1%	0.9%		
Sunday	03/12/2000	30,118	183,389	0.2%	1.1%		
Monday	03/13/2000	113,963	297,352	0.7%	1.7%	Questionnaire mailout delivery begins	
Tuesday	03/14/2000	72,473	369,825	0.4%	2.2%	· · ·	
Wednesday	03/15/2000	197,590	567,415	1.2%	3.3%	Questionnaire mailout delivery ends	
Thursday	03/16/2000	340,035	907,450	2.0%	5.3%	-	
Friday	03/17/2000	389,645	1,297,095	2.3%	7.6%		
Saturday	03/18/2000	228,470	1,525,565	1.3%	8.9%		
Sunday	03/19/2000	212,927	1,738,492	1.2%	10.1%		
Monday	03/20/2000	436,671	2,175,163	2.5%	12.7%	Reminder card delivery begins	
Tuesday	03/21/2000	541,424	2,716,587	3.2%	15.8%		
Wednesday	03/22/2000	683,471	3,400,058	4.0%	19.8%	Reminder card delivery ends	
Thursday	03/23/2000	836,640	4,236,698	4.9%	24.7%		
Friday	03/24/2000	835,791	5,072,489	4.9%	29.6%		
Saturday	03/25/2000	340,000	5,412,489	2.0%	31.6%		
Sunday	03/26/2000	310,861	5,723,350	1.8%	33.4%		
Monday	03/27/2000	439,362	6,162,712	2.6%	35.9%		
Tuesday	03/28/2000	523,288	6,686,000	3.1%	39.0%		

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return	Numerator	Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Wednesday	03/29/2000	351,865	7,037,865	2.1%	41.1%	
Thursday	03/30/2000	382,890	7,420,755	2.2%	43.3%	U/L delivery ends
Friday	03/31/2000	346,103	7,766,858	2.0%	45.3%	
Saturday	04/01/2000	315,873	8,082,731	1.8%	47.1%	Census Day
Sunday	04/02/2000	207,354	8,290,085	1.2%	48.4%	
Monday	04/03/2000	376,589	8,666,674	2.2%	50.6%	
Tuesday	04/04/2000	325,339	8,992,013	1.9%	52.4%	
Wednesday	04/05/2000	261,675	9,253,688	1.5%	54.0%	
Thursday	04/06/2000	287,251	9,540,939	1.7%	55.7%	
Friday	04/07/2000	192,135	9,733,074	1.1%	56.8%	
Saturday	04/08/2000	171,514	9,904,588	1.0%	57.8%	
Sunday	04/09/2000	105,073	10,009,661	0.6%	58.4%	
Monday	04/10/2000	166,095	10,175,756	1.0%	59.4%	Initial NRFU cut
Tuesday	04/11/2000	68,384	10,244,140	0.4%	59.8%	
Wednesday	04/12/2000	98,967	10,343,107	0.6%	60.3%	
Thursday	04/13/2000	85,344	10,428,451	0.5%	60.8%	
Friday	04/14/2000	130,354	10,558,805	0.8%	61.6%	
Saturday	04/15/2000	82,140	10,640,945	0.5%	62.1%	
Sunday	04/16/2000	27,465	10,668,410	0.2%	62.2%	
Monday	04/17/2000	96,479	10,764,889	0.6%	62.8%	
Tuesday	04/18/2000	40,163	10,805,052	0.2%	63.0%	Late mail return NRFU cut
Wednesday	04/19/2000	44,338	10,849,390	0.3%	63.3%	
Thursday	04/20/2000	56,814	10,906,204	0.3%	63.6%	
Friday	04/21/2000	62,247	10,968,451	0.4%	64.0%	
Saturday	04/22/2000	14,033	10,982,484	0.1%	64.1%	
Sunday	04/23/2000	19,834	11,002,318	0.1%	64.2%	
Monday	04/24/2000	63,943	11,066,261	0.4%	64.5%	

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return Numerator		Mail Return Rate		
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Tuesday	04/25/2000	15,618	11,081,879	0.1%	64.6%	
Wednesday	04/26/2000	44,987	11,126,866	0.3%	64.9%	
Thursday	04/27/2000	29,481	11,156,347	0.2%	65.1%	NRFU begins
Friday	04/28/2000	27,443	11,183,790	0.2%	65.2%	
Saturday	04/29/2000	760	11,184,550	0.0%	65.2%	
Sunday	04/30/2000	221	11,184,771	0.0%	65.2%	
Monday	05/01/2000	30,097	11,214,868	0.2%	65.4%	
Tuesday	05/02/2000	3,132	11,218,000	0.0%	65.4%	
Wednesday	05/03/2000	13,401	11,231,401	0.1%	65.5%	
Thursday	05/04/2000	17,242	11,248,643	0.1%	65.6%	
Friday	05/05/2000	64,820	11,313,463	0.4%	66.0%	
Saturday	05/06/2000	5,346	11,318,809	0.0%	66.0%	
Sunday	05/07/2000	663	11,319,472	0.0%	66.0%	
Monday	05/08/2000	11,378	11,330,850	0.1%	66.1%	
Tuesday	05/09/2000	1,940	11,332,790	0.0%	66.1%	
Wednesday	05/10/2000	2,310	11,335,100	0.0%	66.1%	
Thursday	05/11/2000	14,546	11,349,646	0.1%	66.2%	
Friday	05/12/2000	43,705	11,393,351	0.3%	66.5%	
Saturday	05/13/2000	1,610	11,394,961	0.0%	66.5%	
Sunday	05/14/2000	4,583	11,399,544	0.0%	66.5%	
Monday	05/15/2000	1,205	11,400,749	0.0%	66.5%	
Tuesday	05/16/2000	3,483	11,404,232	0.0%	66.5%	
Wednesday	05/17/2000	5,606	11,409,838	0.0%	66.6%	
Thursday	05/18/2000	13,188	11,423,026	0.1%	66.6%	
Friday	05/19/2000	42,777	11,465,803	0.2%	66.9%	
Saturday	05/20/2000	13,563	11,479,366	0.1%	67.0%	
Sunday	05/21/2000	2,385	11,481,751	0.0%	67.0%	

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return	Numerator	Mail R	leturn Rate		_
				Daily			
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates	
Monday	05/22/2000	4,537	11,486,288	0.0%	67.0%		
Tuesday	05/23/2000	3,907	11,490,195	0.0%	67.0%		
Wednesday	05/24/2000	6,379	11,496,574	0.0%	67.1%		
Thursday	05/25/2000	10,576	11,507,150	0.1%	67.1%		
Friday	05/26/2000	38,938	11,546,088	0.2%	67.3%		
Saturday	05/27/2000	4,658	11,550,746	0.0%	67.4%		
Sunday	05/28/2000	2,941	11,553,687	0.0%	67.4%		
Monday	05/29/2000	283	11,553,970	0.0%	67.4%		
Tuesday	05/30/2000	2,891	11,556,861	0.0%	67.4%		
Wednesday	05/31/2000	2,993	11,559,854	0.0%	67.4%		
Thursday	06/01/2000	7,955	11,567,809	0.0%	67.5%		
Friday	06/02/2000	27,442	11,595,251	0.2%	67.6%		
Saturday	06/03/2000	7,585	11,602,836	0.0%	67.7%		
Sunday	06/04/2000	2,736	11,605,572	0.0%	67.7%		
Monday	06/05/2000	3,612	11,609,184	0.0%	67.7%		
Tuesday	06/06/2000	3,050	11,612,234	0.0%	67.7%		
Wednesday	06/07/2000	9,669	11,621,903	0.1%	67.8%		
Thursday	06/08/2000	16,822	11,638,725	0.1%	67.9%		
Friday	06/09/2000	8,687	11,647,412	0.1%	67.9%		
Saturday	06/10/2000	4,078	11,651,490	0.0%	68.0%		
Sunday	06/11/2000	2,893	11,654,383	0.0%	68.0%		
Monday	06/12/2000	7,734	11,662,117	0.0%	68.0%		
Tuesday	06/13/2000	5,017	11,667,134	0.0%	68.1%		
Wednesday	06/14/2000	3,999	11,671,133	0.0%	68.1%		
Thursday	06/15/2000	257,889	11,929,022	1.5%	69.6%		
Friday	06/16/2000	5,428	11,934,450	0.0%	69.6%		
Saturday	06/17/2000	1,366	11,935,816	0.0%	69.6%		

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms
		Mail Return	Numerator	Mail R	Return Rate	
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Sunday	06/18/2000	1,820	11,937,636	0.0%	69.6%	
Monday	06/19/2000	3,068	11,940,704	0.0%	69.6%	
Tuesday	06/20/2000	1,677	11,942,381	0.0%	69.7%	
Wednesday	06/21/2000	1,400	11,943,781	0.0%	69.7%	
Thursday	06/22/2000	1,089	11,944,870	0.0%	69.7%	
Friday	06/23/2000	1,080	11,945,950	0.0%	69.7%	
Saturday	06/24/2000	358	11,946,308	0.0%	69.7%	
Sunday	06/25/2000	213	11,946,521	0.0%	69.7%	
Monday	06/26/2000	891	11,947,412	0.0%	69.7%	NRFU complete
Tuesday	06/27/2000	706	11,948,118	0.0%	69.7%	
Wednesday	06/28/2000	653	11,948,771	0.0%	69.7%	
Thursday	06/29/2000	12,910	11,961,681	0.1%	69.8%	
Friday	06/30/2000	575	11,962,256	0.0%	69.8%	
Saturday	07/01/2000	134	11,962,390	0.0%	69.8%	
Sunday	07/02/2000	59	11,962,449	0.0%	69.8%	
Monday	07/03/2000	-	11,962,449	0.0%	69.8%	
Tuesday	07/04/2000	-	11,962,449	0.0%	69.8%	
Wednesday	07/05/2000	-	11,962,449	0.0%	69.8%	
Thursday	07/06/2000	-	11,962,449	0.0%	69.8%	
Friday	07/07/2000	-	11,962,449	0.0%	69.8%	
Saturday	07/08/2000	-	11,962,449	0.0%	69.8%	
Sunday	07/09/2000	-	11,962,449	0.0%	69.8%	
Monday	07/10/2000	248	11,962,697	0.0%	69.8%	
Tuesday	07/11/2000	-	11,962,697	0.0%	69.8%	
Wednesday	07/12/2000	-	11,962,697	0.0%	69.8%	
Thursday	07/13/2000	106	11,962,803	0.0%	69.8%	
Friday	07/14/2000	-	11,962,803	0.0%	69.8%	

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return	Numerator	Mail R	eturn Rate	
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Saturday	07/15/2000	-	11,962,803	0.0%	69.8%	
Sunday	07/16/2000	-	11,962,803	0.0%	69.8%	
Monday	07/17/2000	-	11,962,803	0.0%	69.8%	
Tuesday	07/18/2000	-	11,962,803	0.0%	69.8%	
Wednesday	07/19/2000	-	11,962,803	0.0%	69.8%	
Thursday	07/20/2000	-	11,962,803	0.0%	69.8%	
Friday	07/21/2000	-	11,962,803	0.0%	69.8%	
Saturday	07/22/2000	2,480	11,965,283	0.0%	69.8%	
Sunday	07/23/2000	334	11,965,617	0.0%	69.8%	
Monday	07/24/2000	-	11,965,617	0.0%	69.8%	
Tuesday	07/25/2000	-	11,965,617	0.0%	69.8%	
Wednesday	07/26/2000	-	11,965,617	0.0%	69.8%	
Thursday	07/27/2000	-	11,965,617	0.0%	69.8%	
Friday	07/28/2000	176	11,965,793	0.0%	69.8%	
Saturday	07/29/2000	-	11,965,793	0.0%	69.8%	
Sunday	07/30/2000	-	11,965,793	0.0%	69.8%	
Monday	07/31/2000	50	11,965,843	0.0%	69.8%	
Tuesday	08/01/2000	-	11,965,843	0.0%	69.8%	
Wednesday	08/02/2000	-	11,965,843	0.0%	69.8%	
Thursday	08/03/2000	-	11,965,843	0.0%	69.8%	
Friday	08/04/2000	-	11,965,843	0.0%	69.8%	
Saturday	08/05/2000	-	11,965,843	0.0%	69.8%	
Sunday	08/06/2000	-	11,965,843	0.0%	69.8%	
Monday	08/07/2000	-	11,965,843	0.0%	69.8%	
Tuesday	08/08/2000	-	11,965,843	0.0%	69.8%	
Wednesday	08/09/2000	220	11,966,063	0.0%	69.8%	
Thursday	08/10/2000	-	11,966,063	0.0%	69.8%	

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return	Numerator	Mail R	eturn Rate	
				Daily		
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Friday	08/11/2000	-	11,966,063	0.0%	69.8%	
Saturday	08/12/2000	-	11,966,063	0.0%	69.8%	
Sunday	08/13/2000	-	11,966,063	0.0%	69.8%	
Monday	08/14/2000	-	11,966,063	0.0%	69.8%	
Tuesday	08/15/2000	-	11,966,063	0.0%	69.8%	
Wednesday	08/16/2000	70	11,966,133	0.0%	69.8%	
Thursday	08/17/2000	-	11,966,133	0.0%	69.8%	
Friday	08/18/2000	184	11,966,317	0.0%	69.8%	
Saturday	08/19/2000	13,454	11,979,771	0.1%	69.9%	
Sunday	08/20/2000	-	11,979,771	0.0%	69.9%	
Monday	08/21/2000	-	11,979,771	0.0%	69.9%	
Tuesday	08/22/2000	-	11,979,771	0.0%	69.9%	
Wednesday	08/23/2000	-	11,979,771	0.0%	69.9%	
Thursday	08/24/2000	-	11,979,771	0.0%	69.9%	
Friday	08/25/2000	39	11,979,810	0.0%	69.9%	
Saturday	08/26/2000	-	11,979,810	0.0%	69.9%	
Sunday	08/27/2000	-	11,979,810	0.0%	69.9%	
Monday	08/28/2000	-	11,979,810	0.0%	69.9%	
Tuesday	08/29/2000	-	11,979,810	0.0%	69.9%	
Wednesday	08/30/2000	-	11,979,810	0.0%	69.9%	
Thursday	08/31/2000	-	11,979,810	0.0%	69.9%	
Friday	09/01/2000	-	11,979,810	0.0%	69.9%	
Saturday	09/02/2000	23	11,979,833	0.0%	69.9%	
Sunday	09/03/2000	-	11,979,833	0.0%	69.9%	
Monday	09/04/2000	-	11,979,833	0.0%	69.9%	
Tuesday	09/05/2000	-	11,979,833	0.0%	69.9%	
Wednesday	09/06/2000	-	11,979,833	0.0%	69.9%	

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return	Numerator	Mail R	eturn Rate			
				Daily				
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates		
Thursday	09/07/2000	-	11,979,833	0.0%	69.9%			
Friday	09/08/2000	6	11,979,839	0.0%	69.9%			
Saturday	09/09/2000	-	11,979,839	0.0%	69.9%			
Sunday	09/10/2000	-	11,979,839	0.0%	69.9%			
Monday	09/11/2000	-	11,979,839	0.0%	69.9%			
Tuesday	09/12/2000	-	11,979,839	0.0%	69.9%			
Wednesday	09/13/2000	-	11,979,839	0.0%	69.9%			
Thursday	09/14/2000	-	11,979,839	0.0%	69.9%			
Friday	09/15/2000	9	11,979,848	0.0%	69.9%			
Saturday	09/16/2000	-	11,979,848	0.0%	69.9%			
Sunday	09/17/2000	-	11,979,848	0.0%	69.9%			
Monday	09/18/2000	-	11,979,848	0.0%	69.9%			
Tuesday	09/19/2000	-	11,979,848	0.0%	69.9%			
Wednesday	09/20/2000	-	11,979,848	0.0%	69.9%			
Thursday	09/21/2000	-	11,979,848	0.0%	69.9%			
Friday	09/22/2000	-	11,979,848	0.0%	69.9%			
Saturday	09/23/2000	-	11,979,848	0.0%	69.9%			
Sunday	09/24/2000	-	11,979,848	0.0%	69.9%			
Monday	09/25/2000	-	11,979,848	0.0%	69.9%			
Tuesday	09/26/2000	-	11,979,848	0.0%	69.9%			
Wednesday	09/27/2000	-	11,979,848	0.0%	69.9%			
Thursday	09/28/2000	-	11,979,848	0.0%	69.9%			
Friday	09/29/2000	-	11,979,848	0.0%	69.9%			
Saturday	09/30/2000	-	11,979,848	0.0%	69.9%			
Sunday	10/01/2000	-	11,979,848	0.0%	69.9%			
Monday	10/02/2000	-	11,979,848	0.0%	69.9%			
Tuesday	10/03/2000	-	11,979,848	0.0%	69.9%			

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

		Mail Return	Numerator	Mail R	leturn Rate	
				Daily		_
Day	Date	Daily Increase	Cumulative	Increase	Cumulative	Key dates
Wednesday	10/04/2000	-	11,979,848	0.0%	69.9%	
Thursday	10/05/2000	-	11,979,848	0.0%	69.9%	
Friday	10/06/2000	-	11,979,848	0.0%	69.9%	
Saturday	10/07/2000	-	11,979,848	0.0%	69.9%	
Sunday	10/08/2000	-	11,979,848	0.0%	69.9%	
Monday	10/09/2000	-	11,979,848	0.0%	69.9%	
Tuesday	10/10/2000	-	11,979,848	0.0%	69.9%	
Wednesday	10/11/2000	-	11,979,848	0.0%	69.9%	
Thursday	10/12/2000	-	11,979,848	0.0%	69.9%	
Friday	10/13/2000	-	11,979,848	0.0%	69.9%	
Saturday	10/14/2000	-	11,979,848	0.0%	69.9%	
Sunday	10/15/2000	-	11,979,848	0.0%	69.9%	
Monday	10/16/2000	-	11,979,848	0.0%	69.9%	
Tuesday	10/17/2000	-	11,979,848	0.0%	69.9%	
Wednesday	10/18/2000	-	11,979,848	0.0%	69.9%	
Thursday	10/19/2000	-	11,979,848	0.0%	69.9%	Last mail return with check-in date received
Sunday	12/31/2000	99,989	12,079,837	0.6%	70.5%	

Appendix G-2: Mail Return Numerators and Rates by Day for Long Forms

Source: HCEF_D', DRF-2, and March 2001 MAF Extract.

Note: Long form return rates have a denominator of 17,144,689.

Note: No forms with a valid check-in date were received after October 19, 2000. Mail returns from addresses which also were enumerated in NRFU or CIFU with no check-in date were assigned a date of December 31, 2000.

Note: These rates do not include Puerto Rico.

		Numerator-April 18, 2000			Numerato	or-December	31, 2000	Denominator		
			Fo	rm Type		Form	Туре		Form	Туре
		Total	Short	Long	Total	Short	Long	Total	Short	Long
Type of Enumeration	TOTAL	75,163,020	64,357,968	10,805,052	79,530,100	67,450,263	12,079,837	101,398,131	84,253,442	17,144,689
	Mailout/ Mailback	62,563,133	54,626,734	7,936,399	65,432,478	56,692,507	8,739,971	83,289,540	70,780,125	12,509,415
	Update/ Leave	12,474,684	9,621,648	2,853,036	13,958,313	10,637,095	3,321,218	17,911,925	13,306,484	4,605,441
	Urban Update/ Leave	125,203	109,586	15,617	139,309	120,661	18,648	196,666	166,833	29,833
	15-17	12,977	10,935	2,042	14,430	12,026	2,404	41,479	34,198	7,281
	18-24	2,698,998	2,371,008	327,990	2,941,437	2,554,306	387,131	5,173,672	4,345,937	827,735
Age in	25-44	27,383,211	23,755,662	3,627,549	29,380,978	25,193,146	4,187,832	40,619,629	33,912,184	6,707,445
Years	45-64	26,728,486	22,838,389	3,890,097	28,233,245	23,883,270	4,349,975	34,272,757	28,423,173	5,849,584
	65 or	18,339,348	15,381,974	2,957,374	18,960,010	15,807,515	3,152,495	21,290,594	17,537,950	3,752,644

Appendix H: Return Rate Numerators and Denominators

		Numerator	-April 18, 20	00	Numerate	or-December	31, 2000	Denominator		
			Foi	rm Type	_	Form '	Туре		Form Type	
		Total	Short	Long	Total	Short	Long	Total	Short	Long
	White	62,485,180	53,243,950	9,241,230	65,883,513	55,600,817	10,282,696	80,586,586	66,710,042	13,876,544
	Black	6,957,502	6,089,416	868,086	7,489,660	6,497,264	992,396	11,655,852	9,821,066	1,834,786
	American Indian	374,884	320,189	54,695	410,733	346,281	64,452	581,329	474,144	107,185
	Asian	2,088,182	1,841,899	246,283	2,230,005	1,947,359	282,646	2,990,001	2,559,573	430,428
Race	Pacific Islander	53,526	47,145	6,381	58,212	50,685	7,527	98,082	82,969	15,113
	Some Other Race	2,134,514	1,882,791	251,723	2,299,593	2,008,452	291,141	3,633,698	3,062,909	570,789
	Two or More Races	1,069,232	932,578	136,654	1,158,384	999,405	158,979	1,852,583	1,542,739	309,844
Hispanic	Non- Hispanic	69,471,052	59,326,593	10,144,459	73,424,343	62,102,852	11,321,491	92,579,175	76,764,621	15,814,554
Origin	Hispanic	5,691,968	5,031,375	660,593	6,105,757	5,347,411	758,346	8,818,956	7,488,821	1,330,135

Appendix H: Return Rate Numerators and Denominators

		Numerator-April 18, 2000			Numerato	or-December 3	31, 2000	Denominator		
			For	т Туре	_	Form Type			Form	Туре
		Total	Short	Long	Total	Short	Long	Total	Short	Long
Persons in	One	18,791,240	15,965,688	2,825,552	19,736,350	16,667,451	3,068,899	26,018,857	21,603,776	4,415,081
	Two	25,906,605	22,002,767	3,903,838	27,187,194	22,896,705	4,290,489	33,049,202	27,376,227	5,672,975
	Three	12,302,950	10,610,456	1,692,494	13,078,855	11,152,377	1,926,478	16,841,435	14,024,427	2,817,008
	Four	10,611,952	9,180,783	1,431,169	11,331,806	9,675,593	1,656,213	14,483,173	12,051,537	2,431,636
Household	Five	4,643,877	4,037,291	606,586	5,009,796	4,291,801	717,995	6,690,918	5,561,782	1,129,136
	Six	1,753,865	1,531,429	222,436	1,908,794	1,641,494	267,300	2,542,021	2,125,039	416,982
	Seven or More	1,152,531	1,029,554	122,977	1,277,305	1,124,842	152,463	1,772,525	1,510,654	261,871
T.	Owner- occupied	54,122,900	46,076,173	8,046,727	57,083,001	48,107,526	8,975,475	67,339,153	55,642,867	11,696,286
Tenute	Renter- occupied	21,040,120	18,281,795	2,758,325	22,447,099	19,342,737	3,104,362	34,058,978	28,610,575	5,448,403

Appendix H: Return Rate Numerators and Denominators

Note: National totals do not include Puerto Rico.