COMPARISON OF ACS AND ASEC DATA ON HISPANIC ORIGIN: 2004

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INTRODUCTION

This report is one in a series that compares data from the American Community Survey (ACS) with data from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). This report focuses on comparisons of 2004 ACS and 2004 ASEC national-level distribution data on Hispanic origin by type.

METHODOLOGY

Table 1 compares the most commonly tabulated data on Hispanic origin from the ACS and the ASEC at the national level. Comparisons consist primarily of percentage-point differences between the two distributions. The table displays the ACS and the ASEC estimates, the margins of error from which 90-percent confidence intervals of the estimates can be derived, and the difference between the two estimates. In the case of frequency distributions, the difference is calculated as the percent difference between the two estimates. In the case of relative frequency distributions, the difference is calculated as the percentage-point difference between the two estimates. An asterisk (*) denotes statistically significant differences.

At the national level, the ACS and the ASEC variances were small, resulting in many statistically significant differences between the ACS and the ASEC distributions. This report generally does not consider statistically significant differences of 0.5 percentage points or less, with some exceptions based on the relative size of the category. For example, for population groups constituting a relatively large percentage of the

population (for example, non-Hispanics), a 0.5 percentage-point difference in the estimates might be considered small, while for population groups constituting a smaller percentage of the population (for example, Dominicans), a 0.5 percentage-point difference could be considered large. This decision is subjective, and users can apply their own standards to interpret the data presented in this report.

The remainder of this section examines differences in methodology between the two surveys.

Sample Frame

The ACS derives its sample frame from a national Master Address File (MAF) that the Census Bureau maintains. The MAF is continuously updated using the U.S. Postal Service Delivery Sequence File (DSF), ACS non-response follow up, updates from special census operations, and the Community Address Updating System (CAUS). The ASEC sample uses the Decennial Census to produce its sample frame and updates it using the Building Permit Survey and area samples of new construction in places not covered by building permit offices in order to account for new housing units.

The 2004 ACS surveyed a national sample of housing units, both occupied and vacant. Data were collected in a total of 1,240 counties out of the 3,141 counties in the United States. The sample was designed to provide estimates of housing and socio-economic characteristics for the nation, all states, most areas with a population of 250,000 or more, and selected areas of 65,000 or more.

The 2004 ASEC surveyed a national sample of households. Data were collected in 1,211 counties in the United States. The sample was designed primarily to produce estimates of the labor force characteristics of the civilian, noninstitutionalized population 16 years of age and older for the nation and all states.

One difference between the two survey universes is that the ASEC includes a small number of individuals living at addresses that were housing units in 2000 but have since been converted into noninstitutional group quarters (e.g. emergency and transitional shelters and group homes).[1,2]

Sample Size and Mode of Data Collection

The 2004 ACS interviewed a total of 534,383 households. Data were collected continuously throughout the entire calendar year using a combination of mail-out/mail-back questionnaires, Computer-Assisted Telephone Interviewing (CATI), and Computer-Assisted Personal Interviewing (CAPI). Each month a unique national sample of addresses received an ACS questionnaire. Individuals at addresses that did not respond were telephoned during the second month of collection if a phone number for the address was available, and personal visits were conducted during the third and the last month of data collection at a subsample of the remaining nonresponding units. The 2004 ACS achieved an overall survey response rate, calculated as the initially weighted estimate of

[1] Less than one-tenth of a percent of the sample were housing units that fit this description.
[2] For purposes of this report, we did not exclude group quarters from our analysis of ASEC data.

interviews divided by the initially weighted estimate of cases eligible to be interviewed, of 93.1 percent.[3]

The 2004 ASEC contained interviews from 77,149 households and 59 noninstitutional group quarters. The ASEC interviews were collected over a three-month period in February, March, and April 2004 as a supplement to the basic monthly CPS conducted during those months, with most of the ASEC data collected in March. All ASEC data are collected via Computer-Assisted Telephone and Personal Interviews (CATI/CAPI), with interviews conducted during one week each month. The response rate for the 2004 ASEC was 91.8 percent. Response rates among eligible households were about 92 percent in February and April 2004 and 91 percent in March 2004.

Despite the fact that both the ACS and the ASEC employ experienced, permanent interviewers for CATI and CAPI data collection, a difference in data collection procedures could account for some of the differences in response. Most respondents in the ACS for example, were enumerated by mail questionnaire (55% mail, 13% CATI, and 32% CAPI) while all the respondents in the ASEC were enumerated by CAPI and CATI. The corresponding percentages in ACS for Hispanics enumerated by mail, CATI, and CAPI were 30%, 16%, and 54%, respectively).[4]

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[3] As a result of a reduction in funding in 2004, ACS dropped the telephone and personal visit followup operations for the January 2004 panel, thus only allowing mail respondents to contribute to the overall response for that panel. Dropping the nonresponse followup operations for that single panel month reduced the annual response rate by about four percentage points. If we exclude the January panel from the calculation, the annual response rate rises to 97.3%.

[4] It is possible that respondents with a given characteristic chose to respond by mail in higher numbers even though they would have given the same answer by either mode.

Residence Rules

The ACS and the ASEC employ different residence rules to determine which individuals in a household are eligible for interview. The ACS uses the concept of current residence, while the ASEC uses a version of usual residence. This difference may contribute to variations in the universes for which social characteristics depend.

The ACS interviews everyone in the housing unit on the day of interview who is living or staying there for more than two months, regardless of whether or not they maintain a usual residence elsewhere, or who does not have a usual residence elsewhere. If a person who usually lives in the housing unit is away for more than two months at the time of the survey contact, he or she is not considered to be a current resident of that unit. This rule recognizes that people can have more than one place where they live or stay over the course of a year, and these people may affect estimates of the characteristics of the population for some areas.

The ASEC interviews everyone staying in the housing unit at the time of the interview who considers the housing unit their usual residence or who has no usual residence elsewhere. In addition, the ASEC also includes temporarily absent individuals who consider the housing unit their usual residence.

The different residence rules resulted in one notable difference in the universe of the two surveys. Because the 2004 ACS excluded group quarters from the sample frame and interviewed individuals at their current residence, college students living in dormitories

were not included in the ACS universe. In contrast, the ASEC interviewers are instructed to include as household members any college students who are temporarily absent from the household, including those who are currently residing in college dormitories. The result being that the ASEC sample universe should include more college students than the ACS sample universe.

Question Wording

Differences between the ACS and the ASEC in presentation and wording of the question on Hispanic origin may contribute to differences in estimates. The ACS uses two versions of the Hispanic-origin question, one designed for the mail questionnaire and one for CATI/CAPI administration (see below). The ASEC has only one version of the Hispanic-origin question used for both CATI and CAPI interviews. Paper questionnaires are not used in the ASEC.

The mail version of the ACS asks the Hispanic-origin item as follows:

> Is this person Spanish/Hispanic/Latino?
>
> Mark (X) the "No" box if not Spanish/Hispanic/Latino.
>
> No, not Spanish/Hispanic/Latino
> Yes, Mexican, Mexican Am., Chicano
> Yes, Puerto Rican
> Yes, Cuban
> Yes, other Spanish/Hispanic/Latino – Print group.

The CATI/CAPI version of the ACS asks the Hispanic-origin item as follows:

(Is (name)/ Are you) Spanish, Hispanic, or Latino? [1]

Yes
No

Is (he/she/ Are you) of Mexican origin, Puerto Rican, Cuban, or some other Spanish/Hispanic/Latino group? [2]

Mexican, Mexican American, Chicano
Puerto Rican
Cuban
Other Spanish/Hispanic/Latino

What is the other Spanish, Hispanic, or Latino group? [3]
(For example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard)

The ASEC asks the Hispanic-origin item as follows:

Are you/Is (name) Spanish, Hispanic, or Latino? [1]

Yes
No

Are you/Is (name) Mexican, Mexican-American, Chicano, Puerto Rican, Cuban, Cuban-American, or some other Spanish, Hispanic or Latino group? [2]

Mexican
Mexican-American
Chicano
Puerto Rican
Cuban
Cuban-American
Other Spanish, Hispanic, or Latino group

What is the name of his/her other Spanish, Hispanic, or Latino group? [3]
(Listed are 42 Hispanic and Non-Hispanic origin groups – see Appendix A.)

Specify “Other” Spanish, Hispanic, or Latino group_____.

ACS Mail or Paper Questionnaire

The Hispanic-origin question in the ACS paper questionnaire is presented as an item consisting of five check boxes and one write-in line. The write-in line is provided to capture other Hispanic origin groups not offered as check-box categories (such as Dominican, Columbian, Venezuelan, etc.). A maximum of two write-in entries are coded in the ACS. No printed examples of detailed Hispanic-origin groups are provided under the "Yes, other Spanish/Hispanic/Latino" category.

CATI /CAPI in the ACS and the ASEC

The CATI/CAPI version of the Hispanic-origin question in the ACS is similar to the ASEC version but with slight differences. Both surveys use three separate questions (see items above) with the last being an open-ended question. Both surveys also use a short "Yes" or "No" question followed by a second question (for those respondents who answered "yes" to the first question) soliciting more detailed Hispanic-origin group information. The ACS version of the second question has four categories for respondents to choose from, with the last category "Other Spanish/Hispanic/Latino." The ASEC version, on the other hand, has seven categories for respondents to choose from.

The ASEC includes an additional “Cuban-American” category that the ACS does not have. Also, the ASEC creates separate individual categories for “Mexican,” “Mexican-American,” and “Chicano,” while the ACS includes all three of these terms in one category with a reference to "Mexican origin." Most respondents to the ACS and the ASEC find a response category within the second question, but if they do not, they are

asked a third question, which is open-ended. A flashcard is shown with detailed examples only in the CAPI mode. Only one response to the third question is coded in the ASEC (a list of 42 Hispanic and non-Hispanic origin groups is available to the interviewer) while two responses may be coded in the ACS.

Both the ACS and the ASEC instruct the respondent to answer both the Hispanic-origin question and the race question, but the instructions are worded differently in each survey. In the ACS, the instruction is stated as follows: "NOTE: Please answer BOTH questions 5 and 6." Question 5 is the Hispanic-origin item and question 6 is the race item. In the ASEC, the instruction reads: "Please answer the questions both about being Spanish, Hispanic, or Latino and about Race." The purpose of this instruction is to prompt respondents (mainly Hispanics) to answer the race question. These differences in presentation and wording may account for differences in responses between the two surveys.

Sequencing of the Hispanic-Origin Question and the Race Question

There is no difference in the placement of the Hispanic-origin question between the ACS and the ASEC. Both surveys place the Hispanic-origin item immediately before the race question.

Data Editing and Imputation Procedures

The ACS and the ASEC edit and imputation rules are designed to ensure that the final edited data are as consistent and complete as possible. These rules are used to identify

and account for missing, incomplete, and contradictory responses. In each case where a problem is detected, pre-established edit rules govern its resolution.

The ACS and the ASEC employ two principal imputation methods: relational imputation and hot deck allocation. Relational imputation assigns values for blank or inconsistent responses on the basis of other characteristics on the person's record or within the household. Hot deck allocation supplies responses for missing or inconsistent data items from the responses of similar housing units or people who did respond to the survey.

Edit and Allocation Procedures in the ACS and the ASEC

The process for the ACS and the ASEC divides edit and imputation into two procedures: assignment and allocation.

Edit Procedures

Before missing Hispanic-origin values are assigned, imputed, or allocated, the unedited data are first edited and coded. Edits are designed to ensure that all appropriate questions have valid responses. The edit procedures for the Hispanic-origin question in the ACS consist of the following rules: 1) Convert check-box marks into three-digit codes (see the Hispanic code list in Appendix B); 2) Ensure that all write-in responses are valid and coded appropriately; and 3) Override the code for the "Other Spanish/Hispanic/Latino" check box with a specific write-in code for any origin that was provided. The main purpose of edits in the ASEC is to assign values where the response

was missing, “Don’t Know, ” or “Refused.” Similar edit procedures are done in the ASEC, as in the ACS.

Assignment

Multiple Response Edit

Unlike the race question, where more than one response is solicited, the Hispanic-origin question asks for a single response in both the ACS and the ASEC. However, some respondents report multiple origins. Multiple origin responses are collected in the ACS for research purposes, including in CATI/CAPI, where the respondent may choose as many categories as apply. Multiple responses to the question on Hispanic origin are coded as such, however, no detailed-group combinations are tabulated or coded. Respondents who report multiple detailed groups are given a unique three-digit code depending on the kind of multiple-origin combination reported. That is, if all the multiple responses are Hispanic-origin groups (e.g., Mexican and Cuban), the respondent is assigned a code of 291 (Multiple Hispanic). If all of the multiple responses are non-Hispanic-origin groups (e.g., French and German), the respondent is assigned a code of 190 (Multiple non-Hispanic). If the multiple responses are a mix of Hispanic and non-Hispanic terms (e.g., respondent marks both “No, not Hispanic” and “Yes, Cuban”) the responses are edited to obtain a single origin code.[5] The mix response edit consists of three basic steps: 1) assign Hispanic origin if there is a Hispanic origin response in the Race question, 2) if not, then directly assign Hispanic origin if the respondent has a

[5] The Census Bureau follows the Office of Management and Budget (OMB) 1997 revised standards for the collection of data on race and ethnicity. For further details on the Federal Register, please see www.whitehouse.gov/omb/fedreg/ombdir15.html.

Spanish surname and finally, 3) if the respondent does not have a Spanish surname then a single origin is obtained by random selection.

The ASEC does not collect multiple responses to the question on Hispanic-origin. If respondents report more than one origin, then the first origin is taken.

Hispanic Origin Assigned from the Race Edit

In both the ACS and the ASEC, Hispanic-origin responses in the “Other Race” category are used to assign a missing Hispanic-origin response. If a Hispanic-origin response is missing after the pre-editing procedures, it is assigned from the race question if a Hispanic-origin response is reported in the race question (usually obtained from the "Other Race" category). In the ACS, this procedure is part of a "joint edit" of the Hispanic-origin question and the race question whereby, if either one is missing, a value is assigned from the other question if a valid response is provided. The ASEC does not use the Hispanic-origin question to assign missing race data.

Longitudinal Edit

In the ASEC only, the respondent's previous month's response to the question on Hispanic origin (whether it was allocated or not) is used to assign the current month's Hispanic-origin data if they are missing.

Within-Household Imputation

The within-household imputation procedure is similar in both the ACS and the ASEC. If Hispanic-origin information is missing after the pre-editing procedures and an origin cannot be assigned from the race question, a Hispanic-origin value is imputed using a value from other household members in a particular hierarchical household donor sequence. This sequence is based on household relationship. Thus, if members of a particular household are missing origin data (donees), they are assigned the origin of the householder (donor). On the other hand, if the householder's origin data are missing, then origin would be assigned to the householder based on the origin of his or her spouse. In addition, household members can only "donate" an origin if the household member needing an origin (donee) is the same race as the donor.

Hot Deck Allocation

If Hispanic origin cannot be imputed from other members of the household, origin is allocated from a hot deck matrix. A hot deck is a geographically based data table (or "matrix") in which the values of reported responses (donor) are stored and updated on a flow basis and are used to assign missing values to people (donees) with similar characteristics. In both the ACS and the ASEC, hot decks are stratified by three basic characteristics: age, sex, and Hispanic origin. Race is used to stratify hot decks in the ACS but not in the ASEC.

In addition to the variables mentioned above, hot decks in both the ACS and the ASEC are aided by a surname list originally developed during Census 2000.[6] The ACS has three surname-assisted hot decks and the ASEC has two.

In general, people with a reported origin (either not Hispanic or Hispanic) and a Spanish surname donate their origin to the Spanish-surname-assisted hot deck. People with a reported origin (either not Hispanic or Hispanic) and a non-Spanish surname donate their origin to the non-Spanish-surname-assisted hot deck. All other people who report a Hispanic or non-Hispanic origin and whose surname is indeterminate or are missing their surname donate their origin to a non-surname-assisted hot deck.[7] If a person requiring an origin from the hot deck has a Spanish surname, he or she would receive an origin from the Spanish-surname-assisted hot deck. If a person requiring an origin from the hot deck has a non-Spanish surname, he or she would receive an origin from the non-Spanish-surname-assisted hot deck. All other people requiring an origin from the hot deck would receive an origin from the non-surname-assisted hot deck.

The surname-assisted hot deck procedure is similar in both the ACS and the ASEC, except that in the ASEC, the non-Spanish-surname-assisted hot deck and the non-

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[6] The ACS and ASEC use a static surname list of about 25,000 names, of which, 12,215 are considered "Heavily Spanish." This Spanish surname list was compiled using data (extract) from the 1990 Post Enumeration Survey (PES), which was used to estimate the undercount in the 1990 Census. The surname of householders was classified by ethnicity. A surname was determined to be "Spanish" if there were 10 or more occurrences of a particular surname and at least 75 percent of them self-reported Hispanic to the Hispanic-origin question. For more information please refer to working paper #13, "Building A Spanish Surname List for the 1990's –A New Approach to an Old Problem" by David L. Word and R. Colby Perkins Jr. at http://www.census.gov/population/documentation/twpno13.pdf.

[7] An indeterminate surname occurs when a surname is missing or when a surname cannot be determined as Spanish or non-Spanish.

surname-assisted hot deck are combined into one hot deck, thus yielding two surname-assisted hot decks instead of the three as in the ACS.

Imputation Flags and Item Nonresponse

During the edit and imputation process, an internal flag is assigned to the person record to indicate the source of the Hispanic-origin value. Both the ACS and the ASEC assign flags to any value that is assigned or allocated. These flags provide the basis for the calculation of assignment and allocation rates. Allocation rates measure the proportion of values that required hot deck allocation and are an important measure of data quality.

Item nonresponse occurs when an individual does not provide complete and usable information for a data item. Item allocation rates are often used as a measure of the level of item nonresponse. These rates are computed as the ratio of the number of eligible people or households for which a value was allocated during the editing process for a specific item to the number of people or households eligible to have responded to that item.

For the 2004 ACS, the allocation rate for the Hispanic-origin item was 1.6 percent, compared with 0.9 percent for the 2004 ASEC. [8]

[8] The "Edit and Allocation Procedures in the ACS and the ASEC" section above explains allocation procedures.

Controls and Weighting

There are notable differences in the selection of controls and the calculation of weights between the two surveys that may lead to differences in estimates. The ACS and the ASEC are both weighted to account for the probability of selection and housing-unit nonresponse.

After the initial weighting, data from the ACS and the ASEC are controlled to independent population estimates of sex, age, race, and Hispanic origin. The Estimates Program at the U.S. Census Bureau produces these independent estimates annually. Differences in the way the controls are applied in each survey may lead to differences in the estimate of the size of the total Hispanic population. For example, data from the 2004 ACS are controlled at the county level to independent estimates of the household population and the number of housing units as of July 1, 2004.[9] The 2004 ASEC, on the other hand, is controlled at the national and state levels to independent estimates of the civilian noninstitutionalized population as of March 2004.[10] In addition, the ACS presents the responses over a 12-month period, while the ASEC shows the Hispanic origin of people for the February-April time period, although the population is controlled to March estimates. Because the ACS controls to both the total population and the total number of housing units, the ACS files contain both person weights and housing-unit weights. The ASEC does not control to the total number of housing units and, thus, the

[9] ACS does not control to the county level for small counties. For small counties, the 2004 ACS grouped the counties into weighting areas with a minimum population of 250,000. Data is then controlled at the weighting area level.

[10] For more information regarding the application of population controls in the ACS and the ASEC, please refer to the following documents: U.S. Census Bureau, Design and Methodology, American Community Survey, Technical Paper 67, Washington, DC: U.S. Government Printing Office, 2006 and U.S. Department of Labor, Bureau of Labor Statistics, The Current Population Survey: Design and Methodology, Technical Paper 63RV, Washington, DC: U.S. Government Printing Office, 2002.

ASEC files do not contain an independent housing-unit weight but instead use the weight of the householder as the weight of the housing unit.

After the application of the controls, the ASEC data are raked (iterated at least 6 times) to ensure a total consistency between the ASEC estimate of the Hispanic population and the controlled Hispanic total. Thus, there is no margin of error associated with the Hispanic population estimate in the ASEC, but there is one for the ACS Hispanic estimate because the ACS does not use this raking procedure (Table 1). The differences noted in Table 1 in the total Hispanic populations and the Non-Hispanic populations between the ASEC and ACS are due primarily to the differences in the independent estimates used as controls. The report will thus focus primarily on the differences between the two surveys in the Hispanic origin population by type of Hispanic.

RESULTS

Table 1 presents data on "Hispanic Origin by Type." In the 2004 ACS, 40.5 million people (14.2 percent) reported as Hispanic or Latino, compared with 40.4 million (14.0 percent) in the 2004 ASEC. The difference between these two percentages is statistically significant but small (0.1 percentage points). Statistically significant differences are noted for the estimates of Mexican, Cuban, Central American, and Other Hispanic or Latino populations. Among the Hispanic population, smaller proportions reported Mexican, Cuban, and Central American in the ACS (64.0 percent, 3.6 percent, and 7.2 percent, respectively) than in the ASEC (65.9 percent, 4.0 percent, and 7.8 percent, respectively). Other Hispanic or Latino was reported by 7.6 percent of the Hispanic

population in the ACS and 5.0 percent in the ASEC, a difference of 2.6 percentage points. These differences may in part be due to differences in mode collection and in question wording. For example, in the ACS, the category "Other Hispanic or Latino" is more frequently reported through the mail questionnaire (54 percent) than either the CATI (13 percent) or CAPI (33 percent) modes of collection. Since 30 percent of all Hispanic responses are obtained through the mail in the ACS, compared with no mail questionnaire collection in the ASEC, this difference in mode likely contributes to the higher percentage of Other Hispanic or Latino responses in the ACS than in the ASEC. The ASEC offers three separate categories for “Mexican,” “Mexican-American,” and “Chicano,” while the ACS combines them into one category. The ASEC offers both a “Cuban” and a “Cuban-American” category, while the ACS offers only a “Cuban” category. For reasons such as these, the ACS and the ASEC differ in distributions related to types of Hispanic origin.

SUMMARY

Data from the American Community Survey (ACS) on Hispanic origin are consistent with those from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). The principal differences noted in this paper are the larger proportion of Mexicans, Cubans, and Central Americans in the ASEC and the larger proportion of people who reported Other Hispanic or Latino origins in the ACS. Some of these differences can be traced to the different collection and editing procedures.

Table 1. Hispanic Origin by Type: 2004

Characteristic	2004 ACS		2004 ASEC		
	Estimate	Margin of error[1]	Estimate	Margin of error[1]	Difference[2]
NUMBER (in thousands)					
Total	285,692	(X)	288,280	(X)	-0.9
Not Hispanic or Latino	245,232	24	247,856	(X)	-1.1 *
Hispanic or Latino:	40,459	24	40,425	(X)	0.1 *
Mexican	25,895	160	26,623	196	-2.7 *
Puerto Rican	3,874	91	3,842	124	0.9
Cuban	1,438	53	1,618	83	-11.1 *
Dominican	1,051	60	1,039	67	1.2
Central American	2,902	116	3,161	113	-8.2 *
South American	2,216	75	2,113	94	4.9
Other Hispanic or Latino	3,084	110	2,030	92	51.9 *
PERCENT OF TOTAL					
Total	100.0	(X)	100.0	(X)	(X)
Not Hispanic or Latino	85.8	0.0	86.0	0.1	-0.1 *
Hispanic or Latino	14.2	0.0	14.0	0.1	0.1 *
PERCENT OF HISPANIC					
Total Hispanic or Latino:	100.0	(X)	100.0	(X)	(X)
Mexican	64.0	0.4	65.9	0.5	-1.9 *
Puerto Rican	9.6	0.2	9.5	0.3	0.1
Cuban	3.6	0.1	4.0	0.2	-0.4 *
Dominican	2.6	0.1	2.6	0.2	0.0
Central American	7.2	0.3	7.8	0.3	-0.6 *
South American	5.5	0.2	5.2	0.2	0.2
Other Hispanic or Latino	7.6	0.3	5.0	0.2	2.6 *

(X) Not applicable.

* Statistically significant difference at the 90-percent confidence level.

[1.] This number added to and subtracted from the estimate yields the 90-percent confidence interval around the estimate.

[2.] For the numbers, the difference is the percent difference and is calculated as {(ACS-ASEC)/ASEC}x100. For the percentages, the difference is the percentage-point difference and is calculated as ACS-ASEC. All calculations and tests of significance are done on unrounded estimates and standard errors.

Source: 2004 ACS Table B03001; 2004 ASEC, special tabulation**.**

References

U.S. Census Bureau, Design and Methodology, American Community Survey, Technical Paper 67, Washington, DC: U.S. Government Printing Office, 2006.

U.S. Department of Labor, Bureau of Labor Statistics, The Current Population Survey: Design and Methodology, Technical Paper 63RV, Washington, DC: U.S. Government Printing Office, 2002.

Word, David L. and R. Colby Perkins Jr., "Building A Spanish Surname List for the 1990's –A New Approach to an Old Problem," Technical Working Paper #13, Washington, DC, 1996.

Appendix A

2004 ASEC Hispanic-origin Question 3

What is the name of his/her other Spanish, Hispanic, or Latino group?

(1) Argentinean
(2) Baleric Islands
(3) Basque
(4) Belize or British Honduras
(5) Bolivian
(6) Brazilian
(7) Canary Islands
(8) Castilian
(9) Catalan
(10) Central American
(11) Central American Indian
(12) Chilean
(13) Colombian
(14) Costa Rican
(15) Dominican
(16) Ecuadorian
(17) Filipino
(18) Guatemalan
(19) Guamanian or Chamorro and some other group
(20) Haitian
(21) Hispanic
(22) Honduran
(23) Latin American
(24) Latino
(25) Nicaraguan
(26) Panamanian or Belice
(27) Paraguayan
(28) Peruvian
(29) Portuguese
(30) Salvadoran
(31) Sephardic
(32) South American
(33) South American Indian
(34) Spanish
(35) Spanish American
(36) Spanish American Indian
(37) Spanish Basque
(38) Spaniard
(39) Uruguayan
(40) Venezuelan
(41) Both Spanish, Hispanic, or Latino
(42) Other

Appendix B

ACS Hispanic Code List

Code	Detailed Hispanic Origin
NOT SPANISH/HISPANIC	
100	Not Spanish/Hispanic (check box)
101	Not Spanish/Hispanic
110	Portuguese
111	Azorean
112	Brazilian
116	Belizean
117	British Honduran
118	Haitian
119	Dominica Island
120	Basque
121	Sephardic
130	White
135	Black (African American)
145	American Indian
146	Alaska Native
150	Other Asian
151	Asian Indian
152	Chinese
153	Filipino
154	Japanese
155	Korean
156	Vietnamese
160	Native Hawaiian
166	Other Pacific Islander
167	Guamanian or Chamorro
168	Samoan
190	Multiple Not Hispanic
SPANIARD	
200	Spaniard
201	Andalusian
202	Asturian
203	Castillian
204	Catalonian
205	Balearic Islander
206	Gallego
207	Valencian
208	Canarian
209	Spanish Basque

Code	Detailed Hispanic Origin
MEXICAN	
210	Mexican (check box)
211	Mexican
212	Mexican American
213	Mexicano
214	Chicano
215	La Raza
216	Mexican American Indian
218	Mexico
CENTRAL AMERICAN	
221	Costa Rican
222	Guatemalan
223	Honduran
224	Nicaraguan
225	Panamanian
226	Salvadoran
227	Central American
228	Central American Indian
229	Canal Zone
SOUTH AMERICAN	
231	Argentinean
232	Bolivian
233	Chilean
234	Colombian
235	Ecuadorian
236	Paraguayan
237	Peruvian
238	Uruguayan
239	Venezuelan
240	South American Indian
241	Criollo
242	South American

Code	Detailed Hispanic Origin
LATIN AMERICAN	
250	Latin American
251	Latin
252	Latino
PUERTO RICAN	
260	Puerto Rican (check box)
261	Puerto Rican
CUBAN	
270	Cuban (check box)
271	Cuban
DOMINICAN	
275	Dominican
OTHER SPANISH/HISPANIC	
280	Other Spanish/Hispanic (check box)
281	Hispanic
282	Spanish
283	Californio
284	Tejano
285	Nuevo Mexicano
286	Spanish American
287	Spanish American Indian
288	Meso American Indian
289	Mestizo
290	Caribbean
291	Multiple Hispanic Origin
299	Other Spanish/Hispanic, n.e.c.