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MEMORANDUM FOR ACS Research and Evaluation Steering Committee

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Subject: 2010 ACS Content Test Evaluation Report Covering Parental Place of Birth

Attached is the final American Community Survey Research and Evaluation report for the 2010 ACS Content Test Evaluation Covering Parental Place of Birth. This report describes the results of testing the parental place of birth questions in two locations on the ACS questionnaire.

If you have any questions about this report, please contact Elizabeth Grieco at (301)763-5275, Luke Larsen at (301)763-2540, or Patricia de la Cruz at (301) 763-2377.

Attachment: (2010 ACS Content Test Evaluation Report Covering Parental Place of Birth)

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2010 ACS Content Test Evaluation Report Covering Parental Place of Birth

FINAL REPORT

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ACKNOWLEDGEMENTS

This report was prepared by Luke J. Larsen, Elizabeth M. Grieco, and Patricia de la Cruz of the Foreign-Born Population Branch, Population Division, with assistance from Amy Lauger and John Chesnut of the ACS Data Collections Method Branch, Decennial Statistical Studies Division. The report was prepared under the general direction of Jennifer Tancreto, ACS Data Collections Method Branch, Decennial Statistical Studies Division; and Victoria Velkoff, Assistant Division Chief, Estimates and Projections Area, Population Division. Overall direction was provided by Howard Hogan, Associate Director for Demographic Programs, and Enrique J. Lamas, Chief, Population Division.

Within the Population Division, Yesenia Acosta, Christine Gambino, Tom Gryn, Edward Trevelyan, and Nathan Walters assisted with data verification and statistical testing. Angela Buchanan provided subject matter review and guidance. Principle editorial review and guidance was provided by Frank B. Hobbs. Additional review and comments were provided by Anthony G. Tersine, Jr., Decennial Statistical Studies Division; Karen Humes, Population Division; Kurt Bauman, Social, Economic and Housing Statistics Division; Yuling Pan, Center for Survey Measurement; and Todd Hughes, David Raglin, Debra Klein, and Donna Daily, American Community Survey Office. Bob Kominski, Alison Fields and Kin Corbin, Social, Economic and Housing Statistics Division, completed coding and provided subject matter review and guidance.

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EXECUTIVE SUMMARY

Test Objective

From August to December 2010, the Census Bureau conducted a field test of new and revised questions in the 2010 American Community Survey (ACS) Content Test. The results of that testing will determine the content to be incorporated into the ACS starting in 2013.

The 2010 ACS Content Test questionnaire included two new questions on parental place of birth (PPOB). Questions on PPOB are important because they divide the population into "first generation" (the foreign born), "second generation" (the children of immigrants), and "third-or-higher generation" (natives with no foreign-born parents) categories, allowing policymakers and researchers to examine questions about adaptation and integration of immigrants and their descendants over time. Also, questions on PPOB, because they clearly define the second generation, are required to examine the social and economic characteristics of the children of immigrants.

At present, the Current Population Survey (CPS) is the principal source of information on the population by generational status. However, the CPS is generally confined to national-level analysis and can only provide limited data at the sub-national level where immigrants are settling and populations are changing rapidly. Because the ACS has a larger sample size and the data can be combined into multi-year estimates for low levels of geography, the study of immigrant assimilation in the United States would greatly benefit from including PPOB questions on the ACS survey instrument.

Methodology

As a result of early questionnaire development efforts, Census Bureau analysts identified one primary set of PPOB questions to test in two locations on the ACS questionnaire. A research and evaluation plan was developed that detailed the specific course of analysis necessary to determine whether or not the proposed changes should be recommended for inclusion on the ACS questionnaire. For the PPOB questions, the project plan focused on three broad topic questions:

1. Do the PPOB questions "work" on the ACS questionnaire, providing reasonable and reliable data?
2. Does the placement of the PPOB questions on the questionnaire affect the data produced?
3. Does the placement of the PPOB questions affect the data produced by the ancestry, school enrollment, and language questions?

This report outlines the research questions, methodologies, and metrics used to answer the three broad topic questions and describes the analytical results that helped form the recommendation for inclusion on the ACS.

Research Questions and Results

Are the response distributions of PPOB and generational status (i.e., first, second, and third-or-higher generation) comparable to existing data sources?

Yes, the response distributions for father's place of birth, mother's place of birth, and generational status on both panels of the Content Test were very similar to distributions derived from the CPS.

Which placement results in a lower missing data rate?

The placement used by the Control panel resulted in a lower item missing data rate for both father's and mother's place of birth (6.9 percent and 6.0 percent, respectively) than the placement used by the Test panel (7.4 percent and 6.6 percent, respectively).

Do the two placements have similar or different response distributions?

In general, there were no notable significant differences in the response distributions of father's and mother's place of birth between the two placements used by the Control and Test panels. Thus, the two placements yielded similar distributions.

Which placement results in more reliable estimates?

In general, there were no notable significant differences in the reliability measures of father's and mother's place of birth between the two placements used by the Control and Test panels. Thus, neither placement yielded more reliable estimates than the other.

Does changing the placement of the PPOB questions from before to directly after the ancestry question affect the item missing data rate, response distribution, or reliability for the ancestry question?

In general, there were no notable significant differences in the response distributions or reliability measures of first reported ancestry or second reported ancestry between the two placements of PPOB used by the Control and Test panels. However, the placement used by the Test panel resulted in a lower item missing data rate for first reported ancestry (13.3 percent) than the placement used by the Control panel (14.5 percent).

Does the placement of the PPOB questions directly before the school enrollment question affect the item missing data rate, response distribution, or reliability for the school enrollment question?

In general, there were no notable significant differences in the response distributions or reliability measures of school enrollment status between the two placements of PPOB used by the Control and Test panels. However, the placement used by the Test panel resulted in a lower item missing data rate for school enrollment status (4.8 percent) than the placement used by the Control panel (5.4 percent).

Does the placement of the PPOB questions directly before the language spoken questions affect the item missing data rates, response distributions, or reliability for the language spoken questions?

In general, there were no notable significant differences in the response distributions or reliability measures of any of the language questions between the two placements of PPOB used by the Control and Test panels. However, the placement used by the Control panel resulted in lower item missing data rates for non-English-language-spoken-at-home status and English speaking ability (4.9 percent and 1.5 percent, respectively) than the placement used by the Test panel (6.9 percent and 2.1 percent).

For each mode of data collection, do the two placements have differential item missing data rates, response distributions, or reliability of the data?

In general, there were no notable significant differences among the response distributions or reliability measures of father's and mother's place of birth between the two placements of PPOB used by the Control and Test panels, regardless of the mode of data collection. However, the placement used by the Control panel resulted in lower item missing data rates in the mail mode for both father's and mother's place of birth (8.0 percent and 6.9 percent, respectively) than the placement used by the Test panel (8.6 percent and 8.0 percent, respectively). When considering only the households whose data was collected by CATI or CAPI, there was no significant difference in item missing data rates for either PPOB question between the two placements used by the Control and Test panels.

For each mail response stratum, do the two placements have differential item missing data rates, response distributions, or reliability of the data?

In general, there were no notable significant differences among the response distributions or reliability measures of father's and mother's place of birth between the two placements of PPOB used by the Control and Test panels, regardless of the mail response stratum. However, the placement used by the Control panel resulted in lower item missing data rates in the high response area stratum for both father's and mother's place of birth (6.4 percent and 5.7 percent, respectively) than the placement used by the Test panel (7.2 percent and 6.5 percent, respectively). When considering only the households in the low response area stratum, there was no significant difference in item missing data rates for either PPOB question between the two placements used by the Control and Test panels.

Does either placement elicit respondent or interviewer behaviors that may contribute to interviewer or respondent error?

No, there were no notable significant differences among either respondent or interviewer behaviors between the Control and Test panels for either the father's or mother's place of birth questions.

Recommendations

The results of the 2010 ACS Content Test demonstrated that questions on PPOB are clearly understood by respondents and provide consistent and reliable data. Based on these results, the Census Bureau recommended that both questions on parental place of birth be included in the ACS starting in 2013 using the question format tested and in the placement used by the Control panel (i.e., between the year of entry and school enrollment questions). The results of the ACS 2010 Content Test have also demonstrated that, if the Control placement were to be used, there is currently enough space on the ACS questionnaire for both questions on parental place of birth.

The Census Bureau believes there is added value in collecting information about PPOB, though some may feel that this topic is somewhat duplicative when collected in connection with existing survey questions on race, Hispanic origin, and ancestry. Adding the PPOB questions to the questionnaire in 2013 would be done as part of a multi-year process to further examine the relationship of the data for these topics. The ACS data would also be evaluated in connection with results from the 2010 Census Alternative Questionnaire Experiment, and this combined research would be used in determining recommendations for which questions would remain on the ACS at the conclusion of this process. The Census Bureau plans to provide various opportunities for public comment as well as dialogue with groups that are especially interested in these data as we refine the plans and share results on this cross-topical research.

1. BACKGROUND

1.1 Motivation for the 2010 ACS Content Test

To evaluate proposed changes to the content of the American Community Survey (ACS), the Census Bureau conducted the 2010 ACS Content Test.[1] The objective of the Content Test, for both new and existing questions, was to determine the impact of changing question wording, response categories, and redefinition of underlying constructs on the quality of the data collected.

Through the Office of Management and Budget (OMB) Interagency Committee on the ACS, subject matter experts from the Census Bureau and key data users from other federal agencies collaborated in identifying revised and new questions for inclusion in the Content Test. The suggested new and revised questions affected both the housing and detailed person sections of the ACS questionnaire.

In the housing section, the food stamps question was altered to reflect a name change for the food stamps program. In addition, a series of new questions were added related to household computer ownership and Internet subscription.

Several changes were made in the detailed person section. First, a change in data needs for the veteran series led to a revised set of response categories for the veteran status and period of military service questions. Second, the question wording of the cash public assistance income question was modified to address under-reporting of assistance on behalf of children and single payment recipients. Third, to simplify the income questions related to wages (wages, salary, commissions, bonuses, or tips) and property income (interest, dividends, rental income, royalty income or income from estates and trust), these questions were broken up into smaller questions for the Computer-Assisted Telephone Interviewing (CATI) and Computer-Assisted Personal Interviewing (CAPI) instruments only. Fourth, a set of new questions on parental place of birth was added to enable data users to divide the population into "first generation" (the foreign born), "second generation" (the children of immigrants), and "third or higher generation" (native born with no foreign-born parents).

To meet the test objective of the Content Test, analysts evaluated changes to question wording, response categories, instructions, and examples relative to a control version of the question or relative to another version or placement for new questions. This report discusses the results of the analysis of new questions on parental place of birth (PPOB).

[1] This report uses the terms "2010 ACS Content Test" and "Content Test" interchangeably.

1.2 Previous Testing and Analysis

The 2010 ACS Content Test represents the first time that questions on PPOB were tested for possible inclusion on the ACS questionnaire. Two questions on PPOB have been included on the Current Population Survey (CPS) since 1994: 1) In what country was your father born? and 2) In what country was your mother born? However, due to constraints associated with the size of the CPS sample, analysis is generally confined to the national level only and, for the foreign born, limited to broad regions of birth.

1.3 Recommendations from Cognitive Testing

Prior to conducting the Content Test, the Research Triangle Institute (RTI), Westat, and Research Support Services (RSS) conducted cognitive testing under contract from the Census Bureau to assist in identifying a final set of questions for the field test. Three versions of each question topic were tested with the goal of choosing the best version for the revised questions and the best two versions for the new questions. The questions were tested in the three modes used in the ACS data collection (paper, telephone interview, and personal interview) in English and Spanish. Cognitive interviews consisted of one-on-one interviews using the proposed questions in the context of the ACS survey. Survey methodologists also conducted respondent debriefings.[2]

To develop possible question formats for cognitive testing, the Census Bureau formed a Subcommittee on Parental Place of Birth, which included analysts from the Census Bureau as well as other federal agencies interested in the topic.[3] The Subcommittee developed three versions of the PPOB questions for consideration.

The first version was the simplest version – the respondent was asked the country of birth of the parent – and was the version most similar to the existing PPOB questions used in the CPS. The second version was more complex – the respondent was first asked to indicate whether the parent was born in or outside the United States; if the parent was born outside the United States, then the respondent was asked to identify the parent's country of birth. The third version was a slight variation on the second – the respondent was asked whether the parent was born in the United States; if the response was "no," then the respondent was asked to identify the parent's country of birth. The three question versions used on the self-administered mail-back questionnaire are displayed in Figure 1 in both English and Spanish.[4]

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[2] Full details about the cognitive test are available in the final report produced by the contractors (Hinsdale et al, 2009).

[3] Throughout this report, the Subcommittee on Parental Place of Birth is often referred to simply as "the Subcommittee". Federal agencies other than the Census Bureau represented on the Subcommittee included the Department of Homeland Security, Department of Agriculture, National Institute of Health/National Institute of Child Health and Human Development, Bureau of Labor Statistics, and Centers for Disease Control and Prevention.

[4] The question wording was slightly different for all three test versions in the interviewer-administered mode. This set of questions can be found in the cognitive testing final report (Hinsdale et al, 2009).

Figure 1. PPOB Question Versions Considered in Cognitive Testing

Question topic	Version 1	Version 2	Version 3
Father's place of birth (English)	In what country was this person's FATHER born? *Print name of country, or Puerto Rico, Guam, etc.*	Was this person's FATHER born in or outside the United States? *Mark (x) one box.* __ Born in the United States __ Born outside the United States – *Print name of foreign country, or Puerto Rico, Guam, etc.* _____	Was this person's FATHER born in the United States? __ Yes __ No – *Print name of foreign country, or Puerto Rico, Guam, etc.* _____
Mother's place of birth (English)	In what country was this person's MOTHER born? *Print name of country, or Puerto Rico, Guam, etc.*	Was this person's MOTHER born in or outside the United States? *Mark (x) one box.* __ Born in the United States __ Born outside the United States – *Print name of foreign country, or Puerto Rico, Guam, etc.* _____	Was this person's MOTHER born in the United States? __ Yes __ No – *Print name of foreign country, or Puerto Rico, Guam, etc.* _____
Father's place of birth (Spanish)	¿En qué país nació el PADRE de esta persona? *Escriba en letra de molde el nombre del país o Puerto Rico, Guam, etc.*	¿Nació el PADRE de esta persona en los Estados Unidos o fuera de los Estados Unidos? *Marque (X) UNA casilla.* __ Nació en los Estados Unidos __ Nació fuera de los Estados Unidos – *Escriba en letra de molde el nombre del país extranjero o Puerto Rico, Guam, etc.* _____	¿Nació el PADRE de esta persona en los Estados Unidos? __ Sí __ No – *Escriba en letra de molde el nombre del país extranjero o Puerto Rico, Guam, etc.* _____
Mother's place of birth (Spanish)	¿En qué país nació la MADRE de esta persona? *Escriba en letra de molde el nombre del país o Puerto Rico, Guam, etc.*	Nacio la MADRE de esta persona en los Estados Unidos o fuera de los Estados Unidos? *Marque (X) UNA casilla.* __ Nació en los Estados Unidos __ Nació fuera de los Estados Unidos – *Escriba en letra de molde el nombre del país extranjero o Puerto Rico, Guam, etc.* _____	¿Nació la MADRE de esta persona en los Estados Unidos? __ Sí __ No – *Escriba en letra de molde el nombre del país extranjero o Puerto Rico, Guam, etc.* _____

The results of cognitive testing suggested no substantial conceptual differences, respondent preferences, or response quality among the three question versions. As no additional information would likely be obtained from further testing different question versions on the Content Test, the Subcommittee on Parental Place of Birth recommended 1) testing a single version of the PPOB questions and 2) testing this version in two different places on the Content Test questionnaire. This approach reflected concerns that the presence of the PPOB questions (with their shifted focus from a person to the parents

of that person) may have negative effects upon the quality of data gathered from questions in close proximity. The Subcommittee determined that keeping the wording of the questions consistent across experimental panels but varying the location of those questions would allow analysts to measure the "placement effect" upon the PPOB questions and the surrounding questions.

Of the three versions under consideration, the Subcommittee chose Version 1 for inclusion on the Content Test questionnaire. This choice was supported by the results of cognitive testing in two ways. First, Spanish-speaking respondents reported that the Version 1 questions were easier to answer than the longer and more complex questions included in Versions 2 and 3. Second, Version 1 reduced the problems associated with identifying island areas as separate from the United States. In addition, the Subcommittee noted that: the Version 1 questions were very similar in wording to the PPOB questions used by the CPS; they were similar in structure to the place of birth (POB) questions on the ACS questionnaire; and, as space limitations are always an issue, they would require less room on the questionnaire than longer and more complex questions from Versions 2 and 3.

The Subcommittee recommended two placements for the PPOB questions on the Content Test questionnaire. One placement was between questions on year of entry and educational attainment, and the other was between questions on field of degree and ancestry/ethnic origin.

1.4 Recommendations from the Expert Review Panel

Following cognitive testing, an expert review panel composed of government survey methodologists reviewed and suggested changes to the final question versions proposed to move forward from cognitive testing into the field test. The proposed changes for each question topic were approved by the corresponding OMB interagency subcomittee responsible for initiating the research. The OMB provided final approval of the proposed changes.

Regarding the PPOB questions, the expert review panel concurred with the recommendations made by the Subcommittee on question format and placement. However, the second placement was later revised by the Census Bureau, such that the PPOB questions were placed after the question on ancestry and before the questions on language spoken at home and English-speaking ability. In the original placements, the PPOB questions preceded the question on ancestry in both panels. The Census Bureau recognizes that the questions on PPOB – at least in part and for some sub-populations – conceptually overlap with the question on ancestry. The decision to use the alternative second placement was made due to concerns that, if the PPOB questions preceded ancestry in both panels, it would be difficult to assess the effect that these questions might have on the quality of the ancestry data.

2. SELECTION CRITERIA

2.1 Critical Research Questions

After cognitive testing was completed and the expert review panel had provided its recommendations, Census Bureau analysts developed research and evaluation project plans detailing the specific analyses necessary to determine whether or not the proposed changes should be recommended for inclusion on the ACS questionnaire. For the PPOB questions, the project plan focused on seven critical research questions that can be organized under three broad topic questions:

First, do the PPOB questions "work" on the ACS questionnaire, providing reasonable and reliable data?

- Are the response distributions of father's place of birth, mother's place of birth, and generational status (i.e., first, second, and third-or-higher generation) comparable to existing data sources?

Next, does placement of the PPOB questions on the questionnaire affect the data produced?

- Which placement results in a lower missing data rate?
- Do the two placements have similar or different response distributions?
- Which placement results in more reliable estimates?

Finally, does the placement of the PPOB questions affect the data produced by the ancestry, school enrollment, and language questions?

- Does changing the placement of the PPOB questions from before to directly after the ancestry question affect the item missing data rate, response distribution, or reliability for the ancestry question?
- Does changing the placement of the PPOB questions from before to directly after the school enrollment question affect the item missing data rate, response distribution, or reliability for the school enrollment question?
- Does changing the placement of the PPOB questions from before to directly after the language spoken questions affect the item missing data rate, response distribution, or reliability for the language questions?

The results of the statistical analyses for each of the critical research questions (discussed in Section 5) were generally in agreement and were used to form the final recommendation sent by the Census Bureau to the Office of Management and Budget and the American Community Survey Office. However, had the analyses provided conflicting results, the research plan prioritized the work associated with topic questions 1 through 3, in that order, to guide the final decision-making process.

2.2 Supplementary Research Questions

In addition to the seven critical research questions, three supplementary questions were included in the project plan to provide additional information on by-treatment differences among the PPOB questions within response mode types and within mail response strata, as well as potential error based on interviewer and/or respondent behavior. The goal of this set of questions was to provide additional information about the performance of the PPOB questions on the Content Test questionnaire. The statistical analyses completed to answer these questions (discussed in Section 6) were used to inform, but not determine, the recommendations for including the PPOB questions on the ACS questionnaire. The supplementary research questions included:

- For each mode of data collection (i.e., by mail, by phone, and in person), do the two placements have differential item missing data rates, response distributions, or reliability of the data collected from the PPOB questions?
- For each mail response stratum (i.e., high and low), do the two placements have differential item missing data rates, response distributions, or reliability of the data collected from the PPOB questions?
- Does either placement elicit respondent or interviewer behaviors that may contribute to interviewer or respondent error?

2.3 Additional Research Topics

Although not part of the original project plan, two additional research topics were included to determine if the presence of PPOB questions on the Content Test questionnaire had any deleterious effects on the data quality produced by subsequent questions. The additional research topics included:

- For both placements, how do the item missing data rates and response distributions for variables that followed the PPOB questions on the Content Test questionnaire compare with the allocation rates of those same questions as derived from the ACS ?
- For each mode of data collection, do the two placements have differential item missing data rates, response distributions, or reliability of the data for variables that followed the PPOB questions?

The results of the statistical analyses associated with these questions (discussed in Section 7) were used to inform, but not determine, the final recommendation for inclusion of the PPOB questions on the ACS questionnaire.

3. METHODOLOGY

3.1 Data Collection Methods

The initial stages of the Content Test consisted of content determination, cognitive laboratory pretesting, and expert reviews for the purpose of developing new and alternate versions of question content. The field test portion of the ACS Content Test used the data collection methodology currently used in the ACS (i.e., mail questionnaire, follow-up CATI, and follow-up CAPI) with an added reinterview conducted via a CATI instrument known as the Content Follow-Up (CFU) survey. Additional data were collected on respondent and interviewer behavior during the field test via Computer Audio Recorded Interviewing (CARI) technologies for a subset of respondents during the CATI and CAPI follow-up modes of data collection.

The Content Test followed the same schedule and procedures for the mail, CATI, and CAPI operations as the September 2010 ACS production panel. Questionnaires were mailed to sampled households at the end of August 2010. The Content Test used an English-only mail form but the automated instruments (CATI, CAPI, and CFU) included both English and Spanish versions. Households not responding by mail and for which a phone number was available were contacted for a CATI interview during the month of October 2010. In November 2010, Census Bureau field representatives visited a sample of households that did not respond by mail or CATI to attempt a CAPI interview. The CAPI operations ended December 2, 2010.

The field test included a CATI CFU reinterview to collect additional measures for the study of response error. This operation started approximately two weeks after the initial mail-out of questionnaires and ended two weeks after the end of the CAPI follow-up data collection operation. The CFU included all occupied households for which the Census Bureau received a response in the original interview and had a telephone number. A response was defined as a case where the household provided data through at least the first person's place of birth question for mail cases or at least a sufficient partial interview for CATI/CAPI interviews. The reinterview was conducted about 2 to 4 weeks after the original interview and with the original respondent when possible. Note that the CFU CATI reinterview was an abbreviated version of the original Content Test interview. The CFU survey instrument included the basic demographic section and only those questions preceding the questions being tested in the housing and the detailed person sections to provide context (see Appendix E for the process flowchart of the CFU survey instrument). For PPOB, the "ask-reask" reinterview method was used in the CFU.

The Content Test did not include all of the data collection operations and processes used in the ACS. First, while the Telephone Questionnaire Assistance (TQA) program's toll-free number was available to Content Test respondents for assistance, the CATI instrument did not include content changes from the Content Test. Therefore, data collected from Content Test respondents via TQA CATI interview were not included in any part of the data analysis. Second, since the objective was to study response error

using unedited data, the Content Test excluded the Failed Edit Follow-up (FEFU) CATI operation as well as the edit and imputation data processes.

3.2 Sample Design

The 2010 ACS Content Test consisted of a national sample of 70,000 residential addresses in the contiguous United States.[5] The sample design for the Content Test was largely based on the ACS sample design with some modifications to meet the test objectives. The modifications included adding an additional level of stratification by stratifying addresses into high and low mail response areas, over-sampling addresses from the low mail response areas to ensure equal response from both strata, and sampling units as pairs. The high and low mail response strata were defined based on ACS mail response rates at the tract-level. The paired-sample selection formed pairs by first systematically sampling an address within the defined sampling strata and then pairing that address with the address listed next in the geographically sorted list. However, the pair was not likely comprised of neighboring addresses. One member of the pair was randomly assigned to the Control panel and the other member was assigned to the Test panel. Those addresses assigned to the Test panel received the revised ACS questions and the questions new to the ACS. The Control panel received the current questions on the ACS as well as different versions of the new questions.

Another modification to the ACS sample design included the addition of a third sampling stage. At the first stage, the 2010 ACS first-stage sample was used as the Content Test first-stage sample. At the second stage, all housing units in the ACS first-stage sample not selected in the 2010 ACS second-stage sample were selected as the Content Test second-stage sample. In addition, any units that were selected to be in other operations (e.g., training, other tests, etc.) were not selected in the Content Test second-stage sample. At the third stage, addresses were selected using a sampling method similar to the 2010 ACS second-stage sample design with the exception of adding the high and low mail response stratification.

3.3 Methodology Specific to Parental Place of Birth

This section briefly reviews the operational definitions and recodes used throughout the report, the population universes of pertinent variables, and the analytical framework used to organize the statistical testing process.

3.3.1 Operational Definitions and Recodes

Generational status: Generational status is conceptually related to nativity status (i.e., whether a person is native born or foreign born).[6] Demographers who study the impact of immigration on the U.S. population are not only concerned with the foreign born but also the native-born children of the foreign born. These groups are referred to as the

[5] The sample universe of the Content Test did not include Alaska, Hawaii, and Puerto Rico.
[6] In this report, the terms “native” and “native born” are used interchangeably.

"first generation" and "second generation," respectively. The children of the second generation – in addition to their children, their children's children, and so on – are part of the "third-and-higher generation," which can also be defined as the mathematical difference between the size of the total native population and that of the second generation.

In this report, generational status was determined from a person's nativity status in addition to place-of-birth information about that person's parents. All foreign-born persons were part of the first generation. If a native person had at least one foreign-born parent, then that person was part of the second generation. If both parents of a native person were also native, then that person was part of the third-and-higher generation. Regardless of the data source (Content Test, CPS, or ACS), the person's nativity status was derived from the citizenship question, whereas the parents' nativity statuses were derived from the PPOB questions.

PPOB recodes: In the analysis, three recodes of the PPOB data were used: 1) parental broad place of birth; 2) parental world region of birth, and 3) parental selected place of birth. Each of these recodes was created separately for both father's POB and mother's POB.

Parental broad place of birth (BPOB) was recoded into two distinct categories: whether the parent was born inside the United States (including Puerto Rico and U.S. Island Areas) or outside the United States. The parental world region of birth (WROB) recode included six distinct categories based on the following geographic regions: United States, Puerto Rico and U.S. Island Areas, Asia, Europe, Latin America and the Caribbean[7], and other areas. The parental selected place of birth (SPOB) included the 10 countries with the largest number of responses separately for mother's POB and father's POB, as identified by the distributions derived from the 2009 CPS Annual Social and Economic Supplement data. It should be noted that the SPOB recode is slightly different for father's POB than for mother's POB. Eight of the selected countries were identical for both father's and mother's POB: Canada, China, El Salvador, India, Italy, Mexico, Philippines, and Vietnam. Cuba and the Dominican Republic were included in mother's SPOB, while Germany and the United Kingdom were included in father's SPOB. In both variables, all non-selected places of birth were collapsed into a residual category. Additional information about the PPOB recodes is available in Appendices F, G, H, and I.

To guide final decision-making on whether or not to include the PPOB questions on the ACS questionnaire, the statistical results associated with the three recodes were given different ranks of importance: the "broad" recode was deemed most important, followed by the "world region" recode and, finally, the "selected" recode. There were two reasons for this. First, the distribution for PPOB is dominated by the United States. According to the 2009 CPS, the United States represented more than 75 percent of both father's and mother's POB, followed by all other countries, most representing less than 1 percent each. A response pattern such as this is likely to exhibit data sparseness issues, particularly among foreign places of birth that typically have small base populations.

[7] Henceforth, the region "Latin America and the Caribbean" will be shortened to "Latin America".

Second, the sample size for each panel of the Content Test was relatively small, much smaller than that used in the ACS. Considering both the skewed distributions of PPOB and the small sample sizes in the Content Test, the analysis between treatments of small country-of-birth groups could yield statistically significant differences that may actually be sampling artifacts. The three recodes with increasing degrees of geographic focus were used to mitigate problems associated with interpreting statistical analyses based on skewed distributions and small populations.

Ancestry recodes: As with the PPOB questions, the first reported ancestry and second reported ancestry variables each featured several hundred valid response categories, so the same data sparseness issues presented for PPOB were also a matter of concern for ancestry. The authors mitigated this problem by constructing two recodes for each of the two ancestry variables (see Appendices J and K). In the first – called regional ancestry – the ancestry variables were each recoded into twelve categories based on the geographic regions from which each ancestry originates. In the second – called selected ancestry – the ancestry variables were each recoded into a list of ten most populous ancestry responses, with the remaining responses collapsed into a residual category. This recode functions similarly to the parental SPOB recode described above; however, in this case, the list of ten ancestry groups was based on information from a Census 2000 Brief on ancestry in addition to data from the 2009 ACS (Brittingham and de la Cruz, 2004).

Language spoken at home recode: The question about specific languages other than English that are spoken at home has hundreds of valid response categories, just as with the ancestry and PPOB questions. However, the data sparseness problem is more magnified than in the other topics due to the smaller population universe of this language question – persons who respond to this item must (1) be at least 5 years or older and (2) report that they do speak a language other than English at home. The authors mitigated this problem by constructing a recode – called selected language spoken at home – that uses a response list for language spoken at home to identify the five languages other than English most commonly spoken at home and collapsing the remaining languages into a residual category (see Appendix L). This recode functions similarly to the parental SPOB and selected ancestry recodes described above; in this case, the list of five language groups was based on data from the 2009 ACS.

Item missing data rate: The item missing data rate (IMDR) of a given question was the proportion of (a) eligible respondents (either persons or households) that did not provide a valid, codable response to (b) the total number of eligible respondents, where eligibility was determined by the universe definition for the question. Respondents who refused to answer the question, gave a "don't know" response, or provided a response that could not be coded (due to illegibility, inaudibility, or some other reason) were included among those who had a missing value for that particular question. By keeping the IMDRs as low as possible, the potential for nonresponse bias can be minimized.

Uncodable response rate: As previously mentioned, uncodable responses are a subset of the classification for missing values. In fact, the uncodable response rate (URR) for a given question – which itself is a subset of the IMDR – was defined as the percentage of

the total number of eligible respondents that gave a response which could not be coded. As a supplement to the issue of missing data rates, the analysts were concerned that the URRs of the PPOB questions might have been significantly higher than the URR of the existing POB question, or that the URRs of the PPOB questions might be significantly affected by the question placement.

Multiple ancestry response rate: The two ancestry variables – first and second reported ancestry – stem from a single question on ancestry. On the mail version of the questionnaire, two write-in fields are provided with this item, thereby inviting respondents to submit more than one response to this question.[8] The multiple ancestry response rate (MARR) was the percentage of the total number of eligible respondents to the ancestry question who gave two responses.

Response mode recode: As previously stated, the Content Test was administered through three response modes – mail, CATI, and CAPI. Originally, the authors intended to study the PPOB data by each of the three modes as part of the supplemental analysis. However, when data analysis activities were underway, the authors discovered instances of data sparseness among some of the CATI and CAPI distributions of father's and mother's world region of birth. These empty cells would have required either some modification of statistical testing procedures designed specifically for tests involving the empty cells or a different categorization of the data that eliminated the empty cells. The authors chose the latter option and collapsed the CATI and CAPI modes into a single non-mail mode category.

3.3.2 Population Universes

The general population universe in each panel of the Content Test was the household population in the contiguous United States. Many of the relevant variables in this report – father's place of birth, mother's place of birth, place of birth, first reported ancestry, and second reported ancestry – used this basic universe. Other variables placed more restrictions on the universe. For instance, the population universe for school enrollment status was the household population in the contiguous United States aged 3 years or older, and the population universe for non-English-language-spoken-at-home status was the household population in the contiguous United States aged 5 years or older. The universe used for both language spoken at home and English speaking ability was also restricted to those aged 5 years or older, but a second condition was imposed as well, wherein universe members must have also reported that they spoke a language other than English at home.

3.3.3 Analysis Framework and Statistical Testing Procedures

Much of the data analysis in this report followed a common structure:

[8] CATI and CAPI respondents could also submit multiple ancestry responses, though they were not prompted to do so by the interviewers.

- First, for a given variable, the IMDRs were compared between the Control and Test panels of the Content Test.
- Next, the response distributions of that variable (possibly under one or more recodes) were compared between the Control and Test panels. These comparisons were conducted both overall and by individual response categories.
- Then, the reliability measures of that variable (which, again, may be recoded) were compared between the Control and Test panels using Content Follow-up data in conjunction with the Content Test data for all persons for whom there was a response in both surveys. These measures included the gross difference rate (GDR), the index of inconsistency (IoI), and the L-fold index of inconsistency, which allowed for comparisons of both the overall distribution and by individual response categories.[9]

The statistical analyses used in this report included individual t-tests, simultaneous t-tests, and chi-square tests. Nearly all of the statistical tests in this report were t-tests that were designed to determine whether the differences between the Control and Test versions of estimated rates, percentages, and statistics were statistically significant. Unless otherwise noted, these tests were two-sided, and all determinations of statistical significance of differences were made at the α=0.10 level. Note that while differences between estimates may be statistically significant, readers should be cautioned against making strong conclusions in instances where the magnitudes of the differences are not substantive or notable.

Individual t-tests or families of t-tests that involved variables with dichotomous distributions – including IMDRs, URRs, and MARRs – did not require additional adjustments. However, the families of t-tests that involved variables with more than two response categories were considered to be simultaneous with other tests related to that distribution, and therefore the familywise error rates had to be controlled using a multiple comparison procedure. The Bonferroni multiple comparison procedure was used for families of t-tests that pertained to variables with three or four response categories, and the Bonferroni-Holm procedure was used for families of t-tests that pertained to variables with five or more response categories.

Only one type of comparison was subjected to a different testing procedure than the t-test. To test whether a response distribution was dependent on the placement of the PPOB questions, chi-square tests adjusted for the complex sample design with (n-1) degrees of freedom, where n is the number of response categories in a given variable or recode, were used. As with the t-tests, all determinations of statistical significance of differences in overall response distributions were made at the α=0.10 level. Note that the chi-square statistics were calculated only for variables and recodes with more than two responses; this is because the chi-square test involving a dichotomous variable provides equivalent results to the t-test. Therefore, the analysis of response distributions involving PPOB and

[9] See Appendix M for definitions and formulae of the reliability measures used in this report.

language variables did not feature chi-square tests for the distributions of father's BPOB, mother's BPOB, and non-English-language-spoken-at-home status.[10]

4. LIMITATIONS

Control and Test CATI/CAPI workload assignments were not assigned using an interpenetrated experimental design. That is, interviewers were allowed to administer interviews for both Control and Test panel cases in the Content Test, in addition to ACS cases. The potential risk of this approach is the introduction of a cross-contamination or carry-over effect due to the interviewer administering multiple versions of the same question item. Interviewers are trained to read the questions verbatim to minimize this risk, but there still exists the possibility that an interviewer may deviate from the scripted wording of one question version to another. This could potentially mask a treatment effect from the data collected; however, this is less of a concern for the PPOB questions since the two versions had the same wording but different locations on the questionnaire.

The CFU reinterview was not conducted in the same mode of data collection for households that responded by mail or CAPI in the original interview since CFU interviews were only administered using a CATI mode of data collection. As a result, the data quality measures derived from the reinterview may include some bias due to the differences in mode of data collection.

The Content Test mail mode questionnaires were limited in their ability to collect data on households of large size; the data of only the first five persons in each household were collected. This is different from the ACS mail questionnaire, which is designed to handle larger household sizes. Because of this limitation, comparisons of ACS data to the Content Test were restricted to the first five household members in both data sources for mail mode respondents only.[11] The household size limitation was not present for the CATI and CAPI modes of the Content Test, so no such restrictions on ACS data collected via CATI/CAPI were necessary.

Respondents needed to provide a telephone number in the original Content Test interview or the Census Bureau had to be able to find a telephone number for that unit through reverse address look-up to be included in the CFU interview. As a result, 18.4 percent of the responding households from the original interview were not eligible for the CFU reinterview. We did not have the same respondent in the CFU that we had in the original interview for 9.1 percent of the CFU cases. This means that differences between the original interview and the CFU for these cases could be due in part to having different people answering the questions.

[10] Likewise, because the L-fold index of inconsistency for a dichotomous variable is equivalent to the individual index of inconsistency for each of that variable's responses, the reliability analysis for these three variables will not feature comparisons of the L-fold statistic between the two treatments.

[11] The CPS does not have a mail mode component of data collection, so none of the CPS-based estimates in this report were subjected to the household size restriction.

The Content Test did not include the weighting adjustments for seasonal variations in ACS response patterns, nonresponse bias, and under-coverage bias. The CFU portion of the Content Test did include a unit nonresponse adjustment for those Content Test cases that responded to the Content Test but failed to respond to the CFU. As a result, the statistics derived from the Content Test data do not provide the same level of inference as the ACS to the entire population of housing units and persons in the contiguous United States.

There were also two notable differences between the 2010 ACS questionnaire and the Content Test questionnaire. To avoid increasing the page size of the Content Test questionnaire, the second halves of both the school enrollment and residence one year ago questions were removed to make room for the PPOB questions.[12] While the Content Test provides data to assess the impact of including the PPOB questions on the quality of the data from the first halves of the school enrollment and residence one year ago questions, their impact on the second halves of these questions remains unknown.

5. CRITICAL RESEARCH QUESTIONS AND RESULTS

5.1 Response to the Content Test and Content Follow-Up

Table 1 shows the unit response rates for each of the modes of data collection and all modes combined (excluding Content Follow-up) by the Control and Test panels.[13] The comparison between Control and Test shows that respondent participation was similar for both Control and Test for each of the modes of data collection and all modes combined, with the exception of the CATI mode. The Test treatment produced a CATI rate of response that is 3 percentage points lower than that of the Control treatment. The increase in response due to the Test treatment for the CATI mode of data collection cannot be explained other than by random occurrence, given that the conditions affecting unit response were equivalent between the Test and Control groups.

5.2 Are the response distributions of parental place of birth and generational status (i.e., first, second, and third-or-higher generation) comparable to existing data sources?

The basic CPS instrument includes questions on both father's and mother's place of birth that are very similar to the PPOB questions used in the Content Test.[14] To determine whether the PPOB questions appear to work correctly in the ACS, the response distributions of father's POB, mother's POB, and generational status from the Content

[12] The second half of the school enrollment questions asked: What grade or level was this person attending? Respondents were provided check boxes and a write-in box to specify a grade/level. For the residence one year ago question, the second half asked: Where did this person live one year ago? Respondents were provided write-in lines to report their address.

[13] All tables referenced in this report can be found in Appendix A.

[14] The Current Population Survey is collected using only CATI and CAPI modes. The telephone and personal interviews include questions that ask: 1) In what country was your father born? 2) In what country was your mother born?

Test were compared with corresponding distributions derived from CPS data. Note that these comparisons could not be statistically tested because the complete set of post-data collection data processing methods that are standard practice for the production of both CPS and ACS data, such as edit and imputation procedures, were not applied to the Content Test data.

Two CPS datasets were chosen for comparison to the Content Test data because of certain favorable characteristics. The September 2010 CPS basic dataset was administered during the same time period as the 2010 ACS Content Test. The March 2010 CPS Annual Social and Economic Supplement (ASEC) dataset featured a larger overall sample size (responses were collected in February, March, and April) and an oversample of Hispanic respondents, leading to a more robust sample and a greater likelihood of foreign-born representation in the sample.

Table 2 shows the distributions of generational status and father's and mother's WROB. Overall, the distributions derived from both Content Test panels were very similar to those derived from both of the CPS datasets. There are some small differences – for instance, the segment of the population identified as the second generation was about one percentage point higher in the Content Test distributions than in the CPS distributions – but given the limited degree of post-processing in the Content Test data, none of these differences were large enough to warrant concern.

Conclusion: The generational status and father's and mother's WROB distributions derived from the Content Test data were very similar to the corresponding distributions derived from the CPS data, which suggests that the PPOB questions appeared to function correctly on the ACS questionnaire.

5.3 Which placement results in a lower missing data rate?

To determine whether the IMDRs of the PPOB questions were affected by the location of these items on the questionnaire, the IMDRs for father's and mother's POB in both panels of the Content Test were compared. Table 3 shows the IMDRs for both PPOB questions in the Control and Test panels as well as the statistical significance of the differences in IMDRs between the panels. The results indicated that, for both father's and mother's POB, the IMDRs were significantly lower for the Control panel (6.9 percent and 6.0 percent, respectively) than for the Test panel (7.4 percent and 6.6 percent, respectively).

As mentioned in Section 3.3.1, item missing data can take several forms, such as uncodable responses. Because the PPOB questions yielded write-in data that was later coded to valid response categories, it was important to know if uncodable responses were among the PPOB missing data values and – if so – whether the PPOB question placement had an effect upon the URRs for these questions.

Table 4 shows the estimates of the URRs for father's POB, mother's POB, and POB for both Content Test panels and the differences between the Control and Test URRs. These

differences were tested for statistical significance in the same way as the IMDRs. The URR for father's POB was higher in the Test panel (0.2 percent) than in the Control panel (0.1 percent), while the URR differences for both mother's POB and POB were not statistically significant.

The URRs from each of the PPOB questions were also compared to the URR from the POB question within each Content Test panel (see Table 5). Because the intent was to determine whether the URRs for the PPOB questions were strictly larger than – and not simply different from – the URR for POB, the comparisons were subjected to one-sided hypothesis tests, rather than two-sided tests. Within each panel, the comparisons (father's POB to POB, and mother's POB to POB) were made simultaneously, and the familywise error rate for each pair of comparisons had been controlled using the Bonferroni multiple comparison method at the α=0.10 level. The URR of mother's POB was higher than the URR of POB regardless of treatment. Also, the URR of father's POB was higher than the URR of POB only in the Test panel. However, the significant differences among the URRs were negligible (i.e., no greater than a tenth of a percentage point).

Conclusion: The Control treatment yielded a lower item missing data rate for both father's and mother's POB (6.9 percent and 6.0 percent, respectively) than the placement used by the Test panel (7.4 percent and 6.6 percent, respectively). While the URR for father's POB was lower for the Test treatment, the magnitude of the difference between the two panels was negligible.

5.4 Do the two placements have similar or different response distributions?

To determine whether the placement of the PPOB questions had an effect upon the response distributions of father's and mother's POB, the percent distributions of each question between the two treatments were compared. All three recodes for PPOB were considered: BPOB, WROB, and SPOB.[15]

Table 7 shows the Control and Test response distributions for both PPOB variables and all three recodes, in addition to the results from the corresponding t-tests. For both father's and mother's POB, all of the differences between the individual response categories of the Control and Test Panels were not statistically significant, regardless of which recode was used.

Table 6 shows the relevant chi-square statistics and corresponding test results of father's and mother's POB under the Control and Test panels. The WROB recode did not yield statistically significant differences for either PPOB variable, but the SPOB recode did indicate evidence of significant overall differences between the two panels for both PPOB variables. The discrepancy in test results among the WROB and SPOB recodes appeared to indicate that the overall differences in PPOB distributions between the two panels were more prevalent at lower levels of geographic focus. However, because the individual response categories were not significantly different between the two panels for

[15] See Section 3.3 for definitions of these recodes and rationale for their use.

the SPOB recodes, it was not apparent whether any particular response categories were largely responsible for the significance of the differences in the overall response distributions.

Conclusion: In general, there were no notable significant differences between the Control and Test panels among the response distributions of father's and mother's POB, regardless of recode used. Thus, the two placements yielded similar distributions of the PPOB variables.

5.5 Which placement results in more reliable estimates?

To determine which PPOB question placement resulted in more reliable estimates of father's and mother's POB, several reliability statistics were used to compare the Control and Test panels. As with the distributional analysis, the reliability analysis was conducted for both PPOB variables using all three recodes for both panels of the Content Test.

Table 8 shows the GDRs for father's and mother's POB using all three recodes for the two panels in addition to the statistical testing results of the differences between the Control GDRs and Test GDRs for each response category. The results showed that, for both PPOB variables, there were no significant differences in the GDRs between the Control and Test panels for either the BPOB recode or the WROB recode. The results also indicated that, for the mother's SPOB recode, there were no significant differences in GDRs between the two panels. However, for the father's SPOB recode, the Mexico category yielded a higher GDR in the Test panel (0.4 percent) than the Control panel (0.2 percent). Likewise, the "Other places" category yielded a higher GDR in the Test panel (0.8 percent) than the Control panel (0.5 percent). Despite the significance of these two differences, the magnitudes of the estimates involved – all less than 1 percent – were negligible.

Table 9 shows the IoIs for father's and mother's POB using all three recodes for the two panels in addition to the statistical testing results of the differences between the Control IoI and Test IoI for each response category. The results showed that, for both PPOB variables, there were no significant differences in indices of inconsistency between the Control and Test panels for all three PPOB recodes.

Table 10 shows the L-fold indices of inconsistency for father's and mother's POB using all three recodes for the two panels in addition to the statistical testing results of the differences between the Control L-fold indices and Test L-fold indices.[16] The results showed that, for both PPOB variables, there were no significant differences in L-fold indices between the Control and Test panels for either the BPOB recode or the WROB recode. The results also showed that, for the mother's SPOB recode, the Control and Test L-fold indices were not significantly different. However, for the father's SPOB

[16] For dichotomous variables such as the father's and mother's BPOB recodes, the L-fold index (and corresponding test of difference in L-fold estimates) is equivalent to the IoI for each response category of the variable.

recode, the Test L-fold index (3.4 percent) was higher than that for the Control panel (2.3 percent). This suggested that, overall, responses to the father's POB question – when distributed according to the father's SPOB recode – were more inconsistent under the Test panel than under the Control panel. The comparisons between the individual IoIs for father's SPOB did not indicate which categories caused the difference in overall inconsistency to be significant between the Control and Test panels.

Conclusion: In general, there were no notable significant differences in the reliability measures of father's and mother's POB between the two placements used by the Control and Test panels. Thus, neither placement resulted in more reliable estimates than the other.

5.6 Does changing the placement of the parental place of birth questions from before to directly after the ancestry question affect the item missing data rate, response distribution, or reliability for the ancestry question?

To determine whether the IMDR of the ancestry question was affected by the location of the PPOB questions on the questionnaire, IMDRs for first reported ancestry in both panels of the Content Test were compared.[17] Table 3 shows the IMDRs for the ancestry question under the Control and Test panels as well as the statistical significance of the differences between the panels. The results indicated that the IMDRs were significantly lower for the Test panel (13.3 percent) than for the Control panel (14.5 percent).

Table 11 shows the MARRs for the ancestry question under the Control and Test panels as well as the statistical significance of the differences between the panels. The results indicated that respondents were more likely to report more than one ancestry under the Control panel (28.2 percent) than under the Test panel (26.8 percent). So, the Test panel (in which the PPOB questions were placed after ancestry) resulted not only in lower IMDRs for ancestry than the Control panel, but also in lower incidence rates of multiple ancestry responses. The multiple response finding lends support to the idea that placing the PPOB questions prior to ancestry (as in the Control panel) may aid respondents in thinking about the backgrounds of the household members, thereby increasing the amount of information they provide when asked about ancestry. However, further analysis is necessary to determine whether this additional information would represent improved ancestry data.

To determine whether the placement of the PPOB questions had an effect upon the response distributions of first and second ancestry reported, the percent distributions of each question between the two treatments were compared. Both ancestry recodes were considered: regional ancestry and selected ancestry.[18] Tables 13 and 14 show the Control and Test response distributions for both ancestry variables and both recodes, in addition to the results from the corresponding statistical tests of the differences between the Control and Test panels. The results indicated that, for both first and second ancestry

[17] Due to the voluntary response nature of the second ancestry reported variable, the authors were concerned only with the item missing data rate of the first ancestry reported.
[18] See Section 3.3 for definitions of these recodes and rationale for their use.

reported, all of the percentages attributed to the individual response categories were not significantly different between the two panels, regardless of which recode was used.

Table 12 shows the relevant chi-square statistics and corresponding test results of first and second ancestry reported for both the Control and Test panels. The selected ancestry recode was not significantly different for either ancestry variable. By comparison, the regional ancestry recode was significantly different between the two panels but only for the first ancestry reported variable. The discrepancy in test results among the regional and selected ancestry recodes appeared to indicate that the overall differences in ancestry distributions between the two panels were more prevalent at the higher levels of geographic focus. However, because the individual response categories were not significantly different between the two panels for the selected ancestry recodes, it was not apparent whether any particular response categories were largely responsible for the significance of the differences in the overall response distributions.

To determine which PPOB question placement resulted in more reliable estimates of first and second ancestry reported, the differences in the reliability measures (GDRs, IoIs, and L-fold indices) of the ancestry variables for both Content Test panels were tested for statistical significance. As with the distributional analysis, the reliability analysis was conducted for both ancestry variables using both recodes for both panels of the Content Test. Tables 15 and 16 show the GDRs for first and second ancestry reported using both recodes for the two panels in addition to the statistical testing results of the differences between the Control GDR and Test GDR for each response category. The results showed that, for both ancestry variables, there were no significant differences in GDRs between the Control and Test panels for either the regional ancestry recode or the selected ancestry recode.

Tables 17 and 18 show the IoIs for first and second ancestry reported using both recodes for the two panels in addition to the statistical testing results of the differences between the Control IoI and Test IoI for each response category. The results showed that, for second ancestry reported, there were no significant differences in IoIs between the Control and Test panels for either of the two recodes. The results also showed that, for first ancestry reported, there were no significant differences between the two panels for only the regional ancestry recode. The IoIs of all but one of the response categories for selected first ancestry reported were not significantly different between the two panels.[19]

Table 19 shows the L-fold indices for first and second ancestry reported under both recodes for the two panels in addition to the statistical testing results of the differences between the Control and Test L-fold indices. The results showed that, for both ancestry variables, there were no significant differences in L-fold indices of inconsistency between the Control and Test panels, regardless of the recode used.

Conclusion: In general, there were no notable significant differences in the response

[19] The IoI for the American Indian category was higher in the Test panel (59 percent) than in the Control panel (46 percent). However, this result was likely due to the relatively small population reporting American Indian ancestry, as IoIs are particularly sensitive for rare populations (Singer and Ennis, 2003).

distributions or reliability measures of first or second reported ancestry between the two placements of PPOB used by the Control and Test panels. However, the placement used by the Test panel resulted in a lower item missing data rate for first reported ancestry (13.3 percent) than the placement used by the Control panel (14.5 percent).

5.7 Does the placement of the parental place of birth questions directly before the school enrollment question affect the item missing data rate, response distribution, or reliability for the school enrollment question?

To determine whether the IMDR of the school enrollment question was affected by the location of the parental place of birth questions on the questionnaire, the IMDRs for the school enrollment variable in both panels of the Content Test were compared. Table 3 shows the IMDRs for the school enrollment question under the Control and Test panels as well as the statistical significance of the differences between the panels. The results indicated that the IMDR was significantly lower for the Test panel (4.8 percent) than for the Control panel (5.4 percent). In other words, when the PPOB questions preceded the school enrollment question (as in the Control questionnaire), the school enrollment IMDR was higher than when the PPOB questions were placed after the school enrollment question (as in the Test questionnaire).

To determine whether the placement of the PPOB questions had an effect upon the response distributions of school enrollment, the percent distributions between the two treatments were compared. Table 21 shows the Control and Test response distributions for the school enrollment variable in addition to the results from the corresponding statistical tests. The results indicated that all of the percentages attributed to the individual response categories were not significantly different between the Control and Test panels.

Table 20 shows the relevant chi-square statistic and test result of the school enrollment variable under the Control and Test panels. The overall difference in response distributions between the two panels was statistically significant. However, the interpretation of these results is difficult as the t-tests did not indicate significant differences among any of the response categories for the school enrollment variable and it was not apparent whether any particular response categories were largely responsible for the significance of the differences in the overall response distributions.

To determine which PPOB question placement resulted in more reliable estimates of school enrollment, the differences in the reliability measures (GDRs, IoIs, and L-fold indices) of the school enrollment variables for both Content Test panels were tested for statistical significance. Table 22 shows the GDRs of the school enrollment variable for the two panels in addition to the statistical testing results of the differences between the Control GDR and Test GDR for each response category. The results showed that there were no significant differences in gross difference rates between the Control and Test panels for the school enrollment variable.

Table 23 show the IoIs of the school enrollment variable for the two panels in addition to

the statistical testing results of the differences between the Control IoI and Test IoI for each response category. The results showed that there were no significant differences among the indices of inconsistency between the Control and Test panels for the school enrollment variable. Table 24 shows the L-fold index of inconsistency for the school enrollment variable in the two panels in addition to the statistical testing results of the differences between the Control and Test L-fold indices. The results showed that there was no significant difference in the L-fold indices of inconsistency for the school enrollment variable between the Control and Test panels.

Conclusion: In general, there were no notable significant differences in the response distributions or reliability measures of school enrollment status between the two placements of PPOB used by the Control and Test panels. However, the placement used by the Test panel resulted in a lower item missing data rate for school enrollment status (4.8 percent) than the placement used by the Control panel (5.4 percent).

5.8 Does the placement of the parental place of birth questions directly before the language spoken questions affect the item missing data rates, response distributions, or reliability for the language questions?

To determine whether the IMDR of the language questions (non-English-language-spoken-at-home status, language spoken at home, and English speaking ability) were affected by the location of the PPOB questions on the questionnaire, the IMDRs for the three language questions in both panels of the Content Test were compared. Table 3 shows the IMDRs for the language questions under the Control and Test panels as well as the statistical significance of the differences between the panels. The results indicated that, for the non-English-language-spoken-at-home status question, the IMDR was not significantly different between the Test panel (4.8 percent) and the Control panel (5.1 percent), while for the language spoken at home and English speaking ability questions, the IMDRs were lower for the Control panel (4.9 percent and 1.5 percent, respectively) than for the Test panel (6.9 percent and 2.1 percent, respectively).

To determine whether the placement of the PPOB questions had an effect upon the response distributions of the language questions, the percent distributions of each question between the two treatments were compared.[20] Table 21 shows the Control and Test response distributions for the three language variables, in addition to the results from the corresponding statistical tests. For all three language variables, all of the percentages attributed to the individual response categories were not significantly different between the Control and Test panels.

Table 20 shows the relevant chi-square statistics and corresponding test results of selected language spoken at home and English speaking ability under the Control and

[20] For the distributional and reliability analyses, the language spoken at home variable was recoded using the selected language spoken at home recode, defined in Section 3.3.1.

Test panels.[21] The results indicated that, overall, the response distribution of English-speaking ability was not significantly different between the two panels. However, the overall response distribution of the selected language spoken at home recode was significantly different between the two panels. However, the t-tests for the selected language spoken at home recode did not indicate significant differences among any of the response categories and it was not apparent whether any particular response categories were largely responsible for the significance of the differences in the overall response distributions.

To determine which PPOB question placement resulted in more reliable estimates of the three language questions, the differences in reliability measures (GDRs, IoIs, and L-fold indices) of the language variables for both Content Test panels were tested for statistical significance. As with the distributional analysis, the reliability analysis was conducted for the three language variables for both panels of the Content Test. Table 22 shows the GDRs for the three language variables under both recodes for the two panels in addition to the statistical testing results of the differences between the Control GDR and Test GDR for each response category. The results showed that, for all three language variables, there were no significant differences in GDRs between the Control and Test panels.

Table 23 shows the IoIs for the three language variables for the two panels in addition to the statistical testing results of the differences between the Control IoI and Test IoI for each response category. The results showed that, for all three language variables, there were no significant differences in IoIs between the Control and Test panels. Table 24 shows the L-fold indices of inconsistency of the three language variables for the two panels in addition to the statistical testing results of the differences between the Control and Test L-fold indices. The results showed that, for all three language variables, there were no significant differences in L-fold indices between the Control and Test panels.

Conclusion: In general, there were no notable significant differences in the response distributions or reliability measures of any of the language questions between the two placements of PPOB used by the Control and Test panels. However, the placement used by the Control panel resulted in lower IMDRs for non-English-language-spoken-at-home status and English speaking ability (4.9 percent and 1.5 percent, respectively) than the placement used by the Test panel (6.9 percent and 2.1 percent, respectively).

5.9 Summary of Critical Analysis

The core selection criteria (see Section 2) for the PPOB questions comprised three major elements: (1) do the PPOB questions "work" on the ACS questionnaire, providing reasonable and reliable data; (2) does placement of the PPOB questions on the questionnaire affect the data produced by the PPOB questions; and (3) does the placement of the PPOB questions affect the quality of the data produced by the ancestry,

[21] Due to its dichotomous nature, the comparison in overall response distributions of the non-English-language-spoken-at-home status variable between the Control and Test panels was not subjected to a chi-square test.

school enrollment, and language questions? The results of the critical analysis (see Sections 5.2 through 5.8) were used to address the core selection criteria and to determine how the PPOB question placement affected the quality of data obtained by the PPOB questions and the proximal questions.

To address Criterion 1, the distributions of father's WROB, mother's WROB, and generational status were compared between the two Content Test panels and the two CPS data sources (see Section 5.2). The results indicated that response distributions for all three variables produced by the Content Test data closely resembled those produced by the existing CPS data, thereby indicating that the PPOB questions appeared to provide reasonable and reliable data on the ACS questionnaire.

To address Criterion 2, the IMDRs, response distributions, and reliability measures of several recodes of varying geographic detail for father's and mother's POB were compared between the two Content Test panels (see Sections 5.3 through 5.5). The results indicated that, in general, the response distributions and reliability measures of the PPOB questions did not differ significantly between the two panels. However, the IMDRs for both PPOB questions were lower for the Control panel than for the Test panel. Overall, the placement of the PPOB questions did not have any notable impact on the quality of the data produced.

To address Criterion 3, the IMDRs, response distributions, and reliability measures of the proximal variables were compared between the two Content Test panels (see Sections 5.6 through 5.8). The results indicated that, in general, the response distributions and reliability measures of the proximal variables did not differ significantly between the two panels. However, the IMDR comparisons yielded mixed results – IMDRs were lower for the Control panel among the ancestry, school enrollment status, and non-English-language-spoken-at-home status variables but lower for the Test panel among the language spoken at home and English speaking ability variables. Overall, the placement of the PPOB questions had minimal impact on the surrounding variables.

In summary, the PPOB questions appeared to work properly on the ACS questionnaire and the question placement had minimum impact upon the data quality of the PPOB questions and the proximal variables (aside from the IMDRs). While there was no strong evidence to support one placement over the other, the results of the analyses did suggest that the placement used by the Control treatment may yield results more favorable for the PPOB variables.

6. SUPPLEMENTAL RESEARCH QUESTIONS AND RESULTS

6.1 For each mode of data collection, do the two placements have differential item missing data rates, response distributions, or reliability of the data?

Both panels of the Content Test were administered across three modes of data collection: mail, CATI, and CAPI. Table 25 shows the weighted distribution of the household population across mail and non-mail (i.e., CATI and CAPI) response modes in the

Control and Test panels. In both panels, there were more mail respondents (57 percent in each panel) than non-mail respondents (43 percent in each panel). Note that the modal distribution was not random, due to the mixed-mode survey design.

As previously noted (Section 5.3), both of the PPOB questions had lower IMDRs under the Control panel than the Test panel. To determine whether this result was consistent across mode types, the IMDRs for father's and mother's POB were compared between the Control and Test panels while restricting the population universes to 1) mail respondents and 2) non-mail respondents. Table 26 shows the results of the by-mode IMDR comparisons. For both father's and mother's POB, the Control panel yielded lower IMDRs (8.0 percent and 6.9 percent, respectively) than the Test panel (8.6 percent and 8.0 percent, respectively) for mail respondents. However, for both father's and mother's POB, the differences in IMDRs between both panels were not statistically significant for non-mail respondents. Therefore, it appeared that the significant difference in IMDRs for the PPOB questions was driven by the mail respondents.

In general, the response distributions of both PPOB questions were not significantly different between the two panels (see Section 5.4). To determine whether this result was consistent across mode types, the response distributions for father's and mother's POB were compared between the Control and Test panels while restricting the population universes by mode as previously described. To avoid potential data sparseness issues, the PPOB-by-mode analysis was limited to only the WROB recode.

Table 28 shows the response distributions of the PPOB variables by mode for the Control and Test panels, in addition to the differences in percentages of response categories between the two panels and the statistical testing results of the individual response categories. The results indicated that, for both father's and mother's WROB, there were no significant differences between the Control and Test panels among any of the response categories, regardless of mode type. Table 27 shows the chi-square statistics and test results for each PPOB variable and mode type that correspond to the comparisons of overall response distributions between the two panels. The results showed that, for father's and mother's WROB, there were no significant differences in the response distributions between the Control and Test panels, regardless of mode type.

As previously noted (Section 5.5), both of the PPOB variables did not exhibit notable differences in reliability measures between the Control and Test panels. To determine whether this result was consistent across mode types, the reliability measures for father's and mother's POB were compared between the two panels while restricting the population universes by mode as previously described. Again, the PPOB-by-mode analysis was limited to only the WROB recode. Tables 30, 32, and 34 show the GDRs, IoIs, and L-fold indices of father's and mother's WROB for each mode type under the Control and Test panels, the differences in reliability measures between the two panels for each response category, and the results of the corresponding statistical tests. The results indicated that, for both PPOB variables, none of these differences were significant between the two panels for all response categories, regardless of the mode type.

Conclusion: There were no notable significant differences among the response distributions or reliability measures of father's and mother's POB between the two placements of PPOB used by the Control and Test panels, regardless of the mode of data collection. However, the placement used by the Control panel resulted in lower IMDRs in the mail mode for both father's and mother's POB than the placement used by the Test panel. When considering only the households whose data was collected by CATI or CAPI, there were no significant differences in IMDRs for either PPOB question between the two placements used by the Control and Test panels.

6.2 For each mail response stratum, do the two placements have differential item missing data rates, response distributions, or reliability of the data?

Compared to the ACS sample design, the samples corresponding to the two panels of the Content Test had an additional layer of stratification designed to ensure adequate representation in geographic areas that had a history of either high or low mail response rates. Table 25 shows the weighted distribution of the household population across mail response strata in the Control and Test panels. In both panels, there were more respondents from the high response area (75 percent in each panel) than from the low response area (25 percent in each panel). Note that the distribution by response stratum was not random, but purely by design of the sample (which incorporated an oversample of households in the low response area).

As previously noted (Section 5.3), both of the PPOB questions had lower IMDRs under the Control panel than the Test panel. To determine whether this result was consistent across mail response strata, the IMDRs for father's and mother's POB were compared between the Control and Test panels while restricting the population universes to respondents 1) living in high response areas and 2) living in low response areas. Table 26 shows the results of the by-stratum IMDR comparisons. For father's POB, the Control panel yielded lower IMDRs (6.4 percent) than the Test panel (7.2 percent) when only considering the respondents living in high response areas. For mother's POB, the differences in IMDRs between panels were not statistically significant for those living in high response areas. Also, for both father's and mother's POB, the differences in IMDRs between panels were not statistically significant, regardless of mail response stratum.

In general, the response distributions of both PPOB questions were not significantly different between the two panels (see Section 5.4). To determine whether this result was consistent across mail response strata, the response distributions for father's and mother's POB were compared between the Control and Test panels while restricting the population universes by mail response stratum as previously described. To avoid potential data sparseness issues, the PPOB-by-stratum analysis was limited to only the WROB recode. Table 29 shows the response distributions of the PPOB variables by mail response stratum for the Control and Test panels, in addition to the differences in percentages of response categories between the two panels and the statistical testing results of the individual response categories. For both father's and mother's WROB, there were no significant differences between the Control and Test panels among any of the response categories for respondents who lived in high response areas. However, for both father's

and mother's WROB, the parents were more likely to be born in Puerto Rico or the U.S. territories in the Test panel (2.3 percent and 2.2 percent, respectively) than in the Control panel (1.8 percent and 1.7 percent, respectively) for respondents living in low response areas.[22] Nonetheless, the magnitude of these differences, coupled with the small number of respondents in this category for both panels under the low response stratification, rendered this finding to be negligible.

Table 27 shows the chi-square statistics and test results for each PPOB variable and mail response stratum that correspond to the comparisons of overall response distributions between the two panels. For father's and mother's WROB, there were no significant differences in the response distributions between the Control and Test panels, regardless of response area.

As previously noted (see Section 5.5), both of the PPOB variables did not exhibit notable differences in reliability measures between the Control and Test panels. To determine whether this result was consistent across mail response strata, the reliability measures for father's and mother's POB were compared between the two panels while restricting the population universes by response area as previously described. Again, the PPOB-by-stratum analysis was limited to only the WROB recode. Tables 31, 33, and 34 shows the GDRs, IoIs, and L-fold indices of father's and mother's WROB for each mail response area under the Control and Test panels, the differences in reliability measures between the two panels for each response category, and the results of the corresponding statistical tests. The results indicated that, for both PPOB variables, none of these differences were significant between the two panels for all response categories, regardless of the response area.

Conclusion: In general, there were no notable significant differences among the response distributions or reliability measures of father's and mother's POB between the two placements of PPOB used by the Control and Test panels, regardless of the mail response stratum. However, the placement used by the Control panel resulted in lower IMDRs in the high response area stratum for both father's and mother's POB than the placement used by the Test panel. When considering only the households in the low response area stratum, there were no significant differences in IMDRs for either PPOB question between the two placements used by the Control and Test panels.

6.3 Does either placement elicit respondent or interviewer behaviors that may contribute to interviewer or respondent error?

The behavior coding and analysis for all topics in the 2010 ACS Content Test was conducted by the Center for Survey Management (CSM) using the Census Bureau's new Computer Audio Recorded Interview (CARI) system. In this system, a sample of recorded CATI and CAPI interviews were used to assign standardized codes to observed behaviors among field representatives and respondents for selected questions in both panels of the Content Test. The occurrence rates of these behaviors were compared

[22] The differences in percentages between the Control and Test panels were not statistically significant among the other five categories for both PPOB variables.

between the Control and Test panels using two-sided t-tests with statistical significance determined at the α=0.10 level. Details about the methodology involved in the CARI analysis can be found in the CSM report (Goerman and Pascale, 2011).

For the PPOB questions, there were no significant differences in either interviewer or respondent behavior between the Control and Test panels of the Content Test. For the ancestry question, however, both interviewer and respondent behavior rates were "better" under the Test panel than under the Control panel. The analysts also observed that the behavior patterns for the PPOB questions under both panels were generally as expected. For example, interviewers tended to stray from the exact text of the mother's POB question more often than for father's POB, likely due to the order of questions (i.e., father's POB precedes mother's POB in the interview). Also, as the person number of sampled households increased, the rates of exact readings tended to drop for both PPOB questions, whereas the rates of response verifications and question skips tended to rise.

6.4 Summary of Supplemental Analysis

The results of the supplemental analysis indicated that the patterns of differences in IMDRs, response distributions, and reliability measures of the PPOB variables between the Control and Test panels of the Content Test were generally not dissimilar between respondents from different mode types or from different mail response strata. Likewise, there was little evidence of differences in interviewer or respondent behaviors between the two treatments that would adversely affect the data quality of father's or mother's POB. Overall, the supplemental analysis provided no findings that contradicted the results of the critical analysis or complicated the selection criteria.

7. ADDITIONAL RESEARCH TOPICS AND RESULTS

This section of the report provides information about additional research that, while outside the scope of the original analysis plan, addressed follow-up questions asked by Census Bureau and OMB representatives during a series of debriefing meetings at Census Bureau headquarters in Suitland, Maryland in Summer 2011. The first topic focused on the reasonableness of IMDRs and response distributions of the proximal variables (ancestry, school enrollment, and language) derived from Content Test data when compared with corresponding rates and estimates derived from ACS data. The second topic focused on whether or not the proximal variables were affected by response mode within the Content Test data. In the end, the results of this additional analysis did not yield results that contradicted the results of the critical analysis. For the sake of completeness, the details of this additional research are presented below.

7.1 Comparison of Content Test Data to ACS Data for Proximal Variables

As part of the original analysis plan, the response distributions of father's and mother's POB were compared between the two panels of the Content Test and two different CPS datasets in order to ascertain a general sense of data reasonableness derived from the PPOB variables on the Content Test questionnaires. During the debriefing meetings, it

was inquired whether similar analyses could be conducted to assess the data reasonableness of the proximal variables in the Content Test – including ancestry, school enrollment, and language questions, as well as several other questions within the vicinity of the PPOB items on the questionnaire. The main reason for this additional analysis was because, in specific terms of the PPOB project, neither of the two panels represented a true "control" – the questionnaires for both panels included the PPOB questions, and so the true effect of the presence of PPOB upon the proximal questions could not be determined since there was no panel in which the PPOB questions were absent. Without such a panel on the Content Test, the next best alternative would be to compare the IMDRs and response distributions of proximal variables in the two Content Test panels to the corresponding variables in the existing ACS data.

The list of proximal variables to be examined included the ancestry, school enrollment, and language questions and was expanded to include educational attainment, first field of degree, mobility status, the set of questions on health insurance coverage types, and the two questions on disability status.[23] IMDRs were produced for all of these variables using data from both the Control and Test panels of the Content Test in addition to data from the 2009 ACS.[24] Due to time constraints, response distributions were produced only for the core proximal variables using these three data sources with the intention to produce distributions for the other variables if the results warranted additional analysis. However, because the 2009 ACS data had been fully processed and prepared for public use, the IMDRs could not be calculated, as all instances of missing data in the raw files had since been allocated according to Census Bureau edit and imputation procedures. Instead, allocation rates for the variables under consideration were used; while not equivalent to the IMDR, the allocation rate is a reasonable analogue for this type of comparison. Note that the comparisons between the IMDRs and allocation rates could not be statistically tested because the complete set of post-data collection data processing methods were not applied to the Content Test data (see Section 5.2).[25]

Table 35 shows the allocation rates derived from the 2009 ACS in addition to the IMDRs derived from the Control and Test panels of the Content Test. The variables are listed in the order they appear on the ACS and Content Test questionnaires. The ACS allocation rates and the Content Test IMDRs were, generally speaking, at the same or similar levels, and the differences between the ACS allocation rates and the IMDRs from either Content Test panel were no larger a few percentage points. There were two exceptions. First, for field of degree, the Content Test IMDRs (2.9 percent for Test and 2.5 percent for Control) were actually lower than the ACS allocation rate (9.0 percent), which can likely

[23] The population universe of educational attainment comprised those persons age 3 years or older. The population universe of mobility status comprised those persons age 1 year or older. All other variables listed had no further restrictions of their population universes.

[24] At the time of analysis, the dataset for the 2010 ACS had not yet been finalized and was unavailable. Also, to be more comparable with the Content Test data, households that responded to the ACS by mail were restricted such that only the first five household members were included in the analysis and group quarters data was excluded from the analysis.

[25] In addition to the lack of edit and allocation procedures, the Content Test did not incorporate a Failed Edit Follow-up (FEFU) operation, which further limits the comparability of Content Test IMDRs to ACS allocation rates.

be attributed to the edit and allocation procedures in the ACS. Second, for first ancestry reported, the allocation rate could not be calculated because missing data were coded as "not reported"; however, the percent not reported was similar to the two Content Test IMDRs. Therefore, it was concluded that the IMDRs of proximal variables in the Content Test were more or less similar to allocation rates of the same variables in the ACS.

Tables 37, 38, and 39 show the response distributions derived from the 2009 ACS as well as the two Content Test panels.[26] In general, none of the variables appeared to have notably different distributions between the ACS data and either of the Content Test panels.

Conclusion: For both placements, the results of the additional analysis suggest that the IMDRs and response distributions for variables following the PPOB questions in the Content Test compared favorably with those derived from ACS data. Thus, the presence of the PPOB questions did not adversely affect the quality of the data produced by the surrounding questions.

7.2 Additional Analysis of Proximal Variables by Mode in Content Test Data

As part of the original research plan, the supplementary questions included an analysis of the effects of response mode on differences in the IMDRs, response distributions, and reliability measures of father's and mother's POB between the Control and Test panels. This analysis was subsequently expanded to determine whether the ancestry, school enrollment, and language questions were affected by response mode. IMDRs by response mode of first ancestry reported, school enrollment, non-English-language-spoken-at-home status, language spoken at home, and English speaking ability for both panels of the Content Test were produced.[27] In addition, by-mode response distributions were also produced for all of these variables as well as second ancestry reported for the Control and Test panels. Due to time constraints, only the regional ancestry recodes were examined for the two ancestry variables and additional reliability analysis was not conducted. The differences between the Control and Test IMDRs and distributions were tested for statistical significance according to the same procedures described in Sections 5.6 to 5.8.

Table 36 shows the IMDRs for the two panels, the differences in the IMDRs between the two panels, and the statistical significance of those differences. The mail IMDR for ancestry was lower under the Test panel (19.0 percent) than under the Control panel (21.1 percent), but the non-mail IMDRs for ancestry were not significantly different between the two panels. Likewise, the mail IMDR for school enrollment was lower under the Test panel (6.2 percent) than under the Control panel (7.2 percent), but the non-mail IMDRs for school enrollment were not significantly different between the two panels. Also, the mail IMDRs for language spoken at home and English speaking ability were lower under

[26] For the sake of brevity, only the regional ancestry recode was used on the first and second ancestry reported variables for this segment of analysis.
[27] IMDRs were not constructed for second ancestry reported; see footnote 17.

the Control panel (12.1 percent and 3.3 percent, respectively) than under the Test panel (17.1 percent and 4.9 percent, respectively), but the non-mail IMDRs for both variables were not significantly different between the two panels. Finally, the IMDRs for non-English language spoken at home status were not significantly different between the two panels, regardless of response mode. For each of these variables, the patterns of IMDR differences for the mail mode populations mimicked those of the total (all modes) populations such that, when a difference between the Control and Test IMDRs was significant, that difference appeared to be driven largely by mail mode responses.

Table 40 shows the response distributions of the regional first ancestry recode and the regional second ancestry recode by mode for both the Control and Test panels, the differences in estimated percentages of individual response categories between the two panels, and the statistical significance of those differences. Table 42 shows the chi-square statistics and test results corresponding to each between-treatment comparison. In general, most of the differences among individual response categories for either of the ancestry variables and either of the mode types between the two panels were not significantly different.[28] However, the chi-square analysis indicated that, for both of the regional ancestry recodes, the overall differences between the Control and Test distributions were statistically significant for mail responses but not for CATI/CAPI responses. This finding suggested that the significant differences in the response distributions of the ancestry variables were largely due to the mail respondents.

Table 41 shows the response distributions of the school enrollment and language variables by mode for both the Control and Test panels, the differences in estimated percentages of individual response categories between the two panels, and the statistical significance of those differences.[29] Table 42 shows the chi-square statistics and test results corresponding to each by-treatment comparison. For all four variables, there were no significant differences between the two panels among the individual response categories, regardless of response mode. Similarly, the chi-square analysis indicated that, for the school enrollment and English speaking ability variables, the overall differences between the Control and Test distributions were not statistically significant, regardless of response mode. However, for the selected language spoken at home recode, the overall differences between the Control and Test distributions were statistically significant for mail responses but not for CATI/CAPI responses. This finding suggested that the significant differences in the response distributions of the ancestry variables were largely due to the mail respondents.

Conclusion: When the IMDRs and response distributions of the ancestry, school enrollment, and language questions were differentiated by response mode, the statistical significance patterns of by-treatment differences corresponding to the mail respondents

[28] The Test estimate of the "other, non-regional" response category (14.4 percent) of the region first ancestry recode was larger than the Control estimate (12.6 percent). However, this result was likely due to the combined effect of small sample sizes in the Content Test panels and the small population of persons reporting a non-regional ancestry living in the United States.

[29] The selected language spoken at home recode was applied to the language spoken at home variable, as it was in Section 5.7.

were similar to those of all respondents, whereas the differences corresponding to the CATI/CAPI respondents were generally not statistically significant. This suggested that the mail respondents were largely responsible for the significant differences in IMDRs and response distributions of the proximal variables.

7.3 Summary of Additional Analysis

The results of the additional analysis indicated that the IMDRs and response distributions of the expanded list of questions in close proximity to PPOB in either panel of the Content Test did not appear to have notable differences from the rates and estimates derived from the same questions as they appeared on the 2009 ACS questionnaire. Furthermore, the results showed that the significant differences in IMDRs and response distributions of the core proximal variables between the two panels for mail-mode respondents were generally consistent with the total population, while these differences were not significant among the CATI/CAPI respondents. In sum, the outcome of this additional research appeared to suggest that: (1) the proximal variables were not adversely affected by the presence of the PPOB variables; and (2) the significant differences in IMDRs and response distributions of the proximal variables were largely driven by mail respondents. While informative, the results of the additional analyses provided support for and did not contradict the results of the critical research analysis.

8. SUMMARY

The second generation is growing rapidly. According to the Current Population Survey (CPS), in 1996, there were 24.6 million people in the United States who had at least one foreign-born parent; by 2000, there were 27.3 million; and by 2009, there were 33.0 million. Of these, close to half (45 percent) were less than 18 years of age.[30] Unfortunately, the principal source of information on the second generation, the CPS, is limited to national-level analysis only, while current data needs are greatest at the sub-national level, where immigrants are settling and populations are changing rapidly.

As the destinations of the foreign born have shifted from traditional gateway states such as California, New York, Texas and Florida to smaller states such as Nevada, North Carolina, and Georgia, many communities have experienced recent and unprecedented growth in their immigrant populations. To improve the Census Bureau's ability to examine the adaptation and integration of immigrants and their children at the local level, researchers and data users have petitioned for the inclusion of questions on parental place of birth (PPOB) to the American Community Survey (ACS) questionnaire. Without PPOB data, the second generation is indistinguishable from the third-or-higher generation, which leads to a systematic underestimation of the total impact of recent immigration. Only a large national sample, like that available in the ACS, can provide planners and policymakers with the current data they need to access the impact that the foreign born and their children have on communities, to develop and implement programs, and to track the experience of smaller immigrant groups.

Questions on PPOB are important because they help to identify sub-groups of the population, categorized as "first generation" (the foreign born), "second generation" (the native-born children of at least one foreign-born parent), and "third-or-higher generation" (native born with no foreign-born parents). This classification allows policymakers and researchers to examine questions about the adaptation and integration of immigrants and their descendants over multiple generations. In addition, the PPOB questions are useful to examine the social and economic characteristics of the children of immigrants because they clearly define the second generation. To establish whether PPOB would be a viable addition to the ACS, two PPOB questions (In what country was your father born? In what country was your mother born?) were added to the 2010 ACS Content Test in two different placements on the questionnaire.

The results of the analysis indicated that the proposed questions on parental place of birth appeared to function properly, as their Content Test response distributions were similar to those derived from PPOB questions on the CPS. When the response distributions and reliability measures of the PPOB questions and the surrounding questions were compared between the two treatment panels of the Content Test, the results indicated no notable significant differences. However, there were differences among the item missing data rates; the PPOB questions had lower rates in the Control panel, while the surrounding questions had mixed results (it should be noted that the differences, while significant,

[30] Source: U.S. Census Bureau, Current Population Survey, March Supplement, 1996 and 2000, and the ASEC Supplement, 2009

were not large enough to warrant concern about loss in data quality).

Further analysis indicated that the differences in item missing data rates were largely present among the mail responses and not among the CATI/CAPI responses. Generally, there were no other notable differences between panels for any of the questions by mode or by mail response stratum. Also, there were no findings from the behavior analysis that would suggest an influence upon the data quality of these questions. Furthermore, the proximal questions in both panels were found to perform similarly to existing ACS data, thereby suggesting that the data quality of those questions were not adversely affected by the presence of the PPOB questions.[31]

In summary, the supplemental and additional analysis steps did not yield results that would conflict with the results of the critical analysis. Therefore, the Census Bureau concluded that the PPOB questions worked well in either location on the questionnaire, though the location used in the Control panel (between the year of entry and school enrollment questions) was favored due to the lower item missing data rates for both questions.

Based on the results of the 2010 ACS Content Test as well as legislative and programmatic need for the PPOB data, the Census Bureau sent a memorandum to the Office of Management and Budget (OMB) and the American Community Survey Office recommending that: 1) two questions on parental place of birth – one for father's and a second for mother's place of birth – be included in the ACS questionnaire (starting in 2013); 2) the format of the questions used be that tested by the 2010 ACS Content Test; and 3) the placement of the questions used be that tested by the Control version of the Content Test questionnaire.

The Census Bureau believes there is added value in collecting information about PPOB, though some may feel that this topic is somewhat duplicative when collected in connection with existing survey questions on race, Hispanic origin, and ancestry. Adding the PPOB questions to the questionnaire in 2013 would be done as part of a multi-year process to further examine the relationship of the data for these topics. The ACS data would also be evaluated in connection with results from the 2010 Census Alternative Questionnaire Experiment, and this combined research would be used in determining recommendations for which questions would remain on the ACS at the conclusion of this process. The Census Bureau plans to provide various opportunities for public comment as well as dialogue with groups that are especially interested in these data as we refine the plans and share results on this cross-topical research.

[31] Note that the effect of PPOB question placement upon the secondary part of the school enrollment question on the ACS could not be evaluated since it was not included on the Content Test questionnaire.

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Appendix A: Tables

Table 1. Content Test Response Rate Comparisons Between Control and Test Treatments

Mode	Test (%)	Standard error (%)	Control (%)	Standard error (%)	Test - Control (%)	Standard error (%)	Significant[1]
All modes (CFU excluded)	95.7	0.2	95.4	0.2	-0.3	0.3	No
Mail	57.7	0.5	58.1	0.5	0.5	0.7	No
CATI	49.6	1.0	52.6	1.2	3.0	1.5	Yes
CAPI	91.5	0.5	90.4	0.5	-1.1	0.7	No
CFU	53.5	0.6	54.3	0.5	0.8	0.7	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.
Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 2. Generational Status and Parental World Region of Birth by Selected Data Sources

	2010 ACS Content Test		2010 CPS	
	Test treatment	Control treatment	March (ASEC)	September (basic)
Variable/category	Estimate (%)	Estimate (%)	Estimate (%)	Estimate (%)
Generational status				
Total	100.0	100.0	100.0	100.0
First generation	12.6	12.1	12.4	12.6
Second generation	12.2	12.3	11.2	11.1
Third-or-higher generation	75.3	75.7	76.4	76.3
Father's world region of birth				
Total	100.0	100.0	100.0	100.0
United States	75.8	76.5	77.7	77.5
Puerto Rico / U.S. territories	1.0	0.9	0.9	1.0
Asia	5.6	5.7	5.0	5.2
Europe	4.3	4.6	3.6	3.3
Latin America	11.9	10.9	11.3	11.5
Other areas	1.4	1.4	1.4	1.5
Mother's world region of birth				
Total	100.0	100.0	100.0	100.0
United States	76.4	77.0	78.0	77.7
Puerto Rico / U.S. territories	1.0	0.9	0.9	1.0
Asia	5.6	5.7	5.1	5.4
Europe	4.2	4.5	3.4	3.3
Latin America	11.5	10.5	11.2	11.2
Other areas	1.4	1.4	1.4	1.5

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010; 2010 Current Population Survey Annual Social and Economic Supplement; and September 2010 Current Population Survey.

Table 3. Item Missing Data Rates of Selected Variables by Treatment

Variable	Test			Control			Test - Control		
	Number (unweighted)	Estimate (%)	Standard error (%)	Number (unweighted)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Father's place of birth	48,393	7.4	0.2	48,529	6.9	0.2	0.6	0.3	Yes
Mother's place of birth	48,393	6.6	0.2	48,529	6.0	0.2	0.6	0.3	Yes
First ancestry reported	48,393	13.3	0.3	48,529	14.5	0.3	-1.3	0.5	Yes
School enrollment status	46,812	4.8	0.2	46,812	5.4	0.2	-0.7	0.3	Yes
Speaks language other than English at home	45,652	4.8	0.2	45,595	5.1	0.2	-0.2	0.3	No
Language spoken at home	11,648	6.9	0.4	11,101	4.9	0.3	1.9	0.5	Yes
English speaking ability	11,648	2.1	0.2	11,101	1.5	0.2	0.6	0.2	Yes

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 4. Uncodable Response Rates of Parental Place of Birth by Treatment

Variable	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Father's place of birth	0.2	-	0.1	-	0.1	-	Yes
Mother's place of birth	0.2	-	0.2	-	0.1	-	No
Person's place of birth	0.1	-	0.1	-	-	-	No

Dash (-) represents or rounds to zero.

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 5. Differences in Uncodable Response Rates of Parental Place of Birth Within Treatment

Treatment/variable	Estimate (%)	Standard error (%)	Significant[1]
Control			
Person's place of birth - father's place of birth	-	-	No
Person's place of birth - mother's place of birth	-0.1	-	Yes
Test			
Person's place of birth - father's place of birth	-0.1	-	Yes
Person's place of birth - mother's place of birth	-0.1	-	Yes

Dash (-) represents or rounds to zero.

[1] For this family of one-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 6. Chi-Square Tests of Independence for Selected Recodes of Parental Place of Birth

Variable/recode	Rao-Scott chi-square	Degrees of freedom	Significant[1]
Father's place of birth			
World region of birth	5.65	5	No
Selected place of birth	16.43	10	Yes
Mother's place of birth			
World region of birth	5.73	5	No
Selected place of birth	16.60	10	Yes

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 7. Response Distribution of Selected Recodes of Parental Place of Birth by Treatment

Variable/recode	Test		Control		Test - Control (%)	Standard error (%)	Significant[1]
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)			
Father's place of birth							
Unweighted sample size	44,238	(X)	44,571	(X)	(X)	(X)	(X)
Broad place of birth							
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States[2]	76.8	0.5	77.4	0.4	-0.6	0.6	No
Not United States	23.2	0.5	22.6	0.4	0.6	0.6	No
World region of birth							
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	75.8	0.5	76.5	0.4	-0.6	0.6	No
Puerto Rico/U.S. territories	1.0	0.1	0.9	0.1	0.1	0.1	No
Asia	5.6	0.3	5.7	0.3	-0.1	0.4	No
Europe	4.3	0.2	4.6	0.2	-0.3	0.2	No
Latin America	11.9	0.4	10.9	0.3	1.0	0.5	No
Other areas	1.4	0.1	1.4	0.1	-	0.2	No
Selected place of birth[3]							
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Canada	0.5	0.1	0.6	0.1	-0.1	0.1	No
China	0.8	0.1	1.0	0.1	-0.2	0.1	No
Cuba	0.5	0.1	0.5	-	-	0.1	No
Dominican Republic	0.5	0.1	0.5	0.1	-	0.1	No
El Salvador	0.7	0.1	0.6	0.1	0.1	0.1	No
India	0.9	0.1	1.1	0.1	-0.2	0.2	No
Italy	0.8	0.1	0.7	0.1	0.1	0.1	No
Mexico	7.6	0.3	6.6	0.2	1.0	0.4	No
Philippines	0.7	0.1	0.8	0.1	-0.1	0.1	No
Vietnam	0.7	0.1	0.5	0.1	0.1	0.1	No
Other places	86.5	0.5	87.2	0.3	-0.7	0.5	No

(X) Not applicable.
Dash (-) represents or rounds to zero.

[1] For the two-sided hypothesis tests involving father's broad place of birth and mother's broad place of birth, statistical significance of differences is determined at the α=0.10 significance level. For all other two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

[2] Includes Puerto Rico and U.S. island territories.

[3] The countries included in both mother's and father's selected places of birth were based on parental place of birth data from the 2010 Current Population Survey and represent the ten largest groups. There are differences between the distributions: father's place of birth includes Cuba and the Dominican Republic in its ten largest groups; mother's place of birth includes Germany and the United Kingdom in its ten largest groups.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 7. Response Distribution of Selected Recodes of Parental Place of Birth by Treatment *(continued)*

Variable/recode	Test		Control		Test - Control (%)	Standard error (%)	Significant[1]
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)			
Mother's place of birth							
Unweighted sample size	44,683	(X)	45,134	(X)	(X)	(X)	(X)
Broad place of birth							
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States[2]	77.4	0.5	77.9	0.4	-0.5	0.6	No
Not United States	22.6	0.5	22.1	0.4	0.5	0.6	No
World region of birth							
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	76.4	0.5	77.0	0.4	-0.6	0.6	No
Puerto Rico/U.S. territories	1.0	0.1	0.9	0.1	-	0.1	No
Asia	5.6	0.2	5.7	0.2	-0.3	0.2	No
Europe	4.2	0.2	4.5	0.2	-0.1	0.4	No
Latin America	11.5	0.4	10.5	0.3	0.9	0.5	No
Other areas	1.4	0.1	1.4	0.1	-	0.2	No
Selected place of birth[3]							
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Canada	0.5	-	0.6	-	-	0.1	No
China	0.8	0.1	1.0	0.1	-0.2	0.1	No
El Salvador	0.6	0.1	0.6	0.1	-	0.1	No
Germany	0.6	0.1	0.6	0.1	-	0.1	No
India	0.9	0.1	1.1	0.1	-0.2	0.2	No
Italy	0.6	0.1	0.5	-	0.1	0.1	No
Mexico	7.3	0.3	6.3	0.2	1.0	0.4	No
Philippines	0.8	0.1	0.9	0.1	-0.1	0.1	No
United Kingdom	0.7	0.1	0.6	0.1	0.1	0.1	No
Vietnam	0.7	0.1	0.5	0.1	0.2	0.1	No
Other places	86.6	0.4	87.4	0.3	-0.8	0.5	No

(X) Not applicable.
Dash (-) represents or rounds to zero.
[1]For the two-sided hypothesis tests involving father's broad place of birth and mother's broad place of birth, statistical significance of differences is determined at the α=0.10 significance level. For all other two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.
[2] Includes Puerto Rico and U.S. island territories.
[3] The countries included in both mother's and father's selected places of birth were based on parental place of birth data from the 2010 Current Population Survey and represent the ten largest groups. There are differences between the distributions: father's place of birth includes Cuba and the Dominican Republic in its ten largest groups; mother's place of birth includes Germany and the United Kingdom in its ten largest groups.
Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 8. Gross Difference Rates for Selected Recodes of Parental Place of Birth by Treatment

Variable/recode/category	Test		Control		Test - Control (%)	Standard error (%)	Significant[1]
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)			
Father's place of birth							
Unweighted sample size	20,784	(X)	20,857	(X)	(X)	(X)	(X)
Broad place of birth							
United States[2]	1.1	0.1	0.9	0.1	0.2	0.2	No
Not United States	1.1	0.1	0.9	0.1	0.2	0.2	No
World region of birth							
United States	1.3	0.1	1.0	0.1	0.3	0.2	No
Puerto Rico/U.S. territories	0.2	-	0.1	-	0.1	0.1	No
Asia	0.1	-	0.2	-	-	0.1	No
Europe	0.6	0.1	0.5	0.1	-	0.1	No
Latin America	0.6	0.1	0.3	0.1	0.2	0.1	No
Other areas	0.3	0.1	0.3	0.1	-	0.1	No
Selected place of birth							
Canada	0.1	-	0.1	-	-	-	No
China	0.1	-	0.1	-	-	-	No
Cuba	0.1	-	-	-	0.1	-	No
Dominican Republic	-	-	-	-	-	-	No
El Salvador	-	-	-	-	-	-	No
India	-	-	-	-	-	-	No
Italy	0.1	-	0.1	-	-	-	No
Mexico	0.4	0.1	0.2	-	0.2	0.1	Yes
Philippines	-	-	-	-	-	-	No
Vietnam	-	-	-	-	-	-	No
Other places	0.8	0.1	0.5	0.1	0.3	0.1	Yes

(X) Not applicable.
Dash (-) represents or rounds to zero.

[1] For the two-sided hypothesis tests involving father's broad place of birth and mother's broad place of birth, statistical significance of differences is determined at the α=0.10 significance level. For all other two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

[2] Includes Puerto Rico and U.S. island territories.

[3] The countries included in both mother's and father's selected places of birth were based on parental place of birth data from the 2010 Current Population Survey and represent the ten largest groups. There are differences between the distributions: father's place of birth includes Cuba and the Dominican Republic in its ten largest groups; mother's place of birth includes Germany and the United Kingdom in its ten largest groups.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 8. Gross Difference Rates for Selected Recodes of Parental Place of Birth by Treatment *(continued)*

Variable/recode/category	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Mother's place of birth							
Unweighted sample size	21,303	(X)	21,369	(X)	(X)	(X)	(X)
Broad place of birth							
United States[2]	1.4	0.1	1.4	0.1	0.1	0.2	No
Not United States	1.4	0.1	1.4	0.1	0.1	0.2	No
World region of birth							
United States	1.5	0.1	1.4	0.1	0.1	0.2	No
Puerto Rico/U.S. territories	0.1	-	0.1	-	-	0.1	No
Asia	0.3	0.1	0.4	0.1	-0.1	0.1	No
Europe	0.6	0.1	0.7	0.1	-0.1	0.1	No
Latin America	0.8	0.1	0.6	0.1	0.2	0.1	No
Other areas	0.3	0.1	0.4	0.1	-0.1	0.1	No
Selected place of birth							
Canada	0.1	-	0.1	-	-	-	No
China	0.1	-	0.1	-	-	0.1	No
El Salvador	-	-	-	-	-	-	No
Germany	0.1	-	0.1	-	-	0.1	No
India	-	-	-	-	-	-	No
Italy	0.1	-	0.1	-	-	-	No
Mexico	0.4	0.1	0.2	-	0.2	0.1	No
Philippines	-	-	0.1	-	-	-	No
United Kingdom	0.1	-	0.1	-	-	-	No
Vietnam	-	-	-	-	-	-	No
Other places	0.9	0.1	0.8	0.1	0.1	0.1	No

(X) Not applicable.
Dash (-) represents or rounds to zero.

[1] For the two-sided hypothesis tests involving father's broad place of birth and mother's broad place of birth, statistical significance of differences is determined at the α=0.10 significance level. For all other two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

[2] Includes Puerto Rico and U.S. island territories.

[3] The countries included in both mother's and father's selected places of birth were based on parental place of birth data from the 2010 Current Population Survey and represent the ten largest groups. There are differences between the distributions: father's place of birth includes Cuba and the Dominican Republic in its ten largest groups; mother's place of birth includes Germany and the United Kingdom in its ten largest groups.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 9. Indices of Inconsistency for Selected Recodes of Parental Place of Birth by Treatment

Variable/recode/category	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Father's place of birth							
Unweighted sample size	20,784	(X)	20,857	(X)	(X)	(X)	(X)
Broad place of birth							
United States[2]	3.3	0.4	2.8	0.3	0.5	0.5	No
Not United States	3.3	0.4	2.8	0.3	0.5	0.5	No
World region of birth							
United States	3.5	0.4	2.9	0.3	0.6	0.5	No
Puerto Rico/U.S. territories	10.8	2.6	5.6	2.1	5.2	3.4	No
Asia	1.5	0.4	2.0	0.5	-0.5	0.6	No
Europe	6.8	1.0	5.7	0.8	1.1	1.3	No
Latin America	2.8	0.5	1.8	0.3	1.0	0.6	No
Other areas	9.9	2.1	11.2	2.3	-1.3	3.0	No
Selected place of birth[3]							
Canada	6.9	3.4	5.1	1.7	1.9	3.9	No
China	4.6	2.1	4.5	1.9	0.1	2.8	No
Cuba	7.6	4.8	2.9	1.7	4.6	5.3	No
Dominican Republic	2.8	1.3	2.1	1.1	0.7	1.5	No
El Salvador	4.3	1.7	0.4	0.3	3.9	1.7	No
India	1.3	0.9	1.4	1.0	-0.1	1.3	No
Italy	6.3	2.2	5.8	2.0	0.5	2.9	No
Mexico	3.0	0.5	1.7	0.4	1.3	0.6	No
Philippines	0.9	0.7	1.3	0.8	-0.5	1.0	No
Vietnam	4.0	2.5	1.1	0.9	2.9	2.6	No
Other places	3.4	0.5	2.3	0.3	1.1	0.5	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For the two-sided hypothesis tests involving father's broad place of birth and mother's broad place of birth, statistical significance of differences is determined at the α=0.10 significance level. For all other two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

[2] Includes Puerto Rico and U.S. island territories.

[3] The countries included in both mother's and father's selected places of birth were based on parental place of birth data from the 2010 Current Population Survey and represent the ten largest groups. There are differences between the distributions: father's place of birth includes Cuba and the Dominican Republic in its ten largest groups; mother's place of birth includes Germany and the United Kingdom in its ten largest groups.

Note: The index of inconsistency can be used to determine the degree of inconsistency among a specific response category between the original Content Test interview and the Content Follow-up interview. Generally, the degree of inconsistency for a response category is low if the index of inconsistency is less than 20 percent; moderate if the index of inconsistency is at least 20 percent but less than 50 percent; and high if the index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 9. Indices of Inconsistency for Selected Recodes of Parental Place of Birth by Treatment *(continued)*

Variable/recode/category	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Mother's place of birth							
Unweighted sample size	21,303	(X)	21,369	(X)	(X)	(X)	(X)
Broad place of birth							
United States[2]	4.1	0.3	4.1	0.4	0.1	0.5	No
Not United States	4.1	0.3	4.1	0.4	0.1	0.5	No
World region of birth							
United States	4.3	0.3	4.2	0.4	-	0.5	No
Puerto Rico/U.S. territories	8.3	2.5	8.1	2.3	0.3	3.1	No
Asia	2.6	0.6	3.9	0.8	-1.3	1.1	No
Europe	6.8	0.9	7.3	1.1	-0.6	1.4	No
Latin America	4.2	0.5	3.5	0.4	0.7	0.6	No
Other areas	11.0	2.2	12.8	2.3	-1.8	3.1	No
Selected place of birth[3]							
Canada	8.0	2.1	6.1	1.5	1.8	2.6	No
China	4.8	1.8	6.4	3.3	-1.6	3.8	No
El Salvador	3.0	1.4	2.3	1.0	0.7	1.5	No
Germany	10.3	2.7	8.6	2.4	1.6	3.5	No
India	1.6	1.0	1.2	1.1	0.3	1.5	No
Italy	6.6	2.3	7.6	2.7	-0.9	3.5	No
Mexico	2.7	0.5	1.5	0.2	1.3	0.6	No
Philippines	2.5	1.9	4.4	2.1	-1.9	2.9	No
United Kingdom	4.5	1.4	7.1	2.2	-2.6	2.4	No
Vietnam	4.1	2.3	5.5	2.2	-1.4	3.1	No
Other places	3.8	0.4	3.5	0.4	0.3	0.6	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For the two-sided hypothesis tests involving father's broad place of birth and mother's broad place of birth, statistical significance of differences is determined at the α=0.10 significance level. For all other two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

[2] Includes Puerto Rico and U.S. island territories.

[3] The countries included in both mother's and father's selected places of birth were based on parental place of birth data from the 2010 Current Population Survey and represent the ten largest groups. There are differences between the distributions: father's place of birth includes Cuba and the Dominican Republic in its ten largest groups; mother's place of birth includes Germany and the United Kingdom in its ten largest groups.

Note: The index of inconsistency can be used to determine the degree of inconsistency among a specific response category between the original Content Test interview and the Content Follow-up interview. Generally, the degree of inconsistency for a response category is low if the index of inconsistency is less than 20 percent; moderate if the index of inconsistency is at least 20 percent but less than 50 percent; and high if the index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 10. L-Fold Indices of Inconsistency for Selected Recodes of Parental Place of Birth by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Father's place of birth							
Broad place of birth	3.3	0.4	2.8	0.3	0.5	0.5	No
World region of birth	3.8	0.4	3.3	0.3	0.6	0.5	No
Selected place of birth	3.4	0.4	2.3	0.3	1.2	0.5	Yes
Mother's place of birth							
Broad place of birth	4.1	0.3	4.1	0.4	0.1	0.5	No
World region of birth	4.6	0.3	4.8	0.4	-0.2	0.5	No
Selected place of birth	3.7	0.4	3.5	0.4	0.3	0.6	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Note: The L-fold index of inconsistency is a weighted average of the indices of inconsistency for every response category that pertains to a variable. It can be used to determine the overall degree of inconsistency of a variable between the original Content Test interview and the Content Follow-up interview. Generally, the overall degree of inconsistency for a variable is low if the L-fold index of inconsistency is less than 20 percent; moderate if the L-fold index of inconsistency is at least 20 percent but less than 50 percent; and high if the L-fold index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 11. Rate of Multiple Ancestries Reported by Treatment

Treatment/variable	Estimate (%)	Standard error (%)	Significant[1]
Test			
Reported multiple ancestries	26.8	0.4	(X)
Control			
Reported multiple ancestries	28.2	0.5	(X)
Difference			
Test – Control	-1.4	0.6	Yes

(X) Not applicable.

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 12. Chi-Square Tests of Independence for Regional and Selected Ancestry Recodes

Variable/recode	Rao-Scott chi-square	Degrees of freedom	Significant[1]
First ancestry reported			
Regional ancestry groups	21.50	11	Yes
Selected ancestry groups	10.56	10	No
Second ancestry reported			
Regional ancestry groups	12.07	11	No
Selected ancestry groups	7.60	10	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 13. Response Distribution of Region of Ancestry Recode by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Region of first ancestry reported							
Unweighted sample size	41,005	(X)	40,387	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African	8.1	0.2	8.3	0.3	-0.2	0.4	No
Asian	5.8	0.3	5.8	0.3	0.1	0.4	No
Eastern European	4.9	0.2	5.0	0.2	-0.1	0.2	No
Northern European	18.1	0.4	19.2	0.4	-1.1	0.6	No
Southern European	6.1	0.2	6.4	0.2	-0.3	0.3	No
Western European	15.0	0.4	15.4	0.4	-0.4	0.5	No
Caribbean	2.9	0.2	2.5	0.1	0.4	0.2	No
Central American	11.2	0.4	10.2	0.3	0.9	0.5	No
South American	0.8	0.1	1.2	0.1	-0.4	0.1	No
North American	12.8	0.4	12.3	0.3	0.5	0.5	No
Oceanian	0.1	-	0.1	0.1	-	0.1	No
Other, non-regional	14.2	0.3	13.5	0.4	0.6	0.5	No
Region of second ancestry reported							
Unweighted sample size	9,388	(X)	9,883	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African	1.3	0.2	1.4	0.2	-	0.3	No
Asian	2.0	0.3	2.5	0.3	-0.5	0.4	No
Eastern European	8.6	0.4	8.5	0.5	0.1	0.6	No
Northern European	37.9	0.9	37.2	0.8	0.7	1.0	No
Southern European	7.2	0.4	7.3	0.4	-0.1	0.6	No
Western European	25.5	0.7	25.5	0.7	-	1.0	No
Caribbean	1.1	0.2	1.3	0.2	-0.2	0.3	No
Central American	2.3	0.2	1.9	0.2	0.4	0.3	No
South American	0.4	0.1	0.7	0.2	-0.3	0.2	No
North American	9.1	0.5	9.8	0.6	-0.8	0.8	No
Oceanian	0.3	0.1	0.2	-	0.1	0.1	No
Other, non-regional	4.3	0.3	3.8	0.3	0.6	0.4	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 14. Response Distribution of Selected Ancestries by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
First ancestry reported							
Unweighted sample size	41,005	(X)	40,387	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African American	8.4	0.2	8.6	0.3	-0.2	0.4	No
American	9.5	0.3	8.8	0.3	0.7	0.5	No
American Indian	2.5	0.2	2.7	0.2	-0.2	0.2	No
English	5.9	0.2	6.2	0.2	-0.3	0.3	No
French	1.6	0.1	1.5	0.1	-	0.2	No
German	12.1	0.3	12.5	0.3	-0.4	0.4	No
Irish	6.9	0.3	7.4	0.2	-0.5	0.4	No
Italian	4.5	0.2	4.8	0.2	-0.3	0.3	No
Mexican	9.9	0.4	9.1	0.3	0.9	0.5	No
Polish	2.4	0.2	2.3	0.2	-	0.2	No
Other ancestry groups[2]	36.3	0.5	36.2	0.5	0.2	0.7	No
Second ancestry reported							
Unweighted sample size	9,388	(X)	9,883	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African American	1.6	0.2	1.7	0.2	-	0.3	No
American	3.1	0.3	3.3	0.4	-0.2	0.5	No
American Indian	5.1	0.5	5.7	0.5	-0.6	0.6	No
English	10.5	0.5	10.6	0.6	-0.1	0.7	No
French	4.4	0.4	4.1	0.3	0.3	0.6	No
German	17.4	0.5	17.5	0.6	-	0.8	No
Irish	16.5	0.7	15.8	0.7	0.7	0.9	No
Italian	5.2	0.4	4.9	0.4	0.3	0.6	No
Mexican	1.7	0.2	1.2	0.2	0.5	0.3	No
Polish	4.7	0.4	4.0	0.3	0.7	0.5	No
Other ancestry groups[2]	29.9	0.9	31.3	0.8	-1.4	1.2	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

[2] Includes ancestry not reported.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 15. Gross Difference Rates for Region of Ancestry Recode by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Region of first ancestry reported							
Unweighted sample size	18,890	(X)	18,524	(X)	(X)	(X)	(X)
African	2.8	0.3	2.4	0.2	0.4	0.4	No
Asian	1.6	0.2	1.4	0.2	0.2	0.3	No
Eastern European	2.7	0.2	2.7	0.2	-	0.3	No
Northern European	12.2	0.4	12.1	0.5	0.1	0.6	No
Southern European	2.8	0.2	3.3	0.2	-0.5	0.3	No
Western European	10.3	0.4	10.5	0.4	-0.2	0.6	No
Caribbean	1.0	0.1	0.9	0.1	0.1	0.2	No
Central American	2.1	0.2	2.6	0.3	-0.4	0.4	No
South American	0.3	0.1	0.5	0.1	-0.1	0.1	No
North American	12.3	0.5	11.3	0.5	0.9	0.7	No
Oceanian	0.1	-	-	-	-	-	No
Other, non-regional	15.7	0.5	15.6	0.6	-	0.8	No
Region of second ancestry reported							
Unweighted sample size	3,318	(X)	3,477	(X)	(X)	(X)	(X)
African	0.7	0.2	0.9	0.2	-0.2	0.3	No
Asian	1.5	0.4	1.8	0.4	-0.3	0.6	No
Eastern European	6.8	0.8	7.4	0.6	-0.6	1.0	No
Northern European	26.6	1.2	24.6	1.2	1.9	1.4	No
Southern European	6.5	0.6	6.1	0.7	0.4	0.9	No
Western European	24.6	1.0	23.8	1.2	0.8	1.4	No
Caribbean	0.8	0.2	0.7	0.2	0.1	0.3	No
Central American	1.1	0.4	1.0	0.3	0.1	0.4	No
South American	0.2	0.1	0.7	0.3	-0.6	0.3	No
North American	6.7	0.8	7.4	0.8	-0.7	1.0	No
Oceanian	0.4	0.2	0.1	0.1	0.3	0.2	No
Other, non-regional	3.6	0.6	3.5	0.5	0.1	0.8	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the $\alpha = 0.10$ level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 16. Gross Difference Rates for Selected Ancestries by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
First ancestry reported							
Unweighted sample size	18,890	(X)	18,524	(X)	(X)	(X)	(X)
African American	1.9	0.2	1.7	0.2	0.2	0.3	No
American	9.7	0.5	8.8	0.4	0.9	0.7	No
American Indian	2.7	0.2	2.6	0.2	0.1	0.3	No
English	6.1	0.3	6.8	0.5	-0.7	0.5	No
French	1.7	0.2	1.4	0.1	0.3	0.2	No
German	8.4	0.4	8.7	0.4	-0.3	0.5	No
Irish	5.7	0.3	5.4	0.3	0.3	0.4	No
Italian	1.8	0.2	2.1	0.2	-0.3	0.3	No
Mexican	1.9	0.2	2.2	0.3	-0.3	0.3	No
Polish	1.4	0.1	1.4	0.2	-	0.2	No
Other ancestry groups[2]	18.8	0.5	19.4	0.6	-0.6	0.7	No
Second ancestry reported							
Unweighted sample size	3,318	(X)	3,477	(X)	(X)	(X)	(X)
African American	0.9	0.2	1.0	0.3	-0.1	0.3	No
American	1.8	0.3	2.4	0.5	-0.7	0.6	No
American Indian	4.2	0.7	4.2	0.6	-	0.8	No
English	11.1	0.7	11.9	0.9	-0.8	1.1	No
French	4.8	0.6	4.6	0.5	0.2	0.8	No
German	21.0	1.0	19.2	0.9	1.8	1.3	No
Irish	16.7	1.1	15.9	1.0	0.9	1.3	No
Italian	5.5	0.6	5.0	0.6	0.6	0.9	No
Mexican	0.9	0.4	0.7	0.3	0.2	0.4	No
Polish	4.8	0.6	4.6	0.6	0.2	0.8	No
Other ancestry groups[2]	19.0	1.0	22.0	1.0	-2.9	1.4	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the $\alpha = 0.10$ level.

[2] Includes ancestry not reported.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 17. Indices of Inconsistency for Region of Ancestry Recode by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
Region of first ancestry reported							
Unweighted sample size	18,890	(X)	18,524	(X)	(X)	(X)	(X)
African	23.4	2.1	20.5	2.1	3.0	2.8	No
Asian	15.2	1.9	14.6	2.1	0.6	2.7	No
Eastern European	28.4	1.8	28.2	1.9	0.2	2.7	No
Northern European	36.8	1.1	35.6	1.4	1.2	1.6	No
Southern European	24.6	1.5	26.9	1.7	-2.3	2.3	No
Western European	34.7	1.2	35.0	1.3	-0.2	1.7	No
Caribbean	21.0	2.4	20.9	3.2	0.1	3.9	No
Central American	10.9	1.0	14.7	1.5	-3.9	1.9	No
South American	21.3	3.7	21.3	3.9	-	5.7	No
North American	64.8	2.1	61.5	2.1	3.3	2.8	No
Oceanian	45.5	14.6	20.2	10.2	25.2	17.8	No
Other, non-regional	68.1	1.9	65.4	1.7	2.7	2.4	No
Region of second ancestry reported							
Unweighted sample size	3,318	(X)	3,477	(X)	(X)	(X)	(X)
African	56.6	10.9	63.7	10.0	-7.1	14.0	No
Asian	53.7	10.3	56.2	10.3	-2.6	15.8	No
Eastern European	44.7	3.7	45.4	3.5	-0.7	4.8	No
Northern European	54.2	2.5	50.4	2.3	3.8	2.8	No
Southern European	48.1	3.8	47.1	5.2	1.0	6.7	No
Western European	60.5	2.1	62.2	2.5	-1.7	3.2	No
Caribbean	57.6	10.9	34.8	10.8	22.8	14.7	No
Central American	38.5	11.8	47.6	9.4	-9.1	13.6	No
South American	47.1	18.7	39.5	6.7	7.6	20.3	No
North American	59.2	4.2	48.3	5.4	10.9	6.5	No
Oceanian	83.6	14.4	39.2	32.6	44.4	34.6	No
Other, non-regional	65.9	8.1	69.8	6.8	-3.9	11.0	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the $\alpha = 0.10$ level.

Note: The index of inconsistency can be used to determine the degree of inconsistency among a specific response category between the original Content Test interview and the Content Follow-up interview. Generally, the degree of inconsistency for a response category is low if the index of inconsistency is less than 20 percent; moderate if the index of inconsistency is at least 20 percent but less than 50 percent; and high if the index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 18. Indices of Inconsistency for Selected Ancestries by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
First ancestry reported							
Unweighted sample size	18,890	(X)	18,524	(X)	(X)	(X)	(X)
African American	14.9	1.7	13.9	1.5	1.0	2.2	No
American	70.1	2.5	73.2	2.5	-3.1	3.4	No
American Indian	59.0	3.0	46.0	3.6	13.0	4.5	Yes
English	47.4	1.8	48.3	2.6	-0.9	3.1	No
French	45.1	3.8	45.7	3.2	-0.6	4.9	No
German	33.8	1.4	34.1	1.5	-0.3	1.9	No
Irish	42.8	1.8	38.5	1.8	4.4	2.5	No
Italian	21.5	1.6	22.4	1.7	-1.0	2.5	No
Mexican	10.5	1.0	13.9	1.5	-3.5	1.9	No
Polish	31.6	2.1	29.2	2.2	2.4	2.9	No
Other ancestry groups[2]	40.7	1.0	41.7	1.2	-1.1	1.4	No
Second ancestry reported							
Unweighted sample size	3,318	(X)	3,477	(X)	(X)	(X)	(X)
African American	61.8	11.3	61.9	10.8	-0.1	14.5	No
American	60.3	9.9	67.4	10.1	-7.1	13.6	No
American Indian	56.3	5.3	41.2	6.6	15.1	8.1	No
English	55.1	3.9	54.4	2.7	0.7	4.9	No
French	57.2	5.9	59.2	4.6	-2.0	7.8	No
German	66.3	2.5	64.9	2.6	1.4	3.6	No
Irish	54.7	2.8	54.3	3.3	0.4	4.1	No
Italian	51.2	5.4	52.1	6.6	-0.9	8.6	No
Mexican	46.1	17.2	82.0	11.1	-35.9	18.0	No
Polish	51.1	4.1	58.0	5.2	-7.0	6.5	No
Other ancestry groups[2]	47.3	2.3	52.2	2.3	-4.9	3.0	No

(X) Not applicable.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the $\alpha = 0.10$ level

[2]Includes ancestry not reported.

Note: The index of inconsistency can be used to determine the degree of inconsistency among a specific response category between the original Content Test interview and the Content Follow-up interview. Generally, the degree of inconsistency for a response category is low if the index of inconsistency is less than 20 percent; moderate if the index of inconsistency is at least 20 percent but less than 50 percent; and high if the index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 19. L-Fold Indices of Inconsistency for Ancestry Recodes by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
First ancestry reported							
Regional ancestry groups	36.7	0.9	36.5	0.9	0.2	1.0	No
Selected ancestry groups	36.8	0.8	37.1	0.8	-0.3	1.1	No
Second ancestry reported							
Regional ancestry groups	55.0	2.4	52.9	2.3	2.1	1.9	No
Selected ancestry groups	55.0	1.5	55.6	1.6	-0.7	1.8	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Note: The L-fold index of inconsistency is a weighted average of the indices of inconsistency for every response category that pertains to a variable. It can be used to determine the overall degree of inconsistency of a variable between the original Content Test interview and the Content Follow-up interview. Generally, the overall degree of inconsistency for a variable is low if the L-fold index of inconsistency is less than 20 percent; moderate if the L-fold index of inconsistency is at least 20 percent but less than 50 percent; and high if the L-fold index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 20. Chi-Square Tests of Independence for School Enrollment Status, Language Spoken at Home, and English Speaking Ability

Variable/recode	Rao-Scott chi-square	Degrees of freedom	Significant[1]
School enrollment status	6.27	2	Yes
Selected language spoken at home	10.88	5	Yes
English speaking ability	1.62	3	No

[1] Statistical significance of differences is determined at the α=0.10 confidence level.
Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 21. Response Distribution for School Enrollment Status, Language Spoken at Home, and English Speaking Ability by Treatment

	Test		Control		Test -		
Variable/recode	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	Control (%)	Standard error (%)	Significant[1]
School enrollment status							
Unweighted sample size	43,995	(X)	43,675	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Did not attend school	72.1	0.3	72.8	0.3	-0.7	0.5	No
Attended private school	3.9	0.1	4.1	0.1	-0.2	0.2	No
Attended public school	24.0	0.3	23.0	0.3	1.0	0.5	No
Speaks language other than English at home							
Unweighted sample size	42,899	(X)	42,732	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Yes	21.4	0.5	20.5	0.3	0.9	0.6	No
No	78.6	0.5	79.5	0.3	-0.9	0.6	No
Selected language spoken at home							
Unweighted sample size	10,880	(X)	10,569	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Chinese	2.5	0.4	3.5	0.4	-1.0	0.5	No
French	1.7	0.2	2.0	0.2	-0.4	0.3	No
Spanish	61.3	1.2	59.0	1.1	2.3	1.7	No
Tagalog	2.3	0.3	2.6	0.4	-0.3	0.4	No
Vietnamese	2.6	0.4	1.7	0.3	0.9	0.4	No
Other non-English languages	29.7	1.2	31.1	1.1	-1.4	1.7	No
English speaking ability							
Unweighted sample size	11,430	(X)	10,950	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Speaks English very well	58.3	0.8	59.6	0.9	-1.3	1.2	No
Speaks English well	20.1	0.6	19.4	0.6	0.7	0.9	No
Does not speak English well	15.1	0.5	14.7	0.5	0.4	0.7	No
Does not speak English at all	6.4	0.3	6.3	0.4	0.1	0.4	No

(X) Not applicable.
[1] For the two-sided hypothesis tests involving the 'speaks language other than English at home' question, statistical significance of differences is determined at the α=0.10 significance level. For the family of two-sided hypothesis tests involving school enrollment status, the familywise error rate has been controlled using the Bonferroni multiple comparison method at the α=0.10 level. For all other families of two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holms multiple comparison method at the α=0.10 level.
Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 22. Gross Difference Rates for School Enrollment Status, Language Spoken at Home, and English Speaking Ability by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
School enrollment status							
Unweighted sample size	20,875	(X)	20,660	(X)	(X)	(X)	(X)
Did not attend school	3.2	0.2	3.1	0.2	0.1	0.3	No
Attended private school	1.8	0.2	2.0	0.1	-0.2	0.2	No
Attended public school	3.6	0.2	3.2	0.2	0.4	0.3	No
Speaks language other than English at home							
Unweighted sample size	20,422	(X)	20,252	(X)	(X)	(X)	(X)
Yes	4.5	0.2	4.5	0.3	-	0.4	No
No	4.5	0.2	4.5	0.3	-	0.4	No
Selected language spoken at home							
Unweighted sample size	4,061	(X)	3,950	(X)	(X)	(X)	(X)
Chinese	1.4	0.4	1.0	0.3	0.4	0.5	No
French	0.7	0.4	0.6	0.3	0.1	0.5	No
Spanish	0.6	0.2	0.8	0.2	-0.2	0.3	No
Tagalog	0.1	-	0.1	-	-	0.1	No
Vietnamese	0.1	0.1	-	-	0.1	0.1	No
Other non-English languages	2.6	0.6	1.9	0.4	0.7	0.7	No
English speaking ability							
Unweighted sample size	4,079	(X)	3,977	(X)	(X)	(X)	(X)
Speaks English very well	19.7	1.1	16.9	1.0	2.9	1.4	No
Speaks English well	22.4	1.1	20.3	0.9	2.1	1.3	No
Does not speak English well	11.2	0.7	12.0	0.8	-0.8	1.1	No
Does not speak English at all	5.3	0.5	4.8	0.5	0.5	0.7	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For the two-sided hypothesis tests involving the 'speaks language other than English at home' question, statistical significance of differences is determined at the α=0.10 significance level. For the family of two-sided hypothesis tests involving school enrollment status, the familywise error rate has been controlled using the Bonferroni multiple comparison method at the α=0.10 level. For all other families of two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holms multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 23. Indices of Inconsistency for School Enrollment Status, Language Spoken at Home, and English Speaking Ability by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
School enrollment status							
Unweighted sample size	20,875	(X)	20,660	(X)	(X)	(X)	(X)
Did not attend school	8.3	0.5	8.1	0.5	0.2	0.7	No
Attended private school	24.1	1.8	26.3	1.8	-2.2	2.6	No
Attended public school	10.6	0.6	9.6	0.5	1.0	0.8	No
Speaks language other than English at home							
Unweighted sample size	20,422	(X)	20,252	(X)	(X)	(X)	(X)
Yes	14.6	0.7	15.3	0.9	-0.7	1.1	No
No	14.6	0.7	15.3	0.9	0.7	1.1	No
Selected language spoken at home							
Unweighted sample size	4,061	(X)	3,950	(X)	(X)	(X)	(X)
Chinese	22.6	6.0	17.7	5.0	4.8	7.8	No
French	23.8	12.4	15.5	5.9	8.3	13.8	No
Spanish	1.3	0.3	1.6	0.5	-0.3	0.6	No
Tagalog	2.9	1.4	1.3	0.7	1.6	1.5	No
Vietnamese	3.0	1.9	0.4	0.4	2.6	1.9	No
Other non-English languages	6.6	1.5	4.6	1.0	2.0	1.8	No
English speaking ability							
Unweighted sample size	4,079	(X)	3,977	(X)	(X)	(X)	(X)
Speaks English very well	39.6	2.1	34.0	1.9	5.5	2.8	No
Speaks English well	62.2	2.8	58.0	2.4	4.1	3.6	No
Does not speak English well	43.9	2.8	48.2	2.8	-4.3	3.9	No
Does not speak English at all	36.3	2.7	35.3	3.2	1.0	4.4	No

(X) Not applicable.

[1] For the two-sided hypothesis tests involving the 'speaks language other than English at home' question, statistical significance of differences is determined at the α=0.10 significance level. For the family of two-sided hypothesis tests involving school enrollment status, the familywise error rate has been controlled using the Bonferroni multiple comparison method at the α=0.10 level. For all other families of two-sided hypothesis tests in this table, the familywise error rate has been controlled using the Bonferroni-Holms multiple comparison method at the α=0.10 level.

Note: The index of inconsistency can be used to determine the degree of inconsistency among a specific response category between the original Content Test interview and the Content Follow-up interview. Generally, the degree of inconsistency for a response category is low if the index of inconsistency is less than 20 percent; moderate if the index of inconsistency is at least 20 percent but less than 50 percent; and high if the index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 24. L-Fold Index of Inconsistency for School Enrollment Status, Language Spoken at Home, and English Speaking Ability by Treatment

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Significant[1]
School enrollment status	10.7	0.6	10.5	0.5	0.2	0.8	No
Speaks language other than English at home	14.6	0.7	15.3	0.9	-0.7	1.1	No
Selected language spoken at home	5.5	1.2	4.2	0.9	1.3	1.4	No
English speaking ability	46.5	1.9	43.9	1.9	2.6	2.4	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Note: The L-fold index of inconsistency is a weighted average of the indices of inconsistency for every response category that pertains to a variable. It can be used to determine the overall degree of inconsistency of a variable between the original Content Test interview and the Content Follow-up interview. Generally, the overall degree of inconsistency for a variable is low if the L-fold index of inconsistency is less than 20 percent; moderate if the L-fold index of inconsistency is at least 20 percent but less than 50 percent; and high if the L-fold index of inconsistency is 50 percent or higher.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 25. Population in Responding Households by Mode and by Mail Response Stratum

Variable	Test		Control	
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)
Total	100.0	(X)	100.0	(X)
Mode				
Mail response	57.4	0.5	57.0	0.5
CATI/CAPI response	42.6	0.5	43.0	0.5
Stratum				
High response area	74.9	0.2	74.8	0.2
Low response area	25.1	0.2	25.2	0.2

(X) Non-applicable.

Note: Numbers in thousands.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 26. Item Missing Data Rates of Parental Place of Birth Variables by Mode and by Mail Response Stratum

Variable	Test			Control			Test - Control		
	Number (unweighted)	Estimate (%)	Standard error (%)	Number (unweighted)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Signi-ficant[1]
Father's place of birth									
Mail response	29,738	8.6	0.3	29,889	8.0	0.3	0.7	0.4	Yes
CATI/CAPI response	18,655	6.1	0.4	18,640	5.6	0.4	0.5	0.6	No
High response area	19,662	7.2	0.3	19,870	6.4	0.3	0.8	0.5	Yes
Low response area	28,731	7.9	0.2	28,659	8.0	0.3	-0.1	0.3	No
Mother's place of birth									
Mail response	29,738	8.0	0.3	29,889	6.9	0.2	1.1	0.4	Yes
CATI/CAPI response	18,655	5.0	0.4	18,640	5.0	0.4	0.0	0.6	No
High response area	19,662	6.5	0.3	19,870	5.7	0.3	0.7	0.4	No
Low response area	28,731	6.9	0.2	28,659	6.7	0.2	0.1	0.3	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 27. Chi-Square Tests of Independence for Parental World Region of Birth by Mode and by Mail Response Stratum

Variable/recode	Rao-Scott chi-square	Degrees of freedom	Significant[1]
Father's world region of birth			
Mail response	7.68	5	No
CATI/CAPI response	5.97	5	No
High response area	7.12	5	No
Low response area	6.30	5	No
Mother's world region of birth			
Mail response	7.75	5	No
CATI/CAPI response	6.77	5	No
High response area	6.58	5	No
Low response area	8.73	5	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 28. Response Distribution of Parental World Region of Birth by Mode

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Signi-ficant[1]
Father's world region of birth							
Mail response							
Unweighted sample size	26,641	(X)	26,956	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	82.4	0.5	81.4	0.4	0.9	0.6	No
Puerto Rico / U.S. territories	0.5	0.1	0.6	0.1	-0.1	0.1	No
Asia	5.7	0.3	6.1	0.3	-0.4	0.4	No
Europe	5.2	0.2	5.6	0.2	-0.4	0.3	No
Latin America	5.0	0.2	4.8	0.2	0.2	0.3	No
Other areas	1.3	0.1	1.4	0.1	-0.2	0.2	No
CATI/CAPI response							
Unweighted sample size	17,597	(X)	17,615	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	68.7	0.9	71.0	0.7	-2.3	1.1	No
Puerto Rico / U.S. territories	1.6	0.2	1.3	0.2	0.2	0.2	No
Asia	5.5	0.5	5.2	0.4	0.3	0.7	No
Europe	3.3	0.2	3.4	0.3	-0.2	0.4	No
Latin America	19.4	0.7	17.7	0.6	1.7	1.0	No
Other areas	1.6	0.2	1.3	0.2	0.2	0.3	No
Mother's world region of birth							
Mail response							
Unweighted sample size	26,901	(X)	27,377	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	82.5	0.4	81.4	0.4	1.1	0.6	No
Puerto Rico / U.S. territories	0.4	-	0.6	0.1	-0.2	0.1	No
Asia	5.8	0.3	6.2	0.3	-0.4	0.4	No
Europe	5.1	0.2	5.4	0.2	-0.4	0.3	No
Latin America	4.8	0.2	4.8	0.2	-	0.3	No
Other areas	1.4	0.1	1.5	0.1	-0.1	0.2	No
CATI/CAPI response							
Unweighted sample size	17,782	(X)	17,757	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	69.8	0.9	72.1	0.7	-2.3	1.1	No
Puerto Rico / U.S. territories	1.5	0.2	1.3	0.2	0.3	0.3	No
Asia	5.3	0.5	5.1	0.4	0.2	0.6	No
Europe	3.3	0.3	3.5	0.3	-0.2	0.4	No
Latin America	18.7	0.7	16.8	0.6	1.9	0.9	No
Other areas	1.4	0.2	1.2	0.1	0.2	0.2	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 29. Response Distribution of Parental World Region of Birth by Mail Response Stratum

Variable/recode	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Signi-ficant[1]
Father's world region of birth							
High response area							
Unweighted sample size	18,232	(X)	18,587	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	81.8	0.6	82.4	0.5	-0.5	0.8	No
Puerto Rico / U.S. territories	0.5	0.1	0.6	0.1	-0.1	0.2	No
Asia	5.7	0.4	5.8	0.3	-0.2	0.5	No
Europe	4.8	0.2	5.1	0.2	-0.4	0.3	No
Latin America	5.9	0.4	4.7	0.4	1.1	0.6	No
Other areas	1.3	0.2	1.3	0.1	-	0.2	No
Low response area							
Unweighted sample size	26,006	(X)	25,984	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	59.6	0.6	60.0	0.6	-0.4	0.8	No
Puerto Rico / U.S. territories	2.3	0.2	1.8	0.1	0.5	0.2	Yes
Asia	5.4	0.3	5.2	0.3	0.1	0.4	No
Europe	2.9	0.1	3.0	0.1	-0.2	0.2	No
Latin America	28.2	0.6	28.2	0.6	-	0.8	No
Other areas	1.6	0.1	1.7	0.2	-0.1	0.2	No
Mother's world region of birth							
High response area							
Unweighted sample size	18,364	(X)	18,738	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	82.2	0.6	82.7	0.5	-0.5	0.8	No
Puerto Rico / U.S. territories	0.5	0.1	0.7	0.1	-0.1	0.2	No
Asia	5.7	0.3	5.8	0.3	-0.2	0.5	No
Europe	4.8	0.2	5.0	0.2	-0.2	0.3	No
Latin America	5.5	0.4	4.5	0.3	1.0	0.6	No
Other areas	1.3	0.2	1.3	0.1	0.1	0.2	No
Low response area							
Unweighted sample size	26,319	(X)	26,396	(X)	(X)	(X)	(X)
Total	100.0	(X)	100.0	(X)	(X)	(X)	(X)
United States	61.0	0.5	61.2	0.6	-0.3	0.8	No
Puerto Rico / U.S. territories	2.2	0.2	1.7	0.1	0.5	0.2	Yes
Asia	5.4	0.3	5.4	0.3	-	0.4	No
Europe	2.6	0.1	3.0	0.2	-0.4	0.2	No
Latin America	27.4	0.6	27.1	0.6	0.3	0.7	No
Other areas	1.5	0.1	1.6	0.1	-0.1	0.2	No

(X) Not applicable.

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 30. Gross Difference Rates for Parental World Region of Birth by Mode

Variable/recode/category	Test		Control		Test - Control (%)	Standard error (%)	Signi-ficant[1]
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)			
Father's world region of birth							
Mail response							
Unweighted sample size	13,673	(X)	13,794	(X)	(X)	(X)	(X)
United States	0.9	0.1	0.7	0.1	0.2	0.1	No
Puerto Rico / U.S. territories	-	-	-	-	-	-	No
Asia	0.1	-	0.1	-	-	0.1	No
Europe	0.5	0.1	0.4	0.1	0.1	0.1	No
Latin America	0.2	-	0.2	-	-	-	No
Other areas	0.2	-	0.2	0.1	-	0.1	No
CATI/CAPI response							
Unweighted sample size	7,111	(X)	7,063	(X)	(X)	(X)	(X)
United States	1.7	0.3	1.3	0.2	0.4	0.4	No
Puerto Rico / U.S. territories	0.3	0.1	0.2	0.1	0.2	0.1	No
Asia	0.2	0.1	0.2	0.1	-0.1	0.1	No
Europe	0.6	0.2	0.7	0.2	0.0	0.2	No
Latin America	1.0	0.2	0.5	0.1	0.5	0.2	No
Other areas	0.4	0.1	0.5	0.1	0.0	0.2	No
Mother's world region of birth							
Mail response							
Unweighted sample size	14,003	(X)	14,153	(X)	(X)	(X)	(X)
United States	1.4	0.1	1.2	0.1	0.1	0.2	No
Puerto Rico / U.S. territories	-	-	0.1	-	-	-	No
Asia	0.2	0.1	0.2	-	-	0.1	No
Europe	0.7	0.1	0.6	0.1	0.1	0.1	No
Latin America	0.6	0.1	0.5	0.1	0.1	0.1	No
Other areas	0.2	-	0.3	0.1	-0.1	0.1	No
CATI/CAPI response							
Unweighted sample size	7,300	(X)	7,216	(X)	(X)	(X)	(X)
United States	1.6	0.2	1.7	0.2	-	0.3	No
Puerto Rico / U.S. territories	0.2	0.1	0.2	0.1	-	0.1	No
Asia	0.3	0.1	0.5	0.1	-0.2	0.2	No
Europe	0.5	0.1	0.8	0.2	-0.4	0.2	No
Latin America	1.0	0.2	0.7	0.1	0.3	0.2	No
Other areas	0.4	0.1	0.4	0.1	0.0	0.2	No

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 31. Gross Difference Rates for Parental World Region of Birth by Mail Response Stratum

Variable/recode/category	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Signi-ficant[1]
Father's world region of birth							
High response area							
Unweighted sample size	9,431	(X)	9,633	(X)	(X)	(X)	(X)
United States	1.2	0.2	1.0	0.1	0.3	0.2	No
Puerto Rico / U.S. territories	0.1	0.1	0.1	-	-	0.1	No
Asia	0.1	-	0.2	0.1	-	0.1	No
Europe	0.6	0.1	0.6	0.1	-	0.2	No
Latin America	0.5	0.1	0.2	0.1	0.3	0.1	No
Other areas	0.3	0.1	0.2	0.1	0.1	0.1	No
Low response area							
Unweighted sample size	11,353	(X)	11,224	(X)	(X)	(X)	(X)
United States	1.4	0.2	1.1	0.1	0.3	0.2	No
Puerto Rico / U.S. territories	0.4	0.1	0.1	-	0.2	0.1	No
Asia	0.2	0.1	0.3	0.1	-0.1	0.1	No
Europe	0.5	0.1	0.4	0.1	0.2	0.1	No
Latin America	0.8	0.2	0.7	0.1	0.2	0.2	No
Other areas	0.3	0.1	0.6	0.1	-0.3	0.1	No
Mother's world region of birth							
High response area							
Unweighted sample size	9,595	(X)	9,806	(X)	(X)	(X)	(X)
United States	1.3	0.1	1.4	0.2	-0.1	0.2	No
Puerto Rico / U.S. territories	0.1	-	0.1	0.1	-	0.1	No
Asia	0.3	0.1	0.4	0.1	-0.1	0.1	No
Europe	0.6	0.1	0.7	0.1	-0.1	0.2	No
Latin America	0.5	0.1	0.5	0.1	0.1	0.1	No
Other areas	0.2	0.1	0.3	0.1	-0.1	0.1	No
Low response area							
Unweighted sample size	11,708	(X)	11,563	(X)	(X)	(X)	(X)
United States	2.2	0.3	1.7	0.1	0.5	0.3	No
Puerto Rico / U.S. territories	0.2	0.1	0.3	0.1	-0.1	0.1	No
Asia	0.2	0.1	0.3	0.1	-0.1	0.1	No
Europe	0.5	0.1	0.6	0.1	-0.1	0.1	No
Latin America	1.6	0.2	1.1	0.2	0.5	0.3	No
Other areas	0.5	0.1	0.6	0.1	-0.1	0.2	No

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 32. Indices of Inconsistency for Parental World Region of Birth by Mode

Variable/recode/category	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Signi-ficant[1]
Father's world region of birth							
Mail response							
Unweighted sample size	13,673	(X)	13,794	(X)	(X)	(X)	(X)
United States	3.3	0.3	2.4	0.3	0.9	0.4	No
Puerto Rico / U.S. territories	4.9	2.5	3.3	2.1	1.5	3.2	No
Asia	1.4	0.4	1.3	0.3	0.2	0.5	No
Europe	5.2	0.7	3.9	0.7	1.3	0.8	No
Latin America	1.9	0.4	1.8	0.4	-	0.6	No
Other areas	7.5	1.8	6.9	2.2	0.6	2.8	No
CATI/CAPI response							
Unweighted sample size	7,111	(X)	7,063	(X)	(X)	(X)	(X)
United States	3.9	0.6	3.4	0.6	0.5	0.9	No
Puerto Rico / U.S. territories	12.5	3.3	6.7	2.9	5.8	4.4	No
Asia	1.5	0.6	3.1	1.2	-1.6	1.4	No
Europe	9.6	2.5	8.7	2.1	0.9	3.2	No
Latin America	3.3	0.6	1.9	0.4	1.4	0.8	No
Other areas	11.5	3.4	16.2	4.6	-4.7	5.5	No
Mother's world region of birth							
Mail response							
Unweighted sample size	14,003	(X)	14,153	(X)	(X)	(X)	(X)
United States	5.0	0.4	4.2	0.5	0.8	0.6	No
Puerto Rico / U.S. territories	7.0	3.4	5.8	2.7	1.2	4.1	No
Asia	2.1	0.5	2.0	0.5	0.1	0.7	No
Europe	6.7	0.8	5.2	0.7	1.5	1.1	No
Latin America	7.3	0.9	5.8	0.9	1.5	1.1	No
Other areas	8.5	1.6	9.5	2.1	-1.0	2.5	No
CATI/CAPI response							
Unweighted sample size	7,300	(X)	7,216	(X)	(X)	(X)	(X)
United States	3.9	0.5	4.4	0.6	-0.4	0.8	No
Puerto Rico / U.S. territories	8.8	3.3	9.2	3.4	-0.4	4.4	No
Asia	3.1	1.1	7.2	2.2	-4.1	2.5	No
Europe	6.9	2.1	10.6	2.7	-3.7	3.3	No
Latin America	3.5	0.6	2.8	0.5	0.7	0.8	No
Other places	13.7	4.0	18.0	4.6	-4.3	6.1	No

Dash (-) represents or rounds to zero.

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 33. Indices of Inconsistency for Parental World Region of Birth by Mail Response Stratum

Variable/recode/category	Test		Control		Test - Control		
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	(%)	Standard error (%)	Signi-ficant[1]
Father's world region of birth							
High response area							
Unweighted sample size	9,431	(X)	9,633	(X)	(X)	(X)	(X)
United States	4.1	0.6	3.5	0.5	0.7	0.8	No
Puerto Rico / U.S. territories	13.5	6.6	6.4	3.2	7.0	7.5	No
Asia	1.2	0.5	1.5	0.5	-0.3	0.7	No
Europe	6.4	1.2	5.7	0.9	0.7	1.5	No
Latin America	4.3	1.1	2.6	0.8	1.7	1.3	No
Other areas	10.0	2.6	8.6	2.7	1.4	3.8	No
Low response area							
Unweighted sample size	11,353	(X)	11,224	(X)	(X)	(X)	(X)
United States	2.9	0.4	2.3	0.3	0.6	0.5	No
Puerto Rico / U.S. territories	9.3	2.1	4.5	1.6	4.8	2.8	No
Asia	2.3	0.7	3.8	1.2	-1.6	1.5	No
Europe	9.2	1.6	6.2	1.2	3.0	2.0	No
Latin America	2.1	0.5	1.7	0.3	0.4	0.5	No
Other areas	9.4	2.6	17.3	4.5	-7.9	5.4	No
Mother's world region of birth							
High response area							
Unweighted sample size	9,595	(X)	9,806	(X)	(X)	(X)	(X)
United States	4.3	0.5	4.9	0.6	-0.6	0.8	No
Puerto Rico / U.S. territories	11.6	6.2	7.3	3.7	4.3	6.8	No
Asia	2.7	0.8	4.0	1.0	-1.3	1.3	No
Europe	6.2	1.1	6.8	1.3	-0.6	1.7	No
Latin America	5.3	1.0	5.9	1.2	-0.6	1.6	No
Other areas	8.3	2.2	11.2	2.7	-3.0	3.3	No
Low response area							
Unweighted sample size	11,708	(X)	11,563	(X)	(X)	(X)	(X)
United States	4.7	0.6	3.7	0.3	1.0	0.7	No
Puerto Rico / U.S. territories	6.3	1.8	9.3	1.9	-2.9	2.7	No
Asia	2.3	0.6	3.7	1.0	-1.5	1.3	No
Europe	9.7	1.7	10.1	1.6	-0.4	2.3	No
Latin America	4.0	0.6	2.8	0.4	1.3	0.7	No
Other areas	19.8	5.0	16.5	3.9	3.3	6.5	No

[1] For these families of two-sided hypothesis tests, the familywise error rate has been controlled using the Bonferroni-Holm multiple comparison method at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 34. L-Fold Indices of Inconsistency for Parental World Region of Birth by Mode and by Mail Response Stratum

Variable/recode	Test		Control		Test - Control (%)	Standard error (%)	Significant[1]
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)			
Father's world region of birth							
Mail response	3.3	0.3	2.6	0.3	0.7	0.4	No
CATI/CAPI response	4.4	0.6	3.9	0.6	0.5	0.8	No
High response area	4.4	0.6	3.7	0.5	0.7	0.8	No
Low response area	3.3	0.4	2.9	0.4	0.4	0.6	No
Mother's world region of birth							
Mail response	5.3	0.4	4.5	0.5	0.8	0.6	No
CATI/CAPI response	4.3	0.5	5.2	0.7	-0.9	0.8	No
High response area	4.7	0.5	5.6	0.6	-0.8	0.8	No
Low response area	4.9	0.5	4.2	0.4	0.6	0.6	No

[1] Statistical significance of differences is determined at the α=0.10 level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 35. Allocation Rates for Selected Variables from the 2009 American Community Survey Compared with Item Missing Data Rates from the 2010 ACS Content Test

Variable	2009 ACS allocation rate (including assigned and imputed)	2010 ACS Content Test item missing data rate	
		Test	Control
School enrollment status	2.9	4.8	5.4
Educational attainment	4.4	6.8	7.0
First field of degree	9.0	2.9	2.5
Ancestry	0.4	-	-
First ancestry reported	-	13.3	14.5
Percent not reported, first ancestry reported	10.5	-	-
Speaks language other than English at home	2.7	4.8	5.1
Language spoken at home	4.7	6.9	4.9
English speaking ability	3.1	2.1	1.5
Residence one year ago	3.6	5.4	5.4
Health insurance:			
Insurance through employer/union	9.6	12.4	12.4
Insurance purchased directly	23.8	24.4	25.2
Medicare	21.3	21.9	22.6
Medicaid	25.9	25.6	26.2
TRICARE	24.9	26.3	27.0
VA	25.1	26.6	27.3
Indian Health Service	25.6	27.1	27.7
Disability:			
Difficulty hearing	2.3	4.4	4.7
Difficulty seeing	2.5	4.6	4.9

Source: U.S. Census Bureau, 2009 American Community Survey and the 2010 American Community Survey Content Test, September to December 2010.

Table 36. Item Missing Data Rates of Proximal Variables by Mode

Variable	Test			Control			Test - Control (%)	Standard error (%)	Signi-ficant[1]
	Number (unweighted)	Estimate (%)	Standard error (%)	Number (unweighted)	Estimate (%)	Standard error (%)			
First ancestry reported									
Mail response	29,889	19.0	0.4	29,738	21.1	0.4	-2.0	0.6	Yes
CATI/CAPI response	18,640	6.8	0.4	18,655	7.1	0.4	-0.3	0.6	No
School enrollment									
Mail response	28,958	6.2	0.2	29,061	7.2	0.2	-1.0	0.3	Yes
CATI/CAPI response	17,854	3.1	0.4	17,751	3.4	0.3	-0.3	0.5	No
Educational attainment[2]									
Mail response	28,958	7.9	0.2	29,061	8.2	0.2	-0.3	0.3	No
CATI/CAPI response	17,854	5.4	0.4	17,751	5.5	0.3	-0.1	0.6	No
Speaks language other than English at home									
Mail response	28,373	6.3	0.2	29,061	6.6	0.2	-0.3	0.3	No
CATI/CAPI response	17,854	3.1	0.4	17,751	3.2	0.3	-0.2	0.4	No
Language spoken at home									
Mail response	5,580	17.1	1.0	5,262	12.1	0.6	5.0	1.2	Yes
CATI/CAPI response	6,068	0.1	0.1	5,839	0.1	0.0	0.0	0.1	No
English speaking ability									
Mail response	5,580	4.9	0.4	5,262	3.3	0.3	1.6	0.5	Yes
CATI/CAPI response	6,068	0.3	0.2	5,839	0.2	0.1	0.1	0.2	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

[2] Though educational attainment is not part of the official analysis plan, it is included here by request of critical reviewers.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 37. Region of Ancestry Recode by Mode and Data Source

Total population	All modes			Mail mode			CATI/CAPI modes		
	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)
Region of first ancestry reported	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
African	10.9	8.1	8.3	6.5	5.3	5.1	15.2	10.9	11.4
Asian	6.0	5.8	5.8	6.3	6.3	6.6	5.8	5.4	5.0
Eastern European	5.1	4.9	5.0	6.5	6.3	6.1	3.7	3.4	3.9
Northern European	21.5	18.1	19.2	26.2	21.3	22.7	16.4	14.9	15.8
Southern European	6.7	6.1	6.4	7.7	7.2	7.5	5.7	5.0	5.3
Western European	16.3	15.0	15.4	19.4	16.9	17.7	12.9	13.2	13.3
Caribbean	3.1	2.9	2.5	1.7	1.2	1.3	4.6	4.6	3.7
Central American	11.4	11.2	10.2	4.7	4.4	4.0	18.9	17.7	16.1
South American	1.0	0.8	1.2	0.7	0.6	0.7	1.5	1.0	1.7
North American	10.4	12.8	12.3	11.4	15.9	15.5	9.4	9.7	9.2
Oceanian	0.3	0.1	0.1	0.2	0.1	0.1	0.4	0.2	0.2
Other, non-regional	7.3	14.2	13.5	8.7	14.4	12.6	5.7	13.9	14.4
Region of second ancestry reported	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
African	1.0	1.3	1.4	0.5	1.1	1.2	1.8	1.7	1.6
Asian	2.1	2.0	2.5	1.8	2.1	2.2	2.5	1.9	2.9
Eastern European	8.6	8.6	8.5	9.6	9.0	10.1	7.0	8.0	6.6
Northern European	41.2	37.9	37.2	42.9	39.2	39.1	38.6	36.3	34.9
Southern European	7.1	7.2	7.3	6.6	6.1	6.2	8.0	8.4	8.6
Western European	28.7	25.5	25.5	30.3	26.8	27.4	26.2	24.0	23.3
Caribbean	1.2	1.1	1.3	0.7	0.5	0.7	1.9	1.9	2.1
Central American	1.6	2.3	1.9	0.9	1.7	1.0	2.6	3.0	2.9
South American	0.4	0.4	0.7	0.3	0.6	0.4	0.6	0.1	1.0
North American	7.2	9.1	9.8	5.6	7.9	7.7	9.8	10.5	12.3
Oceanian	0.2	0.3	0.2	0.2	0.3	0.1	0.3	0.3	0.3
Other, non-regional	0.7	4.3	3.8	0.6	4.7	3.9	0.9	3.9	3.6

Note: First and second ancestry reported for 2009 ACS data do not include persons for whom an ancestry group was not reported.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010; and 2009 American Community Survey.

Table 38. Selected Ancestries by Mode and Data Source

Total population	All modes			Mail mode			CATI/CAPI modes		
	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)
First ancestry reported	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
African American	10.9	8.4	8.6	6.7	5.9	5.4	15.1	10.9	11.6
American	6.8	9.5	8.8	8.2	13.3	12.5	5.3	5.7	5.3
American Indian	2.7	2.5	2.7	2.0	1.4	1.8	3.5	3.5	3.5
English	7.1	5.9	6.2	9.1	7.4	7.8	4.9	4.5	4.6
French	2.0	1.6	1.5	2.2	1.4	1.6	1.8	1.7	1.5
German	12.8	12.1	12.5	15.2	13.8	14.3	10.1	10.5	10.7
Irish	8.3	6.9	7.4	9.3	7.6	8.2	7.3	6.3	6.6
Italian	5.0	4.5	4.8	6.1	5.8	6.0	3.9	3.3	3.7
Mexican	10.0	9.9	9.1	4.3	4.1	3.7	16.5	15.7	14.3
Polish	2.4	2.4	2.3	3.2	3.2	3.2	1.7	1.6	1.5
Other ancestry groups	32.0	36.3	36.2	33.9	36.2	35.5	30.1	36.5	36.8
Second ancestry reported	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
African American	0.8	1.6	1.7	0.4	1.2	1.3	1.5	2.2	2.1
American	0.0	3.1	3.3	0.0	2.7	2.6	0.0	3.5	4.1
American Indian	6.2	5.1	5.7	4.5	3.9	4.3	9.0	6.5	7.3
English	11.7	10.5	10.6	12.6	11.4	10.9	10.5	9.4	10.2
French	5.0	4.4	4.1	5.1	4.3	4.4	4.8	4.4	3.8
German	19.6	17.4	17.5	20.8	18.5	18.8	17.7	16.3	16.0
Irish	17.6	16.5	15.8	17.2	15.9	16.0	18.3	17.3	15.7
Italian	5.3	5.2	4.9	5.0	4.4	4.1	5.8	6.2	5.9
Mexican	1.0	1.7	1.2	0.7	1.4	0.7	1.6	2.0	1.7
Polish	4.2	4.7	4.0	4.7	4.7	4.5	3.6	4.6	3.3
Other ancestry groups	28.4	29.9	31.3	29.1	31.6	32.5	27.2	27.7	29.8

Note: First and second ancestry for 2009 ACS data do not include persons for whom an ancestry group was not reported.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010; and 2009 American Community Survey.

Table 39. Education and Language Spoken at Home Variables by Mode and Data Source

Selected populations	All modes			Mail mode			CATI/CAPI modes		
	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)	ACS 2009	ACS 2010 Content Test (test)	ACS 2010 Content Test (control)
Population age 3 and older									
School enrollment status	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Did not attend school	72.7	72.1	72.8	75.8	76.8	77.1	69.6	66.8	68.1
Attended private school	4.7	3.9	4.1	4.8	3.9	4.3	3.9	3.8	4.0
Attended public school	22.7	24.0	23.0	19.4	19.2	18.7	26.5	29.3	27.9
Educational attainment	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than high school diploma	32.3	31.0	30.4	26.1	23.5	23.2	39.8	39.4	38.5
High school diploma or equivalent	22.9	21.4	21.8	22.4	21.9	22.0	23.0	21.0	21.6
Some college	24.6	25.1	25.5	25.2	25.8	26.3	23.1	24.3	24.6
Bachelor's degree	13.0	14.6	14.2	16.3	17.5	17.1	9.9	11.3	11.0
Graduate degree	7.2	8.0	8.1	10.1	11.3	11.4	4.2	4.3	4.5
Population age 5 and over									
Speaks language other than English at home	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Yes	19.9	21.4	20.5	13.8	16.0	15.5	27.3	27.4	26.1
No	80.1	78.6	79.5	86.2	84.0	84.5	72.7	72.6	73.9
Population age 5 and over that speaks language other than English at home									
Selected language spoken at home	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Chinese	2.9	2.5	3.5	5.1	5.3	6.4	1.5	1.0	1.8
French	2.2	1.7	2.0	3.8	2.4	3.7	1.3	1.3	1.1
Spanish	62.2	61.3	59.0	46.0	39.6	39.2	71.8	73.1	70.7
Tagalog	2.6	2.3	2.6	4.2	3.8	4.6	1.7	1.6	1.5
Vietnamese	2.2	2.6	1.7	3.0	5.1	2.9	1.7	1.2	0.9
Other non-English languages	27.9	29.7	31.1	37.9	43.9	43.2	22.0	21.9	24.0
English speaking ability	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Speaks English very well	57.0	58.3	59.6	63.4	66.3	65.8	52.9	53.4	55.6
Speaks English well	20.0	20.1	19.4	21.7	20.5	21.2	18.5	19.9	18.2
Does not speak English well	15.9	15.1	14.7	11.9	10.7	10.5	18.5	17.9	17.4
Does not speak English at all	7.5	6.4	6.3	3.1	2.4	2.5	10.1	8.9	8.8

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010; and 2009 American Community Survey.

Table 40. Response Distributions of Regional Ancestry Recode by Mode

Variable and mode type	Test		Control				
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	Test - Control	Standard error (%)	Signi-ficant
Region of first reported ancestry							
Mail responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African	5.3	0.2	5.1	0.2	0.2	0.3	No
Asian	6.3	0.3	6.6	0.3	-0.2	0.4	No
Eastern European	6.3	0.3	6.1	0.3	0.2	0.3	No
Northern European	21.3	0.5	22.7	0.5	-1.4	0.7	No
Southern European	7.2	0.3	7.5	0.3	-0.3	0.4	No
Western European	16.9	0.4	17.7	0.4	-0.8	0.6	No
Caribbean	1.2	0.1	1.3	0.1	-0.1	0.1	No
Central American	4.4	0.2	4.0	0.2	0.4	0.3	No
South American	0.6	0.1	0.7	0.1	-0.1	0.1	No
North American	15.9	0.4	15.5	0.4	0.4	0.7	No
Oceanian	0.1	0.0	0.1	0.0	0.0	0.0	No
Other, non-regional	14.4	0.4	12.6	0.3	1.8	0.5	Yes
CATI/CAPI responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African	10.8	0.4	11.4	0.6	-0.6	0.7	No
Asian	5.4	0.5	5.0	0.4	0.4	0.7	No
Eastern European	3.4	0.3	3.9	0.3	-0.5	0.4	No
Northern European	14.9	0.6	15.8	0.7	-0.9	0.9	No
Southern European	5.0	0.4	5.3	0.4	-0.3	0.5	No
Western European	13.2	0.6	13.3	0.5	-0.1	0.8	No
Caribbean	4.6	0.3	3.7	0.2	0.9	0.4	No
Central American	17.7	0.7	16.1	0.6	1.6	0.9	No
South American	1.0	0.1	1.7	0.3	-0.6	0.3	No
North American	9.7	0.6	9.2	0.5	0.5	0.8	No
Oceanian	0.2	0.1	0.2	0.1	0.0	0.1	No
Other, non-regional	13.9	0.6	14.4	0.7	-0.5	1.0	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 40. Response Distributions of Regional Ancestry Recode by Mode *(continued)*

Variable and mode type	Test		Control				
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	Test - Control	Standard error (%)	Signi-ficant
Region of second reported ancestry							
Mail responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African	1.1	0.2	1.2	0.2	-0.1	0.2	No
Asian	2.1	0.3	2.2	0.3	-0.1	0.4	No
Eastern European	9.0	0.5	10.1	0.6	-1.1	0.7	No
Northern European	39.2	0.9	39.1	0.7	0.1	1.1	No
Southern European	6.1	0.4	6.2	0.4	-0.1	0.5	No
Western European	26.8	0.8	27.4	0.7	-0.6	1.1	No
Caribbean	0.5	0.1	0.7	0.1	-0.2	0.1	No
Central American	1.7	0.3	1.0	0.2	0.7	0.3	No
South American	0.6	0.1	0.4	0.1	0.2	0.2	No
North American	7.8	0.5	7.7	0.5	0.2	0.8	No
Oceanian	0.3	0.1	0.1	0.0	0.2	0.1	No
Other, non-regional	4.7	0.4	3.9	0.3	0.8	0.5	No
CATI/CAPI responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
African	1.7	0.4	1.6	0.4	0.1	0.5	No
Asian	1.9	0.4	2.9	0.5	-1.0	0.7	No
Eastern European	8.0	0.8	6.6	0.8	1.5	1.2	No
Northern European	36.3	1.6	34.9	1.5	1.4	2.1	No
Southern European	8.4	0.8	8.6	0.9	-0.1	1.1	No
Western European	24.0	1.2	23.3	1.2	0.6	1.7	No
Caribbean	1.9	0.5	2.1	0.5	-0.2	0.7	No
Central American	3.0	0.4	2.9	0.4	0.1	0.6	No
South American	0.1	0.0	1.0	0.4	-0.9	0.4	No
North American	10.5	0.9	12.3	1.1	-1.8	1.4	No
Oceanian	0.3	0.1	0.2	0.1	0.0	0.2	No
Other, non-regional	3.9	0.6	3.6	0.5	0.3	0.7	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 41. Response Distributions of School Enrollment and Language Variables by Mode

Variable and mode type	Test		Control				
	Estimate (%)	Standard error (%)	Estimate (%)	Standard error (%)	Test - Control	Standard error (%)	Signi-ficant
School enrollment status							
Mail responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Did not attend school	76.8	0.3	77.0	0.3	-0.2	0.4	No
Attended public school	19.2	0.3	18.7	0.3	0.5	0.4	No
Attended private school	3.9	0.2	4.3	0.2	-0.3	0.2	No
CATI/CAPI responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Did not attend school	66.8	0.6	68.1	0.5	-1.3	0.8	No
Attended public school	29.3	0.6	27.9	0.5	1.5	0.8	No
Attended private school	3.8	0.2	4.0	0.2	-0.2	0.3	No
Non-English language spoken at home status							
Mail responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Yes	16.0	0.4	15.5	0.4	0.5	0.5	No
No	84.0	0.4	84.5	0.4	-0.5	0.5	No
CATI/CAPI responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Yes	27.4	0.8	26.1	0.6	1.3	1.1	No
No	72.6	0.8	73.9	0.6	-1.3	1.1	No
Specific language spoken at home							
Mail responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Spanish	39.6	1.5	39.2	1.4	0.4	2.2	No
Chinese	5.3	0.7	6.4	0.8	-1.2	1.0	No
Tagalog	3.8	0.5	4.6	0.7	-0.8	0.8	No
French	2.4	0.3	3.7	0.5	-1.3	0.6	No
Vietnamese	5.1	0.7	2.9	0.5	2.2	0.8	No
Other non-English language	43.9	1.6	43.2	1.5	0.7	2.3	No
CATI/CAPI responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Spanish	73.1	1.5	70.7	1.3	2.3	2.0	No
Chinese	1.0	0.4	1.8	0.5	-0.8	0.6	No
Tagalog	1.5	0.4	1.5	0.4	0.1	0.6	No
French	1.3	0.3	1.1	0.2	0.2	0.4	No
Vietnamese	1.2	0.3	0.9	0.3	0.3	0.5	No
Other non-English language	21.9	1.5	24.0	1.4	-2.0	2.1	No
English-speaking ability							
Mail responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Speaks English very well	66.3	1.1	65.7	0.8	0.6	1.2	No
Speaks English well	20.5	0.7	21.2	0.7	-0.7	0.8	No
Does not speak English well	10.7	0.6	10.5	0.6	0.2	0.8	No
Does not speak English at all	2.4	0.3	2.5	0.3	-0.1	0.4	No
CATI/CAPI responses	100.0	(X)	100.0	(X)	(X)	(X)	(X)
Speaks English very well	53.3	1.2	55.6	1.3	-2.3	1.8	No
Speaks English well	19.9	1.0	18.2	0.8	1.7	1.5	No
Does not speak English well	17.9	0.8	17.4	0.8	0.4	1.1	No
Does not speak English at all	8.9	0.5	8.8	0.7	0.1	0.7	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Table 42. Chi-Square Tests of Independence for Regional Ancestry, School Enrollment, and Language Variables

Variable/recode	Rao-Scott chi-square	Degrees of freedom	Significant[1]
Region of first ancestry reported			
Mail response	21.29	11	Yes
CATI/CAPI response	14.48	11	No
Region of second ancestry reported			
Mail response	18.08	11	Yes
CATI/CAPI response	16.82	11	No
School enrollment status			
Mail response	3.07	2	No
CATI/CAPI response	4.03	2	No
Selected language spoken at home			
Mail response	0.02	5	Yes
CATI/CAPI response	0.59	5	No
English speaking ability			
Mail response	0.84	3	No
CATI/CAPI response	2.71	3	No

[1] Statistical significance of differences is determined at the α=0.10 significance level.

Source: U.S. Census Bureau, 2010 American Community Survey Content Test, September to December 2010.

Appendix B: Images of the Mail Versions of the Control and Test Questions

Figure B-1. Control Version of the Questionnaire Page Featuring Parental Place of Birth

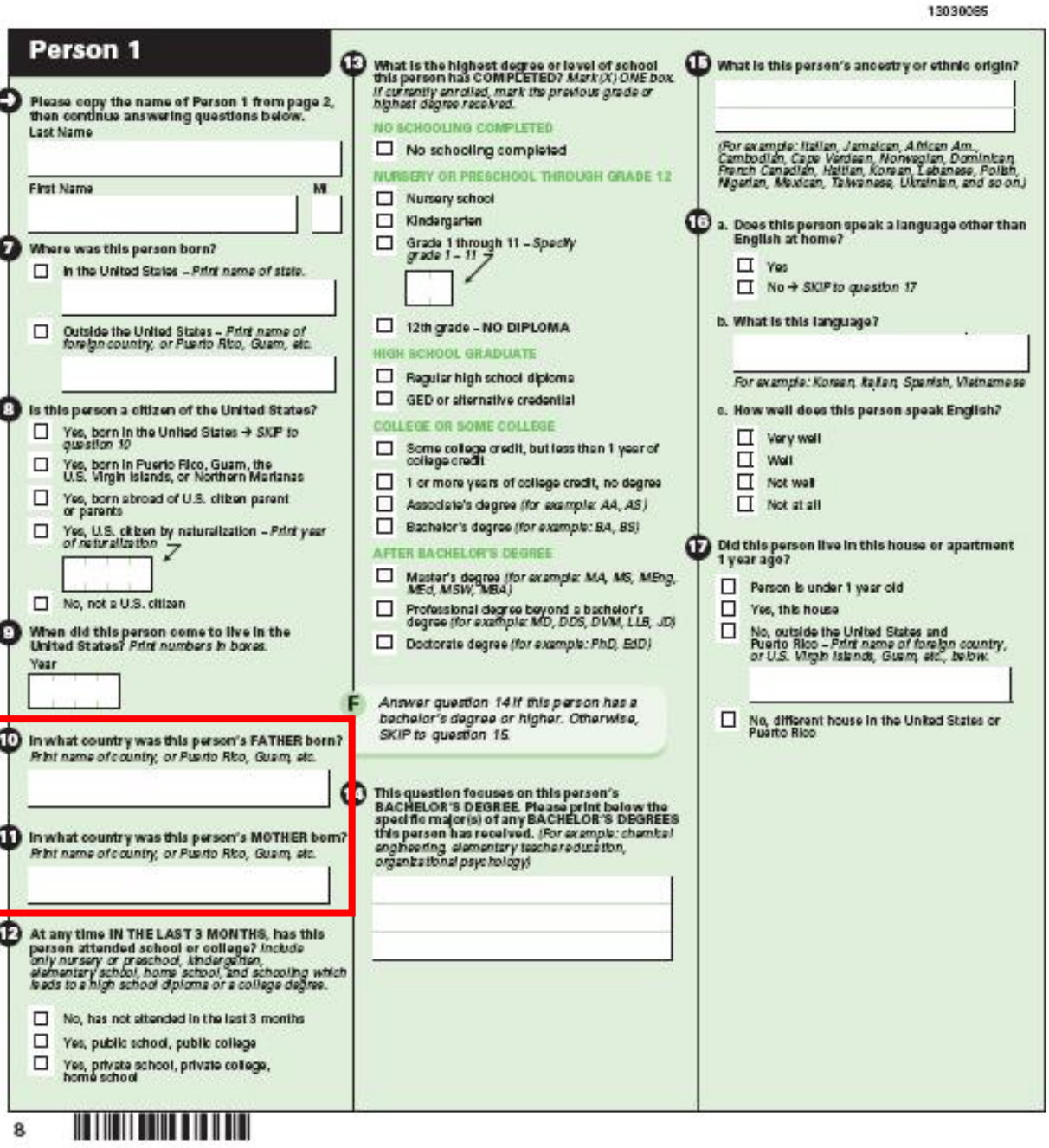
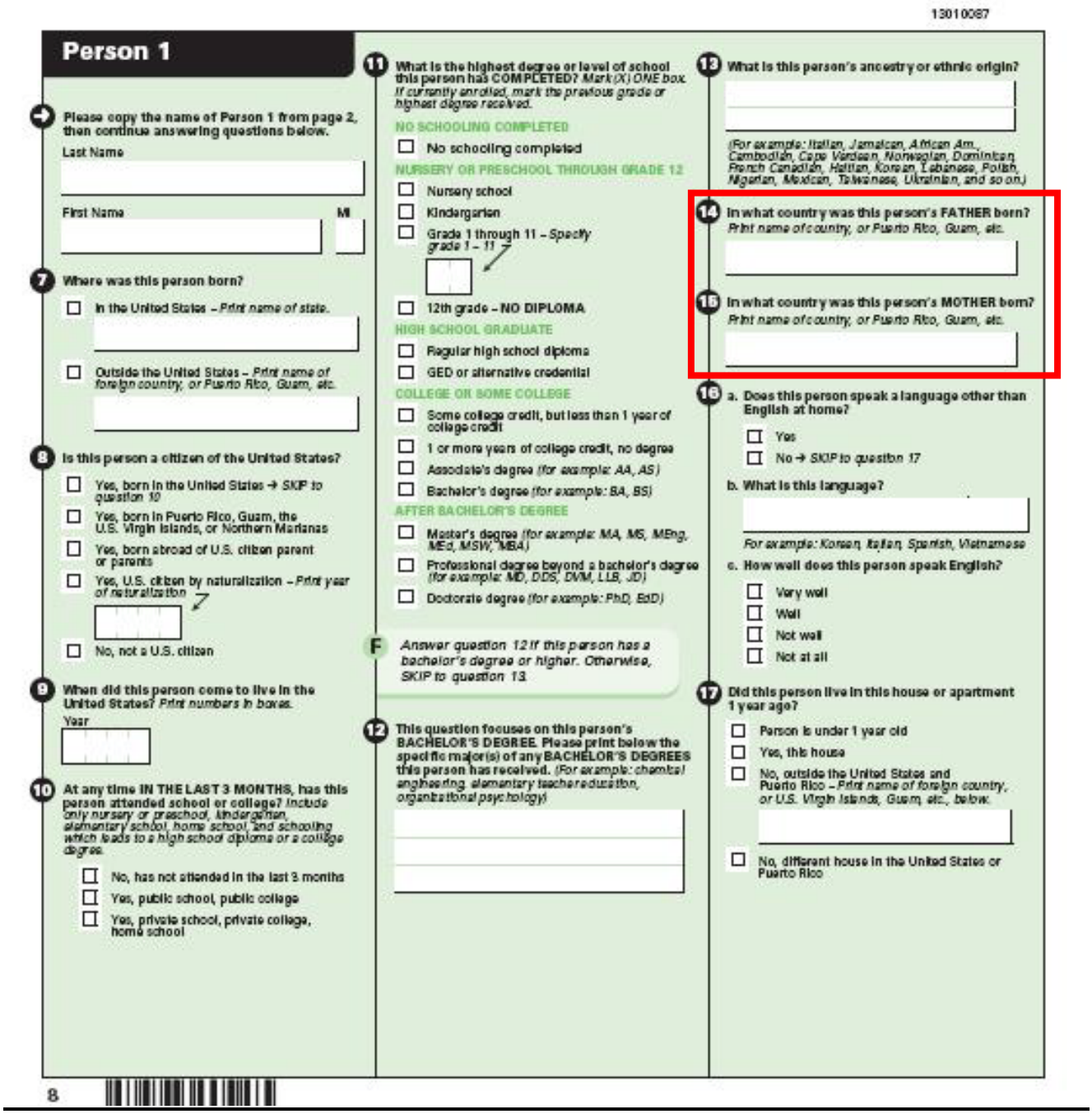


Figure B-2. Test Version of the Questionnaire Page Featuring Parental Place of Birth



13010087

Person 1

Please copy the name of Person 1 from page 2, then continue answering questions below.

Last Name

First Name MI

7 Where was this person born?

- ☐ In the United States – *Print name of state.*
- ☐ Outside the United States – *Print name of foreign country, or Puerto Rico, Guam, etc.*

8 Is this person a citizen of the United States?

- ☐ Yes, born in the United States → *SKIP to question 10*
- ☐ Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- ☐ Yes, born abroad of U.S. citizen parent or parents
- ☐ Yes, U.S. citizen by naturalization – *Print year of naturalization*
- ☐ No, not a U.S. citizen

9 When did this person come to live in the United States? *Print numbers in boxes.*

Year

10 At any time IN THE LAST 3 MONTHS, has this person attended school or college? *Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a college degree.*

- ☐ No, has not attended in the last 3 months
- ☐ Yes, public school, public college
- ☐ Yes, private school, private college, home school

11 What is the highest degree or level of school this person has COMPLETED? *Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.*

NO SCHOOLING COMPLETED

- ☐ No schooling completed

NURSERY OR PRESCHOOL THROUGH GRADE 12

- ☐ Nursery school
- ☐ Kindergarten
- ☐ Grade 1 through 11 – *Specify grade 1 – 11*
- ☐ 12th grade – NO DIPLOMA

HIGH SCHOOL GRADUATE

- ☐ Regular high school diploma
- ☐ GED or alternative credential

COLLEGE OR SOME COLLEGE

- ☐ Some college credit, but less than 1 year of college credit
- ☐ 1 or more years of college credit, no degree
- ☐ Associate's degree *(for example: AA, AS)*
- ☐ Bachelor's degree *(for example: BA, BS)*

AFTER BACHELOR'S DEGREE

- ☐ Master's degree *(for example: MA, MS, MEng, MEd, MSW, MBA)*
- ☐ Professional degree beyond a bachelor's degree *(for example: MD, DDS, DVM, LLB, JD)*
- ☐ Doctorate degree *(for example: PhD, EdD)*

F *Answer question 12 if this person has a bachelor's degree or higher. Otherwise, SKIP to question 13.*

12 This question focuses on this person's BACHELOR'S DEGREE. Please print below the specific major(s) of any BACHELOR'S DEGREES this person has received. *(For example: chemical engineering, elementary teacher education, organizational psychology)*

13 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

14 In what country was this person's FATHER born? *Print name of country, or Puerto Rico, Guam, etc.*

16 In what country was this person's MOTHER born? *Print name of country, or Puerto Rico, Guam, etc.*

15 a. Does this person speak a language other than English at home?

- ☐ Yes
- ☐ No → *SKIP to question 17*

b. What is this language?

For example: Korean, Italian, Spanish, Vietnamese

c. How well does this person speak English?

- ☐ Very well
- ☐ Well
- ☐ Not well
- ☐ Not at all

17 Did this person live in this house or apartment 1 year ago?

- ☐ Person is under 1 year old
- ☐ Yes, this house
- ☐ No, outside the United States and Puerto Rico – *Print name of foreign country, or U.S. Virgin Islands, Guam, etc., below.*
- ☐ No, different house in the United States or Puerto Rico

8

Appendix C: CATI and CAPI Versions of the Control and Test Questions

Note that the CATI/CAPI question text is programmed to change based upon the subject of the question. When the respondent is asked about her own father's place of birth, for instance, the interviewer would read the question as: "In what country was your FATHER born?" However, when the respondent is asked the same question in regards to her husband, named John, the interviewer would read the question as: "In what country was John's FATHER born?"

Father's Place of Birth

In what country was [your/<PERSON'S NAME>'s] FATHER born? Tell me the name of the country, or Puerto Rico, Guam, etc.

Mother's Place of Birth

In what country was [your/<PERSON'S NAME>'s] MOTHER born? Tell me the name of the country, or Puerto Rico, Guam, etc.

Appendix D: Spanish Language Versions of the Control and Test Questions (CATI/CAPI Modes)

The mail version of the Content Test questionnaire was administered only in the English language; however, the CATI/CAPI versions featured a Spanish-language alternative, the text of which appears below. Note that, on the Spanish-language version of the questionnaire, the PPOB questions are located in the same position and order as on the English-language version. Also, as with the English-language version, the CATI/CAPI question text is programmed to change based upon the subject of the question. When the respondent is asked about his own mother's place of birth, for instance, the interviewer would read the question as: "En qué país nació su MADRE?" However, when the respondent is asked the same question in regards to his wife, named Rosa, the interviewer would read the question as: "En qué país nació el MADRE de Rosa?"

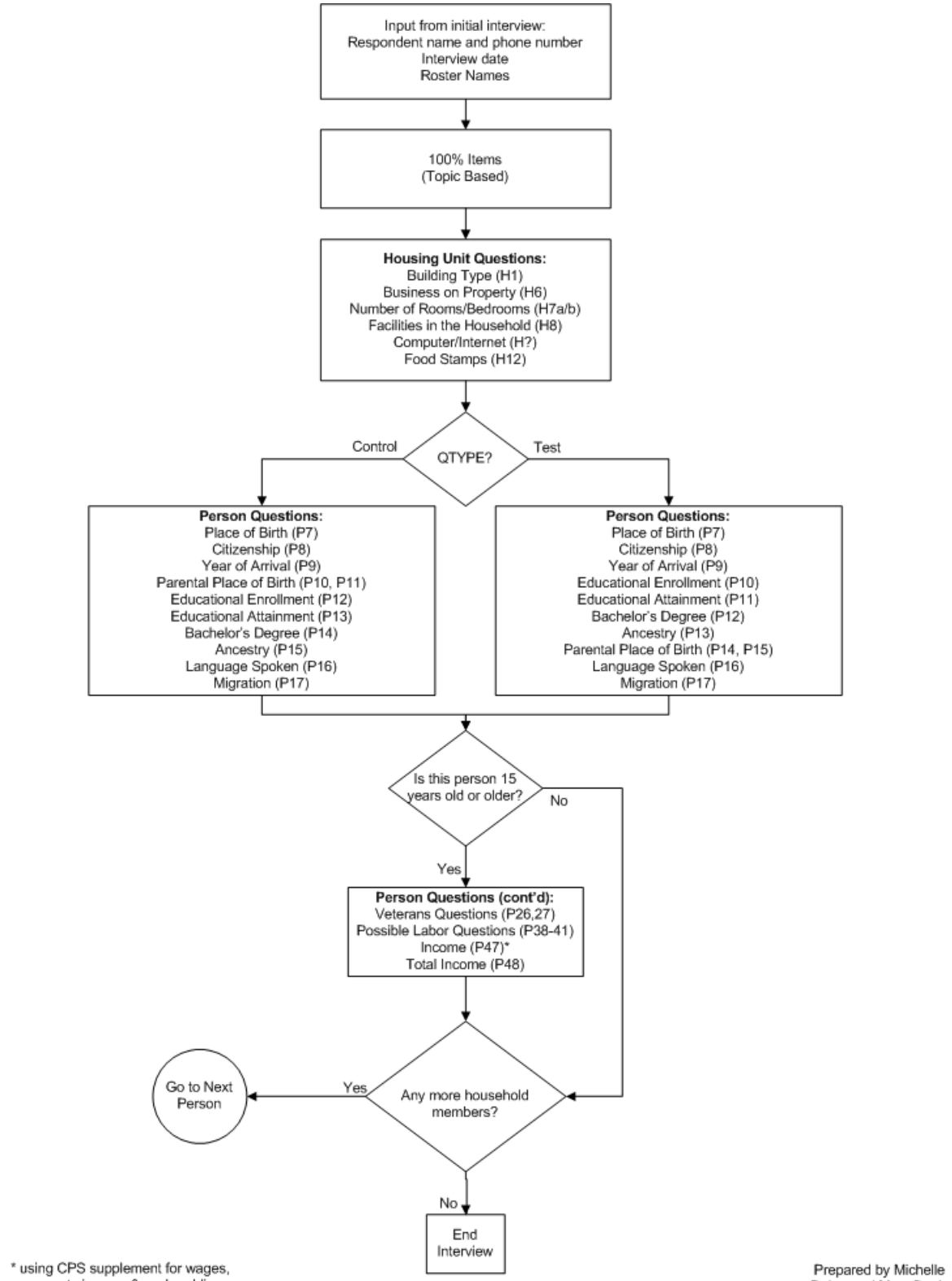
Father's Place of Birth

En qué país nació [su PADRE / el PADRE de <PERSON'S NAME>]? Dígame el nombre del país o Puerto Rico, Guam, etc.

Mother's Place of Birth

En qué país nació [su MADRE / el MADRE de <PERSON'S NAME>]? Dígame el nombre del país o Puerto Rico, Guam, etc.

Appendix E: Process Flowchart of the Content Follow-Up Survey Reinterview



Appendix F: Parental Place of Birth Crosswalk for World Region of Birth Recode in the American Community Survey

The coding scheme for father's and mother's place of birth (FPOB and MPOB) in the Content Test was identical to that used for place of birth (POB) in the American Community Survey. The parental place of birth variables were recoded into father's and mother's world region of birth (FWROB and MWROB) with the following crosswalk:

Response for FPOB / MPOB	**Coded value for FWROB / MWROB**
Any of the 50 US states or the District of Columbia (001 – 056); United States unspecified (057)	United States (1)
American Samoa (060); Guam (066); Johnston Atoll (067); Northern Marianas (069); Midway Islands (071); Puerto Rico (072); Navassa Island (076); US Virgin Islands (078); Wake Island (079); Baker Island (081); Howland Island (084); Jarvis Island (086); Kingman Reef (089); Palmyra Atoll (095); US outlying area (096)	Puerto Rico or US territory (2)
Albania (100); Andorra (101); Austria (102); Belgium (103); Bulgaria (104); Czechoslovakia (105); Denmark (106); Faroe Islands (107); Finland (108); France (109); Germany (110); Gibralter (115); Greece (116); Hungary (117); Iceland (118); Ireland (119); Italy (120); Jan Meyan (121); Liechtenstein (122); Luxembourg (123); Malta (124); Monaco (125); Netherlands (126); Norway (127); Poland (128); Portugal (129); Azores Islands (130); Madeira Islands (131); Romania (132); San Marino (133); Spain (134); Svalbard (135); Sweden (136); Switzerland (137); United Kingdom (138); England (139); Scotland (140); Wales (141); Northern Ireland (142); Guernsey (143); Jersey (144); Isle of Man (145); Vatican City (146); Yugoslavia (147); Czech Republic (148); Slovakia (149); Bosnia and Herzegovina (150); Croatia (151); Macedonia (152); Slovenia (153); Serbia (154); Estonia (155); Latvia (156); Lithuania (157); Belarus (160); Moldova (162); Russia (163); Ukraine (164); USSR (165); Europe (166); Kosovo (167); Montenegro (168)	Europe (3)
Armenia (158); Azerbaijan (159); Georgia (161); Afghanistan (200); Bahrain (201); Bangladesh (202); Bhutan (203); Brunei (204); Myanmar (205); Cambodia (206); China (207); Cyprus (208); Hong Kong (209); India (210); Indonesia (211); Iran (212); Iraq (213); Israel (214); Japan (215); Jordan (216); Korea (217); Kazakhstan (218); Kyrgyzstan (219); South Korea (220); North Korea (221); Kuwait (222); Laos (223); Lebanon (224); Macau (225); Malaysia (226); Maldives (227); Mongolia (228); Nepal (229); Oman (230); Pakistan (231); Paracel Islands (232); Philippines (233); Qatar (234); Saudi Arabia (235); Singapore (236); Spratley Islands (237); Sri Lanka (238); Syria (239); Taiwan (240); Tajikistan (241); Thailand (242); Turkey (243); Turkmenistan (244); United Arab Emirates (245); Uzbekistan (246); Vietnam (247); Yemen (248); Asia (249); East Timor (250)	Asia (4)
Mexico (303); Belize (310); Costa Rica (311); El Salvador (312); Guatemala (313); Honduras (314); Nicaragua (315); Panama (316); Central America (317); Anguilla (320); Antigua and Barbuda (321); Aruba (322); Bahamas (323); Barbados (324); British Virgin Islands (325); Cayman Islands (326); Cuba (327); Dominica (328); Dominican Republic (329); Grenada (330); Guadeloupe (331); Haiti (332); Jamaica (333); Martinique (334); Montserrat (335); Netherlands Antilles (336); St Barthelemy (337); St Kitts-Nevis (338); St Lucia (339); St Vincent and the Grenadines (340); Trinidad and Tobago (341); Turks and Caicos Islands (342); West Indies (343); Argentina (360); Bolivia (361); Brazil (362); Chile (363); Colombia (364); Ecuador (365); Falkland Islands (366); French Guiana (367);	Latin America (5)

Response for FPOB / MPOB	Coded value for FWROB / MWROB
Guyana (368); Paraguay (369); Peru (370); Suriname (371); Uruguay (372); Venezuela (373); South America (374)	
Bermuda (300); Canada (301); Greenland (302); St Pierre and Miquelon (304); North America (305); Algeria (400); Angola (401); Benin (402); Botswana (403); British Indian Ocean Territory (404); Burkina Faso (405); Burundi (406); Cameroon (407); Cape Verde (408); Central African Republic (409); Chad (410); Comoros (411); Congo (412); Djibouti (413); Egypt (414); Equatorial Guinea (415); Ethiopia (416); Eritrea (417); Europa Island (418); Gabon (419); Gambia (420); Ghana (421); Glorioso Islands (422); Guinea (423); Guinea-Bissau (424); Ivory Coast (425); Juan de Nova Island (426); Kenya (427); Lesotho (428); Liberia (429); Libya (430); Madagascar (431); Malawi (432); Mali (433); Mauritania (434); Mayotte (435); Morocco (436); Mozambique (437); Namibia (438); Niger (439); Nigeria (440); Reunion (441); Rwanda (442); Sao Tome and Principe (443); Senegal (444); Mauritius (445); Seychelles (446); Sierra Leone (447); Somalia (448); South Africa (449); St Helena (450); Sudan (451); Swaziland (452); Tanzania (453); Togo (454); Tromelin Island (455); Tunisia (456); Uganda (457); Western Sahara (458); Democratic Republic of Congo (459); Zimbabwe (461); Africa (462); Australia (501); Christmas Island, Indian Ocean (502); Cook Islands (505); Coral Sea Islands (506); Heard and McDonald Islands (507); Fiji (508); French Polynesia (509); Kiribati (510); Marshall Islands (511); Micronesia (512); Nauru (513); New Caledonia (514); New Zealand (515); Niue (516); Norfolk Island (517); Palau (518); Papua New Guinea (519); Pitcairn Islands (520); Solomon Islands (521); Tokelau (522); Tonga (523); Tuvalu (524); Vanuatu (525); Wallis and Futuna Islands (526); Samoa (527); Oceania (528); at sea (554); abroad (555)	Other Areas (6)

Appendix G: Parental Place of Birth Crosswalk for World Region of Birth Recode in the Current Population Survey

The coding scheme for father's and mother's place of birth (PEFNTVTY and PEMNTVTY) was identical to that used for person's place of birth (PENATVTY) in the Current Population Survey. The CPS parental place of birth variables were recoded into father's and mother's world region of birth (FWROB and MWROB) according to the following crosswalk:

Response for PEFNTVTY / PEMNTVTY	**Coded value for FWROB/ MWROB**
United States (057)	United States (1)
American Samoa (060); Guam (066); Johnston Atoll (067); Northern Marianas (069); Midway Islands (071); Puerto Rico (072); Navassa Island (076); US Virgin Islands (078); Wake Island (079); Baker Island (081); Howland Island (084); Jarvis Island (086); Kingman Reef (089); Palmyra Atoll (095); US outlying area (096)	Puerto Rico or US territory (2)
Albania (100); Andorra (101); Austria-Hungary (063); Austria (102); Belgium (103); Bulgaria (104); Czechoslovakia (105); Denmark (106); Faroe Islands (107); Finland (108); France (109); Corsica (111); Lorraine (113); Alsace Lorraine (176); Germany (110); Bavaria (114); Frankfurt (177); Berlin (178); Bremen (184); Dutchland (185); Hamburg (186); Hanover (187); Hesse (188); Lubeck (251); Prussia (255); Saxony (260); Wurzberg (277); Gibralter (115); Greece (116); Crete (278); Hungary (117); Iceland (118); Ireland (119); Dublin (279); Eire (280); Galway (281); Irish Republic (284); Cork (297); Republic of Ireland (464); Italy (120); Trieste (299); Sicily (466); Jan Meyan (121); Liechtenstein (122); Luxembourg (123); Malta (124); Monaco (125); Netherlands (126); Rotterdam (306); Holland (307); Amsterdam (566); Norway (127); Poland (128); Danzig (576); East Prussia (578); Portugal (129); Azores Islands (130); Madeira Islands (131); Romania (132); Rumania (579); Transylvania (580); San Marino (133); Spain (134); Canary Islands (291); Espana (293); Majorca (294); Mallorca (295); Svalbard (135); Sweden (136); Switzerland (137); Zurich (170); United Kingdom (138); England (139); Scotland (140); Wales (141); Northern Ireland (142); Guernsey (143); Jersey (144); Isle of Man (145); Britain (171); British Isles (172); Channel Islands (173); Great Britain (174); UK (175); South Wales (179); Belfast (181); Londonderry (182); N. Ireland (183); Vatican City (146); Yugoslavia (147); Jugoslavia (189); Federal Republic of Yugoslavia (586); Czech Republic (148); Bohemia (191); Slovakia (149); Slovak Republic (193); Slavonia (588); Bosnia and Herzegovina (150); Bosnia (195); Herzegovina (197); Zadar (098); Croatia (151); Pelagosa (199); Macedonia (152); Slovenia (153); Serbia (154); Estonia (155); Latvia (156); Lithuania (157); Byelorussia (075); White Russia (080); Belarus (160); Byelarus (198); Moldova (162); Bessarabia (563); Moldavia (564); Russia (163); Kaliningrad (581); Russian Federation (583); Siberia (585); Ukraine (164); Crimea (613); Ukrainia (614); Soviet Union (624); Union of Soviet Socialist Republics (625); Europe (166); Kosovo (167); Montenegro (168)	Europe (3)
Armenia (158); Yerevan (190); Azerbaijan (159); Georgia (161); Afghanistan (200); Bahrain (201); East Pakistan (196); Bangladesh (202); Bhutan (203); Brunei (204); Cambodia (206); Kampuchea (398); Kwantung (088); Mainland China (090); People's Republic of China (091); Red China (092); Shanghai (093); Tibet (094); China (207); Manchuria (271); Cyprus (208); Republic of Cyprus (252); Hong Kong (209); British Hong Kong (253); China Hong Kong (254); India (210); Assam (256); Delhi (257); Goa (258); Hyderabad (259); Portuguese India (262);	Asia (4)

Response for PEFNTVTY / PEMNTVTY	Coded value for FWROB/ MWROB
Punjab, India (263); Pajasthan (264); Sikkim (265); West Bengal (266); Indonesia (211); Borneo (267); Dutch East Indies (268); Dutch Indonesia (269); Dutch New Guinea (270); Irian (272); Java (273); Netherlands East Indies (274); Sumatra (275); West Timor (276); Iran (212); Iraq (213); Israel (214); Japan (215); Okinawa (282); Jordan (216); Arab Palestine (283); Korea (217); Seoul (286); Kazakhstan (218); Kyrgyzstan (219); South Korea (220); Republic of Korea (289); Rok (290); North Korea (221); Democratic People's Republic of Korea (292); Kuwait (222); Laos (223); Loas (296); Lebanon (224); Macau (225); Macao (298); Malaysia (226); Labuan (287); Sarawak (288); Maldives (227); Mongolia (228); Nepal (229); Oman (230); Pakistan (231); West Pakistan (285); Punjab (308); Punjab, Pakistan (309); Paracel Islands (232); Philippines (233); Manila (572); Republic of Philippines (573); Filipines (575); Qatar (234); Arabia (194); Saudi Arabia (235); Singapore (236); Spratley Islands (237); Sri Lanka (238); Ceylon (590); Syria (239); Latakia (593); Syrian Arab Republic (598); Taiwan (240); Formosa (601); Republic of China (603); ROC (604); Taiwan ROC (605); Tajikistan (241); Tadzhik (606); Thailand (242); Turkey (243); Turkmenistan (244); United Arab Emirates (245); Abu Dhabi (615); Dubai (617); Sharjah (621); Uzbekistan (246); Vietnam (247); Da-Lat (344); Da-Nang (345); Gia-Dinh (346); Ha-Dong (347); Hai-Phong (348); Hanoi (349); Khanh-Hung (350); Long-Xuyen (351); My-Tho (352); Nam-Dinh (353); Nha-Trang (354); North Vietnam (355); Phan-Theit (356); Quang-Long (357); Qui-Nhon (358); Rach-Gia (359); Cam-Pha (627); Cam-Ranh (630); Can-Tho (633); Saigon (634); South Vietnam (640); Thanh-Hoa (648); Tuy-Hoa (649); Vinh-Long (650); Vung-Tau (651); Yemen (248); Aden (671); South Yemen (672); Yar (674); Yemen Arab Republic (675); Asia Minor (062); Asia (249); Middle East (375); Palestine (376); Southeast Asia (377); West Bank (378); Gaza Strip (379); East Timor (350); Timor (380)	
Mexico (303); all Mexican states (399-401, 412, 468, 470, 474, 476, 477, 479-482, 485, 488, 494, 495, 498, 532-534, 537, 538, 540, 541, 545-548, 556, 561); British Honduras (082); Belize (310); Costa Rica (311); Salvador (168); San Salvador (169); El Salvador (312); Guatemala (313); Honduras (314); Nicaragua (315); Panama (316); Balboa (567); Canal Zone (568); Cristobal (569); Panama Canal Zone (570); Republic of Panama (571); Central America (317); Anguilla BWI (319); Anguilla (320); Barbuda (180); Antigua WI (318); Antigua and Barbuda (321); Antigua (694); Aruba Netherlands (059); Aruba DWI (192); Aruba (322); Bahamas UK (065); Grand Bahama (074); Bahamas (323); Barbados (324); Anegada (112); British Virgin Islands (325); British VI (463); Tortola (465); Cayman Islands (326); Grand Cayman (467); Cuba (327); Havana (469); Dominica (328); Dominica British West Indies (471); Dominica WI (472); Dominican Republic (329); Dom Rep (473); Republica Dominicana (475); Grenada (330); Guadeloupe (331); St Martin (478); Haiti (332); Jamaica (333); Martinique (334); Montserrat (335); Netherlands Antilles (336); Bonaire (483); Curacao (484); St Eustatius (486); St Maarten (487); St Barthelemy (337); St Barts (389); St Kitts-Nevis (338); Nevis (490); St Christopher (491); St Christopher-Nevis (492); St Kitts (493); St Lucia (339); St Vincent and the Grenadines (340); Grenadines (496); St Vincent (497); The Grenadines (499); Trinidad and Tobago (341); Tobago (500); Trinidad (607); Turks and Caicos Islands (342); Caicos Islands (503); Grand Turk (504); Turks Islands (609); West Indies (343); Antilles (654); British West Indies (659); British WI (661); BWI (663); Caribbean (667); Latin America (668); Leeward Islands (669); Windward Islands (670); Argentina (360); Bolivia (361); Brazil (362); Brasil (384); Easter Island (085); Chile (363); Colombia (364); San Andres (679); Tortoise Islands (099); Ecuador (365); Galapagos Islands (381);	Latin America (5)

Response for PEFNTVTY / PEMNTVTY	Coded value for FWROB/ MWROB
Falkland Islands (366); French Guiana (367); Guyana (368); British Guiana (529); British Guyana (530); Guiana (531); Paraguay (369); Peru (370); Suriname (371); Dutch Guiana (535); Surinam (536); Uruguay (372); Venezuela (373); Monagas (539); South America (374); Burma (565)	
Bermuda (300); Canada (301); all Canadian provinces (382-397); Greenland (302); St Pierre and Miquelon (304); North America (305); Algiers (542); Algeria (543); Benin (402); Botswana (403); British Indian Ocean Territory (404); Burkina Faso (405); Upper Volta (549); Burundi (406); Cameroon (407); Cape Verde (408); Central African Republic (409); Chad (410); Anojouan (097): Comoros (411); Great Comore (557); Djibouti (413); Jibuti (562); Egypt (414); Equatorial Guinea (415); Ethiopia (416); Eritrea (417); Europa Island (418); Gabon (419); Ghana (421); Glorioso Islands (422); Guinea (423); Guinea-Bissau (424); Ivory Coast (425); Cote D'Ivoire (574); Juan de Nova Island (426); Kenya (427); British East Africa (577); Lesotho (428); Liberia (429); Libya (430); Tripoli (582); Madagascar (431); Malagasy Republic (584); Malawi (432); Mali (433); Mauritania (434); Mayotte (435); Morocco (436); French Morocco (589); Tangier (591); Mozambique (437); Manica (592); Namibia (438); Niger (439); Nigeria (440); Reunion (441); Rwanda (442); Sao Tome and Principe (443); Principe Island (599); Sao Tome (600); Senegal (444); Dakar (602); Mauritius (445); Seychelles (446); Sierra Leone (447); Somalia (448); South Africa (449); Republic of South Africa (608); Transvaal (610); Union of South Africa (611); St Helena (450); Ascension Island (612); Sudan (451); Swaziland (452); Tanzania (453); Tanganyika (616); Zanzibar (618); Togo (454); Togoland (620); Tromelin Island (455); Tunisia (456); Tunis (622); Uganda (457); Western Sahara (458); Democratic Republic of Congo (459); Belgian Congo (626); Brazzaville (558); Congo (559); People's Republic of Congo (560); Kinshasa (628); Zaire (629); Zambia (460); Zimbabwe (461); Rhodesia (631); Southern Rhodesia (632); Africa (462); Central Africa (635); Eastern Africa (636); North Africa (637); Southern Africa (638); West Africa (639); Australia (501); all Australian territories (641-647); Christmas Island, Indian Ocean (502); Christmas Island (658); Cook Islands (505); Coral Sea Islands (506); Heard and McDonald Islands (507); Fiji (508); Koro Island (653); French Polynesia (509); Tahiti (655); Kiribati (510); Canton and Enderbury Islands (656); Canton Island (657); Marshall Islands (511); Kwajalein (660); Micronesia (512); Federated States of Micronesia (662); Ponape (664); Truk (665); Yap (666); Nauru (513); New Caledonia (514); New Zealand (515); Niue (516); Norfolk Island (517); Palau (518); Papua New Guinea (519); New Guinea (673); Pitcairn Islands (520); Solomon Islands (521); Tokelau (522); Union Islands (678); Tonga (523); Tuvalu (524); Vanuatu (525); New Hebrides (681); Wallis and Futuna Islands (526); Samoa (527); Western Samoa (685); Oceania (528); Antarctica (686); French Southern and Antarctic (687); Melanesia (688); Polynesia (690); Angola (544); at sea (554); high seas (692); international waters (693); abroad (555); foreign country (695); overseas (696)	Other Areas (6)

Appendix H: Parental Place of Birth Crosswalk for Broad Place of Birth Recode in the American Community Survey

The minimum amount of information about parental place of birth that is necessary to ascertain a person's generation status (aside from that person's citizenship status) is whether or not each of the parents was born in the United States, Puerto Rico, or a U.S. territory. Hence, a broad recode for both parental place of birth variables allowed for the assessment of the variables' ability to produce estimates of generational status if the original variables had proven to be unreliable at finer levels of detail. The parental place of birth variables were recoded into father's and mother's broad place of birth (FBPOB and MBPOB) with the following crosswalk:

Response for FPOB / MPOB	**Coded value for FBPOB / MBPOB**
Any of the 50 US states or the District of Columbia (001 – 056); United States unspecified (057); American Samoa (060); Guam (066); Johnston Atoll (067); Northern Marianas (069); Midway Islands (071); Puerto Rico (072); Navassa Island (076); US Virgin Islands (078); Wake Island (079); Baker Island (081); Howland Island (084); Jarvis Island (086); Kingman Reef (089); Palmyra Atoll (095); US outlying area (096)	Born in the United States (1)
All other non-missing responses (100 – 555)	Born outside the United States (2)

Appendix I: Parental Place of Birth Crosswalks for the Selected Place of Birth Recodes in the American Community Survey

One problem with analyzing PPOB data lies with the large number of potential response categories. In the ACS, the place of birth variable must be collapsed for data products because there are too few cases for a number of countries to yield reliable information at that level of detail. Due to the smaller sample size used in the Content Test, the data sparseness issue was of even greater concern with regards to the PPOB analysis. The world region recodes (FWROB and MWROB) and the broad place of birth recodes (FBPOB and MBPOB) addressed the issue well, but it came at the expense of a loss in geographic detail. Ideally, the single-country responses should be analyzed for each place of birth that has sufficient cell size to yield robust estimates – to this end, the selected country of birth recodes (FSPOB and MSPOB) were used.

To construct these recodes, the ten countries reported as the most frequent father's and, separately, mother's places of birth were identified using the March 2010 CPS Basic dataset. The father's ten places of birth each represented a separate category in FSPOB, and likewise for mother's ten places of birth and MSPOB. For each recode, the countries not identified among the ten places of birth were collapsed into a residual category; thus, FSPOB and MSPOB had 11 categories each. Note that first, the list of ten countries derived from father's place of birth (PEFNTVTY) did not have to match the list derived from mother's place of birth (PEMNTVTY), and second, the lists did not account for sampling variability and were not intended to represent true rank order.

Response for FPOB	**Coded value for FSPOB**
Canada (301)	Canada (1)
China (207), Hong Kong (209), Paracel Islands (232)	China (2)
Cuba (327)	Cuba (3)
Dominican Republic (329)	Dominican Republic (4)
El Salvador (312)	El Salvador (5)
India (210)	India (6)
Italy (120)	Italy (7)
Mexico (303)	Mexico (8)
Philippines (233)	Philippines (9)
Vietnam (247)	Vietnam (10)
All other places of birth not listed above (001-559)	Other places (11)

Response for MPOB	**Coded value for MSPOB**
Canada (301)	Canada (1)
China (207), Hong Kong (209), Paracel Islands (232)	China (2)
El Salvador (312)	El Salvador (3)
Germany (110)	Germany (4)
India (210)	India (5)
Italy (120)	Italy (6)
Mexico (303)	Mexico (7)
Philippines (233)	Philippines (8)
United Kingdom (138), England (139), Scotland (140), Wales (141), Northern Ireland (142), Guernsey (143), Jersey (144), Isle of Man (145)	United Kingdom (9)
Vietnam (247)	Vietnam (10)
All other places of birth not listed above (001-559)	Other places (11)

Appendix J: Ancestry Crosswalk for Regional Ancestry Recode in the American Community Survey

The first and second ancestry (ANC1 and ANC2) variables were recoded into first and second regional ancestry (RANC1 and RANC2) with the following crosswalk:

Response for ANC1 / ANC2	Coded value for RANC1 / RANC2
Angolan (500); Benin (502); Botswana (504); Burundian (506); Cameroon (508); Cape Verdean (510); Central African Republic (512); Chadian (513); Congolese (515); Congo Brazzaville (516); Djibouti (519); Equatorial Guinea (520); Corsico Islander (521); Ethiopian (522); Eritrean (523); Gabonese (525); Gambian (527); Ghanaian (529); Guinean (530); Guinea Bissau (531); Ivory Coast (532); Kenyan (534); Lesotho (538); Liberian (541); Madagascan (543); Malawian (545); Malian (546); Mauritanian (547); Mozambican (549); Namibian (550); Niger (551); Nigerian (553); Fulani (554); Hausa (555); Ibo (556); Tiv (557); Yoruba (558); Rwandan (561); Senegalese (564); Sierra Leonean (566); Somalian (568); Swaziland (569); South African (570); Union of South Africa (571); Afrikaner (572); Natalian (573); Zulu (574); Sudanese (576); Dinka (577); Nuer (578); Fur (579); Baggara (580); Tanzanian (582); Tanganyikan (583); Zanzibar Islander (584); Togo (586); Ugandan (588); Upper Voltan (589); Volta (590); Zairian (591); Zambian (592); Zimbabwean (593); African Islands (594); Mauritian (595); Central African (596); Eastern African (597); Western African (598); African (599); Algerian (400); Egyptian (402); Libyan (404); Moroccan (406); Ifni (407); Tunisian (408); North African (411); Alhucemas (412); Berber (413); Rio de Oro (414); Bahraini (415); Afro American (900); Afro (901); African American (902);	African (1)
Afghan (600); Baluchistan (601); Pathan (602); Bangladeshi (603); Bhutanese (607); Nepali (609); Asian Indian (615); Kashmir (616); Bengali (618); East Indian (620); Andaman Islander (622); Andhra Pradesh (624); Assamese (626); Goanese (628); Gujarati (630); Karnatakan (632); Keralan (634); Madhya Pradesh (636); Maharashtran (638); Madras (640); Mysore (642); Nagaland (644); Orissa (646); Pondicherry (648); Punjab (650); Rajasthan (652); Sikkim (654); Tamil Nadu (656); Uttar Pradesh (658); East Indies (675); Pakistani (680); Sri Lankan (690); Singhalese (691); Veddah (692); Maldivian (695); Burmese (700); Shan (702); Cambodian (703); Khmer (704); Chinese (706); Cantonese (707); Manchurian (708); Mandarin (709); Mongolian (712); Tibetan (714); Hong Kong (716); Macao (718); Filipino (720); Indonesian (730); Borneo (732); Java (734); Sumatra (736); Japanese (740); Issei (741); Nisei (742); Sansei (743); Yonsei (744); Gonsei (745); Ryukyu Islander (746); Okinawan (748); Korean (750); Laotian (765); Meo (766); Hmong (768); Malaysian (770); North Borneo (771); Singaporean (774); Thai (776); Black Thai (777); Western Lao (778); Taiwanese (782); Formosan (783); Vietnamese (785); Katu (786); Ma (787); Mnong (788); Montagnard (790); Indo Chinese (792); Eurasian (793); Amerasian (794); Asian (795); Iranian (416); Iraqi (417); Israeli (419); Jordanian (421); Transjordan (422); Kuwaiti (423); Lebanese (425); Saudi Arabian (427); Syrian (429); Armenian (431); Turkish (434); Yemeni (435); Omani (436); Muscat (437); Trucial States (438); Qatar (439); Bedouin (441); Kurdish (442); Kuria Muria Islander (444); Palestinian (465); Gaza Strip (466); West Bank (467); South Yemen (470); Aden (471); United Arab Emirates (480); Assyrian (483); Chaldean (484); Syriac (485); Mideast (490);	Asian (2)
Albanian (100); Azerbaijani (101); Belorussian (102); Bulgarian (103); Carpatho Rusyn (104); Carpathian (105); Rusyn (106); Ruthenian (107); Cossack (108); Croatian (109); Czech (111); Bohemian (112); Moravian (113); Czechoslovakian (114); Estonian (115); Livonian (116); Finno Ugrian (117); Mordovian (118); Voytak (119); Gruziia (120); German from Russia (122); Volga (123); Rom (124); Hungarian (125); Magyar (126); Kalmyk (127); Macedonian (130); Montenegrin (131); North	Eastern European (3)

Response for ANC1 / ANC2	Coded value for RANC1 / RANC2
Caucasian (132); North Caucasian Turkic (133); Ossetian (140); Polish (142); Kashubian (143); Romanian (144); Bessarabian (145); Moldavian (146); Wallachian (147); Russian (148); Muscovite (150); Serbian (152); Slovak (153); Slovene (154); Sorbian/Wend (155); Soviet Turkic (156); Bashkir (157); Chuvash (158); Gagauz (159); Mesknetian (160); Tuvinian (161); Yakut (163); Soviet Union (164); Tatar (165); Soviet Central Asia (167); Turkestani (168); Uzbeg (169); Georgia Cis (170); Ukrainian (171); Lemko (172); Bioko (173); Husel (174); Windish (175); Herzegovinian (177); Tajik (180); Eastern European (190); Bukovina (191); Silesian (193); Central European (181);	
British (011); British Isles (012); Channel Islander (013); Gibraltar (014); English (022); Scottish (088); Welsh (097); Danish (020); Finnish (024); Scotch Irish (087); Latvian (128); Lithuanian (129); Norwegian (082); Scandinavian (098); Irish Scotch (094); Northern European (183); Alsatian (001); Andorran (002); Tirol (004); Faroe Islander (023); Karelian (025); Breton (028); Frisian (029); Friulian (030); Ladin (031); Icelander (049); Irish (050); Lapp (075); Liechtensteiner (076); Luxemburger (077); Maltese (078); Manx (079); Monegasque (080); North Irish (081); Occitan (083); Swedish (089); Aland Islander (090); Romansch (095); Suisse Romane (096); Celtic (099)	Northern European (4)
Greek (046); Cretan (047); Cyclades (048); Italian (051); Trieste (052); Abruzzi (053); Apulian (054); Basilicata (055); Calabrian (056); Amalfin (057); Emilia Romagna (058); Rome (059); Ligurian (060); Lombardian (061); Marche (062); Molise (063); Neapolitan (064); Piedmontese (065); Puglia (066); Sardinian (067); Sicilian (068); Tuscany (069); Trentino (070); Umbrian (071); Valle Daost (072); Venetian (073); San Marino (074); Portuguese (084); Azores Islander (085); Madeira Islander (086); Spaniard (200); Andalusian (201); Asturian (202); Castillian (203); Yugoslavian (176); Southern European (185); Cypriot (017); Greek Cypriot (018); Turkish Cypriot (019); Spanish Basque (007); Catalonian (204); Balearic Islander (205); Gallego (206); Valencian (207); Spanish (291); Spanish American (295); Canary Islander (208); Galician (196);	Southern European (5)
Austrian (003); Dutch (021); French (026); Lorraine (027); German (032); Bavaria (033); Berlin (034); Hamburg (035); Hannover (036); Hessian (037); Lubecker (038); Pomeranian (039); Prussian (040); Saxon (041); Sudetenlander (042); Westphalian (043); East German (044); West German (045); Swiss (091); Suisse (092); Switzer (093); Western European (187); Basque (005); French Basque (006); Belgian (008); Flemish (009); Walloon (010); Cornish (015); Corsican (016);	Western European (6)
Bahamian (300); Barbadian (301); Belizean (302); Bermudan (303); Cayman Islander (304); Jamaican (308); Trinidadian Tobagonian (314); Trinidadian (315); Tobagonian (316); US Virgin Islander (317); St. Croix Islander (318); St. John Islander (319); St. Thomas Islander (320); British Virgin Islander (321); British West Indies (322); Turks and Caicos Islander (323); Anguilla Islander (324); Antigua and Barbuda (325); Montserrat Islander (326); Kitts/Nevis Islander (327); Dominica Islander (328); Grenadian (329); Vincent-Grenadine Islander (330); St. Lucia Islander (331); French West Indies (332); Guadeloupe Islander (333); Cayenne (334); West Indian (335); Haitian (336); Puerto Rican (261); Cuban (271); Dominican (275);	Caribbean (7)
Mexican (210); Mexican American (211); Mexican (212); Chicano (213); La Raza (214); Mexican American Indian (215); Mexican State (218); Mexican Indian (219); Costa Rican (221); Guatemalan (222); Honduran (223); Nicaraguan (224); Panamanian (225); Salvadoran (226); Central American (227); Canal Zone (229); Central American Indian (913); Californio (292); Tejano (293); Nuevo Mexicano (294);	Central American (8)
Argentinean (231); Bolivian (232); Chilean (233); Colombian (234); Ecuadorian (235); Paraguayan (236); Peruvian (237); Uruguayan (238); Venezuelan (239); Criollo (248); South American (249); Brazilian (360); South American Indian (914); Guyanese (370); San Andres (365); Providencia (375); Surinam (380);	South American (9)

Response for ANC1 / ANC2	Coded value for RANC1 / RANC2
American (939); United States (940); Alabama (942); Arizona (943); Arkansas (944); California (945); Colorado (946); Connecticut (947); District of Columbia (948); Delaware (949); Florida (950); Idaho (951); Illinois (952); Indiana (953); Iowa (954); Kansas (955); Kentucky (956); Louisiana (957); Maine (958); Maryland (959); Massachusetts (960); Michigan (961); Minnesota (962); Mississippi (963); Missouri (964); Montana (965); Nebraska (966); Nevada (967); New Hampshire (968); New Jersey (969); New Mexico (970); New York (971); North Carolina (972); North Dakota (973); Ohio (974); Oklahoma (976); Oregon (977); Pennsylvania (978); Rhode Island (979); South Carolina (980); South Dakota (981); Tennessee (982); Texas (983); Utah (984); Vermont (985); Virginia (986); Washington (987); West Virginia (988); Wisconsin (989); Wyoming (990); Georgia (991); Southerner (993); North American (994); Native American (917); Indian (918); Cherokee (919); American Indian (920); Canadian (931); Newfoundland (933); Nova Scotia (934); French Canadian (935); Aleut (921); Eskimo (922); Inuit (923); Anglo (925); Appalachian (927); Aryan (928); Greenlander (930); Creole (907);	North American (10)
Australian (800); Tasmanian (801); Australian Aborigine (802); New Zealander (803); Polynesian (808); Kapingamarangan (809); Maori (810); Hawaiian (811); Part Hawaiian (813); Samoan (814); Tongan (815); Tokelauan (816); Cook Islander (817); Tahitian (818); Niuean (819); Micronesian (820); Guamanian (821); Chamorro Islander (822); Saipanese (823); Palauan (824); Marshallese (825); Kosraean (826); Ponapean (827); Trukese (828); Yapese (829); Carolinian (830); Kiribatese (831); Nauruan (832); Tarawa Islander (833); Tinian Islander (834); Melanesian (840); Fijian (841); New Guinean (843); Papuan (844); Solomon Islander (845); New Caledonian (846); Vanuatuan (847); Pacific Islander (850); Pacific (860); Chamolinian (862)	Oceanian (11)
Arab (495); Arabic (496); Black (903); Negro (904); Nonwhite (905); Colored (906); Acadian (936); Cajun (937); Dutch West Indies (310); Aruba Islander (311); St. Maarten Islander (312); Pennsylvania German (929); Slavic (178); Slavonian (179); White (924); Mixture (995); Uncodable Entries (996); Other Responses (998); Not reported (999); Mulatto (908); Latin (251); Latino (252); Hispanic (290); Germanic (194); European (195); Latin American (250);	Other, non-regional (12)

Appendix K: Ancestry Crosswalk for Selected Ancestry Recode in the American Community Survey

As with the parental place of birth variables, the large number of potential responses to the ancestry variables presented a data sparseness issue that could have complicated the data analysis of individual ancestry groups. To counter this problem, recodes were built from first and second ancestry (ANC1 and ANC2) into selected first and second ancestry (SANC1 and SANC2) that focused on the most populous ancestry groups. First, ANC1 and ANC2 were recoded using a crosswalk (see below) that was based on the 15 largest ancestry groups from Census 2000 (Brittingham and de la Cruz, 2004). Next, of these 15 groups, the ten largest were used to create recodes for SANC1 and SANC2 (See Appendix C for a detailed explanation of the process underlying this recode method – the main difference was that the 2009 ACS data was the source for identifying the ten ancestry groups, rather than the March 2010 CPS Basic data). In the crosswalk below, the ancestry recode groups marked by asterisks were not among the ten most populous groups and therefore were coded into the residual category, "Other ancestry groups."

Response for ANC1 / ANC2	**Coded value for interim ancestry recodes**
Afro American (900); Afro (901); African American (902); Black (903); Negro (904); Nonwhite (905); Colored (906); Creole (907); Mulatto (908)	African American (1)
America (939); United States (940); Alabama (942); Arizona (943); Arkansas (944); California (945); Colorado (946); Connecticut (947); District of Columbia (948); Delaware (949); Florida (950); Idaho (951); Illinois (952); Indiana (953); Iowa (954); Kansas (955); Kentucky (956); Louisiana (957); Maine (958); Maryland (959); Massachusetts (960); Michigan (961); Minnesota (962); Mississippi (963); Missouri (964); Montana (965); Nebraska (966); Nevada (967); New Hampshire (968); New Jersey (969); New Mexico (970); New York (971); North Carolina (972); North Dakota (973); Ohio (974); Oklahoma (976); Oregon (977); Pennsylvania (978); Rhode Island (979); South Carolina (980); South Dakota (981); Tennessee (982); Texas (983); Utah (984); Vermont (985); Virginia (986); Washington (987); West Virginia (988); Wisconsin (989); Wyoming (990); Georgia (991); Southerner (993); North American (994)	American (2)
Native American (917); Indian (918); Cherokee (919); American Indian (920)	American Indian (3)
British (011); British Isles (012); Channel Islander (013); Gibralter (014); English (022)	English (4)
Corsican (016); French (026); Lorraine (027); Breton (028); Occitan (083)	French (5)
German (032); Bavaria (033); Berlin (034); Hamburg (035); Hannover (036); Hessian (037); Lubecker (038); Pomeranian (039); Prussian (040); Saxon (041); Sudetenlander (042); Westphalian (043); East German (044); West German (045)	German (6)
Irish (050); Manx (079); North Irish (081)	Irish (7)
Italian (051); Trieste (052); Abruzzi (053); Apulian (054); Basilicata (055); Calabrian (056); Amalfin (057); Emilia Romagna (058); Rome	Italian (8)

Response for ANC1 / ANC2	**Coded value for interim ancestry recodes**
(059); Ligurian (060); Lombardian (061); Marche (062); Molise (063); Neapolitan (064); Piedmontese (065); Puglia (066); Sardinian (067); Sicilian (068); Tuscany (069); Trentino (070); Umbrian (071); Valle Daost (072); Venetian (073); San Marino (074)	
Mexican (210); Mexican American (211); Mexicano (212); Chicano (213); La Raza (214); Mexican American Indian (215); Mexican State (218); Mexican Indian (219)	Mexican (9)
Polish (142); Kashubian (143)	Polish (10)
All other ancestry groups not listed above (001 – 999)	Other ancestry groups (11)
Scottish (088)	Scottish (*)
Dutch (021)	Dutch (*)
Norwegian (082)	Norwegian (*)
Scotch Irish (087); Irish Scotch (094)	Scotch-Irish (*)
Swedish (089)	Swedish (*)

Appendix L: Language Crosswalk for Selected Language Spoken at Home in the American Community Survey

As with the parental place of birth and ancestry questions, the large number of potential responses to the language spoken at home question presented a data sparseness issue that complicated the data analysis of individual language-spoken groups. To mitigate this issue, the language spoken at home (LAN) variable was recoded into selected language spoken at home (SLAN) representing the five largest language-spoken-at-home groups based on the 2009 ACS data. See Appendix I for a detailed explanation of the process underlying this recode method. The SLAN recode was constructed using the following crosswalk:

Response for LAN	Coded value for SLAN
Chinese (708)	Chinese (1)
French (620)	French (2)
Spanish (625)	Spanish (3)
Tagalog (742)	Tagalog (4)
Vietnamese (728)	Vietnamese (5)
All other non-English languages not listed above (001-999)	Other non-English languages (6)

Appendix M: Reliability Measures

In this report, Census Bureau analysts used data from both panels of the Content Test in conjunction with corresponding data from the Content Follow-up survey to produce three types of statistics that measure response reliability. For each variable examined, the universe for calculating reliability measures was restricted to households which participated in both surveys and also met the universe restrictions for the variable in question. Given that a variable has *i* response categories, the response behaviors of persons in the reliability universe for that variable can be organized into *i* different response matrices, one for each response category of the variable (Figure M-1).

Figure M-1. Content Test / Content Follow-up response matrix for the *i*th response category.

CFU response (reinterview)	**Content test response**		
	Yes	*No*	*Total*
Yes	a_i	bi	$a_i + b_i$
No	c_i	d_i	$c_i + d_i$
Total	$a_i + c_i$	$b_i + d_i$	$n_i = a_i + b_i + c_i + d_i$

For response category *i* in a given variable, if a person's response fell into category *i* for both the Content Test and the CFU, then that person was included among the cell marked a_i. However, if the person's response fell into category *i* for the CFU but not for the Content Test, then that person was included among those in b_i; vice versa, in c_i. Finally, if the person's response did not fall into category *i* for either survey, then that person was included among those in d_i. After the respondents had been distributed within the response matrices, then the following statistics could be constructed from the components of the matrices.

Gross Difference Rate (GDR): A measure of the gross rate of disagreement between the content test and reinterview. The GDR was calculated for each response category of a given variable. Displayed as a percentage, the GDR of the *i*th response category is defined as:

$$GDR_i = 100 * \frac{b_i + c_i}{n_i}.$$

Index of Inconsistency (IoI): An estimate of the magnitude of response variability for a given item. The IoI was calculated for each response category of a given variable. Displayed as a percentage, the IoI of the *i*th response category is approximately defined as:

$$IoI_i \approx 100 * \frac{b_i + c_i}{\frac{1}{n_i}[(a_i + c_i)(c_i + d_i) + (a_i + b_i)(b_i + d_i)]}.$$

L-fold Index of Inconsistency: A weighted average of all IoI estimates corresponding to the response categories of a given variable. The L-fold index is a measure of the overall magnitude of response variability for the entire variable. Displayed as a percentage, the L-fold index is defined as:

$$L = 100 * \frac{\sum n_i - \sum a_i}{\left(\sum n_i - \frac{\sum[(a_i + b_i)(a_i + c_i)]}{\sum n_i}\right)},$$

where the summations are done across all *i* response categories. It should be noted that, when there are only two response categories, the L-fold index is equivalent to the IoIs for either response category (which are also equal to each other); hence, L-fold calculations and the corresponding statistical tests were not performed for variables such as father's and mother's broad place of birth.

Additional information about the reliability measures used in this report can be found in the 1990 Census of Population and Housing Evaluation and Research Report entitled *Content Reinterview Survey: Accuracy of Data for Selected Population and Housing Characteristics as Measured by Reinterview* (Bureau of the Census, 1990).

Appendix N: Information Page

Test Design

Treatments	A single set of questions in two placements within the detailed person section. One will be after the place of birth/citizenship series and before the school enrollment question and the other will be after the ancestry question and before the language spoken question. (See page 4.)
Sample Size	35,000 households per treatment (70,000 total)
Sample Design	Similar to production ACS with an additional level of stratification into high and low mail response areas.
Modes	Mail, CATI, and CAPI, with a CATI content follow-up (CFU) of all households. *CATI and CAPI interviews will be recorded using Computer-Assisted Recorded Interviewing (CARI) technology.*
Time Frame	Same schedule as the production September panel: mailout in late August, CATI in October, CAPI in November. CFU goes from mid-September to mid-December.

Research Questions & Evaluation Measures

No.	Research Questions	Evaluation Measures
1	Are the response distributions of parental place of birth and generational status (i.e., first, second, and third or higher generation) comparable to existing data sources?	Compare the response distributions for the two placements to the distributions derived from the parental place of birth data in the Current Population Survey. *Formal statistical comparisons cannot be made between the Content Test data and other sources since the Content Test data will not have been edited or imputed, nor will there be adjustments for nonresponse or raking to known population totals.*
2	Which placement results in a lower missing data rate?	Compare the item missing data rates between the two placements.
3	Do the two placements have similar or different response distributions?	Compare the response distributions between the two placements.
4	Which placement results in more reliable estimates?	Using data from the Content Test and the Content Follow-up (CFU), compare the indices of inconsistency, and the L-fold index of inconsistency between the two placements.

No.	Research Questions	Evaluation Measures
5	Does changing the placement of the parental place of birth questions from before to directly after the ancestry question affect the item missing data rates, response distributions, or reliability for the ancestry question?	Compare the item missing data rates, response distributions, and reliability measures for ancestry between the two placements. Compare the percent of responses that report more than one ancestry between the two placements.
6	Does the placement of the parental place of birth questions directly before the school enrollment question affect the item missing data rate, response distribution, or reliability for the school enrollment question? **Only the first part of the school enrollment question set will be included in the Content Test.**	Compare the item missing data rates, response distributions, and reliability measures between the two placements.
7	Does the placement of the parental place of birth questions directly before the language spoken questions affect the item missing data rates, response distributions, or reliability for the language spoken questions?	Compare the item missing data rates, response distributions, and reliability measures between the two placements.
8	For each mode of data collection, do the two placements have differential item missing data rates, response distributions, or reliability of the data?	For each mode (mail, CATI, CAPI), compare the item missing data rates, response distributions, and reliability measures between the two placements. *Comparisons across modes of data collection cannot be made since measurable differences cannot be attributed strictly to the mode of data collection. Observed differences across modes may also be due to mode specific respondent characteristics and reinterview mode effects (CFU only).*
9	For each mail response stratum, do the two placements have differential item missing data rates, response distributions, or reliability of the data?	For each mail response stratum (high and low), compare the item missing data rates, response distributions and reliability measures between the two placements.
10	Does either placement elicit respondent or interviewer behaviors that may contribute to interviewer or respondent error?	Compare the behavior coding results derived from the CARI recordings between the two placements.

Selection Criteria (In order of priority)

Research Question	Criteria
1	The parental place of birth response distributions should be comparable to the distributions from CPS ASEC to be considered acceptable for the ACS.
2-4	The item missing data rates, response distributions, and reliability measures will be considered together when determining which placement performed better.
5-7	The response distributions, item missing data rates, and reliability measures for ancestry, school enrollment and language spoken will be considered together when determining which question placement performed better.

Supplemental Information

Research Question	Criteria
8-10	Not part of the selection criteria. These data are presented to give additional information regarding how the question placement performed.