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2010 CENSUS PLANNING MEMORANDA SERIES

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MEMORANDUM FOR The Distribution List

From: Arnold Jackson *[signed]*
 Acting Chief, Decennial Management Division

Subject: 2010 Census Mail Response/Return Rates Assessment Report

Attached is the 2010 Census Mail Response/Return Rates Assessment Report. The Quality Process for the 2010 Census Test Evaluations, Experiments, and Assessments was applied to the methodology development and review process. The report is sound and appropriate for completeness and accuracy.

If you have any questions about this document, please contact Earl Letourneau at (301) 763-9287.

Attachment

Mail Response/Return Rates Assessment

U.S. Census Bureau standards and quality process procedures were applied throughout the creation of this report.

FINAL REPORT

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Executive Summary

The objective of the 2010 Census Mail Response/Return Rates Assessment is to assess respondent behavior while implementing a mailing strategy with a replacement mailing. All questionnaires arriving at one of three processing centers (Baltimore, Maryland; Jeffersonville, Indiana; or Phoenix, Arizona) were assigned a date according to when they went through check-in processing. At the peak response times, these dates may not reflect when the questionnaire arrived at a processing center. The Decennial Response Integration System was contractually required to check-in mail returns within 48 hours of receipt (Smith and Osborne, 2011).

The mail response rate is defined as the number of unduplicated nonblank mail returns divided by the number of housing units in the mailback (Mailout/Mailback, Update/Leave, Urban Update/Leave) universe. The mail return rate is defined as the number of unduplicated nonblank mail returns divided by the number of housing units in the mailback universe that were not deleted, identified as vacant, or had an address identified as undeliverable as addressed.

This assessment will evaluate the impact of the mailing strategy on mail response and mail return rates. These rates will be analyzed at the national (without Puerto Rico), state, county, form type (English-only and Bilingual), type of enumeration area, and replacement mailing stratum levels. Mail return rates will also be analyzed by age of householder, race of householder, ethnicity of householder, tenure, and size of household.

Research Question #1: What were the mail response and mail return rates for the nation in the 2010 Census by type of enumeration area and form type (English-only and Bilingual) when the Nonresponse Followup universe was determined?

To answer Research Question #1, we looked at the national mail response and mail return rates by type of enumeration area and form type when the Nonresponse Followup universe was determined on April 19, 2010. The mail response rates reflect the percentage of housing units that returned their questionnaire in time to avoid the necessity of enumeration in Nonresponse Followup. The mail return rates reflect the percentage of occupied housing units that returned their questionnaire in time to avoid enumeration in Nonresponse Followup.

Overall, as of April 19, 2010, the national mail response rate was 63.5 percent and the national mail return rate was 75.8 percent. Looking at the mail response and mail return rates by type of enumeration area shows that a higher proportion of households in Mailout/Mailback (64.4 percent and 76.0 percent, respectively) areas returned a form than households in Update/Leave (54.2 percent and 74.4 percent) and Urban Update/Leave (49.2 percent and 66.8 percent) areas.

Research Question #2: What were the final mail response and mail return rates for the nation in the 2010 Census by type of enumeration area and form type (English-only and Bilingual)?

To answer Research Question #2, we looked at the national mail response and mail return rates by type of enumeration area and form type at the end of questionnaire processing on September 7. The number of households in mailback areas that returned their questionnaire after

April 19, 2010 was 3,935,728, increasing the national mail response rate from 63.5 percent to 66.5 percent and the national mail return rate from 75.8 percent to 79.3 percent.

Most of the patterns in mail response and mail return rates as of September 7, 2010 are similar to those as of April 19, 2010, though the rates for all groups are higher. Looking at the final mail response and final mail return rates by type of enumeration area shows that a higher proportion of households in Mailout/Mailback (67.5 percent and 79.6 percent, respectively) areas returned a form than households in Update/Leave (56.2 percent and 76.8 percent) and Urban Update/Leave (51.4 percent and 69.6 percent) areas.

Research Question #3: What were the differences between the mail response and mail return rates during the 2010 Census?

To answer Research Question #3, we compared mail response and mail return rates by form type, type of enumeration area, and a combination of form type and type of enumeration area. Mail response rates measure the percentage of Nonresponse Followup eligible housing unit workload providing a mail return while the mail return rate measures the percentage of occupied housing unit providing a mail return. Although it is a more useful rate for determining Nonresponse Followup workloads, it is not as good as the mail return rate for measuring respondent cooperation. The mail response rate denominator (130,047,668 housing units) is larger than the mail return rate denominator (108,879,340 housing units) because the mail response rate denominator includes vacant housing units, Undeliverable as Addressed, and addresses deleted in the Update/Leave and Urban Update/Leave delivery.

As of the Nonresponse Followup cut on April 19, 2010, the national mail response rate (63.5 percent) was 12.3 percentage points lower than the national mail return rate (75.8 percent). The difference between the two rates was greater for areas that received English-only (12.5 percentage points) forms than areas that received Bilingual (10.3 percentage points) forms and even greater for Update/Leave (20.2 percentage points) and Urban Update/Leave (17.6 percentage points) areas than for Mailout/Mailback (11.6 percentage points) areas.

From April 19, 2010 to September 7, 2010, an additional 3,935,728 valid mail returns were checked in. The final mail response rate (66.5 percent) was 12.8 percentage points lower than the final mail return rate (79.3 percent), which is a slight increase in the difference between these two rates on April 19, 2010. The difference between the two rates was greater for areas that received English-only (13.0 percentage points) forms than for areas that received Bilingual (10.9 percentage points) forms and even greater for Update/Leave (20.6 percentage points) and Urban Update/Leave (18.2 percentage points) areas than in Mailout/Mailback (12.1 percentage points) areas.

Research Question #4: What impact did the replacement questionnaire have on the mail response and mail return rate by stratum?

To answer Research Question #4, we looked at mail response and mail return rates for the initial and replacement questionnaire by replacement mailing stratum. When making comparisons between Census 2000 and the 2010 Census, it is important to note that there was no replacement mailing in Census 2000. The patterns for the initial questionnaire final mail response rates by

replacement mailing stratum were similar to what we saw in those areas during Census 2000, with the blanket replacement mailing stratum being the lowest (48.6 percent) while the no replacement mailing stratum was the highest (69.6 percent). After adding in responses to the replacement questionnaire, the final mail response rates still have the same pattern with the blanket replacement stratum being the lowest (56.4 percent) while the no replacement mailing stratum was still the highest (69.6 percent).

The initial questionnaire final mail return rates were also similar to the pattern we saw in Census 2000, with the blanket replacement mailing stratum being the lowest (64.6 percent) while the no replacement mail stratum was the highest (80.1 percent). Including responses from the replacement questionnaire shows the blanket replacement mailing stratum was still the lowest (74.9 percent) while the target replacement mailing stratum (80.5 percent) and the no replacement mailing stratum (80.1 percent) were about the same.

Research Question #5: What were the mail return rates by age of householder, race of householder, Hispanic origin of householder, tenure, and size of household?

To answer Research Question #5, we looked at mail return rates based on demographic characteristics (age, race, and Hispanic origin) of the householder as well as the tenure and size of the household. The householder is defined as the household member in whose name the housing unit was owned or rented on Census Day (April 1, 2010) and is usually the person who filled out the questionnaire. By definition, there is exactly one householder for every occupied housing unit.

The likelihood of responding to the census increased with householder's age. Householders older than age 64 had the highest final mail return rate (90.0 percent) and those few householders younger than 18 had an extremely low final mail return rate (30.4 percent).

Whites had a higher final mail return rate (82.5 percent) than the national final mail return rate (79.3 percent), while all other race groups had lower final mail return rates than the national final mail return rate. The lowest final mail return rates were those of Some Other Race (56.2 percent) and Native Hawaiian and Other Pacific Islander (59.7 percent) householders.

Non-Hispanic householders had a final mail return rate of 80.5 percent, 10.8 percentage points higher than the final mail return rate of 69.7 percent for Hispanic householders. Hispanic householders responded to a higher proportion of replacement questionnaires (4.4 percentage points) than Non-Hispanic householders (3.3 percentage points).

Owner-occupied housing units had a final mail return rate of 85.8 percent, 18.9 percentage points higher than the Renter-occupied housing unit mail return rate of 66.9 percent. Renter-occupied housing units responded to a higher proportion of replacement questionnaires (5.2 percentage points) than Owner-occupied housing units (2.5 percentage points).

Households consisting of two persons had the largest proportion of residents who responded to the census. Following two-person households in respondent cooperation are three-person, four-person, and one-person households, respectively. Households of five persons or more have increasingly lower final mail return rates as household size increases.

Research Question #6: What was the undeliverable as addressed rate in the 2010 Census?

To answer Research Question #6, we looked at the undeliverable as addressed rates by form type and replacement mailing stratum. Overall, the national undeliverable as addressed rate in the 2010 Census was 11.6 percent, with 0.5 percentage points of the total undeliverable as addressed addresses being processed after the NRFU cut.

While answering Research Question #4, we noted how the no replacement mailing stratum had the highest final mail response rate (69.6 percent) while the blanket replacement mailing stratum had the lowest (56.4 percent). Looking at the undeliverable as addressed rates shows the low responding blanket replacement mailing stratum had the highest undeliverable as addressed rate (19.0 percent) while the high responding no replacement mailing stratum had the lowest undeliverable as addressed rate (8.0 percent). Both the blanket replacement mailing stratum and the target replacement mailing stratum (13.3 percent) had a higher undeliverable as addressed rate than the national rate.

Research Question #7: How many addresses identified as undeliverable also provided a valid mail return?

To answer Research Question #7, we looked at addresses that had both provided a valid mail return and had a questionnaire processed as undeliverable as addressed. Housing units in this scenario were included in the numerators of the mail response and mail return rates but excluded from the numerator of the undeliverable as addressed rate.

Overall, a very small portion of all mail returns (0.4 percent) had an address that also had a questionnaire identified as undeliverable as addressed. Looking at the final mail return and undeliverable as addressed rates if there was no mail return associated with these addresses shows there would have been very small changes in the final national rates. The final undeliverable as addressed rate (11.6 percent) would be 0.3 percentage points higher while the final mail response rate (66.5 percent) would be 0.2 percentage points lower.

RECOMMENDATION

- Implement a full-scale replacement mailing. Although slightly less than half the country was eligible for the replacement mailing, it was effective in decreasing the gap between the highest responding areas and lower responding areas. Results from the experiment will provide additional information on the impact of the replacement mailing strategies in the various strata (Dusch and Hill, 2012).

1. Introduction

1.1 Scope

The objective of the 2010 Census Mail Response/Return Rates Assessment is to assess respondent behavior while implementing a mailing strategy with a replacement mailing. All questionnaires arriving at one of three processing centers (Baltimore, Maryland; Jeffersonville, Indiana; or Phoenix, Arizona) were assigned a date according to when they went through check-in processing. At the peak response times, these dates may not reflect when the questionnaire was actually received at a processing center. Decennial Response Integration System (DRIS) was contractually required to check-in mail returns within 48 hours of receipt (Smith and Osborne, 2011).

This assessment will analyze mail response and mail return rates at the national (without Puerto Rico), state, county, form type (English-only and Bilingual), type of enumeration area (TEA), and replacement mailing stratum levels. Mail return rates will be calculated by age of householder, race of householder, ethnicity of householder, tenure, and size of household.

1.2 Intended Audience

This assessment is intended for all program managers and staffs responsible for planning the 2020 Census. Results from this assessment will be used as input for modeling potential workloads in the 2020 Census.

2. Background

2.1 Census 2000

In Census 2000, the questionnaire Mailout/Mailback (MO/MB) 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 MO/MB areas. Update/Leave (U/L) areas were delineated as those areas thought to contain a sufficient rate of non-city style addresses as would make mail delivery of the questionnaires insufficient. Enumerators delivered addressed questionnaires to U/L housing units and made any necessary corrections or additions to census maps and address lists as they delivered the questionnaires.

The Urban Update/Leave (UU/L) operation targeted areas deemed unsuitable for MO/MB in spite of city-style addresses. Primarily, these are; 1) multi-unit buildings where the United States Postal Service (USPS) delivers the mail to a drop point instead of individual unit designations, and 2) urban communities that had city-style addresses but where many residents picked up their mail at a post office box. The UU/L operation relied on the local regions to identify areas based on their knowledge of whether the USPS could adequately deliver the census questionnaires. Operationally in UU/L areas, enumerators delivered the census questionnaires and updated their address registers and census maps concurrently. In

both delivery methodologies, the housing units were provided with first-class postage paid envelopes for returning their questionnaires.

Census 2000 included two types of questionnaires for mailback (MO/MB, U/L, and UU/L) areas:

- Short Form Questionnaire: 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 status, age, sex, race, Hispanic origin, and tenure) for up to six household members and the housing unit.
- Long Form Questionnaire: 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.

For Census 2000, the Census Bureau used a mail strategy consisting of multiple contacts in MO/MB areas. These contacts were:

- An advance notice letter to every address that alerted households that the census form would be sent to them soon.
- A questionnaire to every address.
- A postcard to every address that served as a reminder to those who had not yet mailed back their questionnaire and as a thank you to those who had.

This multiple mailing strategy used first-class postage for all pieces in MO/MB areas. Census 2000 was the first time the initial questionnaire package had a mandatory message on the outgoing envelope stating response was required by law. The mail response rate denominator included only housing units in mailback areas (Mailout/Mailback, Update/Leave, and Urban Update/Leave) that were not pre-identified as having inadequate addresses for mailout. The mail response rate numerator included housing units in the denominator that had a valid mail return 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 (CEFU) return (Stackhouse and Brady, 2003a).

The mail return rate denominator included occupied housing units in mailback areas that had addresses that were not identified as undeliverable by the USPS and the Census Bureau or were not deleted during the U/L or UU/L questionnaire deliveries. The mail return rate numerator included housing units in the denominator that had a valid mail return in the form of a paper mail return, an Internet return, a Be Counted form, a TQA return, or a CEFU return (Stackhouse and Brady, 2003b).

Results from Census 2000 show from when the Nonresponse Followup (NRFU) universe was identified to the end of operations, the mail response rate increased from 64.3 percent to 67.4 percent (3.1 percentage point increase) and the mail return rate increased from 74.1 percent to 78.4 percent (4.3 percentage point increase). One of the objectives heading

towards the 2010 Census was to identify the best strategy to increase self response, thus reducing the NRFU workload.

2.2 2003 National Census Test

The 2003 National Census Test (NCT) studied the impact of offering various self-response options, including new or additional contact strategies. One of the overall goals of the 2003 NCT was to identify the best strategy for increasing self response to the census, thus reducing the NRFU workload.

The contact strategy component of the 2003 NCT consisted of three experimental panels. These experimental panels were compared with a control panel to test the effects of a replacement questionnaire mailing, a telephone reminder call in place of a reminder postcard, and a due date on the envelope of the mailing package for the initial questionnaire.

The panels used to test the effects of the various contact strategies were:

- Control Panel: Included an advance letter, an initial questionnaire, a reminder postcard, and a replacement questionnaire to nonrespondents.
- Census 2000 Design Panel (CS1): Included an advance letter, an initial questionnaire, and a reminder postcard. It mimicked the Census 2000 mailing strategy (no replacement questionnaire package).
- Telephone Reminder Call Panel (CS2): Included an advance letter, an initial questionnaire, a reminder telephone call, and a replacement questionnaire to nonrespondents.
- Due Date on Initial Questionnaire's Envelope Panel (CS3): Included an advance letter, an initial questionnaire (with a due date on the mailing package envelope), a reminder postcard, and a replacement questionnaire to nonrespondents.

A cooperation rate was used to measure respondent behavior with regard to returning a questionnaire. It was defined as the number of returns divided by the number of housing units in the panel, less the number of addresses returned by the USPS as UAA for that panel. The denominator for the cooperation rate was the housing units in sample for each panel after removing housing units that were determined to be UAA. UAAs were defined on a housing unit basis as any unit having any mail piece (initial questionnaire, reminder postcard, or replacement questionnaire) returned by the USPS (Bouffard, Brady, and Stapleton, 2004).

The 2003 NCT compared the use of no replacement mailing to the use of a targeted replacement mailing. It was found that the use of a replacement mailing increased response by 10.3 percentage points (Bouffard et. al. 2004). This is consistent with other research that has shown an increase in response rate with the use of a replacement questionnaire (Edwards et. al. 2002).

2.3 2005 National Census Test

The 2005 NCT was a national mailout-only test that covered most regions of the U.S., not including Puerto Rico. The universe included all housing units in blocks defined in Census 2000 as MO/MB areas with direct postal mailing addresses (no P.O. Boxes). Residents of group quarters were not eligible for the test. Given that it was a mailout-only test (i.e., self-response only), there was no NRFU component. Unlike a typical decennial census, there were no enumerators to conduct telephone calls or personal visits to nonresponding households.

The 2005 NCT used multiple mailings to contact sampled housing units. These mailings included:

- An advance letter informing every household that they would soon receive a questionnaire.
- The initial questionnaire.
- The reminder postcard, which served as a reminder to those who had not yet mailed back their questionnaire and as a thank you to those who had.
- A replacement questionnaire sent to those housing units that had not responded as of a particular date.

Although the replacement questionnaire was found to increase response rates, there is the potential for decreased data quality when compared to the initial questionnaire (Leslie, 1997). The 2005 NCT experimented with several different methods when implementing the replacement mailing. These panels were:

- Control Panel – Provide a replacement questionnaire that looked identical to the initial questionnaire to nonresponding housing units.
- Address Imaging Panel – For the replacement mailing the mailing address and Census ID were pre-printed on a replacement questionnaire. This panel went a step further by sealing the outgoing envelope window using a clear substrate.
- Self Mailer Panel – Used an in-line production method that created the complete questionnaire-mailing package designed to reduce the production printing time relative to other methods.
- Internet Panel – Replacement mailing contained a letter with a uniform resource locator (URL) and Census Identification Number (ID) needed to access the Internet questionnaire.
- Messaging Panel – Replacement questionnaire included a flap titled “Reminder Mailing.” This flap also stated: “A census form was sent to your address about two weeks ago. If it was completed and returned, there is no need to return this one. If the original form was not sent back, either this one or the Internet version at www.census.gov/census2005 needs to be completed and returned.”
- Respondent-Friendly (RF) Questionnaire Design and Messaging Panel – This panel involved testing some design concepts on the paper questionnaires in an effort to improve the “respondent-friendliness” of the form.

A self-response rate was used as a measure of respondent behavior with regard to responding to the census test. The numerator was the number of housing units for which we received a nonblank, primary return. The denominator for the self-response rate was the number of housing units minus the number of housing units identified by the USPS as a UAA. A housing unit was defined as a UAA if the initial questionnaire and replacement questionnaire were identified as a UAA.

Results from the 2005 NCT show the Internet Panel (57.5 percent) had a lower self-response rate than the Control Panel (61.2 percent), which provided a questionnaire in the replacement mailing (Bentley and Tancreto, 2006).

2.4 2006 Census Test

The 2006 Census Test (CT) was conducted in two sites, Travis County, Texas and the Cheyenne River American Indian Reservation and Tribal Trust Lands in South Dakota. One of the objectives for this test was to implement an optimal mailing strategy consisting of multiple contacts including, if necessary, a replacement questionnaire. All questionnaires arriving at the National Processing Center were assigned a date according to when they went through check-in processing. The use of Hand Held Computers (HHC) in NRFU during the 2006 CT allowed the Census Bureau to use check-in data to remove cases from the NRFU universe while the operation was in the field. This was an improvement over the paper operation in Census 2000, where most late mail returns could not be removed from the universe. The MO/MB and NRFU components of the 2006 CT took place in the Travis County, Texas site only¹.

The multiple contacts of the optimal mailing strategy in MO/MB areas included:

- An advance notice letter alerting households that the census questionnaire will be sent to them soon.
- The initial questionnaire.
- The reminder postcard, which served as a reminder to those who had not yet mailed back their questionnaire and as a thank you to those who had.
- A replacement questionnaire sent to those housing units that had not responded as of the date the NRFU universe was determined.

Mail response rates were defined as the number of mail returns checked in divided by the total number of housing units in the MO/MB enumeration areas. All questionnaires arriving at National Processing Center (NPC) were assigned a date according to when they went through check-in processing. With the HHCs, the NRFU universe could be updated with questionnaires that were checked in. This removed cases from the NRFU universe. Such functionality was not possible in the paper environment of Census 2000 once NRFU went into the field.

¹ The Cheyenne River reservation was enumerated in an Update/Enumerate operation, where enumerators go door to door updating addresses, asking respondents the questions on the questionnaire, and filling in respondent answers. No questionnaires are left with these households.

Results from the 2006 CT show that although the initial mail response rates were low the replacement questionnaire increased self response by 8.8 percentage points (Letourneau, 2007).

2.5 2008 Census Dress Rehearsal

The 2008 Census Dress Rehearsal was held in two sites, one urban, and the other one a mix of urban and suburban. San Joaquin County, California was the urban site. South Central North Carolina was the urban/suburban/rural mix site. This area consisted of the city of Fayetteville and the nine surrounding counties (Chatham, Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Richmond, and Scotland).

Funding constraints and operational considerations caused a reduction in the 2008 Census Dress Rehearsal operations, but the 2008 Census Dress Rehearsal was the first opportunity to apply much of what had been learned from census tests conducted throughout the decade in preparation for the nation's once-a-decade census of population and housing. The 2008 Census Dress Rehearsal used four distinct mailing pieces:

- An advance notice letter alerting households that the census questionnaire will be sent to them soon.
- The initial questionnaire.
- A reminder postcard, which served as a reminder to those who had not yet mailed back their questionnaire and as a thank you to those who had.
- A replacement questionnaire sent to those units that had not responded.

The mail response rate denominator included all NRFU eligible housing units in mailback areas. For the 2008 Census Dress Rehearsal this included only MO/MB areas, as the Update/Leave delivery operation was removed from the 2008 Census Dress Rehearsal. The mail response rate numerator included all unduplicated nonblank mail responses from the initial questionnaire and replacement questionnaire.

Originally the plan was to calculate mail return rates as a way of measuring the level of cooperation while factoring out vacant and nonexistent units that could not submit returns. However, since NRFU and related operations such as the Vacant/Delete Check were no longer part of the 2008 Census Dress Rehearsal, mail return rates could not be calculated since we did not have a meaningful measure of housing unit status.

Results from the 2008 Census Dress Rehearsal show that the replacement questionnaire increased self response by 8.1 percentage points in San Joaquin County, California and 7.8 percentage points in South Central, North Carolina (Bentley, 2009).

2.6 2010 Census

The 2010 Census provided only short form questionnaires to all addresses in mailback areas, with the questionnaire MO/MB system being 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 MO/MB areas. U/L areas were delineated as those areas thought to contain a sufficient rate of non-city style addresses as would make mail delivery of the questionnaires insufficient. In U/L areas census enumerators delivered addressed questionnaires to housing units. U/L enumerators can make any necessary corrections or additions to census maps and address lists as they deliver the questionnaires. In both delivery methodologies, the housing units were provided with first-class postage paid envelopes for returning their questionnaires.

The 2010 Census used a mailing strategy consisting of multiple contacts. One change from the Census 2000 mailing strategy was the implementation of a replacement questionnaire. The multiple contacts in the 2010 Census included:

- An advance letter alerting households that the census questionnaire will be sent to them soon.
- The initial questionnaire.
- A direct mail postcard to select areas providing information to Asian and Russian speaking households on how to obtain assistance in completing their questionnaire.
- The reminder postcard, which served as a reminder to those who had not yet mailed back their questionnaire and as a thank you to those who had.
- An English-only replacement questionnaire distributed in one of three treatments:
 - Blanket replacement mailing – where all households within these areas receive a replacement questionnaire, regardless of whether or not they sent back their initial questionnaire.
 - Target replacement mailing – where households within these areas only receive a replacement questionnaire if their initial questionnaire has not been checked in by a predetermined date. Also, postal tracking data were used to identify UAAs that were not checked in yet so these addresses were not sent a questionnaire.
 - No replacement mailing – where none of the households within these areas receive a replacement questionnaire, regardless of whether or not they sent back their initial questionnaire.

This particular strategy for mailing the replacement questionnaire was designed in response to NRFU reverting back to a paper operation. The ability to identify late mail returns that could be removed from the NRFU workload in a clerical operation before the start of NRFU, rather than on a continual basis through automation, dictated the need to identify and deliver replacement questionnaires in an earlier timeframe. Moving forward with a full targeted replacement mailing would have resulted in labeling more replacement questionnaires. Not increasing the replacement mailing quantities with the accelerated schedule was an internal decision made by the Census Bureau. The new plan involved dividing the country into areas that would receive a blanketed replacement mailing (which could be labeled earlier because there was no need to wait for responses to determine the universe), areas that would receive a

targeted replacement mailing, and areas that would receive no replacement mailing. This revised replacement mailing strategy was presented and approved by the Census Integration Group (CIG) in early 2008 (Jackson, 2008).

Replacement questionnaire packages were pre-assembled, with 32 million allocated for the blanket replacement mailing and 15 million allocated for the target replacement mailing. These workloads were used to include possible printing errors when attempting to print addresses on the questionnaire packages. Response area cutoffs (low, medium, and high) were driven by replacement mailing workload estimates within the blanketed and targeted areas. The implementation of the replacement questionnaire was based on Census 2000 tract-level mail response rates. We assumed these Census 2000 rates would be highly correlated with what we could expect in the 2010 Census. Our goal was to minimize the respondent burden of sending a replacement questionnaire to a housing unit that had already responded. Thus, tracts with an expected low mail response rate received blanket replacement mailing and tracts with an expected high mail response rate received no replacement mailing. Finally, for tracts with an expected mail response rate in the middle, a targeted replacement mailing was provided to nonresponding housing units. Addresses identified as UAA were included in the blanketed replacement mailing, as these replacement mailing packages were addressed before these addresses were identified as undeliverable. Although mail returns had a higher priority, UAAs went through check-in processing as they were received which was a different procedure than Census 2000, when UAAs were put to the side and then processed all together at the end of check-in processing. The targeted replacement mailing did not include UAAs identified as undeliverable when the universe was determined. Housing unit counts based on the American Community Survey (ACS) and the anticipated MO/MB universe for the 2010 Census were used along with the Census 2000 mail response rates to determine the replacement questionnaire workloads.

Since Census 2000, geography/boundaries have changed in some areas of the country. After type of enumeration area (TEA) delineation was completed in February 2009, a crosswalk file was acquired from Geography Division (GEO) to assign tract-level Census 2000 mail response rates to 2010 Collection geography. Using the housing unit counts and mail response rates to determine the replacement questionnaire workload, preliminary files were created with the following cutoffs:

- Blanket replacement mailing – all housing units within tracts with a Census 2000 mail response rate of less than 59 percent.
- Target replacement mailing – all housing units within tracts with a Census 2000 mail response rate greater than or equal to 59 percent but less than 67 percent.
- No replacement mailing – all housing units within tracts with a Census 2000 mail response rate greater than or equal to 67 percent.

In late June 2009, a file of tracts originally identified to receive no replacement mailing was sent to the Regional Census Centers (RCC). The RCCs were asked to prioritize their recommendations of tracts they believed should be included in the targeted replacement mailing. The priorities were divided into three categories with '1' being the highest priority, '2' being the second highest priority, and '3' being the third highest priority. After receiving

these recommendations, the Decennial Statistical Studies Division (DSSD) estimated how many questionnaires would possibly be added to the target replacement mailing.

After compiling these estimates, DSSD met with staff from the Decennial Management Division (DMD), Field Division (FLD), and the Decennial Systems and Processing Office (DSPO) to discuss which tracts would be added to the targeted replacement mailing. After examining these results and considering the potential for low mail response rates in 2010, the decision was made to add all RCC priority '1' tracts, as well as the priority '2' tracts from the Seattle and Kansas City RCCs. Files for identifying the blanket and target replacement mailing areas were delivered to DSPO on July 21, 2009 through Product Services.

3. Methodology

3.1 Research Questions

The objective of the Mail Response/Return Rates Assessment was to answer the following research questions:

- What were the mail response and mail return rates for the nation in the 2010 Census by type of enumeration area and form type (English-only and Bilingual) when the Nonresponse Followup universe was determined?
- What were the final mail response and mail return rates for the nation in the 2010 Census by type of enumeration area and form type (English-only and Bilingual)?
- What were the differences between the mail response and mail return rates during the 2010 Census?
- What impact did the replacement questionnaire have on the mail response and mail return rates by stratum?
- What were the mail return rates by age of householder, race of householder, Hispanic origin of householder, tenure, and size of household?
- What was the Undeliverable as Addressed rate in the 2010 Census?
- How many addresses identified as Undeliverable as Addressed also provided a valid mail return?

3.2 DRIS Check-in Files

DRIS provided two files for analysis, one with all mail return check-ins and the other with all questionnaires checked in as a UAA. DRIS check-in of mail returns and UAAs started on February 26, 2010 and ended on September 7, 2010. Daily mail response, mail return, and UAA rates at the tract-level were calculated using the initial and replacement questionnaire check-in dates on these files. These files had the check-in dates of mail returns and UAAs for the initial and replacement questionnaires as well as a Census ID associated with each housing unit in mailback areas.

3.3 Decennial Response File

The Decennial Response File (DRF) contains the data capture of questionnaire data from the 2010 Census. We used this file to identify valid mail returns and by merging with the DRIS check-in data files in order for the calculation of mail response and mail return rates to include valid mail returns only.

3.4 Census Edited File

The Census Edited File (CEF) was used to calculate mail return rates by various demographic characteristics. The CEF contains housing unit data that identifies the age of householder, race of householder, Hispanic origin of householder, tenure, and size of household. Along with the DRF, the CEF was merged to the DRIS check-in data files to calculate mail return rates.

3.5 Universe Control and Management

The Universe Control and Management (UCM) Operations Table was used to identify housing units receiving the bilingual questionnaire, how all housing units were treated in the replacement mailing, and occupied housing units. These variables were used to examine mail response rates by replacement mailing stratum and the form type received in the initial questionnaire mailing. Along with the DRF and CEF, UCM was merged to the DRIS check-in data files to calculate mail response and mail return rates.

3.6 Final Tabulation Master Address File Extract

The Master Address File (MAF) provided Collection and Tabulation geography at the state, county, tract and block levels for all addresses in the 2010 Census. This file also includes Census 2000 Tabulation geography at the state, county, tract, and block levels as well as the source operation for how a record was added to the MAF. Along with the DRF, CEF, and UCM, this MAF extract was merged to the DRIS check-in data files to calculate mail return rates.

3.7 Update/Leave Addup File

The Update/Leave Addup File contains the action codes for all housing units in scope for the Update/Leave and Urban Update/Leave delivery operations during the 2010 Census. This file was used to identify potential housing units that were identified as deletes during these delivery operations. Any address identified as a delete was not eligible for the mail return rate denominator.

3.8 Unmailables File

While compiling the mailing list of addresses in mailback areas, the Decennial Systems and Contract Management Office (DSCMO) identified addresses that did not have enough address information in order to be successfully delivered. These addresses were identified as unmailable and sent directly to the NRFU universe. DSCMO provided Decennial Statistical Studies Division (DSSD) a file of the MAFIDs associated with these unmailable addresses. These addresses were not included in the calculations of the mail response, mail return, and UAA rates.

3.9 Calculation of Rates

3.9.1 Mail Response Rate

The mail response rate denominator includes only housing units in mailback areas (Mailout/Mailback, Update/Leave, and Urban Update/Leave) that were not pre-identified as having inadequate addresses for mailout (UNMAIL = 0). Addresses added during the U/L and UU/L questionnaire deliveries were also included in the mail response rate denominator. The mail response rate numerator includes housing units in the denominator that had a valid mail return in the form of a paper mail return (initial or replacement questionnaire), a Be Counted form, or a Telephone Questionnaire Assistance (TQA) return (fulfillment form or interview). Daily and cumulative mail response rates were calculated at the national (without Puerto Rico), state, county, tract, LCO, form type, TEA, direct mail postcard (which provided information regarding how to obtain assistance with completing the 2010 Census form to Asian and Russian-speaking households), and replacement mailing stratum levels using the following formula:

$$\text{Mail Response Rate} = \frac{\text{Unduplicated nonblank mail returns}}{\text{Mailback Universe}} * 100$$

3.9.2 Mail Return Rate²

The mail return rate denominator includes occupied housing units in mailback areas that had addresses that were not checked in as a UAA by DRIS (MAILD_UAA is blank) and were not vacant or deleted in the census during either the U/L and UU/L questionnaire deliveries (ACTION not equal to 'D'). Addresses added during the U/L and UU/L questionnaire deliveries were also included in the mail return rate denominator. The mail return rate numerator includes housing units in the denominator that had a valid mail return (MAILD is not blank) in the form of a paper mail return (initial or replacement questionnaire), a Be Counted form, or a TQA return (fulfillment form or interview). Daily and cumulative mail return rates were calculated at the national (without Puerto Rico), state, county, tract, LCO, form type, TEA, direct mail postcard, replacement mailing stratum levels and for demographic characteristics such as age of householder, race of householder, ethnicity of householder, tenure, and size of household using the following formula:

$$\text{Mail Return Rate}^3 = \frac{\text{Unduplicated nonblank mail returns}}{\text{Mailback Universe} - (\text{Deletes} + \text{Vacants} + \text{UAAs})} * 100$$

3.9.3 Undeliverable As Addressed Rate⁴

The UAA rate denominator includes only housing units in mailback areas (TEA = '1' or '6') that were not pre-identified as having inadequate addresses for mailout (UNMAIL = 0). The UAA rate numerator includes housing units in the denominator that have a questionnaire (initial or replacement) checked in as a UAA during the 2010 Census (MAILD_UAA is not blank). Daily and cumulative UAA rates were calculated at the national (with and without Puerto Rico), state, county, tract, LCO, form type, TEA, direct mail postcard, and replacement mailing stratum levels using the following formula:

$$\text{UAA Rate} = \frac{\text{Unduplicated addresses identified as UAAs}}{\text{Mailout/Mailback Universe}} * 100$$

² Participation rates were calculated during the 2010 Census as part of the Take 10 program, and were used to serve as a "real-time" approximation of mail return rates.

³ The denominator for mail return rates in this report is different than the return rate reported in the 2010 Census Bilingual Questionnaire Assessment, which bases occupied housing units according to final occupancy status (FINAL_STATUS) on the Census Unedited File (Rothhaas, Bentley, Hill, and Lestina, 2011).

⁴ Replacement questionnaires were counted as a UAA if the address also had an initial questionnaire identified as a UAA and the replacement questionnaire had the earliest check-in date.

3.9.4 Check-in of Multiple Questionnaires from a Housing Unit

Some participants in the 2010 Census had an opportunity to provide more than one nonblank mail return. To provide an accurate portrayal regarding public cooperation in the 2010 Census, only the first nonblank questionnaire for a given address going through check-in was used when calculating the mail response and mail return rates. For example, if the initial questionnaire (SORT_KEY not equal to '112') comes back blank but the replacement questionnaire (SORT_KEY = '112') comes back completed, we would count the replacement questionnaire when calculating the rates.

If the initial questionnaire and replacement questionnaire were sent back as a UAA, we only counted the questionnaire that was checked in first, which in most instances should have been the initial questionnaire. For addresses that provide a nonblank mail return and have a questionnaire sent back as UAA, the mail return was included in the calculations for the mail response and mail return rates. The UAA was excluded from the UAA rate calculation.

4. Limitations

- Census 2000 did not have a replacement mailing, and should be noted when comparing rates from Census 2000 to the 2010 Census.
- Treatment in the replacement mailing was based on Census 2000 tract-level mail response rates and input from RCCs, which may not accurately portray how these areas will participate in the 2010 Census.
- Timing of mailed responses may not accurately reflect respondent behavior on a daily basis.
- Increased publicity in some areas may have had an impact on the rates.
- The Bilingual questionnaire was distributed to specific demographic areas in lieu of the English-only initial questionnaires. Due to population differences between those who receive the Bilingual questionnaire and those who receive the English-only questionnaire during the initial mailing, we cannot draw any casual conclusions based on direct comparisons between the two questionnaires (Rothhaas, Bentley, Hill, and Lestina, 2011).

5. Results

The results presented in this assessment are for the fifty states and the District of Columbia. They do not include Puerto Rico. There were 130,047,668 housing units in mailback areas during the 2010 Census that were eligible for NRFU and either the United States Postal Service (USPS) or Census Bureau attempted to deliver questionnaires. This number is the national mail response rate denominator. Of this number, 12,094,074 housing units or 9.3 percent of the housing units in mailback areas received a Bilingual questionnaire. There were 108,879,340 housing units in the mail response rate denominator that were identified as being occupied. This number of occupied housing units is the national mail return rate denominator.

5.1 What were the mail response and mail return rates for the nation in the 2010 Census by type of enumeration area and form type (English-only and Bilingual) when the NRFU universe was determined?

During the 2010 Census, the cutoff for the NRFU universe was April 19, 2010. Table 1 shows the national mail response and mail return rates by form type based on mail returns checked in on or before April 19, 2010. Rates for these form types were also grouped by the three mailback TEAs – Mailout/Mailback (TEAs 1 and 6), Update/Leave (TEA 2), and Urban Update/Leave (TEA 7). The mail response rates reflect the percentage of housing units that returned their questionnaires in time to avoid the necessity of enumeration in NRFU. The mail return rates reflect the percentage of occupied housing units that returned their questionnaire in time to avoid being enumerated in NRFU.

Table 1: National Mail Response and Mail Return Rates as of April 19, 2010 by Form Type and Type of Enumeration Area for the Fifty States and the District of Columbia

Type of Enumeration Area	Total	Form Type*	
		English-only	Bilingual
Total			
Mail Response	63.5%	63.9%	59.6%
Mail Return	75.8%	76.4%	69.9%
Mailout/Mailback			
Mail Response	64.4%	64.9%	60.0%
Mail Return	76.0%	76.6%	70.1%
Update/Leave			
Mail Response	54.2%	54.4%	48.5%
Mail Return	74.4%	74.8%	63.9%
Urban Update/Leave			
Mail Response	49.2%	49.4%	46.4%
Mail Return	66.8%	67.2%	61.0%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

* The Bilingual questionnaire was distributed to specific demographic areas in lieu of the English-only initial questionnaires. Due to population differences between those who receive the Bilingual questionnaire and those who receive the English-only questionnaire during the initial mailing, we cannot draw any casual conclusions based on direct comparisons between the two questionnaires (Rothhaas, Bentley, Hill, and Lestina, 2011).

The differences in the mail response and mail return rates by form type varies by TEA, with housing units in U/L areas having the greatest differences and housing units in UU/L areas having the smallest differences. Looking at the overall mail response and mail return rates by type of enumeration area shows that a higher proportion of housing units in MO/MB (64.4 percent and 76.0 percent, respectively) areas returned a form than housing units in U/L (54.2 percent and 74.4 percent) areas and UU/L (49.2 percent and 66.8) areas. One possible explanation for this difference is that MO/MB areas have greater exposure to media advertising in the census than more sparsely populated U/L areas and inner-city UU/L areas.

5.2 What were the final mail response and mail return rates for the nation in the 2010 Census by type of enumeration area and form type (English-only and Bilingual)?

Table 2 shows the final national mail response and mail return rates by form type and TEA based on mail returns checked in on or before the end of check-in processing September 7, 2010. The number of housing units in mailback areas that returned their questionnaire after April 19, 2010 was 3,935,728, increasing the final mail response rate by 3.0 percentage points and the final mail return rate by 3.5 percentage points.

Table 2: Final National Mail Response and Mail Return Rates as of September 7, 2010 by Form Type and Type of Enumeration Area for the Fifty States and the District of Columbia

Type of Enumeration Area	Total	Form Type**	
		English-only	Bilingual
Total			
Mail Response	66.5%	66.8%	63.2%
Mail Return	79.3%	79.8%	74.0%
Mailout/Mailback			
Mail Response	67.5%	67.9%	63.7%
Mail Return	79.6%	80.2%	74.3%
Update/Leave			
Mail Response	56.2%	56.3%	51.1%
Mail Return	76.8%	77.1%	67.1%
Urban Update/Leave			
Mail Response	51.4%	51.5%	49.3%
Mail Return	69.6%	69.9%	64.7%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

** The Bilingual questionnaire was distributed to specific demographic areas in lieu of the English-only initial questionnaires. Due to population differences between those who receive the Bilingual questionnaire and those who receive the English-only questionnaire during the initial mailing, we cannot draw any casual conclusions based on direct comparisons between the two questionnaires (Rothhaas, Bentley, Hill, and Lestina, 2011).

Most of the patterns in mail response and mail return rates revealed in Table 2 are similar to those on Table 1, though the rates for all groups are higher. The MO/MB areas have the highest final mail response and mail return rates (67.5 percent and 79.6 percent, respectively) among TEAs, and UU/L areas have the lowest (51.4 percent and 69.6 percent). The differences in the final mail response and mail return rates by form type (3.6 percent and 5.8 percent, respectively) are slightly smaller than the differences as of April 19, 2010 (4.3 percent and 6.5 percent). This gap decline by form type in the final mail response and mail return rates was true for all TEAs. For the mail response rate numerators and denominators by TEA and form type as of the NRFU cut (April 19, 2010) and end of processing (September 7, 2010), see Appendix E.

5.3 What were the differences between the mail response rates and the mail return rates in the 2010 Census?

Mail response rates measure the percentage of NRFU-eligible housing unit workload providing a valid mail return. Although this is the more useful rate for determining the NRFU workloads, it is not as effective as the mail return rate for measuring respondent cooperation. The mail response rate denominator (130,047,668) is larger than the mail return rate denominator (108,879,340) because the mail response rate denominator includes vacant housing units, Undeliverable as Addressed (UAA) addresses, and addresses deleted in the U/L and UU/L delivery. The mail response rate numerator (82,553,963 housing units) is calculated similarly to the mail return rate numerator (82,481,708 housing units).

Comparing mail response and mail return rates shows the impact on our rate calculations when we use a denominator of every housing unit we attempted to deliver a form (mail response rate) as compared with a denominator of all housing units identified as occupied (mail return rate). Table 3 compares the mail response rates to the mail return rates in the 2010 Census by form type, TEA, and form type and TEA as of April 19, 2010.

Table 3: Differences in Mail Response and Mail Return Rates as of April 19, 2010 by Form Type and Type of Enumeration Area for the Fifty States and the District of Columbia

		Rates		Difference (Ret. - Resp.)
		Response	Return	
Total		63.5%	75.8%	12.3%
Form Type	English-only	63.9%	76.4%	12.5%
	Bilingual ⁵	59.6%	69.9%	10.3%
Type of Enumeration Area	Mailout/Mailback	64.4%	76.0%	11.6%
	Update/Leave	54.2%	74.4%	20.2%
	Urban Update/Leave	49.2%	66.8%	17.6%
Form Type and Type of Enumeration Area	English-only			
	Mailout/Mailback	64.9%	76.6%	11.8%
	Update/Leave	54.4%	74.8%	20.4%
	Urban Update/Leave	49.4%	67.2%	17.8%
	Bilingual			
	Mailout/Mailback	60.0%	70.1%	10.1%
	Update/Leave	48.5%	63.9%	15.4%
	Urban Update/Leave	46.4%	61.0%	14.6%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

⁵ The Bilingual questionnaire was distributed to specific demographic areas in lieu of the English-only initial questionnaires. Due to population differences between those who receive the Bilingual questionnaire and those who receive the English-only questionnaire during the initial mailing, we cannot draw any casual conclusions based on direct comparisons between the two questionnaires (Rothhaas, Bentley, Hill, and Lestina, 2011).

As of the NRFU cut on April 19, 2010 the national mail response rate (63.5 percent) was 12.3 percentage points lower than the national mail return rate (75.8 percent). The difference between the two rates was greater for housing units receiving English-only (12.5 percentage points) forms than Bilingual (10.3 percentage points) forms and even greater for U/L (20.2 percentage points) and UU/L (17.6 percentage points) areas than for MO/MB (11.6 percentage points) areas.

The final mail response and mail return rates include all mail returns through September 7, 2010. Both rates have the same denominator as the rates at the NRFU cut, but the mail response rate numerator increased by 3,935,728 mail returns and the mail return rate numerator increased by 3,849,535 mail returns. Table 4 compares the final mail response rate and final mail return rate by form type, TEA, and form type and TEA.

Table 4: Differences in Mail Response and Mail Return Rates as of September 7, 2010 by Form Type and Type of Enumeration Area for the Fifty States and the District of Columbia

		Rates		Difference (Ret. - Resp.)
		Response	Return	
Total		66.5%	79.3%	12.8%
Form Type	English	66.8%	79.8%	13.0%
	Bilingual ⁶	63.2%	74.0%	10.9%
Type of Enumeration Area	Mailout/Mailback	67.5%	79.6%	12.1%
	Update/Leave	56.2%	76.8%	20.6%
	Urban Update/Leave	51.4%	69.6%	18.2%
Form Type and Type of Enumeration Area	English			
	Mailout/Mailback	67.9%	80.2%	12.3%
	Update/Leave	56.3%	77.1%	20.8%
	Urban Update/Leave	51.5%	69.9%	18.4%
	Bilingual			
	Mailout/Mailback	63.7%	74.3%	10.6%
	Update/Leave	51.1%	67.1%	16.0%
	Urban Update/Leave	49.3%	64.7%	15.4%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

The final national mail response rate (66.5 percent) was 12.8 percentage points lower than the final national mail return rate (79.3 percent). This is a greater difference than the difference between the mail response and mail return rates as of the NRFU cut on April 19, 2010 (Table 3). The difference between the two rates was greater for housing units that received English-only (13.0 percentage points) questionnaires than Bilingual (10.9

⁶ The Bilingual questionnaire was distributed to specific demographic areas in lieu of the English-only initial questionnaires. Due to population differences between those who receive the Bilingual questionnaire and those who receive the English-only questionnaire during the initial mailing, we cannot draw any casual conclusions based on direct comparisons between the two questionnaires (Rothhaas, Bentley, Hill, and Lestina, 2011).

percentage points) questionnaires and even greater for U/L (20.6 percentage points) and UU/L (18.2 percentage points) areas than in MO/MB (12.1 percentage points) areas.

5.4 What impact did the replacement questionnaire have on the mail response and mail return rates by stratum?

Replacement questionnaires were used as part of the mailing strategy in some areas of the country in an attempt to further reduce the NRFU workload. All housing units in MO/MB areas were in one of three replacement mailing strata, assigned at the tract-level. The Blanket replacement mailing consisted of 19.0 percent (24,764,043 housing units) of the mail response rate universe. The Target replacement mailing consisted of 22.2 percent (28,811,157 housing units) of the mail response rate universe. The No replacement mailing consisted of 58.8 percent (76,472,468 housing units) of the mail response rate universe. Table 5 shows the impact of the replacement mailing on mail response and mail return rates as of April 19, 2010.

Table 5: National Mail Response and Mail Return Rates for Initial Questionnaires and Replacement Questionnaires as of April 19, 2010 by Replacement Mailing Stratum for the Fifty States and the District of Columbia

Replacement Mailing Stratum	Total	Initial Questionnaire	Replacement Questionnaire
Total			
Mail Response	63.5%	61.5%	2.0%
Mail Return	75.8%	73.4%	2.3%
Blanket			
Mail Response	53.6%	47.3%	6.3%
Mail Return	71.3%	62.9%	8.4%
Target			
Mail Response	62.4%	59.0%	3.4%
Mail Return	75.1%	71.0%	4.1%
None			
Mail Response	67.1%	67.1%	0.0%
Mail Return	77.2%	77.2%	0.0%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

The patterns in the mail response and mail return rates as of April 19, 2010 by replacement mailing stratum are similar to what we saw in those areas from Census 2000. When making comparisons between Census 2000 and the 2010 Census, it is important to note that there was no replacement mailing in Census 2000. The patterns for the initial questionnaire mail response rates by replacement mailing stratum were similar to what we saw in those areas during Census 2000, with the Blanket replacement mailing stratum being the lowest (47.3 percent) while the No replacement mailing stratum was the highest (67.1 percent). After adding in responses to the replacement questionnaire, the mail response rates still have the same pattern with the Blanket replacement stratum being the lowest (53.6 percent) while the No replacement mailing stratum was still the highest (67.1 percent).

The initial questionnaire final mail return rates were also similar to the pattern we saw in Census 2000, with the Blanket replacement mailing stratum being the lowest (62.9 percent) while the no replacement mail stratum was the highest (77.2 percent). Including responses from housing units receiving the replacement questionnaire shows the blanket replacement mailing stratum was still the lowest (71.3 percent) while the No replacement mailing stratum was still the highest (77.2 percent).

The gap between the initial questionnaire rates for the Blanket and No replacement mail areas was 19.8 percentage points for the mail response rate and 14.3 percentage points for the mail return rate. Adding in the replacement questionnaire rates shows that the overall gap between the Blanket and No replacement mailing areas was 13.5 percentage points for the mail response rate and 5.9 percentage points for the mail return rate.

The most interesting aspect of Table 5 is the differences in mail response and mail return rates between the target and no replacement mailing areas. The gap between the initial questionnaire rates was 8.1 percentage points for the mail response rate and 6.2 percentage points for the mail return rate. However, once you factor in replacement questionnaires, the gaps are much smaller for the mail response (4.7 percentage points) and mail return rates (2.1 percentage points).

Table 6 shows the final mail response and mail return rates for initial and replacement questionnaires as of September 7, 2010 by replacement mailing stratum. A comparison of Table 6 and Table 5 reveals how mail response and mail return rates for each of the strata has increased after April 19.

Table 6: Final National Mail Response and Mail Return Rates for Initial Questionnaires and Replacement Questionnaires as of September 7, 2010 by Replacement Mailing Stratum for the Fifty States and the District of Columbia

Replacement Mailing Stratum	Total	Initial Questionnaire	Replacement Questionnaire
Total			
Mail Response	66.5%	63.6%	2.9%
Mail Return	79.3%	75.9%	3.4%
Blanket			
Mail Response	56.4%	48.6%	7.8%
Mail Return	74.9%	64.6%	10.3%
Target			
Mail Response	66.9%	60.6%	6.3%
Mail Return	80.5%	72.9%	7.5%
None			
Mail Response	69.6%	69.6%	0.0%
Mail Return	80.1%	80.1%	0.0%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

The patterns for the initial questionnaire final mail response rates are the same as what was observed in Table 5, with the blanket replacement mailing stratum being the lowest (48.6

percent) while the no replacement mailing stratum was the highest (69.6 percent). After adding in responses from housing units to the replacement questionnaire, the final mail response rates still have the same pattern with the blanket replacement stratum being the lowest (56.4 percent) while the no replacement mailing stratum was still the highest (69.6 percent).

The initial questionnaire final mail return rates were also similar to the pattern we saw in Census 2000, with the blanket replacement mailing stratum being the lowest (64.6 percent) while the no replacement mail stratum was the highest (80.1 percent). Including responses from housing units to the replacement questionnaire shows the blanket replacement mailing stratum was still the lowest (74.9 percent) but the target replacement mailing stratum (80.5 percent) and the no replacement mailing stratum (80.1 percent) were about the same.

The patterns in the initial questionnaire mail response and mail return rates are the same as was observed in Table 5, with the blanket replacement mailing stratum having the lowest rates and the no replacement mailing stratum having the highest. Initial questionnaire rate (middle column of rates) increases after April 19, 2010 shows the no replacement mailing stratum had the largest increase in mail response (2.5 percentage points) and mail return rates (2.9 percentage points), while the blanket replacement mailing stratum had the smallest increase in mail response (1.3 percentage points) and mail return rates (1.7 percentage points). Adding in responses from housing units to the replacement questionnaire (first column of rates on the left) after April 19, 2010 shows that overall the no replacement mailing stratum had the smallest increase. The target replacement mailing stratum had the largest increase in mail response (4.5 percentage points) and mail return rates (5.4 percentage points), while the blanket replacement mailing stratum had the second highest increase in the mail response (2.8 percentage points) and mail return rates (3.6 percentage points).

In order to assess the replacement mailing strategy in the 2010 Census, and to have some gauge of what would have been the effect of using the replacement mailing in all areas, we assigned a small sample of approximately 30,000 housing units to receive one of the alternative replacement mail types instead. Selected housing units in one of the predefined areas (blanket, target, none) received one of the other two replacement strategies. For instance, some selected housing units in the blanket replacement areas were instead assigned to either the targeted replacement mailing or no replacement mailing. The results from this experiment will be documented in a forthcoming memorandum titled *‘Impact of the 2010 Census Replacement Mailing’* (Dusch and Hill, 2012).

For the mail response rate numerators and denominators by TEA, initial questionnaires, and replacement questionnaires as of the NRFU cut (April 19, 2010) and end of processing (September 7, 2010), see Appendix F. An illustration of the daily mail response (Figure 1) and daily mail return rates (Figure 2) for initial questionnaires and all questionnaires can be seen in Appendix G. Daily numerators and rates are located in Appendix H (mail response rates), Appendix I (mail return rates), Appendix J (mail response rate numerators), and Appendix K (mail return rate numerators).

5.5 What were the mail return rates by age of householder, race of householder, Hispanic origin of householder, tenure, and size of household?

The householder is defined as the household member in whose name the housing unit was owned or rented on Census Day (April 1, 2010) and is usually the person who filled out the questionnaire. By definition, there is exactly one householder for every occupied housing unit. This section shows mail return rates based on the demographic characteristics of the householder /household.

5.5.1 Age of householder

For the presentation of mail return rates, age of householder was divided into five categories. These age categories were 15 to 17 years old, 18 to 24 years, 25 to 44 years, 45 to 64 years, and 65 years and over. To be recognized in the census as the householder, a person must be at least 15 years of age. Table 7 shows the mail return rates as of April 19, 2010 for initial and replacement questionnaires by age of householder.

Table 7: Mail Return Rates as of April 19, 2010 by Age of Householder and Form Type for the Fifty States and the District of Columbia

Age in Years	Total	Initial Questionnaire	Replacement Questionnaire
Total	75.8%	73.4%	2.3%
15-17	27.4%	24.8%	2.6%
18-24	50.7%	46.8%	3.9%
25-44	66.2%	63.3%	3.0%
45-64	79.6%	77.5%	2.2%
65 or older	88.3%	86.9%	1.4%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Table 7 shows that the propensity to respond increases with age. The oldest householders had the highest mail return rate (88.3 percent) and the youngest group had an extremely low mail return rate (27.4 percent). Householders in the three age groups 25 years and older were more likely to provide a mail return than younger householders. Persons under 25 made up 4.4 percent of all householders and 3.1 percent of all mail returns. Conversely, persons over 65 were 22.1 percent of all householders and 25.1 percent of all mail returns.

The middle column shows the mail return rates for the initial questionnaires, which follow the same pattern as the mail return rates for each of the age categories, with older householders providing a higher proportion of mail returns. Adding in responses to the replacement questionnaires shows householders 18 to 24 years had the highest increase (3.9 percentage points) due to the replacement mailing while householders 65 and older had the smallest increase (1.4 percentage points).

Table 8 is similar to Table 7 but shows the final mail return rates as of September 7, 2010 by age of householder. The patterns seen in the table are similar to Table 7, with older age groups having higher mail return rates.

Table 8: Final Mail Return Rates as of September 7, 2010 by Age of Householder for the Fifty States and the District of Columbia

Age in Years	Total	Initial Questionnaire	Replacement Questionnaire
Total	79.3%	75.9%	3.4%
15-17	30.4%	26.5%	3.9%
18-24	55.4%	49.4%	5.9%
25-44	70.9%	66.4%	4.5%
45-64	83.1%	80.0%	3.1%
65 or older	90.0%	88.1%	1.9%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

When comparing mail return rates in Table 7 and Table 8, the increase in the total mail return rates (left column) after April 19, 2010 was greatest for the 18 to 24 year group (4.7 percentage points) and 25 to 44 year group (4.7 percentage points) while the smallest increase was for the 65 or older group (1.7 percentage points). Initial questionnaire mail return rate (middle column of rates) increases after April 19, 2010 show householders 25 to 44 years had the highest increase (3.1 percentage points) followed by householders 18 to 24 years (2.7 percentage points) while householders 65 years or older had the smallest increase (1.2 percentage points). Replacement questionnaire mail return rate (far right column) increases after April 19, 2010 show householders 18 to 24 years had the highest increase (2.0 percentage points) followed by householders 25 to 44 years (1.5 percentage points) while householders 65 years or older had the smallest increase (0.5 percentage points).

For the mail return rate numerators and denominators by TEA, replacement mailing stratum, and age of householder as of the NRFU cut (April 19, 2010) and end of processing (September 7, 2010), see Appendix L. Throughout the remainder of section 5.5, we will be discussing mail return rates based on race of householder, ethnicity of householder, tenure of household, and size of household. Numerators and denominators for the mail return rates of these various demographic groups as the NRFU cut (April 19, 2010) and end of processing (September 7, 2010) are located in Appendix L.

5.5.2 Race of householder

Participants in the 2010 Census had the opportunity to identify themselves as being in one or more race categories. The six categories for the householders who identified themselves as one race are White, Black, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and persons reporting some other race. The last category includes all householders who identified as being of more than one race. Table 9 shows the mail return rates as of April 19, 2010 for initial and replacement questionnaires by race of householder.

Table 9: Mail Return Rates as of April 19, 2010 by Race of Householder and Form Type for the Fifty States and the District of Columbia

Race	Total	Initial Questionnaire	Replacement Questionnaire
Total	75.8%	73.4%	2.3%
White	79.3%	77.4%	1.9%
Black	65.4%	60.8%	4.6%
American Indian and Alaska Native	65.0%	61.8%	3.3%
Asian	71.0%	68.3%	2.8%
Native Hawaiian and Other Pacific Islander	55.0%	51.7%	3.4%
Some Other Race	52.0%	49.1%	2.9%
Two or More Races	66.6%	63.2%	3.4%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

White householders have a higher mail return rate (79.3 percent) than the total mail return rate (75.8 percent). All of the other householder race groups have a lower mail return rate than the total mail return rate. Asian householders have the highest mail return rate (71.0 percent) after White householders. The lowest mail return rates are those of Some Other Race (52.0 percent) and Native Hawaiian and Other Pacific Islander (55.0 percent) householders.

The middle column shows the mail return rates for the initial questionnaires, which follow the same pattern as mail return rates for each of the race categories, with White householders providing the highest proportion of mail returns. Adding in responses to the replacement questionnaire (right column) show Black householders had the largest increase (4.6 percentage points) due to the replacement mailing while White householders had the smallest increase (1.9 percentage points).

White householders made up 77.0 percent (83,831,706) of all householders and 80.1 percent (69,165,983) of all mail returns. The remaining race groups were under-represented in mail returns. For example, Black householders made up 12.1 percent of all householders and 10.7 percent of mail returns, Asian householders made up 4.1 percent of all householders and 3.9 percent of all mail returns, and Some Other Race householders made up 4.2 percent of all householders and 3.0 percent of all mail returns.

Table 10 shows the final mail return rates as of September 7, 2010 by form type and race of householder. The patterns seen in the table are similar to Table 9, with White householders having the highest mail return rate and householders in the Some Other Race category having the lowest mail return rate.

Table 10: Final Mail Return Rates as of September 7, 2010 by Race of Householder and Form Type for the Fifty States and the District of Columbia

Race	Total	Initial Questionnaire	Replacement Questionnaire
Total	79.3%	75.9%	3.4%
White	82.5%	79.7%	2.8%
Black	70.0%	63.5%	6.5%
American Indian and Alaska Native	69.8%	65.0%	4.9%
Asian	75.4%	71.2%	4.1%
Native Hawaiian and Other Pacific Islander	59.7%	54.5%	5.1%
Some Other Race	56.2%	51.8%	4.4%
Two or More Races	71.7%	66.6%	5.1%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

White householders were the only group with a mail return rate higher than the total final mail return rate of 79.3 percent. However, the discrepancy between White householders and all other householders declined between April 19, 2010 and September 7, 2010 as race groups, other than white, returned a higher proportion of their questionnaires after the NRFU cut. Multi-Race householders showed the greatest increase (5.1 percentage points) in the mail return rate after April 19, 2010 while Whites had the smallest increase (3.2 percentage points).

Initial questionnaire mail return rate (middle column of rates) increases after April 19, 2010 show Multi-Race householders had the highest increase (3.4 percentage points) followed by American Indian householders (3.2 percentage points) while White householders had the smallest increase (2.4 percentage points). Replacement questionnaire mail return rate (far right column) increases after April 19, 2010 show Black householders had the highest increase (1.9 percentage points) due to the replacement mailing followed by Native Hawaiian and Other Pacific Islander householders (1.8 percentage points) while White householders had the smallest increase (0.9 percentage points).

5.5.3 Hispanic origin of householder

The goal of the 2010 Census Language Program was to provide information, assistance, and materials in languages other than English. The program intended to help improve coverage and achieve efficiencies by developing effective methods to meet the diverse language needs of the nation. As the inability to communicate well in English could be a barrier to enumeration, the Language Program attempted to lower this barrier by providing information, assistance, and materials in languages other than English.

During the 2010 Census, the Census Bureau was responsible for providing telephone support to callers who needed assistance in completing their questionnaires through a program called Telephone Questionnaire Assistance. The TQA operation provided two primary services to the general public: (1) provide general information and answers to questions about the 2010 Census and how to fill out the census questionnaires; and (2) take requests for Fulfillment questionnaires and Language Assistance Guides (LAG). The program provided support in the form of answers to frequently asked questions and context sensitive help, providing the ability to request census materials, and capturing census short form responses with the assistance of a telephone representative. Unique toll-free telephone numbers were available to provide support for the English, Spanish, Chinese, Korean, Vietnamese, and Russian languages, as well as for Puerto Rico (English and Spanish), the Census Program for Evaluations and Experiments (English and Spanish), and a Telephone Device for the Deaf.

The goal of the Bilingual questionnaire was to increase mail response and mail return rates in particular areas. Using data collected from the most recent American Community Survey (ACS) at the time of the determination, census tracts were designated according to their “Spanish Assistance” rates. This is the rate at which households have at least one person age 15 or older who speaks Spanish and does not speak English “very well”, according to the answer categories on the ACS questionnaire. In mailback areas, those tracts that had at least 20 percent “Spanish Assistance” rates were flagged to receive a bilingual questionnaire (Pennington, Bentley, and Letourneau, 2011). We did not mail the Bilingual questionnaire to all households in the census due to various issues with mailing a larger form. Hispanic householders made up 11.5 percent (12,558,138) of all householders and 10.1 percent (8,758,782) of all mail returns. Table 11 shows the mail return rates as of April 19, 2010 for initial and replacement questionnaires by Hispanic origin of the householder.

Table 11: Mail Return Rates as of April 19, 2010 by Hispanic Origin of Householder and Form Type for the Fifty States and the District of Columbia

Hispanic Origin	Total	Initial Questionnaire	Replacement Questionnaire
Total	75.8%	73.4%	2.3%
Non-Hispanic (NH)	77.1%	74.9%	2.3%
Hispanic (H)	65.2%	62.3%	2.9%
Difference (NH-H)	11.9%	12.5%	-0.6%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Non-Hispanic householders had a mail return rate of 77.1 percent, 11.9 percentage points higher than Hispanic householders mail return rate of 65.2 percent. The middle column shows the mail return rates for the initial questionnaire only, which follow the same pattern as the mail return rates for each of the ethnicity categories. Responses to the replacement questionnaire (far right column) shows Hispanic householders returned a higher proportion of replacement questionnaire mail returns than Non-Hispanic householders.

Table 12 shows the final mail return rates as of September 7, 2010 for initial and replacement questionnaires by ethnicity of householders. The patterns seen in the table are similar to Table 9 with Non-Hispanic householders having a highest mail return rate and a greater proportion of Hispanic householders responding to the replacement questionnaire.

Table 12: Final Mail Return Rates as of September 7, 2010 by Hispanic Origin of Householder and Form Type for the Fifty States and the District of Columbia

Hispanic Origin	Total	Initial Questionnaire	Replacement Questionnaire
Total	79.3%	75.9%	3.4%
Non-Hispanic (NH)	80.5%	77.2%	3.3%
Hispanic (H)	69.7%	65.4%	4.4%
Difference (NH-H)	10.8%	11.9%	-1.1%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Non-Hispanic householders had a final mail return rate of 80.5 percent, 10.8 percentage points higher than Hispanic householders final mail return rate of 69.7 percent. The increase from April 19, 2010 to September 7, 2010 was greater for Hispanic householders (4.5 percentage points) than for Non-Hispanic householders (3.4 percentage points), which results in a decline in the difference between the two ethnic groups from 11.9 to 10.8 percentage points.

Initial questionnaire mail return rate (middle column of rates) increases after April 19, 2010 show Hispanic householders had a higher increase (3.0 percentage points) than Non-Hispanic householders (2.4 percentage points). Replacement questionnaire mail return rate (far right column) increases after April 19, 2010 show Hispanic householders had a higher increase (1.5 percentage points) than Non-Hispanic householders (1.0 percentage points).

5.5.4 Tenure

Tenure was grouped into two categories, housing units owned by someone in the household (Owner-occupied) and housing units rented by a member of the household (Renter-occupied). Owner-occupied housing units were 65.7 percent (71,489,829) of all housing units in the return rate denominator and 71.0 percent (61,325,229) of all housing units with mail returns. Table 13 shows the mail return rates as of April 19, 2010 for initial and replacement questionnaires by tenure of the household.

Table 13: Mail Return Rates as of April 19, 2010 by Tenure and Form Type for the Fifty States and the District of Columbia

Tenure	Total	Initial Questionnaire	Replacement Questionnaire
Total	75.8%	73.4%	2.3%
Owner-occupied (O)	82.6%	80.9%	1.7%
Renter-occupied (R)	62.6%	59.1%	3.5%
Difference (O - R)	20.0%	21.8%	-1.8%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Owner-occupied housing units had a mail return rate 82.6 percent, 20.0 percentage points higher than the Renter-occupied housing unit mail return rate of 62.6 percent. The middle column shows the mail return rates for the initial questionnaire only, which follow the same pattern for each of the tenure categories. Responses to the replacement questionnaire only (far right column) shows Renter-occupied housing units provided a higher proportion of replacement questionnaire mail returns than Owner-occupied housing units.

Table 14 shows the final mail return rates as of September 7, 2010 for initial and replacement questionnaires by tenure of the household. The patterns seen in the table are similar to Table 13, with Owner-occupied housing units having the highest mail return rate and Renter-occupied housing units providing a higher proportion of mail returns to the replacement questionnaire.

Table 14: Final Mail Return Rates as of September 7, 2010 by Tenure and Form Type for the Fifty States and the District of Columbia

Tenure	Total	Initial Questionnaire	Replacement Questionnaire
Total	79.3%	75.9%	3.4%
Owner-occupied (O)	85.8%	83.3%	2.5%
Renter-occupied (R)	66.9%	61.7%	5.2%
Difference (O - R)	18.9%	21.6%	-2.7%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Owner-occupied housing units had a final mail return rate of 85.8 percent, 18.9 percentage points higher than the Renter-occupied housing unit mail return rate of 66.9 percent. The

increase from April 19, 2010 to September 7, 2010 was greater for Renter-occupied housing units (4.2 percentage points) than for Owner-occupied housing units (3.2 percentage points), resulting in a decline in the difference between the two tenure groups from 20.0 to 18.9 percentage points.

Initial questionnaire mail return rate (middle column of rates) increases after April 19, 2010 show Renter-occupied housing units had a slightly higher increase (2.6 percentage points) than Owner-occupied housing units (2.4 percentage points). Replacement questionnaire mail return rate (far right column) increases after April 19, 2010 show Renter-occupied housing units had a higher increase (1.6 percentage points) than Owner-occupied housing units (0.8 percentage points).

5.5.5 Size of household

Mail return rates were calculated for seven size of household categories. Households with one, two, three, four, five, or six people had their own category while households with seven or more people were in the last category. Households of two or fewer people consisted of 59.0 percent (64,249,539) of all households in the return rate denominator and 60.3 percent (52,049,386) of all mail returns. Table 15 shows the mail return rates as of April 19, 2010 for initial and replacement questionnaires by size of household.

Table 15: Mail Return Rates as of April 19, 2010 by Household Size and Form Type for the Fifty States and the District of Columbia

Persons in Housing Unit	Total	Initial Questionnaire	Replacement Questionnaire
Total	75.8%	73.4%	2.3%
One	74.1%	71.7%	2.4%
Two	81.0%	79.0%	2.0%
Three	74.5%	72.0%	2.5%
Four	73.5%	71.1%	2.4%
Five	69.6%	66.9%	2.7%
Six	68.6%	65.4%	3.1%
Seven or More	67.0%	63.4%	3.6%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Households consisting of two persons have a higher mail return rate (81.0 percent) than the total mail return rate (75.8 percent). Two-person households, who made up 32.7 percent (35,646,042) of all households in the mail return rate denominator and 35.0 percent (28,883,875) of all mail returns, were the only group that had a higher mail return rate than the total mail return rate. Following two-person households in respondent cooperation are three-person (74.5 percent), one-person (74.1 percent), and four-person (73.5 percent) households, respectively. Larger households of five people or more have increasingly lower mail return rates as household size increases. Households with seven or more people had the lowest mail return rate (67.0 percent). These large households comprised 2.0 percent (2,150,995) of all households and 1.7 percent (1,440,553) of all mail returns.

The middle column shows the mail return rates for the initial questionnaires, which follow the same pattern as the mail return rates for the size of household categories, with two person households providing the highest proportion of mail returns. Adding in responses to the replacement questionnaire (far right column) shows households with seven or more people had the largest increase (3.6 percentage points) due to the replacement mailing while two-person households had the smallest increase (2.0 percentage points).

Table 16 shows the final mail return rates as of September 7, 2010 for initial and replacement questionnaires by size of household. A comparison of Table 16 and Table 15 reveals how mail return rates for each household size category increased after April 19, 2010.

Table 16: Final Mail Return Rates as of September 7, 2010 by Household Size and Form Type for the Fifty States and the District of Columbia

Persons in Housing Unit	Total	Initial Questionnaire	Replacement Questionnaire
Total	79.3%	75.9%	3.4%
One	77.5%	73.9%	3.5%
Two	83.9%	81.0%	2.9%
Three	78.3%	74.7%	3.6%
Four	77.6%	74.1%	3.5%
Five	74.1%	70.2%	3.9%
Six	73.5%	68.9%	4.6%
Seven or More	72.2%	67.0%	5.2%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

The relationship between the groups is similar to that observed in Table 15, except that four-person households have a slightly higher final mail return rate than one-person households. The range for the final mail return rates was considerably lower than in mail return rates on April 19, 2010 with a 11.6 percentage point difference between the two-person (83.9 percent) and seven or more person (72.2 percent) rates. The differential among the household size groups declined because larger households returned a higher proportion of their questionnaires after April 19, 2010.

Seven or more person households had the greatest increase (5.3 percentage points) in the mail return rate after April 19, 2010 while two-person households had the smallest increase (2.8 percentage points). Initial questionnaire mail return rate (middle column of rates) increases after April 19, 2010 shows seven or more person households had the highest increase (3.7 percentage points) followed by six-person households (3.5 percentage points) while two person households had the smallest increase (2.0 percentage points). Replacement questionnaire mail return rate (far right column) increases after April 19, 2010; seven or more person households had the highest increase (1.6 percentage points) followed by six-person households (1.4 percentage points) while two-person households had the smallest increase (0.9 percentage points).

5.6 What was the Undeliverable as Addressed rate in the 2010 Census?

A UAA is defined by the United States Postal Service (USPS) as any questionnaire that could not be delivered to the address printed on the outgoing envelope containing the questionnaire. The UAA rate denominator consisted of the 119,648,117 housing units in the mail response rate denominator that were identified as being in MO/MB enumeration areas. As mentioned previously in Section 3.9.4, if an initial and replacement questionnaire were sent back as a UAA, we only counted the questionnaire that was checked in first, which in most instances was the initial questionnaire. For addresses that provided a nonblank mail return and have a form back sent back as UAA, the UAA was excluded from the UAA rate calculations. Table 17 shows the UAA rates as of April 19, 2010 by replacement mailing stratum.

Table 17: National Undeliverable As Addressed Rates as of April 19, 2010 and September 7, 2010 by Replacement Mailing Stratum

Replacement Mailing Stratum	NRFU Cut (April 19)	Final (September 7)	Increase after NRFU Cut
Total	11.1%	11.6%	0.5%
Blanket	18.3%	19.0%	0.7%
Target	12.4%	13.3%	0.9%
None	7.8%	8.0%	0.2%

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Looking at the MO/MB universe as of April 19, 2010 shows that 11.1 percent (13,266,550) of all questionnaires were identified as UAA. UAA rates as of April 19, 2010 by replacement mailing stratum shows the low responding areas have the highest UAA rate (18.3 percent) while the high responding areas have the lowest UAA rate (7.8 percent). Both the blanket and target replacement mailing strata had a higher UAA rate than the national UAA rate (11.1 percent).

Between April 19, 2010 and September 7, 2010, an additional 580,912 (0.5 percentage points) UAAs were processed, increasing the national UAA rate to 11.6 percent. According to the USPS, the process of identifying UAAs was a time consuming multi-step process, meaning receiving some UAAs after the NRFU cut should be considered normal (Smith and Osborne, 2011).

The patterns in UAA rates as of September 7, 2010 are similar to the UAA rates as of April 19, 2010, with the low responding blanket replacement mailing stratum having the highest UAA rate and the high responding no replacement mailing stratum having the lowest UAA rate. The increases in the UAA rates after April 19, 2010 was highest in the target replacement mailing stratum (0.9 percentage points), followed by the blanket replacement mailing stratum (0.7 percentage points) and the no replacement mailing stratum (0.2 percentage points).

For the UAA rate numerators and denominators by replacement mailing stratum and form type as of the NRFU cut (April 19, 2010) and end of processing (September 7, 2010), see Appendix M. To see an illustration of the daily UAA rates (Figure 3) for initial questionnaires and all questionnaires, see Appendix N. See Appendix O for the daily UAA rates and Appendix P for the daily UAA rate numerators.

5.7 How many addresses identified as Undeliverable as Addressed also provided a valid mail return?

The mailing of a second questionnaire in the 2010 Census made it possible for a housing unit to have a questionnaire identified as UAA, but also receive a questionnaire and provide a valid mail return. For housing units in this scenario, the mail return was included in the numerator of the mail response and mail return rates but excluded from numerator of the UAA rate. For households either providing a mail return for both the initial and replacement questionnaire or a UAA for both the initial and replacement questionnaire, the earliest check-in date was used when calculating the mail response and UAA rates. Table 18 shows the number of addresses that had a questionnaire identified as a UAA and provided a valid mail return.

Table 18: Number of Addresses with Both a Valid Mail Return and a Form Identified as Undeliverable As Addressed

Mail Returns Form Type	Number	Percent of Check-ins	
		UAAs	Mail Returns
Total	306,744	2.2	0.4
Initial Questionnaire	206,184	1.5	0.2
Replacement Questionnaire	100,560	0.7	0.1

Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Overall, a very small portion of all mail returns (0.4 percent) had an address that also had a questionnaire identified as a UAA. Looking at the final mail response and UAA rates if there was no mail return associated with these addresses shows there would have been very small changes in the final national rates, with the final UAA rate (11.6 percent) being 0.3 percentage points higher while the final mail response rate (66.5 percent) would be 0.2 percentage points lower.

6. Related Evaluations, Experiments, and/or Assessments

- 2010 Census Update/Leave Assessment
- 2010 Census Nonresponse Followup Operations Assessment
- 2010 Census Bilingual Questionnaire Assessment
- Integrated Communications Program Assessment: Mail Response Rates/Take 10 Program
- DRIS Paper Questionnaire Data Capture
- The Paid Advertising Heavy Up Experiment

7. Conclusions and Recommendations

7.1 Conclusions

- The final mail response rate was approximately 67 percent, with approximately 3 percentage points coming from the replacement questionnaire.
- The final mail return rate was approximately 79 percent, with slightly more than 3 percentage points coming from the replacement questionnaire.
- Mail response rates in the 2010 Census, which included a replacement mailing in some areas, followed a similar pattern to mail response rates from Census 2000, which did not have a replacement mailing. The lower responding Blanket replacement mailing stratum had a final mail response rate of slightly more than 56 percent, the middle responding Target replacement mailing stratum had a final mail response rate of approximately 67 percent, and the high responding No replacement mailing stratum had a final mail response rate of approximately 70 percent.
- The comparison of mail response and mail return rates shows the largest differences between the two was approximately 21 percentage points for housing units that received English-only forms in U/L areas while the smallest difference was approximately 11 percentage points for housing units that received Bilingual forms in MO/MB areas.
- Householders were more likely to participate as the age of householder increased, with the 65 years and older category having the highest final mail return of 90 percent while the age 15 to 17 years category had a final mail return rate slightly higher than 30 percent, which was the lowest.
- Householders identifying their race as White were the most likely to participate, having a final mail return rate of approximately 83 percent. Householders in the Some Other Race category were the least likely to respond, with a final mail return rate of approximately 56 percent.
- Non-Hispanic householders, with a final mail return rate of about 81 percent, were more likely to participate than Hispanic householders who had a final mail return rate of approximately 70 percent.
- Residents in Owner-occupied housing units had a final mail return rate of approximately 86 percent, and were more likely to participate in the census than residents in Renter-occupied housing units, who had a final mail return rate of approximately 67 percent.
- Smaller households had higher final mail return rates, with the highest being approximately 84 percent of two-person households providing a mail response. Households of seven or more had the lowest mail return rate, with a final rate slightly above 72 percent.
- Addresses identified as UAA were highest in the lower responding Blanket replacement stratum, with 19 percent of all MO/MB addresses being identified as UAA. The No replacement mailing stratum, which had the highest proportion of responses, had the lowest UAA rate of 8 percent.
- Less than 1 percent of all addresses in the mail response rate universe had a valid mail return and a questionnaire identified as UAA.

7.2 Recommendation

- Implement a full-scale replacement mailing. Although slightly less than half the country was eligible for the replacement mailing, it was effective in decreasing the gap between the highest responding areas and lower responding areas. Results from the experiment will provide additional information on the impact of the replacement mailing strategies in the various strata (Dusch and Hill, 2012).

8. Acknowledgements

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9. References

Bentley, Michael and Jennifer Tancreto (2006), “2005 National Census Test Self Response Options Analysis”, U.S. Census Bureau, December 8, 2006

Bentley, Michael (2009), “2008 Census Dress Rehearsal Mail Response Rates Assessment Report”, U.S. Census Bureau, August 24, 2009

Bouffard, Julie, Sarah Brady, and Courtney Stapleton (2004), “2003 National Census Test: Contact Strategy Analysis”, U.S. Census Bureau, September 29, 2004

Dusch, Gianna and Joan M. Hill (expected, 2012), “Impact of the 2010 Census Replacement Mailing”, U.S. Census Bureau, DSSD 2010 Decennial Census Memorandum Series, #O-A-46, *Forthcoming Report*.

Edwards, Phil, Ian Roberts, Mike Clarke, Carolyn DiGuseppi, Saraj Pratap, and Reinhard Wentz, (2002) “Increasing response rates to postal questionnaires: systematic review” *British Medical Journal* 324:1-9

Jackson, Arnold (2008), “Summary of Plan for Conducting the 2010 Census Paper Nonresponse Followup Operation”, U.S. Census Bureau, May 8, 2008

Leslie, T.F., “What Do We Really Gain from Using Replacement Questionnaires,” *Proceedings of the Section on Survey Research Methods of the American Statistical Association*, Joint Statistical Meetings, Anaheim, CA

Letourneau, Earl (2007), “2006 Census Test Self Response Options Operational Synthesis”, U.S. Census Bureau, September 27, 2007

Letourneau, Earl and Kevin Zajac (2008), “Specification to Identify Replacement Mailing Housing Units in the 2010 Census”, U.S. Census Bureau, December 2, 2008

Letourneau, Earl (2010), Mail Response Rates/Return Rates Assessment Study Plan for the 2010 Census, U.S. Census Bureau, DSSD 2010 Decennial Census Memorandum Series #O-A-28 (October 2010), 2010 Census Planning Memorandum Series No. 106, October 27, 2010

Pennington, Robin A., Michael Bentley, and Earl Letourneau (2011), “The Effect of Programs to Increase Response in the 2010 Census”, U.S. Census Bureau, 2011 Joint Statistical Meetings Proceedings

Rosenthal, Miriam (2002), “F.11 – Evaluation of Urban Update Leave”, U.S. Census Bureau, October 3, 2002

Rothhaas, Cynthia, Michael Bentley, Joan M. Hill, and Frederic Lestina (2011), “2010 Census: Bilingual Questionnaire Assessment Report”, U.S. Census Bureau, DSSD 2010 Decennial Census Memorandum Series #O-C-01 (October 2011), 2010 Census Planning Memorandum Series No. 156, October 27, 2011

Smith, Myron and Neil Osborne (2011), “2010 Census Forms Printing and Distribution Assessment Report”, U.S. Census Bureau, December 2011 (Initial Draft)

Stackhouse, Herbert F. and Sarah Brady (2003a), “A.7.a – Evaluation of Census 2000 Mail Response Rates”, U.S. Census Bureau, January 30, 2003

Stackhouse, Herbert F. and Sarah Brady (2003b), “A.7.b – Evaluation of Census 2000 Mail Return Rates”, U.S. Census Bureau, January 30, 2003

Appendix A: Census Edited File Variable Definitions

Housing Unit Level

FINAL_POP	Population Count
HHLDRAGE	Edited Age of Householder 0 = Vacant 15 – 115 = Age of Householder
HHLDRHIS	Hispanic Origin of Householder 0 = Vacant 1 = Not Hispanic 2 = Mexican 3 = Puerto Rican 4 = Cuban 5 = Central American/Dominican Republic 6 = Latin/South American 7 = Other Hispanic
MAFID	Master Address File ID
TEN	Edited Tenure 0 = NIU (Vacant) 1 = Owned with a mortgage 2 = Owned free and clear 3 = Rented 4 = Occupied without payment of rent

Person Level Level

CENRACE

Race Recode

- 01 = White alone
- 02 = Black alone
- 03 = American Indian or Alaska Native (AIAN) alone
- 04 = Asian alone
- 05 = Native Hawaiian/Pacific Islander (NHPI) alone
- 06 = Some other race alone (SOR)
- 07 = White-Black
- 08 = White-AIAN
- 09 = White-Asian
- 10 = White-NHPI
- 11 = White-SOR
- 12 = Black-AIAN
- 13 = Black-Asian
- 14 = Black-NHPI
- 15 = Black-SOR
- 16 = AIAN-Asian
- 17 = AIAN-NHPI
- 18 = AIAN-SOR
- 19 = Asian-NHPI
- 20 = Asian-SOR
- 21 = NHPI-SOR
- 22 = White-Black-AIAN
- 23 = White-Black-Asian
- 24 = White-Black-NHPI
- 25 = White-Black-SOR
- 26 = White-AIAN-Asian
- 27 = White-AIAN-NHPI
- 28 = White-AIAN-SOR
- 29 = White-Asian-NHPI
- 30 = White-Asian-SOR
- 31 = White-NHPI-SOR
- 32 = Black-AIAN-Asian
- 33 = Black-AIAN-NHPI
- 34 = Black-AIAN-SOR
- 35 = Black-Asian-NHPI
- 36 = Black-Asian-SOR
- 37 = Black-NHPI-SOR
- 38 = AIAN-Asian-NHPI
- 39 = AIAN-Asian-SOR
- 40 = AIAN-NHPI-SOR
- 41 = Asian-NHPI-SOR
- 42 = White-Black-AIAN-Asian
- 43 = White-Black-AIAN-NHPI

44 = White-Black-AIAN-SOR
 45 = White-Black-Asian-NHPI
 46 = White-Black-Asian-SOR
 47 = White-Black-NHPI-SOR
 48 = White-AIAN-Asian-NHPI
 49 = White-AIAN-Asian-SOR
 50 = White-AIAN-NHPI-SOR
 51 = White-Asian-NHPI-SOR
 52 = Black-AIAN-Asian-NHPI
 53 = Black-AIAN-Asian-SOR
 54 = Black-AIAN-NHPI-SOR
 55 = Black-Asian-NHPI-SOR
 56 = AIAN-Asian-NHPI-SOR
 57 = White-Black-AIAN-Asian-NHPI
 58 = White-Black-AIAN-Asian-SOR
 59 = White-Black-AIAN-NHPI-SOR
 60 = White-Black-Asian-NHPI-SOR
 61 = White-AIAN-Asian-NHPI-SOR
 62 = Black-AIAN-Asian-NHPI-SOR
 63 = White-Black-AIAN-Asian-NHPI-SOR

QREL

Edited Relationship Status

1 = Householder
 2 = Husband/Wife
 3 = Biological Son/Daughter
 4 = Adopted Son/Daughter
 5 = Stepson/Stepdaughter
 6 = Brother/Sister
 7 = Father/Mother
 8 = Grandchild
 9 = Parent-in-law
 10 = Son/Daughter-in-law
 11 = Other relative
 12 = Roomer/Boarder
 13 = Housemate/Roommate
 14 = Unmarried Partner
 15 = Other Non-relative

Appendix B: DRIS Check-in File Variable Definitions

Mail Returns

CENSUS_ID	Census ID
MAILD	Check-in month and date of mail response (MMDD)
SORT_KEY	Form type of the response 111 = Mailback-English (Initial, Update/Leave (addressed)) 112 = Replacement Mailout/Mailback 113 = Bilingual – English/Spanish (Initial) 114 = Update/Leave ADDs - English 132 = Update/Leave Puerto Rico addressed - Spanish 153 = Update/Leave ADD and Fulfillment – Puerto Rico (Spanish) 201 = TQA telephone interview instrument – English (also used for PR) – MAF ID cases only 202 = TQA telephone interview instrument – Spanish (also used for PR) – MAF ID cases only 210 = TQA telephone interview instrument – English (also used for PR) – Processing ID cases 269 = TQA telephone interview instrument – Spanish (also used for PR) – Processing ID cases 275 = TQA telephone interview instrument – English (also used for PR) – MAF ID cases only, FOR CPEX CASES 276 = TQA telephone interview instrument – Spanish (also used for PR) – MAF ID cases only, FOR CPEX CASES 277 = TQA telephone interview instrument – English (also used for PR) – Processing ID cases, FOR CPEX CASES 278 = TQA telephone interview instrument – Spanish (also used for PR) – Processing ID cases, FOR CPEX CASES 301 = Mailback-English (Fulfillment) with respondent provided ID 302 = Fulfillment – Puerto Rico English 303 = Fulfillment – Spanish with respondent provided ID 304 = Fulfillment – Puerto Rico Spanish 305 = Fulfillment – Chinese (Simplified) w/respondent provided ID 306 = Fulfillment – Korean w/respondent provided ID 307 = Fulfillment – Russian w/respondent provided ID 308 = Fulfillment – Vietnamese w/respondent provided ID 310 = Mailback-English (Fulfillment) – Processing ID cases 320 = Fulfillment – Puerto Rico English – Processing ID cases 330 = Fulfillment – Spanish – Processing ID cases

340 = Fulfillment – Puerto Rico Spanish – Processing ID cases
 350 = Fulfillment – Chinese – Processing ID cases
 360 = Fulfillment – Korean – Processing ID cases
 370 = Fulfillment – Russian – Processing ID cases
 380 = Fulfillment – Vietnamese – Processing ID cases
 401 = NRFU, English, Stateside, Experimental D-1(E)
 402 = NRFU, English, Stateside Supplemental
 403 = NRFU Reinterview, English, Stateside
 421 = NRFU, Spanish, Puerto Rico
 422 = NRFU, Spanish, Puerto Rico Supplemental
 423 = NRFU Reinterview, Spanish, Puerto Rico
 451 = ETL, English, Stateside
 471 = ETL, Spanish, Puerto Rico
 511 = Be Counted-English
 512 = Be Counted-Puerto Rico (English)
 513 = Be Counted-Puerto Rico (Spanish)
 514 = Be Counted-Spanish
 515 = Be Counted-Chinese
 516 = Be Counted-Korean
 517 = Be Counted-Russian
 518 = Be Counted-Vietnamese
 670-699 = Not acceptable as Form Type codes for identification of enumeration cases
 751 = Individual Census Report (ICR)-English, Experimental D-20
 752 = Individual Census Report (ICR)-Spanish
 753 = Individual Census Report (ICR)-PR (English)
 754 = Individual Census Report (ICR)-PR (Spanish)
 771 = Military Census Report (MCR)-English
 772 = Military Census Report (MCR)-PR (English)
 791 = Shipboard Census Report (SCR)-English
 792 = Shipboard Census Report (SCR)-PR
 811 = Coverage Followup telephone interview instrument – English (also used for PR)
 812 = Coverage Followup telephone interview instrument – Spanish (also used for PR)
 840 = Reserved for Internet responses with Census ID
 890 = GQV Questionnaire - English
 891 = GQV Questionnaire for PR - Spanish
 892 = GQV Correctional Facility Continuation - English
 893 = GQV Correctional Facility Continuation PR - Spanish
 894 = GQV Housing Unit Continuation - English
 895 = GQV Housing Unit Continuation PR - Spanish
 896 = GQV Non-survivor Label Form - English
 897 = GQV Non-survivor Label Page PR - Spanish

901 = CONTROL A: 2010 Census Form (CPEX Phone #)
 902 = CONTROL B: 2010 Census Form w/o Overcount
 903 = G1: Census 2000 Form
 904 = B2A: Combined Race & Hispanic Origin
 905 = B2B: Combined Race & Hispanic Origin
 906 = B2C: Combined Race & Hispanic Origin
 907 = B2D: Combined Race & Hispanic Origin
 908 = B1B: Race
 909 = B1C: Hispanic Origin
 910 = B1D: Hispanic Origin
 911 = B1B+B1C+B1D: Race and Hispanic Origin
 912 = B1B+B1C: Race and Hispanic Origin
 913 = B1B+B1D: Race and Hispanic Origin
 914 = B1C+B1D: Hispanic Origin
 915 = C10: Coverage
 916 = H1: Deadline Message 1
 917 = H1: Deadline Message 2
 918 = H1: Deadline Message 3
 919 = H1: Compressed Schedule
 920 = H1: Deadline Message 1 + Comp. Schedule
 921 = H1: Deadline Message 2 + Comp. Schedule
 922 = H1: Deadline Message 3 + Comp. Schedule
 923 = K1: Privacy
 924 = K1: Privacy
 925 = B4A: OMB Race Treatment 1
 926 = B4B: OMB Race Treatment 2
 927 = B4C: OMB Race Treatment 3
 928 = B4D: OMB Race Treatment 4
 929 = H1: Deadline Message 4
 930 = H1: Deadline Message 4 + Comp. Schedule
 931 = CNTRL A: 2010 Census Form (CPEX Phone #),
 Replacement Mailing
 932 = CNTRL B: 2010 Census Form w/o Overcount,
 Replacement Mailing
 933 = G1: Census 2000 Form, Replacement Mailing
 934 = B2A: Combined Race & Hispanic Origin,
 Replacement Mailing
 935 = B2B: Combined Race & Hispanic Origin, Replacement
 Mailing
 936 = B2C: Combined Race & Hispanic Origin, Replacement
 Mailing
 937 = B2D: Combined Race & Hispanic Origin,
 Replacement Mailing
 938 = B1B: Race, Replacement Mailing
 939 = B1C: Hispanic Origin, Replacement Mailing
 940 = B1D: Hispanic Origin, Replacement Mailing

941 = B1B+B1C+B1D: Race and Hispanic Origin, Replacement Mailing
 942 = B1B+B1C: Race and Hispanic Origin, Replacement Mailing
 943 = B1B+B1D: Race and Hispanic Origin, Replacement Mailing
 944 = B1C+B1D: Hispanic Origin, Replacement Mailing
 945 = C10: Coverage, Replacement Mailing
 946 = H1: Deadline Message 1, Replacement Mailing
 947 = H1: Deadline Message 2, Replacement Mailing
 948 = H1: Deadline Message 3, Replacement Mailing
 949 = H1: Compressed Schedule, Replacement Mailing
 950 = H1: Deadline Message 1 + Comp. Schedule, Replacement Mailing
 951 = H1: Deadline Message 2 + Comp. Schedule, Replacement Mailing
 952 = H1: Deadline Message 3+ Comp. Schedule, Replacement Mailing
 953 = K1: Privacy, Replacement Mailing
 954 = K1: Privacy, Replacement Mailing
 955 = B4A: OMB Race Treatment 1, Replacement Mailing
 956 = B4B: OMB Race Treatment 2, Replacement Mailing
 957 = B4C: OMB Race Treatment 3, Replacement Mailing
 958 = B4D: OMB Race Treatment 4, Replacement Mailing
 959 = H1: Deadline Message 4, Replacement Mailing
 960 = H1: Deadline Message 4+ Comp. Schedule, Replacement Mailing
 961-969 = Reserved for Experiments
 970-999 = NOT acceptable as Form Type codes for identification of Stateside enumeration cases

Undeliverable As Addressed

CENSUS_ID	Census ID
MAILD_UAA	Check-in month and date of UAA (MMDD)
SORT_KEY_UAA	Form type of a UAA (<i>same values as SORT_KEY</i>)

Appendix C: Universe Control and Management Variable Definitions

Operations Table

COLBLKCOU	2010 Collection Block – County
COLBLKST	2010 Collection Block – State
DSAF	Delivery Specific Address Flag Y = Valid unit for decennial census purposes, as of the current delivery N = Not a valid unit for decennial census purposes, as of the current delivery
FQCIDATE	Fulfillment Questionnaire Check-in Date 0000 = Not checked in MMDD = Check-in day
GQHUFLAG	Group Quarters/HU Flag 0 = Housing Unit 1 = Special place (not for decennial use) 2 = Group Quarters 3 = Embedded HU at a GQ (not for decennial) 4 = Transient Unit with a Transient Location 5 = Transient Location
IQCIDATE	Initial Questionnaire Check-in Date 0000 = Not checked in MMDD = Check-in day
IQUAADATE	Initial Questionnaire UAA Date 0000 = Not checked in MMDD = Check-in day
MAFID	Master Address File ID
NRFUUNV	Nonresponse Followup Universe Flag Y = Address is valid decennial address, eligible to be part of the NRFU Universe. N = Address is a valid decennial address, eligible to be part of the Supplemental NRFU Universe
PANEL	Initial Questionnaire Panel 0 = English Only 1 = Bilingual

REPL	In Replacement Mailing 0 = Not in Replacement Mailing 1 = In Replacement Mailing (Targeted), not sent 2 = In Replacement Mailing (Blanketed) 3 = In Replacement Mailing (Targeted), sent
RQCIDATE	Replacement Questionnaire Check-in Date 0000 = Not checked in MMDD = Check-in day
RQUAADATE	Replacement Questionnaire UAA Date 0000 = Not checked in MMDD = Check-in day
TQCIDATE	Telephone Questionnaire Check-in Date 0000 = Not checked in MMDD = Check-in day
TRACT	2010 Census Tract

Appendix D: Update/Leave Addup File and Unmailables File Variable Definitions.

Update/Leave Addup File

ACTION	Action Code in Update/Leave
	A = Add
	C = Change
	D = Delete
	K = Change Not Involving Address
	N = Nonresidential
	V = Verify
	Z = Other Living Quarters

MAFID	Master Address File ID
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Unmailables File

MAFID	Master Address File ID
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UNMAIL	Unmailables Flag
	0 = Good Address
	1 = Not enough address information for mailing

Appendix E: Mail Response Rate Numerators and Denominators for English and Bilingual Questionnaires

		Numerator – April 19, 2010			Numerator – September 7, 2010			Denominator		
		Total	Form Type		Total	Form Type		Total	Form Type	
			English	Bilingual		English	Bilingual		English	Bilingual
Type of Enumeration Area	Total	82,553,963	75,347,183	7,206,780	86,489,691	78,846,522	7,643,169	130,047,668	117,953,594	12,094,074
	Mailout/ Mailback	77,039,399	70,036,785	7,002,614	80,765,581	73,338,033	7,427,548	119,648,117	107,980,891	11,667,226
	Update/ Leave	4,326,272	4,184,030	142,242	4,484,151	4,334,310	149,841	7,985,608	7,692,165	293,443
	Urban Update/ Leave	1,188,292	1,126,368	61,924	1,239,959	1,174,179	65,780	2,413,943	2,280,538	133,405

Source: DRIS Check-in, DRF, CEF, UCM, and MAF

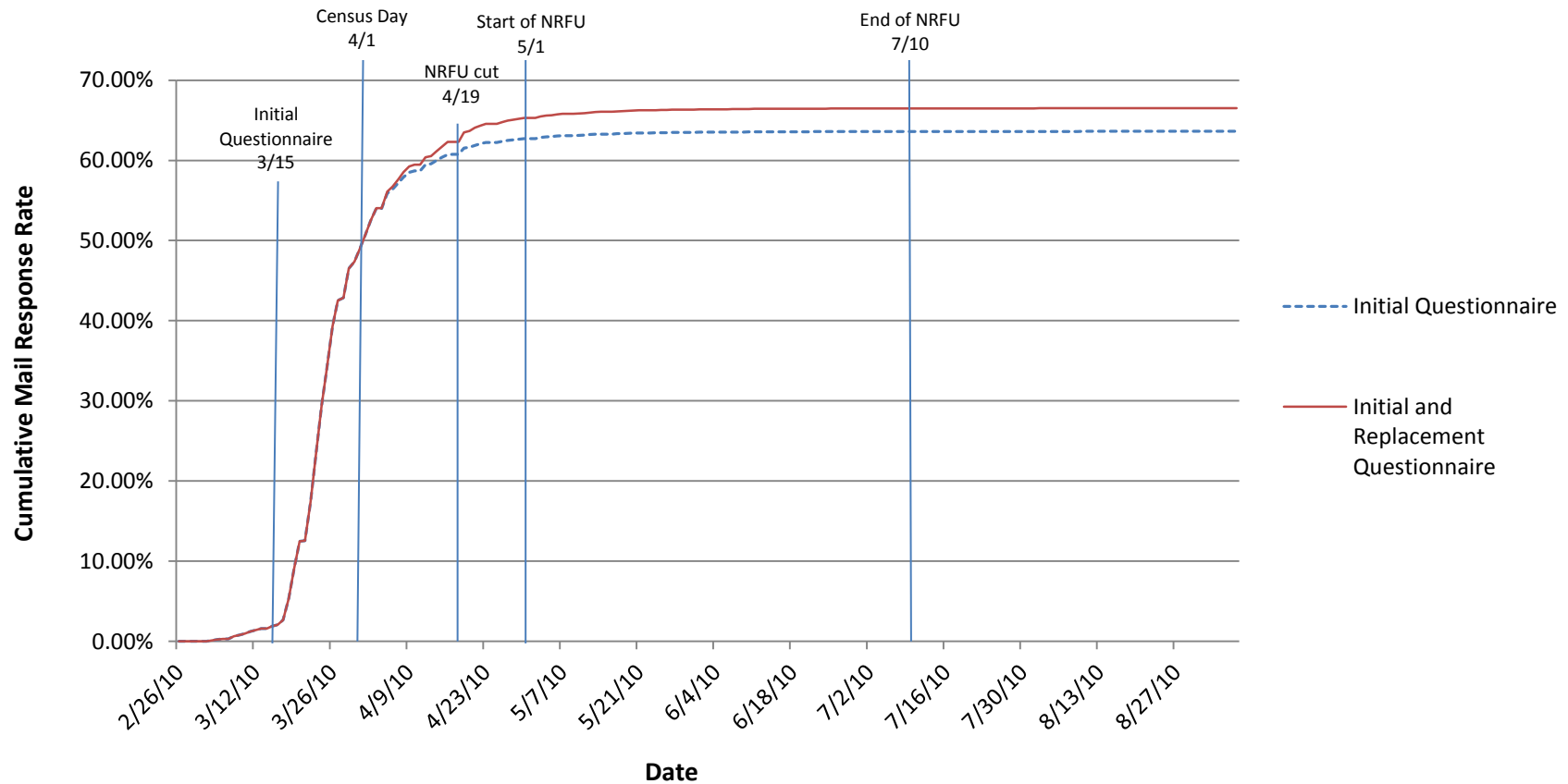
Appendix F: Mail Response Rate Numerators and Denominators for Initial and Replacement Questionnaires

		Numerator – April 19, 2010			Numerator – September 7, 2010			Denominator
		Total	Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	
Total		82,553,963	80,003,566	2,550,397	86,489,691	82,739,346	3,750,345	130,047,668
Type of Enumeration Area	Mailout/ Mailback	77,039,399	74,489,013	2,550,386	80,765,581	77,015,257	3,750,324	119,648,117
	Update/ Leave	4,326,272	4,326,262	10	4,484,151	4,484,135	16	7,985,608
	Urban Update/ Leave	1,188,292	1,188,291	1	1,239,959	1,239,954	5	2,413,943
Replacement Mailing	Blanket	13,277,923	11,710,185	1,567,738	13,972,590	12,033,873	1,938,717	24,764,043
	Target	17,982,278	16,999,619	982,659	19,284,106	17,472,478	1,811,628	28,811,157
	None	51,293,762	51,293,762	0	53,232,995	53,232,995	0	76,472,468

Source: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

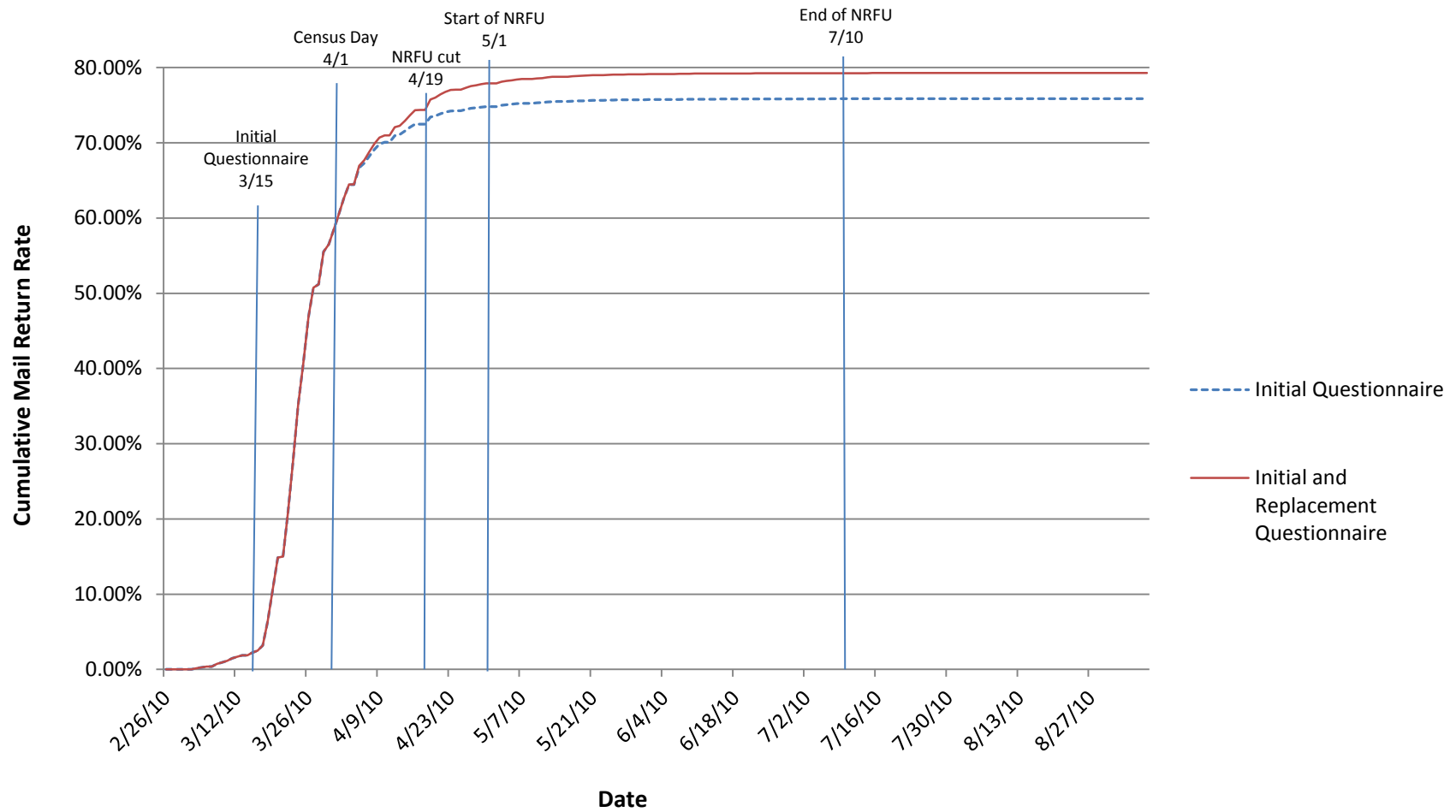
Appendix G: Two Figures Illustrating the Cumulative Mail Response and Mail Return Rates for Initial Questionnaires and All Questionnaires by Day

Figure 1: Cumulative Mail Response Rates by Date



Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Figure 2: Cumulative Mail Return Rates by Date



Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	02/26/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saturday	02/27/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sunday	02/28/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monday	03/01/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tuesday	03/02/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wednesday	03/03/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Thursday	03/04/10	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%
Friday	03/05/10	0.1%	0.0%	0.1%	0.2%	0.0%	0.2%
Saturday	03/06/10	0.1%	0.0%	0.1%	0.3%	0.0%	0.3%
Sunday	03/07/10	0.0%	0.0%	0.0%	0.3%	0.0%	0.3%
Monday	03/08/10	0.3%	0.0%	0.3%	0.6%	0.0%	0.6%
Tuesday	03/09/10	0.2%	0.0%	0.2%	0.8%	0.0%	0.8%
Wednesday	03/10/10	0.2%	0.0%	0.2%	1.0%	0.0%	1.0%
Thursday	03/11/10	0.3%	0.0%	0.3%	1.2%	0.0%	1.2%
Friday	03/12/10	0.2%	0.0%	0.2%	1.4%	0.0%	1.4%
Saturday	03/13/10	0.2%	0.0%	0.2%	1.6%	0.0%	1.6%
Sunday	03/14/10	0.0%	0.0%	0.0%	1.6%	0.0%	1.6%
Monday	03/15/10	0.3%	0.0%	0.3%	1.9%	0.0%	1.9%
Tuesday	03/16/10	0.2%	0.0%	0.2%	2.1%	0.0%	2.1%
Wednesday	03/17/10	0.6%	0.0%	0.6%	2.7%	0.0%	2.7%
Thursday	03/18/10	2.7%	0.0%	2.7%	5.3%	0.0%	5.3%
Friday	03/19/10	3.7%	0.0%	3.7%	9.0%	0.0%	9.0%
Saturday	03/20/10	3.5%	0.0%	3.5%	12.5%	0.0%	12.5%
Sunday	03/21/10	0.1%	0.0%	0.1%	12.6%	0.0%	12.6%
Monday	03/22/10	4.9%	0.0%	4.9%	17.4%	0.0%	17.4%
Tuesday	03/23/10	5.9%	0.0%	5.9%	23.3%	0.0%	23.3%
Wednesday	03/24/10	6.1%	0.0%	6.1%	29.4%	0.0%	29.4%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Thursday	03/25/10	4.7%	0.0%	4.7%	34.1%	0.0%	34.1%
Friday	03/26/10	5.2%	0.0%	5.2%	39.3%	0.0%	39.3%
Saturday	03/27/10	3.3%	0.0%	3.3%	42.5%	0.0%	42.5%
Sunday	03/28/10	0.3%	0.0%	0.3%	42.9%	0.0%	42.9%
Monday	03/29/10	3.6%	0.0%	3.6%	46.5%	0.0%	46.5%
Tuesday	03/30/10	0.8%	0.0%	0.8%	47.3%	0.0%	47.3%
Wednesday	03/31/10	1.6%	0.0%	1.6%	49.0%	0.0%	49.0%
Thursday	04/01/10	1.8%	0.0%	1.8%	50.7%	0.0%	50.7%
Friday	04/02/10	1.7%	0.0%	1.7%	52.5%	0.0%	52.5%
Saturday	04/03/10	1.5%	0.0%	1.6%	54.0%	0.0%	54.0%
Sunday	04/04/10	0.0%	0.0%	0.0%	54.0%	0.0%	54.0%
Monday	04/05/10	1.9%	0.2%	2.1%	55.9%	0.2%	56.1%
Tuesday	04/06/10	0.5%	0.1%	0.6%	56.4%	0.3%	56.7%
Wednesday	04/07/10	0.8%	0.1%	0.9%	57.2%	0.5%	57.6%
Thursday	04/08/10	0.8%	0.1%	0.9%	57.9%	0.6%	58.6%
Friday	04/09/10	0.6%	0.1%	0.7%	58.5%	0.7%	59.2%
Saturday	04/10/10	0.2%	0.0%	0.2%	58.7%	0.8%	59.5%
Sunday	04/11/10	0.0%	0.0%	0.0%	58.7%	0.8%	59.5%
Monday	04/12/10	0.7%	0.2%	0.9%	59.5%	0.9%	60.4%
Tuesday	04/13/10	0.1%	0.0%	0.2%	59.6%	1.0%	60.6%
Wednesday	04/14/10	0.4%	0.2%	0.6%	60.0%	1.1%	61.1%
Thursday	04/15/10	0.4%	0.2%	0.6%	60.4%	1.3%	61.7%
Friday	04/16/10	0.3%	0.2%	0.6%	60.7%	1.6%	62.3%
Saturday	04/17/10	0.0%	0.0%	0.0%	60.7%	1.6%	62.3%
Sunday	04/18/10	0.0%	0.0%	0.0%	60.7%	1.6%	62.3%
Monday	04/19/10	0.8%	0.4%	1.2%	61.5%	2.0%	63.5%
Tuesday	04/20/10	0.1%	0.1%	0.2%	61.6%	2.0%	63.7%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Wednesday	04/21/10	0.2%	0.1%	0.4%	61.9%	2.2%	64.1%
Thursday	04/22/10	0.2%	0.1%	0.3%	62.1%	2.3%	64.3%
Friday	04/23/10	0.1%	0.1%	0.2%	62.2%	2.4%	64.6%
Saturday	04/24/10	0.0%	0.0%	0.0%	62.2%	2.4%	64.6%
Sunday	04/25/10	0.0%	0.0%	0.0%	62.2%	2.4%	64.6%
Monday	04/26/10	0.2%	0.1%	0.2%	62.4%	2.4%	64.8%
Tuesday	04/27/10	0.1%	0.1%	0.2%	62.5%	2.5%	65.0%
Wednesday	04/28/10	0.1%	0.0%	0.1%	62.6%	2.5%	65.1%
Thursday	04/29/10	0.1%	0.0%	0.1%	62.6%	2.5%	65.2%
Friday	04/30/10	0.1%	0.0%	0.1%	62.7%	2.6%	65.3%
Saturday	05/01/10	0.0%	0.0%	0.0%	62.7%	2.6%	65.3%
Sunday	05/02/10	0.0%	0.0%	0.0%	62.7%	2.6%	65.3%
Monday	05/03/10	0.1%	0.1%	0.2%	62.9%	2.6%	65.5%
Tuesday	05/04/10	0.1%	0.0%	0.1%	62.9%	2.7%	65.6%
Wednesday	05/05/10	0.0%	0.0%	0.1%	63.0%	2.7%	65.6%
Thursday	05/06/10	0.1%	0.0%	0.1%	63.0%	2.7%	65.7%
Friday	05/07/10	0.1%	0.0%	0.1%	63.1%	2.7%	65.8%
Saturday	05/08/10	0.0%	0.0%	0.0%	63.1%	2.7%	65.8%
Sunday	05/09/10	0.0%	0.0%	0.0%	63.1%	2.7%	65.8%
Monday	05/10/10	0.0%	0.0%	0.1%	63.1%	2.7%	65.9%
Tuesday	05/11/10	0.0%	0.0%	0.0%	63.2%	2.7%	65.9%
Wednesday	05/12/10	0.1%	0.0%	0.1%	63.2%	2.8%	66.0%
Thursday	05/13/10	0.0%	0.0%	0.1%	63.3%	2.8%	66.0%
Friday	05/14/10	0.0%	0.0%	0.0%	63.3%	2.8%	66.1%
Saturday	05/15/10	0.0%	0.0%	0.0%	63.3%	2.8%	66.1%
Sunday	05/16/10	0.0%	0.0%	0.0%	63.3%	2.8%	66.1%
Monday	05/17/10	0.0%	0.0%	0.1%	63.3%	2.8%	66.1%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Tuesday	05/18/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.2%
Wednesday	05/19/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.2%
Thursday	05/20/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.2%
Friday	05/21/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.2%
Saturday	05/22/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.2%
Sunday	05/23/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.2%
Monday	05/24/10	0.0%	0.0%	0.0%	63.4%	2.8%	66.3%
Tuesday	05/25/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Wednesday	05/26/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Thursday	05/27/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Friday	05/28/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Saturday	05/29/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Sunday	05/30/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Monday	05/31/10	0.0%	0.0%	0.0%	63.5%	2.8%	66.3%
Tuesday	06/01/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Wednesday	06/02/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Thursday	06/03/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Friday	06/04/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Saturday	06/05/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Sunday	06/06/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Monday	06/07/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Tuesday	06/08/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Wednesday	06/09/10	0.0%	0.0%	0.0%	63.5%	2.9%	66.4%
Thursday	06/10/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Friday	06/11/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Saturday	06/12/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Sunday	06/13/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Monday	06/14/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Tuesday	06/15/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Wednesday	06/16/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Thursday	06/17/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Friday	06/18/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Saturday	06/19/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Sunday	06/20/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Monday	06/21/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.4%
Tuesday	06/22/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	06/23/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	06/24/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	06/25/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	06/26/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	06/27/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	06/28/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	06/29/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	06/30/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	07/01/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	07/02/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	07/03/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	07/04/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	07/05/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	07/06/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	07/07/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	07/08/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	07/09/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	07/10/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Sunday	07/11/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	07/12/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	07/13/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	07/14/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	07/15/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	07/16/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	07/17/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	07/18/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	07/19/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	07/20/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	07/21/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	07/22/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	07/23/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	07/24/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	07/25/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	07/26/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	07/27/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	07/28/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	07/29/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	07/30/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	07/31/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	08/01/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	08/02/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	08/03/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	08/04/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	08/05/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	08/06/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Saturday	08/07/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	08/08/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	08/09/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	08/10/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	08/11/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	08/12/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	08/13/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	08/14/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	08/15/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	08/16/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	08/17/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	08/18/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	08/19/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	08/20/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	08/21/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	08/22/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	08/23/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	08/24/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	08/25/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	08/26/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Friday	08/27/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	08/28/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	08/29/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	08/30/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	08/31/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Wednesday	09/01/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Thursday	09/02/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%

Appendix H: Mail Response Rates by Day

Day	Date	Daily Mail Response Rate			Cumulative Mail Response Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	09/03/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Saturday	09/04/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Sunday	09/05/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Monday	09/06/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%
Tuesday	09/07/10	0.0%	0.0%	0.0%	63.6%	2.9%	66.5%

Source: DRIS Check-in, DRF, CEF, UCM, and MAF

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	02/26/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saturday	02/27/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sunday	02/28/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monday	03/01/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tuesday	03/02/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wednesday	03/03/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Thursday	03/04/10	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%
Friday	03/05/10	0.1%	0.0%	0.1%	0.3%	0.0%	0.3%
Saturday	03/06/10	0.1%	0.0%	0.1%	0.4%	0.0%	0.4%
Sunday	03/07/10	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%
Monday	03/08/10	0.4%	0.0%	0.4%	0.7%	0.0%	0.7%
Tuesday	03/09/10	0.2%	0.0%	0.2%	0.9%	0.0%	0.9%
Wednesday	03/10/10	0.2%	0.0%	0.2%	1.1%	0.0%	1.1%
Thursday	03/11/10	0.3%	0.0%	0.3%	1.5%	0.0%	1.5%
Friday	03/12/10	0.2%	0.0%	0.2%	1.7%	0.0%	1.7%
Saturday	03/13/10	0.2%	0.0%	0.2%	1.9%	0.0%	1.9%
Sunday	03/14/10	0.0%	0.0%	0.0%	1.9%	0.0%	1.9%
Monday	03/15/10	0.3%	0.0%	0.3%	2.2%	0.0%	2.2%
Tuesday	03/16/10	0.2%	0.0%	0.2%	2.5%	0.0%	2.5%
Wednesday	03/17/10	0.7%	0.0%	0.7%	3.2%	0.0%	3.2%
Thursday	03/18/10	3.2%	0.0%	3.2%	6.4%	0.0%	6.4%
Friday	03/19/10	4.4%	0.0%	4.4%	10.7%	0.0%	10.7%
Saturday	03/20/10	4.1%	0.0%	4.1%	14.9%	0.0%	14.9%
Sunday	03/21/10	0.1%	0.0%	0.1%	15.0%	0.0%	15.0%
Monday	03/22/10	5.8%	0.0%	5.8%	20.8%	0.0%	20.8%
Tuesday	03/23/10	7.0%	0.0%	7.0%	27.8%	0.0%	27.8%
Wednesday	03/24/10	7.2%	0.0%	7.2%	35.0%	0.0%	35.0%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Thursday	03/25/10	5.6%	0.0%	5.6%	40.7%	0.0%	40.7%
Friday	03/26/10	6.2%	0.0%	6.2%	46.9%	0.0%	46.9%
Saturday	03/27/10	3.9%	0.0%	3.9%	50.8%	0.0%	50.8%
Sunday	03/28/10	0.4%	0.0%	0.4%	51.2%	0.0%	51.2%
Monday	03/29/10	4.3%	0.0%	4.3%	55.5%	0.0%	55.5%
Tuesday	03/30/10	1.0%	0.0%	1.0%	56.5%	0.0%	56.5%
Wednesday	03/31/10	1.9%	0.0%	1.9%	58.4%	0.0%	58.4%
Thursday	04/01/10	2.1%	0.0%	2.1%	60.6%	0.0%	60.6%
Friday	04/02/10	2.1%	0.0%	2.1%	62.6%	0.0%	62.6%
Saturday	04/03/10	1.8%	0.0%	1.9%	64.4%	0.0%	64.5%
Sunday	04/04/10	0.0%	0.0%	0.0%	64.4%	0.0%	64.5%
Monday	04/05/10	2.2%	0.2%	2.5%	66.7%	0.3%	67.0%
Tuesday	04/06/10	0.6%	0.1%	0.8%	67.3%	0.4%	67.7%
Wednesday	04/07/10	0.9%	0.2%	1.1%	68.2%	0.6%	68.8%
Thursday	04/08/10	0.9%	0.2%	1.1%	69.1%	0.7%	69.9%
Friday	04/09/10	0.7%	0.1%	0.8%	69.8%	0.9%	70.7%
Saturday	04/10/10	0.2%	0.0%	0.3%	70.1%	0.9%	71.0%
Sunday	04/11/10	0.0%	0.0%	0.0%	70.1%	0.9%	71.0%
Monday	04/12/10	0.9%	0.2%	1.1%	71.0%	1.1%	72.1%
Tuesday	04/13/10	0.1%	0.0%	0.2%	71.1%	1.2%	72.3%
Wednesday	04/14/10	0.5%	0.2%	0.7%	71.6%	1.4%	72.9%
Thursday	04/15/10	0.5%	0.2%	0.7%	72.1%	1.6%	73.7%
Friday	04/16/10	0.4%	0.3%	0.7%	72.5%	1.9%	74.3%
Saturday	04/17/10	0.0%	0.0%	0.0%	72.5%	1.9%	74.4%
Sunday	04/18/10	0.0%	0.0%	0.0%	72.5%	1.9%	74.4%
Monday	04/19/10	0.9%	0.5%	1.4%	73.4%	2.3%	75.8%
Tuesday	04/20/10	0.2%	0.1%	0.3%	73.6%	2.4%	76.0%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Wednesday	04/21/10	0.3%	0.2%	0.4%	73.8%	2.6%	76.5%
Thursday	04/22/10	0.2%	0.1%	0.3%	74.1%	2.7%	76.8%
Friday	04/23/10	0.2%	0.1%	0.3%	74.2%	2.8%	77.0%
Saturday	04/24/10	0.0%	0.0%	0.0%	74.2%	2.8%	77.0%
Sunday	04/25/10	0.0%	0.0%	0.0%	74.2%	2.8%	77.0%
Monday	04/26/10	0.2%	0.1%	0.3%	74.4%	2.9%	77.3%
Tuesday	04/27/10	0.2%	0.1%	0.2%	74.6%	3.0%	77.5%
Wednesday	04/28/10	0.1%	0.0%	0.1%	74.7%	3.0%	77.6%
Thursday	04/29/10	0.1%	0.0%	0.1%	74.8%	3.0%	77.8%
Friday	04/30/10	0.1%	0.0%	0.1%	74.8%	3.1%	77.9%
Saturday	05/01/10	0.0%	0.0%	0.0%	74.8%	3.1%	77.9%
Sunday	05/02/10	0.0%	0.0%	0.0%	74.8%	3.1%	77.9%
Monday	05/03/10	0.2%	0.1%	0.2%	75.0%	3.1%	78.1%
Tuesday	05/04/10	0.1%	0.0%	0.1%	75.1%	3.2%	78.2%
Wednesday	05/05/10	0.1%	0.0%	0.1%	75.1%	3.2%	78.3%
Thursday	05/06/10	0.1%	0.0%	0.1%	75.2%	3.2%	78.4%
Friday	05/07/10	0.1%	0.0%	0.1%	75.3%	3.2%	78.5%
Saturday	05/08/10	0.0%	0.0%	0.0%	75.3%	3.2%	78.5%
Sunday	05/09/10	0.0%	0.0%	0.0%	75.3%	3.2%	78.5%
Monday	05/10/10	0.1%	0.0%	0.1%	75.3%	3.2%	78.6%
Tuesday	05/11/10	0.0%	0.0%	0.0%	75.4%	3.3%	78.6%
Wednesday	05/12/10	0.1%	0.0%	0.1%	75.4%	3.3%	78.7%
Thursday	05/13/10	0.1%	0.0%	0.1%	75.5%	3.3%	78.8%
Friday	05/14/10	0.0%	0.0%	0.0%	75.5%	3.3%	78.8%
Saturday	05/15/10	0.0%	0.0%	0.0%	75.5%	3.3%	78.8%
Sunday	05/16/10	0.0%	0.0%	0.0%	75.5%	3.3%	78.8%
Monday	05/17/10	0.1%	0.0%	0.1%	75.5%	3.3%	78.9%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Tuesday	05/18/10	0.0%	0.0%	0.0%	75.6%	3.3%	78.9%
Wednesday	05/19/10	0.0%	0.0%	0.0%	75.6%	3.3%	78.9%
Thursday	05/20/10	0.0%	0.0%	0.0%	75.6%	3.3%	79.0%
Friday	05/21/10	0.0%	0.0%	0.0%	75.6%	3.3%	79.0%
Saturday	05/22/10	0.0%	0.0%	0.0%	75.6%	3.3%	79.0%
Sunday	05/23/10	0.0%	0.0%	0.0%	75.6%	3.3%	79.0%
Monday	05/24/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.0%
Tuesday	05/25/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Wednesday	05/26/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Thursday	05/27/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Friday	05/28/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Saturday	05/29/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Sunday	05/30/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Monday	05/31/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Tuesday	06/01/10	0.0%	0.0%	0.0%	75.7%	3.4%	79.1%
Wednesday	06/02/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.1%
Thursday	06/03/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.1%
Friday	06/04/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Saturday	06/05/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Sunday	06/06/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Monday	06/07/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Tuesday	06/08/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Wednesday	06/09/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Thursday	06/10/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Friday	06/11/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Saturday	06/12/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Sunday	06/13/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Monday	06/14/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Tuesday	06/15/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Wednesday	06/16/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Thursday	06/17/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Friday	06/18/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Saturday	06/19/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Sunday	06/20/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Monday	06/21/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Tuesday	06/22/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Wednesday	06/23/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Thursday	06/24/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Friday	06/25/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Saturday	06/26/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Sunday	06/27/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Monday	06/28/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Tuesday	06/29/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.2%
Wednesday	06/30/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Thursday	07/01/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Friday	07/02/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Saturday	07/03/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Sunday	07/04/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Monday	07/05/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Tuesday	07/06/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Wednesday	07/07/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Thursday	07/08/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Friday	07/09/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Saturday	07/10/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Sunday	07/11/10	0.0%	0.0%	0.0%	75.8%	3.4%	79.3%
Monday	07/12/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	07/13/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	07/14/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	07/15/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	07/16/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	07/17/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	07/18/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	07/19/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	07/20/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	07/21/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	07/22/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	07/23/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	07/24/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	07/25/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	07/26/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	07/27/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	07/28/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	07/29/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	07/30/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	07/31/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	08/01/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	08/02/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	08/03/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	08/04/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	08/05/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	08/06/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Saturday	08/07/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	08/08/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	08/09/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	08/10/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	08/11/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	08/12/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	08/13/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	08/14/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	08/15/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	08/16/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	08/17/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	08/18/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	08/19/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	08/20/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	08/21/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	08/22/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	08/23/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	08/24/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	08/25/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	08/26/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Friday	08/27/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	08/28/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	08/29/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	08/30/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	08/31/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Wednesday	09/01/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Thursday	09/02/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%

Appendix I: Mail Return Rates by Day

Day	Date	Daily Mail Return Rate			Cumulative Mail Return Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	09/03/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Saturday	09/04/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Sunday	09/05/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Monday	09/06/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%
Tuesday	09/07/10	0.0%	0.0%	0.0%	75.9%	3.4%	79.3%

Source: DRIS Check-in, DRF, CEF, UCM, and MAF

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	02/26/10	3	0	3	3	0	3
Saturday	02/27/10	4	0	4	7	0	7
Sunday	02/28/10	4	0	4	11	0	11
Monday	03/01/10	26	0	26	37	0	37
Tuesday	03/02/10	28	0	28	65	0	65
Wednesday	03/03/10	25	0	25	90	0	90
Thursday	03/04/10	159,141	0	159,141	159,231	0	159,231
Friday	03/05/10	147,440	0	147,440	306,671	0	306,671
Saturday	03/06/10	91,489	0	91,489	398,160	0	398,160
Sunday	03/07/10	12	0	12	398,172	0	398,172
Monday	03/08/10	413,992	0	413,992	812,164	0	812,164
Tuesday	03/09/10	195,568	0	195,568	1,007,732	0	1,007,732
Wednesday	03/10/10	246,971	0	246,971	1,254,703	0	1,254,703
Thursday	03/11/10	329,602	0	329,602	1,584,305	0	1,584,305
Friday	03/12/10	265,879	0	265,879	1,850,184	0	1,850,184
Saturday	03/13/10	208,480	0	208,480	2,058,664	0	2,058,664
Sunday	03/14/10	14	0	14	2,058,678	0	2,058,678
Monday	03/15/10	381,460	0	381,460	2,440,138	0	2,440,138
Tuesday	03/16/10	256,361	0	256,361	2,696,499	0	2,696,499
Wednesday	03/17/10	786,442	0	786,442	3,482,941	0	3,482,941
Thursday	03/18/10	3,461,380	0	3,461,380	6,944,321	0	6,944,321
Friday	03/19/10	4,761,191	0	4,761,191	11,705,512	0	11,705,512
Saturday	03/20/10	4,508,651	0	4,508,651	16,214,163	0	16,214,163
Sunday	03/21/10	132,131	0	132,131	16,346,294	0	16,346,294
Monday	03/22/10	6,336,538	0	6,336,538	22,682,832	0	22,682,832
Tuesday	03/23/10	7,632,096	0	7,632,096	30,314,928	0	30,314,928
Wednesday	03/24/10	7,869,012	0	7,869,012	38,183,940	0	38,183,940

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Thursday	03/25/10	6,112,691	0	6,112,691	44,296,631	0	44,296,631
Friday	03/26/10	6,758,422	0	6,758,422	51,055,053	0	51,055,053
Saturday	03/27/10	4,249,658	0	4,249,658	55,304,711	0	55,304,711
Sunday	03/28/10	449,308	0	449,308	55,754,019	0	55,754,019
Monday	03/29/10	4,719,817	0	4,719,817	60,473,836	0	60,473,836
Tuesday	03/30/10	1,100,766	0	1,100,766	61,574,602	0	61,574,602
Wednesday	03/31/10	2,091,770	0	2,091,770	63,666,372	0	63,666,372
Thursday	04/01/10	2,310,682	220	2,310,902	65,977,054	220	65,977,274
Friday	04/02/10	2,263,957	5,590	2,269,547	68,241,011	5,810	68,246,821
Saturday	04/03/10	1,973,499	44,312	2,017,811	70,214,510	50,122	70,264,632
Sunday	04/04/10	74	0	74	70,214,584	50,122	70,264,706
Monday	04/05/10	2,441,565	258,665	2,700,230	72,656,149	308,787	72,964,936
Tuesday	04/06/10	687,102	132,355	819,457	73,343,251	441,142	73,784,393
Wednesday	04/07/10	992,017	180,213	1,172,230	74,335,268	621,355	74,956,623
Thursday	04/08/10	998,999	188,706	1,187,705	75,334,267	810,061	76,144,328
Friday	04/09/10	743,753	145,405	889,158	76,078,020	955,466	77,033,486
Saturday	04/10/10	269,680	36,349	306,029	76,347,700	991,815	77,339,515
Sunday	04/11/10	90	1	91	76,347,790	991,816	77,339,606
Monday	04/12/10	965,897	235,531	1,201,428	77,313,687	1,227,347	78,541,034
Tuesday	04/13/10	162,167	42,267	204,434	77,475,854	1,269,614	78,745,468
Wednesday	04/14/10	507,639	216,594	724,233	77,983,493	1,486,208	79,469,701
Thursday	04/15/10	547,141	258,659	805,800	78,530,634	1,744,867	80,275,501
Friday	04/16/10	447,273	290,715	737,988	78,977,907	2,035,582	81,013,489
Saturday	04/17/10	15,140	186	15,326	78,993,047	2,035,768	81,028,815
Sunday	04/18/10	1,216	0	1,216	78,994,263	2,035,768	81,030,031
Monday	04/19/10	1,009,303	514,629	1,523,932	80,003,566	2,550,397	82,553,963
Tuesday	04/20/10	164,144	110,179	274,323	80,167,710	2,660,576	82,828,286

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Wednesday	04/21/10	307,269	179,573	486,842	80,474,979	2,840,149	83,315,128
Thursday	04/22/10	250,739	118,091	368,830	80,725,718	2,958,240	83,683,958
Friday	04/23/10	183,764	99,888	283,652	80,909,482	3,058,128	83,967,610
Saturday	04/24/10	2,071	88	2,159	80,911,553	3,058,216	83,969,769
Sunday	04/25/10	77	0	77	80,911,630	3,058,216	83,969,846
Monday	04/26/10	203,723	93,576	297,299	81,115,353	3,151,792	84,267,145
Tuesday	04/27/10	167,327	72,907	240,234	81,282,680	3,224,699	84,507,379
Wednesday	04/28/10	79,504	34,587	114,091	81,362,184	3,259,286	84,621,470
Thursday	04/29/10	106,370	51,786	158,156	81,468,554	3,311,072	84,779,626
Friday	04/30/10	80,191	37,594	117,785	81,548,745	3,348,666	84,897,411
Saturday	05/01/10	475	40	515	81,549,220	3,348,706	84,897,926
Sunday	05/02/10	75	0	75	81,549,295	3,348,706	84,898,001
Monday	05/03/10	192,202	69,891	262,093	81,741,497	3,418,597	85,160,094
Tuesday	05/04/10	86,520	30,167	116,687	81,828,017	3,448,764	85,276,781
Wednesday	05/05/10	64,913	25,803	90,716	81,892,930	3,474,567	85,367,497
Thursday	05/06/10	78,250	29,250	107,500	81,971,180	3,503,817	85,474,997
Friday	05/07/10	67,607	23,593	91,200	82,038,787	3,527,410	85,566,197
Saturday	05/08/10	1,290	77	1,367	82,040,077	3,527,487	85,567,564
Sunday	05/09/10	39	0	39	82,040,116	3,527,487	85,567,603
Monday	05/10/10	63,189	25,289	88,478	82,103,305	3,552,776	85,656,081
Tuesday	05/11/10	38,288	10,248	48,536	82,141,593	3,563,024	85,704,617
Wednesday	05/12/10	68,318	21,717	90,035	82,209,911	3,584,741	85,794,652
Thursday	05/13/10	59,448	21,731	81,179	82,269,359	3,606,472	85,875,831
Friday	05/14/10	21,348	7,062	28,410	82,290,707	3,613,534	85,904,241
Saturday	05/15/10	43	4	47	82,290,750	3,613,538	85,904,288
Sunday	05/16/10	40	0	40	82,290,790	3,613,538	85,904,328
Monday	05/17/10	59,457	22,092	81,549	82,350,247	3,635,630	85,985,877

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Tuesday	05/18/10	41,505	10,372	51,877	82,391,752	3,646,002	86,037,754
Wednesday	05/19/10	16,543	4,505	21,048	82,408,295	3,650,507	86,058,802
Thursday	05/20/10	37,275	11,525	48,800	82,445,570	3,662,032	86,107,602
Friday	05/21/10	33,093	8,349	41,442	82,478,663	3,670,381	86,149,044
Saturday	05/22/10	28	0	28	82,478,691	3,670,381	86,149,072
Sunday	05/23/10	15	0	15	82,478,706	3,670,381	86,149,087
Monday	05/24/10	21,194	7,162	28,356	82,499,900	3,677,543	86,177,443
Tuesday	05/25/10	28,264	8,230	36,494	82,528,164	3,685,773	86,213,937
Wednesday	05/26/10	10,111	4,346	14,457	82,538,275	3,690,119	86,228,394
Thursday	05/27/10	10,093	2,949	13,042	82,548,368	3,693,068	86,241,436
Friday	05/28/10	13,891	3,918	17,809	82,562,259	3,696,986	86,259,245
Saturday	05/29/10	57	25	82	82,562,316	3,697,011	86,259,327
Sunday	05/30/10	4	0	4	82,562,320	3,697,011	86,259,331
Monday	05/31/10	5	0	5	82,562,325	3,697,011	86,259,336
Tuesday	06/01/10	27,270	9,422	36,692	82,589,595	3,706,433	86,296,028
Wednesday	06/02/10	8,544	2,037	10,581	82,598,139	3,708,470	86,306,609
Thursday	06/03/10	5,151	1,990	7,141	82,603,290	3,710,460	86,313,750
Friday	06/04/10	8,050	2,088	10,138	82,611,340	3,712,548	86,323,888
Saturday	06/05/10	81	33	114	82,611,421	3,712,581	86,324,002
Sunday	06/06/10	10	2	12	82,611,431	3,712,583	86,324,014
Monday	06/07/10	6,903	2,858	9,761	82,618,334	3,715,441	86,333,775
Tuesday	06/08/10	10,347	2,252	12,599	82,628,681	3,717,693	86,346,374
Wednesday	06/09/10	3,302	1,038	4,340	82,631,983	3,718,731	86,350,714
Thursday	06/10/10	18,898	6,536	25,434	82,650,881	3,725,267	86,376,148
Friday	06/11/10	5,935	1,716	7,651	82,656,816	3,726,983	86,383,799
Saturday	06/12/10	43	6	49	82,656,859	3,726,989	86,383,848
Sunday	06/13/10	6	0	6	82,656,865	3,726,989	86,383,854

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Monday	06/14/10	4,396	1,524	5,920	82,661,261	3,728,513	86,389,774
Tuesday	06/15/10	4,271	1,257	5,528	82,665,532	3,729,770	86,395,302
Wednesday	06/16/10	1,564	497	2,061	82,667,096	3,730,267	86,397,363
Thursday	06/17/10	4,896	1,471	6,367	82,671,992	3,731,738	86,403,730
Friday	06/18/10	6,688	2,017	8,705	82,678,680	3,733,755	86,412,435
Saturday	06/19/10	8	1	9	82,678,688	3,733,756	86,412,444
Sunday	06/20/10	5	0	5	82,678,693	3,733,756	86,412,449
Monday	06/21/10	2,973	929	3,902	82,681,666	3,734,685	86,416,351
Tuesday	06/22/10	3,606	1,089	4,695	82,685,272	3,735,774	86,421,046
Wednesday	06/23/10	1,585	569	2,154	82,686,857	3,736,343	86,423,200
Thursday	06/24/10	2,445	793	3,238	82,689,302	3,737,136	86,426,438
Friday	06/25/10	2,057	682	2,739	82,691,359	3,737,818	86,429,177
Saturday	06/26/10	2	0	2	82,691,361	3,737,818	86,429,179
Sunday	06/27/10	1	0	1	82,691,362	3,737,818	86,429,180
Monday	06/28/10	3,107	867	3,974	82,694,469	3,738,685	86,433,154
Tuesday	06/29/10	3,253	503	3,756	82,697,722	3,739,188	86,436,910
Wednesday	06/30/10	1,932	652	2,584	82,699,654	3,739,840	86,439,494
Thursday	07/01/10	1,696	534	2,230	82,701,350	3,740,374	86,441,724
Friday	07/02/10	1,294	298	1,592	82,702,644	3,740,672	86,443,316
Saturday	07/03/10	4	0	4	82,702,648	3,740,672	86,443,320
Sunday	07/04/10	1	0	1	82,702,649	3,740,672	86,443,321
Monday	07/05/10	9	0	9	82,702,658	3,740,672	86,443,330
Tuesday	07/06/10	3,107	1,039	4,146	82,705,765	3,741,711	86,447,476
Wednesday	07/07/10	1,859	536	2,395	82,707,624	3,742,247	86,449,871
Thursday	07/08/10	818	300	1,118	82,708,442	3,742,547	86,450,989
Friday	07/09/10	1,053	272	1,325	82,709,495	3,742,819	86,452,314
Saturday	07/10/10	4	0	4	82,709,499	3,742,819	86,452,318

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Sunday	07/11/10	0	0	0	82,709,499	3,742,819	86,452,318
Monday	07/12/10	3,816	917	4,733	82,713,315	3,743,736	86,457,051
Tuesday	07/13/10	1,663	170	1,833	82,714,978	3,743,906	86,458,884
Wednesday	07/14/10	1,479	456	1,935	82,716,457	3,744,362	86,460,819
Thursday	07/15/10	787	197	984	82,717,244	3,744,559	86,461,803
Friday	07/16/10	572	165	737	82,717,816	3,744,724	86,462,540
Saturday	07/17/10	5	0	5	82,717,821	3,744,724	86,462,545
Sunday	07/18/10	4	0	4	82,717,825	3,744,724	86,462,549
Monday	07/19/10	2,041	583	2,624	82,719,866	3,745,307	86,465,173
Tuesday	07/20/10	1,558	379	1,937	82,721,424	3,745,686	86,467,110
Wednesday	07/21/10	750	125	875	82,722,174	3,745,811	86,467,985
Thursday	07/22/10	1,429	415	1,844	82,723,603	3,746,226	86,469,829
Friday	07/23/10	617	137	754	82,724,220	3,746,363	86,470,583
Saturday	07/24/10	3	0	3	82,724,223	3,746,363	86,470,586
Sunday	07/25/10	1	0	1	82,724,224	3,746,363	86,470,587
Monday	07/26/10	652	201	853	82,724,876	3,746,564	86,471,440
Tuesday	07/27/10	805	243	1,048	82,725,681	3,746,807	86,472,488
Wednesday	07/28/10	873	183	1,056	82,726,554	3,746,990	86,473,544
Thursday	07/29/10	1,202	335	1,537	82,727,756	3,747,325	86,475,081
Friday	07/30/10	790	114	904	82,728,546	3,747,439	86,475,985
Saturday	07/31/10	0	0	0	82,728,546	3,747,439	86,475,985
Sunday	08/01/10	0	0	0	82,728,546	3,747,439	86,475,985
Monday	08/02/10	662	172	834	82,729,208	3,747,611	86,476,819
Tuesday	08/03/10	974	208	1,182	82,730,182	3,747,819	86,478,001
Wednesday	08/04/10	242	80	322	82,730,424	3,747,899	86,478,323
Thursday	08/05/10	888	279	1,167	82,731,312	3,748,178	86,479,490
Friday	08/06/10	357	74	431	82,731,669	3,748,252	86,479,921

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Saturday	08/07/10	0	0	0	82,731,669	3,748,252	86,479,921
Sunday	08/08/10	0	0	0	82,731,669	3,748,252	86,479,921
Monday	08/09/10	535	153	688	82,732,204	3,748,405	86,480,609
Tuesday	08/10/10	635	202	837	82,732,839	3,748,607	86,481,446
Wednesday	08/11/10	264	56	320	82,733,103	3,748,663	86,481,766
Thursday	08/12/10	450	104	554	82,733,553	3,748,767	86,482,320
Friday	08/13/10	609	156	765	82,734,162	3,748,923	86,483,085
Saturday	08/14/10	0	0	0	82,734,162	3,748,923	86,483,085
Sunday	08/15/10	0	0	0	82,734,162	3,748,923	86,483,085
Monday	08/16/10	713	133	846	82,734,875	3,749,056	86,483,931
Tuesday	08/17/10	455	140	595	82,735,330	3,749,196	86,484,526
Wednesday	08/18/10	329	107	436	82,735,659	3,749,303	86,484,962
Thursday	08/19/10	220	53	273	82,735,879	3,749,356	86,485,235
Friday	08/20/10	290	72	362	82,736,169	3,749,428	86,485,597
Saturday	08/21/10	0	0	0	82,736,169	3,749,428	86,485,597
Sunday	08/22/10	0	0	0	82,736,169	3,749,428	86,485,597
Monday	08/23/10	433	136	569	82,736,602	3,749,564	86,486,166
Tuesday	08/24/10	103	15	118	82,736,705	3,749,579	86,486,284
Wednesday	08/25/10	187	60	247	82,736,892	3,749,639	86,486,531
Thursday	08/26/10	100	48	148	82,736,992	3,749,687	86,486,679
Friday	08/27/10	1,680	456	2,136	82,738,672	3,750,143	86,488,815
Saturday	08/28/10	0	0	0	82,738,672	3,750,143	86,488,815
Sunday	08/29/10	0	0	0	82,738,672	3,750,143	86,488,815
Monday	08/30/10	218	90	308	82,738,890	3,750,233	86,489,123
Tuesday	08/31/10	22	4	26	82,738,912	3,750,237	86,489,149
Wednesday	09/01/10	244	92	336	82,739,156	3,750,329	86,489,485
Thursday	09/02/10	65	5	70	82,739,221	3,750,334	86,489,555

Appendix J: Mail Response Rate Numerators by Day

Day	Date	Daily Mail Response Numerator			Cumulative Mail Response Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	09/03/10	53	4	57	82,739,274	3,750,338	86,489,612
Saturday	09/04/10	0	0	0	82,739,274	3,750,338	86,489,612
Sunday	09/05/10	0	0	0	82,739,274	3,750,338	86,489,612
Monday	09/06/10	0	0	0	82,739,274	3,750,338	86,489,612
Tuesday	09/07/10	72	7	79	82,739,346	3,750,345	86,489,691

Source: DRIS Check-in, DRF, CEF, UCM, and MAF

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	02/26/10	3	0	3	3	0	3
Saturday	02/27/10	4	0	4	7	0	7
Sunday	02/28/10	4	0	4	11	0	11
Monday	03/01/10	26	0	26	37	0	37
Tuesday	03/02/10	28	0	28	65	0	65
Wednesday	03/03/10	25	0	25	90	0	90
Thursday	03/04/10	158,705	0	158,705	158,795	0	158,795
Friday	03/05/10	147,071	0	147,071	305,866	0	305,866
Saturday	03/06/10	91,238	0	91,238	397,104	0	397,104
Sunday	03/07/10	11	0	11	397,115	0	397,115
Monday	03/08/10	413,073	0	413,073	810,188	0	810,188
Tuesday	03/09/10	195,048	0	195,048	1,005,236	0	1,005,236
Wednesday	03/10/10	246,256	0	246,256	1,251,492	0	1,251,492
Thursday	03/11/10	328,716	0	328,716	1,580,208	0	1,580,208
Friday	03/12/10	265,178	0	265,178	1,845,386	0	1,845,386
Saturday	03/13/10	207,870	0	207,870	2,053,256	0	2,053,256
Sunday	03/14/10	14	0	14	2,053,270	0	2,053,270
Monday	03/15/10	380,408	0	380,408	2,433,678	0	2,433,678
Tuesday	03/16/10	255,626	0	255,626	2,689,304	0	2,689,304
Wednesday	03/17/10	785,615	0	785,615	3,474,919	0	3,474,919
Thursday	03/18/10	3,459,729	0	3,459,729	6,934,648	0	6,934,648
Friday	03/19/10	4,759,216	0	4,759,216	11,693,864	0	11,693,864
Saturday	03/20/10	4,506,637	0	4,506,637	16,200,501	0	16,200,501
Sunday	03/21/10	132,063	0	132,063	16,332,564	0	16,332,564
Monday	03/22/10	6,331,943	0	6,331,943	22,664,507	0	22,664,507
Tuesday	03/23/10	7,628,272	0	7,628,272	30,292,779	0	30,292,779
Wednesday	03/24/10	7,864,290	0	7,864,290	38,157,069	0	38,157,069

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Thursday	03/25/10	6,108,311	0	6,108,311	44,265,380	0	44,265,380
Friday	03/26/10	6,753,286	0	6,753,286	51,018,666	0	51,018,666
Saturday	03/27/10	4,246,298	0	4,246,298	55,264,964	0	55,264,964
Sunday	03/28/10	449,008	0	449,008	55,713,972	0	55,713,972
Monday	03/29/10	4,715,669	0	4,715,669	60,429,641	0	60,429,641
Tuesday	03/30/10	1,099,579	0	1,099,579	61,529,220	0	61,529,220
Wednesday	03/31/10	2,089,482	0	2,089,482	63,618,702	0	63,618,702
Thursday	04/01/10	2,308,184	219	2,308,403	65,926,886	219	65,927,105
Friday	04/02/10	2,261,606	5,582	2,267,188	68,188,492	5,801	68,194,293
Saturday	04/03/10	1,971,413	44,260	2,015,673	70,159,905	50,061	70,209,966
Sunday	04/04/10	74	0	74	70,159,979	50,061	70,210,040
Monday	04/05/10	2,438,895	258,314	2,697,209	72,598,874	308,375	72,907,249
Tuesday	04/06/10	686,191	132,162	818,353	73,285,065	440,537	73,725,602
Wednesday	04/07/10	990,691	179,887	1,170,578	74,275,756	620,424	74,896,180
Thursday	04/08/10	997,645	188,389	1,186,034	75,273,401	808,813	76,082,214
Friday	04/09/10	742,729	145,166	887,895	76,016,130	953,979	76,970,109
Saturday	04/10/10	269,283	36,282	305,565	76,285,413	990,261	77,275,674
Sunday	04/11/10	90	1	91	76,285,503	990,262	77,275,765
Monday	04/12/10	964,389	235,114	1,199,503	77,249,892	1,225,376	78,475,268
Tuesday	04/13/10	161,849	42,189	204,038	77,411,741	1,267,565	78,679,306
Wednesday	04/14/10	506,699	216,200	722,899	77,918,440	1,483,765	79,402,205
Thursday	04/15/10	546,256	258,282	804,538	78,464,696	1,742,047	80,206,743
Friday	04/16/10	446,534	290,334	736,868	78,911,230	2,032,381	80,943,611
Saturday	04/17/10	15,128	185	15,313	78,926,358	2,032,566	80,958,924
Sunday	04/18/10	1,215	0	1,215	78,927,573	2,032,566	80,960,139
Monday	04/19/10	1,007,713	513,856	1,521,569	79,935,286	2,546,422	82,481,708
Tuesday	04/20/10	163,671	109,860	273,531	80,098,957	2,656,282	82,755,239

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Wednesday	04/21/10	306,157	178,909	485,066	80,405,114	2,835,191	83,240,305
Thursday	04/22/10	249,697	117,625	367,322	80,654,811	2,952,816	83,607,627
Friday	04/23/10	182,154	98,993	281,147	80,836,965	3,051,809	83,888,774
Saturday	04/24/10	2,036	87	2,123	80,839,001	3,051,896	83,890,897
Sunday	04/25/10	74	0	74	80,839,075	3,051,896	83,890,971
Monday	04/26/10	201,586	92,603	294,189	81,040,661	3,144,499	84,185,160
Tuesday	04/27/10	165,208	71,796	237,004	81,205,869	3,216,295	84,422,164
Wednesday	04/28/10	78,389	34,069	112,458	81,284,258	3,250,364	84,534,622
Thursday	04/29/10	104,615	50,826	155,441	81,388,873	3,301,190	84,690,063
Friday	04/30/10	77,840	36,370	114,210	81,466,713	3,337,560	84,804,273
Saturday	05/01/10	464	36	500	81,467,177	3,337,596	84,804,773
Sunday	05/02/10	73	0	73	81,467,250	3,337,596	84,804,846
Monday	05/03/10	187,096	67,681	254,777	81,654,346	3,405,277	85,059,623
Tuesday	05/04/10	83,829	28,980	112,809	81,738,175	3,434,257	85,172,432
Wednesday	05/05/10	62,920	24,903	87,823	81,801,095	3,459,160	85,260,255
Thursday	05/06/10	75,730	28,222	103,952	81,876,825	3,487,382	85,364,207
Friday	05/07/10	65,626	22,788	88,414	81,942,451	3,510,170	85,452,621
Saturday	05/08/10	1,269	76	1,345	81,943,720	3,510,246	85,453,966
Sunday	05/09/10	37	0	37	81,943,757	3,510,246	85,454,003
Monday	05/10/10	61,347	24,558	85,905	82,005,104	3,534,804	85,539,908
Tuesday	05/11/10	37,121	9,813	46,934	82,042,225	3,544,617	85,586,842
Wednesday	05/12/10	66,073	20,765	86,838	82,108,298	3,565,382	85,673,680
Thursday	05/13/10	57,281	20,756	78,037	82,165,579	3,586,138	85,751,717
Friday	05/14/10	20,659	6,848	27,507	82,186,238	3,592,986	85,779,224
Saturday	05/15/10	43	3	46	82,186,281	3,592,989	85,779,270
Sunday	05/16/10	38	0	38	82,186,319	3,592,989	85,779,308
Monday	05/17/10	57,298	21,186	78,484	82,243,617	3,614,175	85,857,792

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Tuesday	05/18/10	39,911	9,859	49,770	82,283,528	3,624,034	85,907,562
Wednesday	05/19/10	15,967	4,309	20,276	82,299,495	3,628,343	85,927,838
Thursday	05/20/10	35,732	10,996	46,728	82,335,227	3,639,339	85,974,566
Friday	05/21/10	31,753	7,979	39,732	82,366,980	3,647,318	86,014,298
Saturday	05/22/10	27	0	27	82,367,007	3,647,318	86,014,325
Sunday	05/23/10	15	0	15	82,367,022	3,647,318	86,014,340
Monday	05/24/10	20,388	6,870	27,258	82,387,410	3,654,188	86,041,598
Tuesday	05/25/10	26,931	7,834	34,765	82,414,341	3,662,022	86,076,363
Wednesday	05/26/10	9,634	4,114	13,748	82,423,975	3,666,136	86,090,111
Thursday	05/27/10	9,586	2,827	12,413	82,433,561	3,668,963	86,102,524
Friday	05/28/10	13,170	3,722	16,892	82,446,731	3,672,685	86,119,416
Saturday	05/29/10	55	25	80	82,446,786	3,672,710	86,119,496
Sunday	05/30/10	4	0	4	82,446,790	3,672,710	86,119,500
Monday	05/31/10	5	0	5	82,446,795	3,672,710	86,119,505
Tuesday	06/01/10	25,810	8,898	34,708	82,472,605	3,681,608	86,154,213
Wednesday	06/02/10	8,052	1,873	9,925	82,480,657	3,683,481	86,164,138
Thursday	06/03/10	4,832	1,877	6,709	82,485,489	3,685,358	86,170,847
Friday	06/04/10	7,498	1,964	9,462	82,492,987	3,687,322	86,180,309
Saturday	06/05/10	80	32	112	82,493,067	3,687,354	86,180,421
Sunday	06/06/10	9	1	10	82,493,076	3,687,355	86,180,431
Monday	06/07/10	6,529	2,709	9,238	82,499,605	3,690,064	86,189,669
Tuesday	06/08/10	9,638	2,077	11,715	82,509,243	3,692,141	86,201,384
Wednesday	06/09/10	3,123	986	4,109	82,512,366	3,693,127	86,205,493
Thursday	06/10/10	17,572	6,031	23,603	82,529,938	3,699,158	86,229,096
Friday	06/11/10	5,483	1,588	7,071	82,535,421	3,700,746	86,236,167
Saturday	06/12/10	41	5	46	82,535,462	3,700,751	86,236,213
Sunday	06/13/10	5	0	5	82,535,467	3,700,751	86,236,218

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Monday	06/14/10	4,051	1,445	5,496	82,539,518	3,702,196	86,241,714
Tuesday	06/15/10	3,965	1,162	5,127	82,543,483	3,703,358	86,246,841
Wednesday	06/16/10	1,456	473	1,929	82,544,939	3,703,831	86,248,770
Thursday	06/17/10	4,518	1,372	5,890	82,549,457	3,705,203	86,254,660
Friday	06/18/10	6,206	1,884	8,090	82,555,663	3,707,087	86,262,750
Saturday	06/19/10	8	0	8	82,555,671	3,707,087	86,262,758
Sunday	06/20/10	5	0	5	82,555,676	3,707,087	86,262,763
Monday	06/21/10	2,744	861	3,605	82,558,420	3,707,948	86,266,368
Tuesday	06/22/10	3,322	970	4,292	82,561,742	3,708,918	86,270,660
Wednesday	06/23/10	1,447	527	1,974	82,563,189	3,709,445	86,272,634
Thursday	06/24/10	2,141	728	2,869	82,565,330	3,710,173	86,275,503
Friday	06/25/10	1,828	606	2,434	82,567,158	3,710,779	86,277,937
Saturday	06/26/10	2	0	2	82,567,160	3,710,779	86,277,939
Sunday	06/27/10	1	0	1	82,567,161	3,710,779	86,277,940
Monday	06/28/10	2,791	770	3,561	82,569,952	3,711,549	86,281,501
Tuesday	06/29/10	2,947	440	3,387	82,572,899	3,711,989	86,284,888
Wednesday	06/30/10	1,701	572	2,273	82,574,600	3,712,561	86,287,161
Thursday	07/01/10	1,496	471	1,967	82,576,096	3,713,032	86,289,128
Friday	07/02/10	1,165	267	1,432	82,577,261	3,713,299	86,290,560
Saturday	07/03/10	3	0	3	82,577,264	3,713,299	86,290,563
Sunday	07/04/10	1	0	1	82,577,265	3,713,299	86,290,564
Monday	07/05/10	6	0	6	82,577,271	3,713,299	86,290,570
Tuesday	07/06/10	2,718	911	3,629	82,579,989	3,714,210	86,294,199
Wednesday	07/07/10	1,606	473	2,079	82,581,595	3,714,683	86,296,278
Thursday	07/08/10	758	275	1,033	82,582,353	3,714,958	86,297,311
Friday	07/09/10	905	235	1,140	82,583,258	3,715,193	86,298,451
Saturday	07/10/10	4	0	4	82,583,262	3,715,193	86,298,455

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Sunday	07/11/10	0	0	0	82,583,262	3,715,193	86,298,455
Monday	07/12/10	3,464	821	4,285	82,586,726	3,716,014	86,302,740
Tuesday	07/13/10	1,554	147	1,701	82,588,280	3,716,161	86,304,441
Wednesday	07/14/10	1,260	384	1,644	82,589,540	3,716,545	86,306,085
Thursday	07/15/10	679	170	849	82,590,219	3,716,715	86,306,934
Friday	07/16/10	499	140	639	82,590,718	3,716,855	86,307,573
Saturday	07/17/10	5	0	5	82,590,723	3,716,855	86,307,578
Sunday	07/18/10	3	0	3	82,590,726	3,716,855	86,307,581
Monday	07/19/10	1,763	506	2,269	82,592,489	3,717,361	86,309,850
Tuesday	07/20/10	1,365	323	1,688	82,593,854	3,717,684	86,311,538
Wednesday	07/21/10	648	113	761	82,594,502	3,717,797	86,312,299
Thursday	07/22/10	1,235	359	1,594	82,595,737	3,718,156	86,313,893
Friday	07/23/10	547	114	661	82,596,284	3,718,270	86,314,554
Saturday	07/24/10	3	0	3	82,596,287	3,718,270	86,314,557
Sunday	07/25/10	1	0	1	82,596,288	3,718,270	86,314,558
Monday	07/26/10	559	166	725	82,596,847	3,718,436	86,315,283
Tuesday	07/27/10	686	211	897	82,597,533	3,718,647	86,316,180
Wednesday	07/28/10	800	161	961	82,598,333	3,718,808	86,317,141
Thursday	07/29/10	1,059	279	1,338	82,599,392	3,719,087	86,318,479
Friday	07/30/10	715	96	811	82,600,107	3,719,183	86,319,290
Saturday	07/31/10	0	0	0	82,600,107	3,719,183	86,319,290
Sunday	08/01/10	0	0	0	82,600,107	3,719,183	86,319,290
Monday	08/02/10	568	146	714	82,600,675	3,719,329	86,320,004
Tuesday	08/03/10	823	174	997	82,601,498	3,719,503	86,321,001
Wednesday	08/04/10	218	67	285	82,601,716	3,719,570	86,321,286
Thursday	08/05/10	772	228	1,000	82,602,488	3,719,798	86,322,286
Friday	08/06/10	314	67	381	82,602,802	3,719,865	86,322,667

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Saturday	08/07/10	0	0	0	82,602,802	3,719,865	86,322,667
Sunday	08/08/10	0	0	0	82,602,802	3,719,865	86,322,667
Monday	08/09/10	439	127	566	82,603,241	3,719,992	86,323,233
Tuesday	08/10/10	534	168	702	82,603,775	3,720,160	86,323,935
Wednesday	08/11/10	232	49	281	82,604,007	3,720,209	86,324,216
Thursday	08/12/10	403	93	496	82,604,410	3,720,302	86,324,712
Friday	08/13/10	516	134	650	82,604,926	3,720,436	86,325,362
Saturday	08/14/10	0	0	0	82,604,926	3,720,436	86,325,362
Sunday	08/15/10	0	0	0	82,604,926	3,720,436	86,325,362
Monday	08/16/10	619	110	729	82,605,545	3,720,546	86,326,091
Tuesday	08/17/10	395	112	507	82,605,940	3,720,658	86,326,598
Wednesday	08/18/10	279	89	368	82,606,219	3,720,747	86,326,966
Thursday	08/19/10	204	49	253	82,606,423	3,720,796	86,327,219
Friday	08/20/10	257	66	323	82,606,680	3,720,862	86,327,542
Saturday	08/21/10	0	0	0	82,606,680	3,720,862	86,327,542
Sunday	08/22/10	0	0	0	82,606,680	3,720,862	86,327,542
Monday	08/23/10	387	118	505	82,607,067	3,720,980	86,328,047
Tuesday	08/24/10	90	14	104	82,607,157	3,720,994	86,328,151
Wednesday	08/25/10	168	47	215	82,607,325	3,721,041	86,328,366
Thursday	08/26/10	85	40	125	82,607,410	3,721,081	86,328,491
Friday	08/27/10	1,521	399	1,920	82,608,931	3,721,480	86,330,411
Saturday	08/28/10	0	0	0	82,608,931	3,721,480	86,330,411
Sunday	08/29/10	0	0	0	82,608,931	3,721,480	86,330,411
Monday	08/30/10	210	88	298	82,609,141	3,721,568	86,330,709
Tuesday	08/31/10	18	3	21	82,609,159	3,721,571	86,330,730
Wednesday	09/01/10	235	90	325	82,609,394	3,721,661	86,331,055
Thursday	09/02/10	59	5	64	82,609,453	3,721,666	86,331,119

Appendix K: Mail Return Rate Numerators by Day

Day	Date	Daily Mail Return Numerator			Cumulative Mail Return Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	09/03/10	49	3	52	82,609,502	3,721,669	86,331,171
Saturday	09/04/10	0	0	0	82,609,502	3,721,669	86,331,171
Sunday	09/05/10	0	0	0	82,609,502	3,721,669	86,331,171
Monday	09/06/10	0	0	0	82,609,502	3,721,669	86,331,171
Tuesday	09/07/10	66	6	72	82,609,568	3,721,675	86,331,243

Source: DRIS Check-in, DRF, CEF, UCM, and MAF

Appendix L: Mail Return Rate Numerators and Denominators for Initial and Replacement Questionnaires

		Numerator – April 19, 2010			Numerator – September 7, 2010			Denominator
		Total	Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	
Total		82,481,708	79,935,286	2,546,422	86,331,243	82,609,568	3,721,675	108,879,340
Type of Enumeration Area	Mailout/Mailback	76,988,906	74,442,495	2,546,411	80,651,247	76,929,593	3,721,654	101,313,745
	Update/Leave	4,309,340	4,309,330	10	4,448,076	4,448,060	16	5,794,623
	Urban Update/Leave	1,183,462	1,183,461	1	1,231,920	1,231,915	5	1,770,972
Replacement Mailing	Blanket	13,263,741	11,698,829	1,564,912	13,933,531	12,011,203	1,922,328	18,595,793
	Target	17,970,460	16,988,950	981,510	19,251,910	17,452,563	1,799,347	23,927,726
	None	51,247,507	51,247,507	0	53,145,802	53,145,802	0	66,355,821
Age in Years of Householder	15-17	6,368	5,762	606	7,067	6,163	904	23,253
	18-24	2,439,213	2,250,700	188,513	2,664,316	2,379,402	284,914	4,813,541
	25-44	24,233,777	23,151,295	1,082,482	25,937,814	24,300,745	1,637,069	36,590,143
	45-64	34,570,073	33,634,307	935,766	36,089,284	34,740,502	1,348,782	43,402,876
	65 +	21,232,277	20,893,222	339,055	21,632,762	21,182,756	450,006	24,049,527
Race of Householder	White	66,443,494	64,854,863	1,588,631	69,165,983	66,827,656	2,338,327	83,831,706
	Black	8,618,148	8,012,335	605,813	9,221,262	8,367,236	854,026	13,168,018
	American Indian	470,878	447,171	23,707	505,591	470,344	35,247	724,052
	Asian	3,145,021	3,023,239	121,782	3,335,590	3,152,058	183,532	4,426,620

Appendix L: Mail Return Rate Numerators and Denominators for Initial and Replacement Questionnaires

		Numerator – April 19, 2010			Numerator – September 7, 2010			Denominator
		Total	Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	
	Pacific Islander	73,229	68,767	4,462	79,418	72,589	6,829	133,117
	Other	2,364,560	2,232,518	132,042	2,552,025	2,353,635	198,390	4,544,552
	Two or More	1,366,378	1,296,393	69,985	1,471,374	1,366,050	105,324	2,051,275
Hispanic Origin of Householder	Non-Hispanic	74,290,716	72,107,400	2,183,316	77,572,461	74,401,667	3,170,794	96,321,202
	Hispanic	8,190,992	7,827,886	363,106	8,758,782	8,207,901	550,881	12,558,138
Persons in Household	One	21,184,810	20,499,339	685,471	22,157,997	21,144,051	1,013,946	28,603,497
	Two	28,883,875	28,173,154	710,721	29,891,389	28,872,439	1,018,950	35,646,042
	Three	13,154,643	12,716,862	437,781	13,834,567	13,191,895	642,672	17,666,296
	Four	10,868,113	10,513,644	354,469	11,480,124	10,957,740	522,384	14,785,213
	Five	4,953,936	4,764,228	189,708	5,274,671	4,995,490	279,181	7,116,478
	Six	1,995,778	1,904,885	90,893	2,138,604	2,006,104	132,500	2,910,819
	Seven or More	1,440,553	1,363,174	77,379	1,553,891	1,441,849	112,042	2,150,995
Tenure of Household	Owner-occupied	59,062,390	57,842,241	1,220,149	61,325,229	59,544,478	1,780,751	71,489,829
	Renter-occupied	23,419,318	22,093,045	1,326,273	25,006,014	23,065,090	1,940,924	37,389,511

Source: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

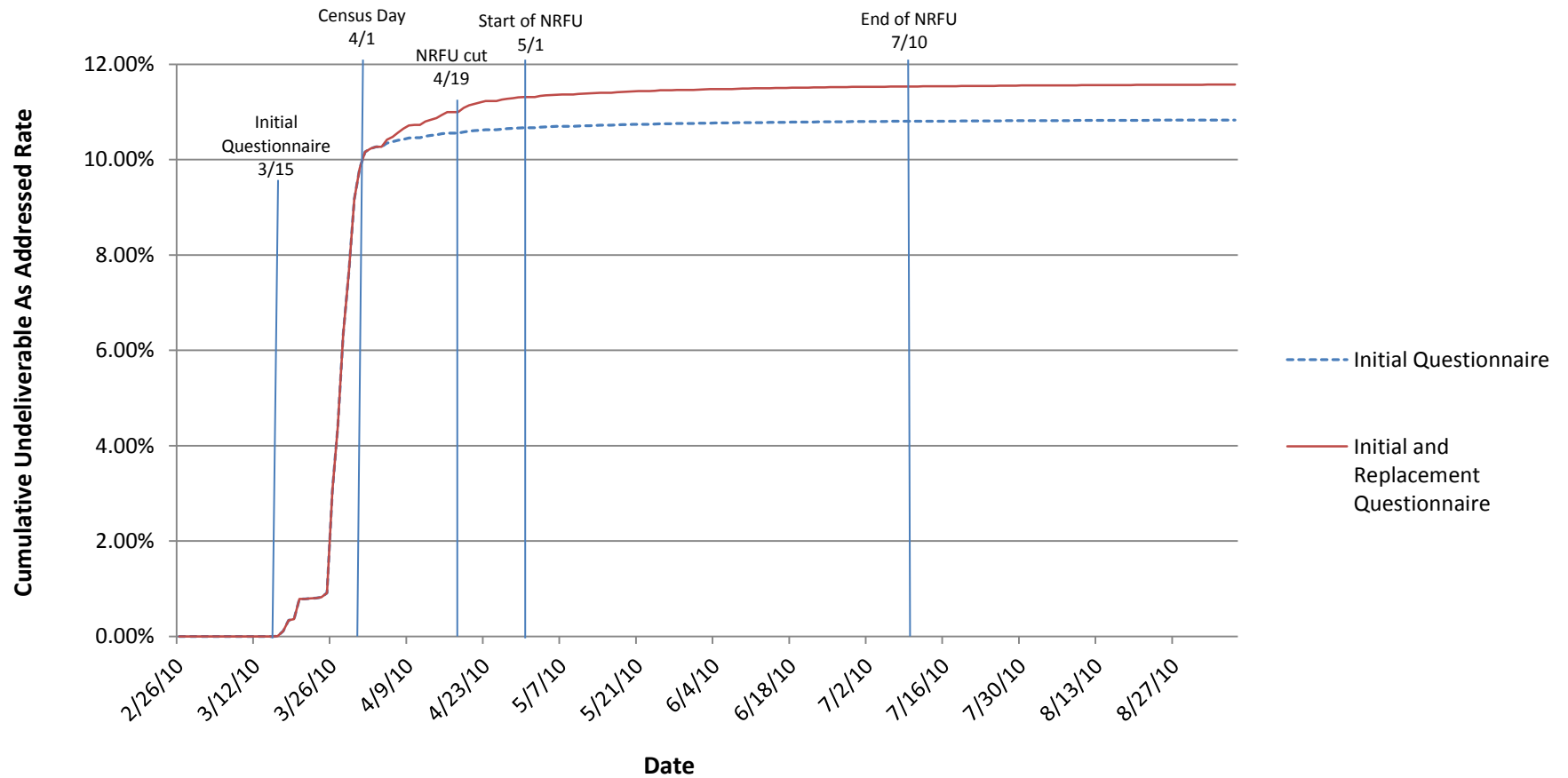
Appendix M: Undeliverable As Addressed Rate Numerators and Denominators

		Numerator – April 19, 2010			Numerator – September 7, 2010			Denominator
		Total	Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	
Total		13,266,550	12,659,851	606,699	13,847,462	12,959,887	887,575	119,648,117
Replacement Mailing	Blanket	4,520,304	4,089,626	430,678	4,694,837	4,177,975	516,862	24,763,803
	Target	3,574,888	3,398,867	176,021	3,842,129	3,471,416	370,713	28,810,828
	None	5,171,358	5,171,358	0	5,310,496	5,310,496	0	66,073,486

Source: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Appendix N: Figure Illustrating the Cumulative Undeliverable As Addressed Rates for Initial Questionnaires and All Questionnaires by Day

Figure 3: Cumulative Undeliverable As Addressed Rates by Day



Sources: DRIS Check-in, DRF, CEF, UCM, MAF, U/L Addup, and Unmailables

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	02/26/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saturday	02/27/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sunday	02/28/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monday	03/01/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tuesday	03/02/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wednesday	03/03/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Thursday	03/04/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Friday	03/05/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saturday	03/06/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sunday	03/07/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monday	03/08/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tuesday	03/09/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wednesday	03/10/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Thursday	03/11/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Friday	03/12/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saturday	03/13/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sunday	03/14/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monday	03/15/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tuesday	03/16/10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wednesday	03/17/10	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%
Thursday	03/18/10	0.2%	0.0%	0.2%	0.3%	0.0%	0.3%
Friday	03/19/10	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%
Saturday	03/20/10	0.4%	0.0%	0.4%	0.8%	0.0%	0.8%
Sunday	03/21/10	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%
Monday	03/22/10	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%
Tuesday	03/23/10	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Wednesday	03/24/10	0.0%	0.0%	0.0%	0.8%	0.0%	0.8%
Thursday	03/25/10	0.1%	0.0%	0.1%	0.9%	0.0%	0.9%
Friday	03/26/10	2.1%	0.0%	2.1%	3.1%	0.0%	3.1%
Saturday	03/27/10	1.3%	0.0%	1.3%	4.4%	0.0%	4.4%
Sunday	03/28/10	1.9%	0.0%	1.9%	6.3%	0.0%	6.3%
Monday	03/29/10	1.3%	0.0%	1.3%	7.6%	0.0%	7.6%
Tuesday	03/30/10	1.5%	0.0%	1.5%	9.2%	0.0%	9.2%
Wednesday	03/31/10	0.6%	0.0%	0.6%	9.8%	0.0%	9.8%
Thursday	04/01/10	0.3%	0.0%	0.3%	10.2%	0.0%	10.2%
Friday	04/02/10	0.1%	0.0%	0.1%	10.2%	0.0%	10.2%
Saturday	04/03/10	0.0%	0.0%	0.0%	10.3%	0.0%	10.3%
Sunday	04/04/10	0.0%	0.0%	0.0%	10.3%	0.0%	10.3%
Monday	04/05/10	0.1%	0.1%	0.2%	10.3%	0.1%	10.4%
Tuesday	04/06/10	0.0%	0.0%	0.1%	10.4%	0.1%	10.5%
Wednesday	04/07/10	0.0%	0.1%	0.1%	10.4%	0.2%	10.6%
Thursday	04/08/10	0.0%	0.1%	0.1%	10.4%	0.2%	10.7%
Friday	04/09/10	0.0%	0.0%	0.1%	10.5%	0.3%	10.7%
Saturday	04/10/10	0.0%	0.0%	0.0%	10.5%	0.3%	10.7%
Sunday	04/11/10	0.0%	0.0%	0.0%	10.5%	0.3%	10.7%
Monday	04/12/10	0.0%	0.0%	0.1%	10.5%	0.3%	10.8%
Tuesday	04/13/10	0.0%	0.0%	0.0%	10.5%	0.3%	10.8%
Wednesday	04/14/10	0.0%	0.0%	0.0%	10.5%	0.4%	10.9%
Thursday	04/15/10	0.0%	0.0%	0.1%	10.5%	0.4%	10.9%
Friday	04/16/10	0.0%	0.0%	0.1%	10.6%	0.4%	11.0%
Saturday	04/17/10	0.0%	0.0%	0.0%	10.6%	0.4%	11.0%
Sunday	04/18/10	0.0%	0.0%	0.0%	10.6%	0.4%	11.0%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Monday	04/19/10	0.0%	0.1%	0.1%	10.6%	0.5%	11.1%
Tuesday	04/20/10	0.0%	0.0%	0.0%	10.6%	0.5%	11.1%
Wednesday	04/21/10	0.0%	0.0%	0.0%	10.6%	0.6%	11.2%
Thursday	04/22/10	0.0%	0.0%	0.0%	10.6%	0.6%	11.2%
Friday	04/23/10	0.0%	0.0%	0.0%	10.6%	0.6%	11.2%
Saturday	04/24/10	0.0%	0.0%	0.0%	10.6%	0.6%	11.2%
Sunday	04/25/10	0.0%	0.0%	0.0%	10.6%	0.6%	11.2%
Monday	04/26/10	0.0%	0.0%	0.0%	10.6%	0.6%	11.3%
Tuesday	04/27/10	0.0%	0.0%	0.0%	10.7%	0.6%	11.3%
Wednesday	04/28/10	0.0%	0.0%	0.0%	10.7%	0.6%	11.3%
Thursday	04/29/10	0.0%	0.0%	0.0%	10.7%	0.6%	11.3%
Friday	04/30/10	0.0%	0.0%	0.0%	10.7%	0.6%	11.3%
Saturday	05/01/10	0.0%	0.0%	0.0%	10.7%	0.6%	11.3%
Sunday	05/02/10	0.0%	0.0%	0.0%	10.7%	0.6%	11.3%
Monday	05/03/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.3%
Tuesday	05/04/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.3%
Wednesday	05/05/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Thursday	05/06/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Friday	05/07/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Saturday	05/08/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Sunday	05/09/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Monday	05/10/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Tuesday	05/11/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Wednesday	05/12/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Thursday	05/13/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Friday	05/14/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Saturday	05/15/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Sunday	05/16/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Monday	05/17/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Tuesday	05/18/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Wednesday	05/19/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Thursday	05/20/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Friday	05/21/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Saturday	05/22/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Sunday	05/23/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Monday	05/24/10	0.0%	0.0%	0.0%	10.7%	0.7%	11.4%
Tuesday	05/25/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	05/26/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	05/27/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	05/28/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	05/29/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	05/30/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	05/31/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	06/01/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	06/02/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	06/03/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	06/04/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	06/05/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	06/06/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	06/07/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	06/08/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	06/09/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Thursday	06/10/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	06/11/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	06/12/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	06/13/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	06/14/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	06/15/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	06/16/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	06/17/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	06/18/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	06/19/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	06/20/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	06/21/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	06/22/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	06/23/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	06/24/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	06/25/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	06/26/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	06/27/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	06/28/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	06/29/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	06/30/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	07/01/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	07/02/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	07/03/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	07/04/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	07/05/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Tuesday	07/06/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	07/07/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	07/08/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	07/09/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	07/10/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	07/11/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	07/12/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	07/13/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	07/14/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	07/15/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	07/16/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	07/17/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	07/18/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	07/19/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	07/20/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Wednesday	07/21/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Thursday	07/22/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Friday	07/23/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Saturday	07/24/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Sunday	07/25/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Monday	07/26/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.5%
Tuesday	07/27/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Wednesday	07/28/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Thursday	07/29/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Friday	07/30/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Saturday	07/31/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Sunday	08/01/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Monday	08/02/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Tuesday	08/03/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Wednesday	08/04/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Thursday	08/05/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Friday	08/06/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Saturday	08/07/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Sunday	08/08/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Monday	08/09/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Tuesday	08/10/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Wednesday	08/11/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Thursday	08/12/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Friday	08/13/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Saturday	08/14/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Sunday	08/15/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Monday	08/16/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Tuesday	08/17/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Wednesday	08/18/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Thursday	08/19/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Friday	08/20/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Saturday	08/21/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Sunday	08/22/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Monday	08/23/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Tuesday	08/24/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Wednesday	08/25/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Thursday	08/26/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%

Appendix O: Undeliverable As Addressed Rates by Day

Day	Date	Daily Undeliverable As Addressed Rate			Cumulative Undeliverable As Addressed Rate		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Friday	08/27/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Saturday	08/28/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Sunday	08/29/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Monday	08/30/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Tuesday	08/31/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Wednesday	09/01/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Thursday	09/02/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Friday	09/03/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Saturday	09/04/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Sunday	09/05/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Monday	09/06/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%
Tuesday	09/07/10	0.0%	0.0%	0.0%	10.8%	0.7%	11.6%

Source: DRIS Check-in, DRF, CEF, UCM, and MAF

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Friday	02/26/10	0	0	0	0	0	0
Saturday	02/27/10	0	0	0	0	0	0
Sunday	02/28/10	0	0	0	0	0	0
Monday	03/01/10	0	0	0	0	0	0
Tuesday	03/02/10	0	0	0	0	0	0
Wednesday	03/03/10	0	0	0	0	0	0
Thursday	03/04/10	0	0	0	0	0	0
Friday	03/05/10	0	0	0	0	0	0
Saturday	03/06/10	0	0	0	0	0	0
Sunday	03/07/10	0	0	0	0	0	0
Monday	03/08/10	0	0	0	0	0	0
Tuesday	03/09/10	0	0	0	0	0	0
Wednesday	03/10/10	0	0	0	0	0	0
Thursday	03/11/10	0	0	0	0	0	0
Friday	03/12/10	0	0	0	0	0	0
Saturday	03/13/10	0	0	0	0	0	0
Sunday	03/14/10	0	0	0	0	0	0
Monday	03/15/10	1	0	1	1	0	1
Tuesday	03/16/10	1,111	0	1,111	1,112	0	1,112
Wednesday	03/17/10	131,365	0	131,365	132,477	0	132,477
Thursday	03/18/10	270,427	0	270,427	402,904	0	402,904
Friday	03/19/10	28,066	0	28,066	430,970	0	430,970
Saturday	03/20/10	505,071	0	505,071	936,041	0	936,041
Sunday	03/21/10	0	0	0	936,041	0	936,041
Monday	03/22/10	17,503	0	17,503	953,544	0	953,544
Tuesday	03/23/10	6,010	0	6,010	959,554	0	959,554

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Wednesday	03/24/10	18,172	0	18,172	977,726	0	977,726
Thursday	03/25/10	110,802	0	110,802	1,088,528	0	1,088,528
Friday	03/26/10	2,569,291	0	2,569,291	3,657,819	0	3,657,819
Saturday	03/27/10	1,603,920	0	1,603,920	5,261,739	0	5,261,739
Sunday	03/28/10	2,314,613	0	2,314,613	7,576,352	0	7,576,352
Monday	03/29/10	1,570,211	0	1,570,211	9,146,563	0	9,146,563
Tuesday	03/30/10	1,823,259	0	1,823,259	10,969,822	0	10,969,822
Wednesday	03/31/10	777,533	0	777,533	11,747,355	0	11,747,355
Thursday	04/01/10	410,289	0	410,289	12,157,644	0	12,157,644
Friday	04/02/10	88,763	443	89,206	12,246,407	443	12,246,850
Saturday	04/03/10	41,480	1,197	42,677	12,287,887	1,640	12,289,527
Sunday	04/04/10	0	0	0	12,287,887	1,640	12,289,527
Monday	04/05/10	94,209	85,919	180,128	12,382,096	87,559	12,469,655
Tuesday	04/06/10	33,072	38,539	71,611	12,415,168	126,098	12,541,266
Wednesday	04/07/10	33,888	68,981	102,869	12,449,056	195,079	12,644,135
Thursday	04/08/10	27,784	75,878	103,662	12,476,840	270,957	12,747,797
Friday	04/09/10	29,149	44,825	73,974	12,505,989	315,782	12,821,771
Saturday	04/10/10	8,928	7,068	15,996	12,514,917	322,850	12,837,767
Sunday	04/11/10	0	0	0	12,514,917	322,850	12,837,767
Monday	04/12/10	39,235	46,278	85,513	12,554,152	369,128	12,923,280
Tuesday	04/13/10	20,498	23,970	44,468	12,574,650	393,098	12,967,748
Wednesday	04/14/10	14,677	28,971	43,648	12,589,327	422,069	13,011,396
Thursday	04/15/10	27,760	51,348	79,108	12,617,087	473,417	13,090,504
Friday	04/16/10	16,286	52,584	68,870	12,633,373	526,001	13,159,374
Saturday	04/17/10	0	0	0	12,633,373	526,001	13,159,374
Sunday	04/18/10	0	0	0	12,633,373	526,001	13,159,374

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Monday	04/19/10	26,478	80,698	107,176	12,659,851	606,699	13,266,550
Tuesday	04/20/10	20,013	39,598	59,611	12,679,864	646,297	13,326,161
Wednesday	04/21/10	11,396	30,121	41,517	12,691,260	676,418	13,367,678
Thursday	04/22/10	12,569	22,270	34,839	12,703,829	698,688	13,402,517
Friday	04/23/10	13,246	21,847	35,093	12,717,075	720,535	13,437,610
Saturday	04/24/10	0	0	0	12,717,075	720,535	13,437,610
Sunday	04/25/10	0	0	0	12,717,075	720,535	13,437,610
Monday	04/26/10	13,022	20,659	33,681	12,730,097	741,194	13,471,291
Tuesday	04/27/10	13,085	11,589	24,674	12,743,182	752,783	13,495,965
Wednesday	04/28/10	5,253	5,062	10,315	12,748,435	757,845	13,506,280
Thursday	04/29/10	11,461	8,818	20,279	12,759,896	766,663	13,526,559
Friday	04/30/10	4,970	4,570	9,540	12,764,866	771,233	13,536,099
Saturday	05/01/10	0	0	0	12,764,866	771,233	13,536,099
Sunday	05/02/10	0	0	0	12,764,866	771,233	13,536,099
Monday	05/03/10	14,492	11,139	25,631	12,779,358	782,372	13,561,730
Tuesday	05/04/10	9,063	5,555	14,618	12,788,421	787,927	13,576,348
Wednesday	05/05/10	5,120	3,190	8,310	12,793,541	791,117	13,584,658
Thursday	05/06/10	5,572	4,558	10,130	12,799,113	795,675	13,594,788
Friday	05/07/10	3,228	3,045	6,273	12,802,341	798,720	13,601,061
Saturday	05/08/10	0	0	0	12,802,341	798,720	13,601,061
Sunday	05/09/10	0	0	0	12,802,341	798,720	13,601,061
Monday	05/10/10	5,660	5,059	10,719	12,808,001	803,779	13,611,780
Tuesday	05/11/10	4,429	3,413	7,842	12,812,430	807,192	13,619,622
Wednesday	05/12/10	5,202	3,310	8,512	12,817,632	810,502	13,628,134
Thursday	05/13/10	5,317	3,477	8,794	12,822,949	813,979	13,636,928
Friday	05/14/10	4,177	2,326	6,503	12,827,126	816,305	13,643,431

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Saturday	05/15/10	0	0	0	12,827,126	816,305	13,643,431
Sunday	05/16/10	0	0	0	12,827,126	816,305	13,643,431
Monday	05/17/10	10,443	6,375	16,818	12,837,569	822,680	13,660,249
Tuesday	05/18/10	5,202	2,677	7,879	12,842,771	825,357	13,668,128
Wednesday	05/19/10	1,526	1,274	2,800	12,844,297	826,631	13,670,928
Thursday	05/20/10	4,775	2,961	7,736	12,849,072	829,592	13,678,664
Friday	05/21/10	4,923	3,226	8,149	12,853,995	832,818	13,686,813
Saturday	05/22/10	0	0	0	12,853,995	832,818	13,686,813
Sunday	05/23/10	0	0	0	12,853,995	832,818	13,686,813
Monday	05/24/10	4,727	3,399	8,126	12,858,722	836,217	13,694,939
Tuesday	05/25/10	6,423	3,304	9,727	12,865,145	839,521	13,704,666
Wednesday	05/26/10	1,534	988	2,522	12,866,679	840,509	13,707,188
Thursday	05/27/10	1,693	1,281	2,974	12,868,372	841,790	13,710,162
Friday	05/28/10	2,218	1,655	3,873	12,870,590	843,445	13,714,035
Saturday	05/29/10	0	0	0	12,870,590	843,445	13,714,035
Sunday	05/30/10	0	0	0	12,870,590	843,445	13,714,035
Monday	05/31/10	0	0	0	12,870,590	843,445	13,714,035
Tuesday	06/01/10	6,695	4,467	11,162	12,877,285	847,912	13,725,197
Wednesday	06/02/10	4,358	1,436	5,794	12,881,643	849,348	13,730,991
Thursday	06/03/10	794	844	1,638	12,882,437	850,192	13,732,629
Friday	06/04/10	1,435	742	2,177	12,883,872	850,934	13,734,806
Saturday	06/05/10	0	0	0	12,883,872	850,934	13,734,806
Sunday	06/06/10	0	0	0	12,883,872	850,934	13,734,806
Monday	06/07/10	2,335	1,639	3,974	12,886,207	852,573	13,738,780
Tuesday	06/08/10	4,702	2,324	7,026	12,890,909	854,897	13,745,806
Wednesday	06/09/10	1,122	601	1,723	12,892,031	855,498	13,747,529

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Thursday	06/10/10	3,637	1,628	5,265	12,895,668	857,126	13,752,794
Friday	06/11/10	1,586	758	2,344	12,897,254	857,884	13,755,138
Saturday	06/12/10	0	0	0	12,897,254	857,884	13,755,138
Sunday	06/13/10	0	0	0	12,897,254	857,884	13,755,138
Monday	06/14/10	2,069	1,573	3,642	12,899,323	859,457	13,758,780
Tuesday	06/15/10	1,963	802	2,765	12,901,286	860,259	13,761,545
Wednesday	06/16/10	762	509	1,271	12,902,048	860,768	13,762,816
Thursday	06/17/10	2,095	991	3,086	12,904,143	861,759	13,765,902
Friday	06/18/10	3,420	1,594	5,014	12,907,563	863,353	13,770,916
Saturday	06/19/10	0	0	0	12,907,563	863,353	13,770,916
Sunday	06/20/10	0	0	0	12,907,563	863,353	13,770,916
Monday	06/21/10	2,057	1,293	3,350	12,909,620	864,646	13,774,266
Tuesday	06/22/10	1,854	770	2,624	12,911,474	865,416	13,776,890
Wednesday	06/23/10	2,060	1,128	3,188	12,913,534	866,544	13,780,078
Thursday	06/24/10	1,328	853	2,181	12,914,862	867,397	13,782,259
Friday	06/25/10	914	572	1,486	12,915,776	867,969	13,783,745
Saturday	06/26/10	0	0	0	12,915,776	867,969	13,783,745
Sunday	06/27/10	0	0	0	12,915,776	867,969	13,783,745
Monday	06/28/10	2,669	1,736	4,405	12,918,445	869,705	13,788,150
Tuesday	06/29/10	1,652	476	2,128	12,920,097	870,181	13,790,278
Wednesday	06/30/10	1,954	978	2,932	12,922,051	871,159	13,793,210
Thursday	07/01/10	730	497	1,227	12,922,781	871,656	13,794,437
Friday	07/02/10	620	300	920	12,923,401	871,956	13,795,357
Saturday	07/03/10	0	0	0	12,923,401	871,956	13,795,357
Sunday	07/04/10	0	0	0	12,923,401	871,956	13,795,357
Monday	07/05/10	0	0	0	12,923,401	871,956	13,795,357

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Tuesday	07/06/10	3,648	1,704	5,352	12,927,049	873,660	13,800,709
Wednesday	07/07/10	293	140	433	12,927,342	873,800	13,801,142
Thursday	07/08/10	726	394	1,120	12,928,068	874,194	13,802,262
Friday	07/09/10	450	241	691	12,928,518	874,435	13,802,953
Saturday	07/10/10	0	0	0	12,928,518	874,435	13,802,953
Sunday	07/11/10	0	0	0	12,928,518	874,435	13,802,953
Monday	07/12/10	965	628	1,593	12,929,483	875,063	13,804,546
Tuesday	07/13/10	594	168	762	12,930,077	875,231	13,805,308
Wednesday	07/14/10	2,197	1,042	3,239	12,932,274	876,273	13,808,547
Thursday	07/15/10	637	317	954	12,932,911	876,590	13,809,501
Friday	07/16/10	370	179	549	12,933,281	876,769	13,810,050
Saturday	07/17/10	0	0	0	12,933,281	876,769	13,810,050
Sunday	07/18/10	0	0	0	12,933,281	876,769	13,810,050
Monday	07/19/10	2,369	1,248	3,617	12,935,650	878,017	13,813,667
Tuesday	07/20/10	1,399	337	1,736	12,937,049	878,354	13,815,403
Wednesday	07/21/10	343	268	611	12,937,392	878,622	13,816,014
Thursday	07/22/10	871	441	1,312	12,938,263	879,063	13,817,326
Friday	07/23/10	277	177	454	12,938,540	879,240	13,817,780
Saturday	07/24/10	0	0	0	12,938,540	879,240	13,817,780
Sunday	07/25/10	0	0	0	12,938,540	879,240	13,817,780
Monday	07/26/10	863	496	1,359	12,939,403	879,736	13,819,139
Tuesday	07/27/10	1,686	658	2,344	12,941,089	880,394	13,821,483
Wednesday	07/28/10	329	158	487	12,941,418	880,552	13,821,970
Thursday	07/29/10	1,649	586	2,235	12,943,067	881,138	13,824,205
Friday	07/30/10	884	355	1,239	12,943,951	881,493	13,825,444
Saturday	07/31/10	0	0	0	12,943,951	881,493	13,825,444

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial Questionnaire	Replacement Questionnaire	Total	Initial Questionnaire	Replacement Questionnaire	Total
Sunday	08/01/10	0	0	0	12,943,951	881,493	13,825,444
Monday	08/02/10	1,038	415	1,453	12,944,989	881,908	13,826,897
Tuesday	08/03/10	966	331	1,297	12,945,955	882,239	13,828,194
Wednesday	08/04/10	232	109	341	12,946,187	882,348	13,828,535
Thursday	08/05/10	600	221	821	12,946,787	882,569	13,829,356
Friday	08/06/10	270	141	411	12,947,057	882,710	13,829,767
Saturday	08/07/10	0	0	0	12,947,057	882,710	13,829,767
Sunday	08/08/10	0	0	0	12,947,057	882,710	13,829,767
Monday	08/09/10	1,485	651	2,136	12,948,542	883,361	13,831,903
Tuesday	08/10/10	1,124	312	1,436	12,949,666	883,673	13,833,339
Wednesday	08/11/10	438	141	579	12,950,104	883,814	13,833,918
Thursday	08/12/10	458	222	680	12,950,562	884,036	13,834,598
Friday	08/13/10	844	301	1,145	12,951,406	884,337	13,835,743
Saturday	08/14/10	0	0	0	12,951,406	884,337	13,835,743
Sunday	08/15/10	0	0	0	12,951,406	884,337	13,835,743
Monday	08/16/10	1,051	483	1,534	12,952,457	884,820	13,837,277
Tuesday	08/17/10	887	267	1,154	12,953,344	885,087	13,838,431
Wednesday	08/18/10	536	217	753	12,953,880	885,304	13,839,184
Thursday	08/19/10	261	159	420	12,954,141	885,463	13,839,604
Friday	08/20/10	763	257	1,020	12,954,904	885,720	13,840,624
Saturday	08/21/10	0	0	0	12,954,904	885,720	13,840,624
Sunday	08/22/10	0	0	0	12,954,904	885,720	13,840,624
Monday	08/23/10	942	433	1,375	12,955,846	886,153	13,841,999
Tuesday	08/24/10	222	94	316	12,956,068	886,247	13,842,315
Wednesday	08/25/10	935	287	1,222	12,957,003	886,534	13,843,537
Thursday	08/26/10	529	257	786	12,957,532	886,791	13,844,323

Appendix P: Undeliverable As Addressed Rate Numerators by Day

Day	Date	Daily Undeliverable As Addressed Numerator			Cumulative Undeliverable As Addressed Numerator		
		Initial	Replacement	Total	Initial	Replacement	Total
		Questionnaire	Questionnaire		Questionnaire	Questionnaire	
Friday	08/27/10	504	182	686	12,958,036	886,973	13,845,009
Saturday	08/28/10	0	0	0	12,958,036	886,973	13,845,009
Sunday	08/29/10	0	0	0	12,958,036	886,973	13,845,009
Monday	08/30/10	91	10	101	12,958,127	886,983	13,845,110
Tuesday	08/31/10	89	8	97	12,958,216	886,991	13,845,207
Wednesday	09/01/10	57	6	63	12,958,273	886,997	13,845,270
Thursday	09/02/10	1,213	381	1,594	12,959,486	887,378	13,846,864
Friday	09/03/10	167	59	226	12,959,653	887,437	13,847,090
Saturday	09/04/10	0	0	0	12,959,653	887,437	13,847,090
Sunday	09/05/10	0	0	0	12,959,653	887,437	13,847,090
Monday	09/06/10	0	0	0	12,959,653	887,437	13,847,090
Tuesday	09/07/10	234	138	372	12,959,887	887,575	13,847,462

Source: DRIS Check-in, DRF, CEF, UCM, and MAF