# COMPARISON OF THE AMERICAN COMMUNITY SURVEY AND THE ANNUAL SOCIAL AND ECONOMIC SUPPLEMENT TO THE CURRENT POPULATION SURVEY DATA ON RACE: 2004

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## **INTRODUCTION**

This paper 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 paper focuses on comparisons of national distributions of race between the 2004 ACS and the 2004 ASEC. In this analysis, we look for differences that are both statistically and substantively different, and for those found, offer possible explanations.

#### METHODOLOGY

The tables included in this paper compare the most commonly tabulated data on race from the ACS and the ASEC at the national level. Comparisons consist primarily of percentage-point differences between the two distributions. Tables display the ACS and the ASEC estimates, the margin 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 relative frequency distributions, the difference is calculated as the percentage-point difference between the two estimates. An asterisk (\*) denotes statistical 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 paper focuses on statistically significant differences of 0.5 percentage points or more. This benchmark can vary based on the relative size of the category. For example, for population groups constituting a relatively large percentage of the population (for example, Whites), a 0.5 percentage-point difference in the estimates might be small, while for population groups constituting a smaller percentage of the population (for example, Native Hawaiians and Other Pacific Islanders), 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 paper. 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) maintained by the U.S. Census Bureau. The MAF is continuously updated using the U.S. Postal Service Delivery Sequence File, ACS nonresponse follow-up, updates from special census operations, and the Community Address Updating System. 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 socioeconomic 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 housing units and noninstitutional group quarters in 754 primary sampling units. Data were collected in 1,211 counties of the United States. The sample is designed primarily to produce estimates of socioeconomic characteristics, primarily labor force characteristics of the civilian noninstitutionalized population 16 years of age and older for the nation and all states. <sup>1</sup>

#### Sample Size and Mode of Data Collection

The 2004 ACS interviewed a total of 534,383 households. Data were collected continuously throughout the year using a combination of mailout/mailback 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 last month of data collection at a sub-sample of the remaining nonresponding units. The 2004 ACS achieved an overall survey response rate of 93.1 percent, calculated as the initially

<sup>&</sup>lt;sup>1</sup> For a detailed explanation of the ASEC sampling frame, see *Technical Paper 66, Design and Methodology* at the following Internet site: <u>http://www.census.gov/apsd/techdoc/cps/cps-main.html</u>

weighted estimate of interviews divided by the initially weighted estimate of cases eligible to be interviewed.<sup>2</sup>

The 2004 ASEC contained interviews from about 77,000 housing units 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 data collected in March. All ASEC data were collected via 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, differences 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 percent mail, 13 percent CATI, and 32 percent CAPI) while all of the respondents in the ASEC were enumerated by CAPI and CATI.<sup>3</sup>

 $<sup>^{2}</sup>$  As a result of a reduction in funding in 2004, ACS dropped the telephone and personal visit follow-up operations for the January 2004 panel, thus only allowing mail respondents to contribute to the overall response for that panel. Dropping the nonresponse follow-up 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 percent.

<sup>&</sup>lt;sup>3</sup> It is possible that respondents with certain characteristics 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 the concept of usual residence. This difference may contribute to variation in the universes on which social characteristics are described.

The ACS interviews everyone in the housing unit on the day of the 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 as their usual residence or who has no usual residence elsewhere. The ASEC also includes temporarily absent individuals who consider the housing unit to be their usual residence.

The different residence rules create one notable difference between the universes of these two surveys. Because the 2004 ACS excluded group quarters from the sample frame and interviewed individuals at their current residence, college students living in residence halls and dormitories were not included in the ACS universe. In contrast, the ASEC

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interviewers were instructed to include as household members any college student who was temporarily absent from the household, including those who were currently residing in college residence halls and dormitories. The resulting ASEC sample universe was expected to include more college-age students than the ACS sample universe, because the ASEC included those individuals who lived most of the year away from their parent's home in a college or university residence hall or dormitory.

#### **Question Wording and Reference Periods**

Differences in the presentation of the question on race existed between the 2004 ACS and the 2004 ASEC, and may contribute to differences in estimates. The presentation of the question on race varies by mode of data collection, as shown in Figures 1 through 4. The ACS used both paper and electronic data collection modes, while the ASEC only used electronic modes. As a result, the ACS used multiple approaches to collecting data on race: one designed for the mailout/mailback questionnaire, one for CATI that used extensive branching methods to collect detailed race information, and one for CAPI that less extensively used branching methods to collect detailed data on race. The ASEC CATI and CAPI instruments administered one version of the question on race that used branching methods to collect detailed race data.

On both the ACS and the ASEC questions on race, the respondent could select one or more of the following race groups defined by the Office of Management and Budget in 1997: White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian and Other Pacific Islander.<sup>4</sup> A category for Other Race was present on both the ACS and the ASEC questions on race, which was used to categorize responses that could not be classified as one of the 5 race groups mentioned above. However, a difference existed between the ACS and the ASEC, in that the option of selecting the category for Other Race was made known to ACS respondents on both paper and CATI/CAPI questionnaires, whereas the ASEC interviewers did not read this category to respondents. As a consequence, the race distributions in the ACS and the ASEC will differ significantly to the extent that respondents reported in the Other Race category. Collecting additional information on race also differed between the two surveys.

There were differences between the 2004 ACS and the 2004 ASEC in the collection of detailed data on American Indians and Alaska Natives, Asians, and Native Hawaiians and Other Pacific Islanders. The 2004 ACS solicited the reporting of one or more specific enrolled or principal tribes for those who identified as American Indian or Alaska Native, whereas the 2004 ASEC did not. Both the ACS and the ASEC utilized detailed Asian response categories (i.e., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and Other Asian), however, the option of selecting the category "Other Asian" was made known to ACS respondents on both paper and CATI/CAPI questionnaires, whereas the ASEC utilized detailed Pacific Islander response categories (i.e., Native Hawaiian, Guamanian or Chamorro, Samoan, and Other Pacific Islander), however, the option of selecting the categories (i.e., Native

<sup>&</sup>lt;sup>4</sup> U.S. federal government agencies must adhere to the 1997 Standards for the Classification of Federal Data on Race and Ethnicity, issued by the Office of Management and Budget. The standards are available at the following website: <u>http://www.whitehouse.gov/omb/fedreg/1997standards.html</u>.

respondents on both paper and CATI/CAPI questionnaires, whereas the ASEC interviewers did not read this category to respondents. Thus, due to the method of administering the question on race and the larger sample size, the ACS was able to produce some data on tribal affiliation, a wide range of detailed Asian groups, and a number of detailed Pacific Islander groups.

Figure 1. 2004 ACS Question on Race - Paper Questionnaire



Figure 2. 2004 ACS Question on Race - CATI

I am going to read a list of race categories. Please choose one or more of the following categories to indicate what race or races (<Name> considers himself/<Name> considers herself/you consider yourself) to be. (Is <Name>/Are you)...
Read all answer categories. Enter all that apply, separate with commas.
11. White
12. Black or African American
13. American Indian or Alaska Native

- 🗖 14. Asian
- 🗇 15. Native Hawaiian
- □ 16. Other Pacific Islander
- 17. Some Other Race

7. Other Asian

□ 1. Guamanian or Chamorro

(does <Name>/do you) belong?}

{What is the name of (<Name>'s/your) race?}

(For example: Fijian, Palauan, Tahitian, Tongan)

□ 3. Other Pacific Islander

□ 2. Samoan

What is the name of (<Name>'s/your>) enrolled or principal tribe?

To what other Asian group (does <Name>/do you) belong?

(For example: Cambodian, Hmong, Indonesian, Pakistani, Laotian, Thai.)

{To what other Pacific Islander group (does <Name>/do you) belong?}

Read all answer categories. Enter all that apply, separate with commas.

{What is the name of (<Name>'s/your) race and to what other Pacific Islander group

To what Pacific Islander group (does <Name>/do you) belong?

To what Asian group (does <name>/do you) belong?</name>						
• Read all answer categories. Enter all that apply, separate with commas.						
□ 1. Asian Indian						
□ 2. Chinese □ 3. Filipino						
🗆 4. Japanese						
🗇 5. Korean						
□ 6. Vietnamese						

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# []] В

Using this list, please choose one or more races that (<Name> considers himself/<Name> considers herself/you consider yourself) to be.

Enter all that apply, separate with commas.

□ 11.	White	□ 19.	Vietnamese
🗆 12.	Black or African American	□ 20.	Other Asian (For example:
🗖 13.	American Indian or Alaska Native		Cambodian, Hmong, Thai, Indonesian)
🗆 14.	Asian Indian	□ 21.	Native Hawaiian
🗆 15.	Chinese	□ 22.	Guamanian or Chamorro
□ 16.	Filipino	□ 23.	Samoan
017.	Japanese	□ 24.	Other Pacific Islander
🗖 18.	Korean		(For example: Tahitian, Fijian)
		🗆 25.	Some Other Race

What is the name of (<Name>'s/your>) enrolled or principal tribe?

To what other Asian group (does <Name>/do you) belong?

(For example: Cambodian, Hmong, Indonesian, Pakistani, Laotian, Thai.)

{To what other Pacific Islander group (does <Name>/do you) belong?}

{What is the name of (<Name>'s/your) race?}

{What is the name of (<Name>'s/your) race and to what other Pacific Islander group (does <Name>/do you) belong?}

(For example: Fijian, Palauan, Tahitian, Tongan)

Figure 4. 2004 CPS Question on Race -- CAPI and CATI <sup>5</sup>

Please choose one or more races that (NAME/you) (considers yourself/consider NAME/considers himself/considers herself) to be: White; Black or African American; American Indian or Alaska Native; Asian; OR Native Hawaiian or Other Pacific Islander.

Do not probe unless response is Hispanic or a Hispanic origin Enter all that apply, separate with commas

- <1> White
- <2> Black or African American
- <3> American Indian or Alaska Native
- <4> Asian
- <5> Native Hawaiian or Other Pacific Islander
- <6> Other DO NOT READ

Which of the following Asian groups (are/is) (you/he/she)?

Read each item Enter all that apply, separate with commas

- <1> Asian Indian
- <2> Chinese
- <3> Filipino
- <4> Japanese
- <5> Korean
- <6> Vietnamese
- <7> Other Asian DO NOT READ

Which of the following Native Hawaiian or Other Pacific Islander groups (are/is) (you/he/she)?

Read each item Enter all that apply, separate with commas

- <1> Native Hawaiian
- <2> Guamanian or Chamorro
- <3> Samoan
- <4> Other Pacific Islander DO NOT READ

Read only if necessary: What is (your/his/her) race?

<sup>&</sup>lt;sup>5</sup> The 2004 ASEC question on race for CATI and CAPI were virtually identical. The only difference is that the CAPI instrument begins with the sentence "I am going to read you a list of 5 race categories."

Further, both the ACS and the ASEC instruct the respondent to answer both the question on race and the question on Hispanic origin, which precedes the question on race. In the 2004 ACS, the instruction to respondents was "Please answer BOTH questions 5 (Hispanic origin) and 6 (race)," while the 2004 ASEC instructed respondents to "Please answer the questions both about being Spanish, Hispanic, or Latino and about race." These instructions were utilized in the ACS and the ASEC to prompt respondents (mainly those of Hispanic origin), who may feel that the two questions ask for the same information, to answer both questions.

Additionally, the 2004 ACS and the 2004 ASEC data on race had different reference periods. After data collection and during weighting, the ACS data were controlled to independent population estimates produced by the Population Estimates Program (PEP) of the U.S. Census Bureau, which used a reference date of July 1. The ASEC data were also controlled to PEP estimates, but used a reference date of March 1. The ASEC data were controlled to PEP estimates as of March 1 because the ASEC data were collected primarily in March, with some cases collected in February and April.

#### **Item Nonresponse**

Item nonresponse occurs when an individual does not provide complete and/or 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

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specific item to the number of people or households eligible to have responded to the item.

For the 2004 ACS, the allocation rate for the race item was 1.8 percent, compared with 5.1 percent for the 2004 ASEC.

#### **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 and imputation rules govern its resolution.

In addition to editing procedures, 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 responses of similar housing units or people who did respond to the survey. The ACS makes extensive use of relational imputation, while the ASEC does so minimally. Both the 2004 ACS and the 2004 ASEC utilized a hot deck allocation methodology.

#### Edit Procedures

Before missing data for race are imputed or allocated, the unedited data are first coded and edited. Edits are designed to ensure that all survey items relevant to each respondent

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have valid responses. The major purpose of the race edit in the ASEC is to assign a value where the response was missing, 'Don't Know,' or 'Refused.' Further, if a response to the race question could not be categorized into one or more of the 5 race groups defined by the Office of Management and Budget in 1997, the response was blanked and imputed or allocated. Therefore, any response to the ASEC question on race that was categorized as Other Race (e.g., Hispanic, Cape Verdean, Mestizo, etc.) was deleted and race was imputed from someone else in the household or allocated from a hot deck. This edit procedure was not used in the ACS, which may be directly related to differences in the race distribution between the two surveys. The edit procedure for the question on race in the 2004 ACS consisted of the following basic activities:

- 1. Convert check box marks or responses into three-digit codes;
- 2. Ensure that all write-in entries and responses to open-ended items are valid and coded appropriately; and
- Remove the generic check box entry(s) for the "American Indian or Alaska Native," "Other Asian," "Other Pacific Islander," and the "Some Other Race" check box categories when more detailed write-in entry(ies) are provided.

#### **Relational Imputation Procedures**

Relational imputation procedures, although different, were used in both the 2004 ACS and the 2004 ASEC. For the 2004 ACS, if an individual was missing a value(s) for race, but did provide a response to the Hispanic origin question that could be classified as a race, that response was imputed as the race value(s). For example, a respondent may have failed to provide a response to the question on race, but did provide a response of "White Dominican" in the "Other Hispanic" write-in area of the Hispanic origin question. The entry of "White" would be used to impute a value(s) for race. The 2004 ASEC did not use information from the Hispanic origin question to impute a value for race when it was missing. In the ASEC, if a household was previously in sample and race was reported for an individual during the prior interview, that race(s) was imputed longitudinally for the current interview if the race value was missing.

Additionally, when a missing race value could not be imputed by the means mentioned above, both the ACS and the ASEC attempted to impute race based upon the race of other household members in a particular hierarchical donor sequence. This sequence is based on household relationship. For example, if the householder's race was missing, a first attempt was made to impute race to the householder based on the race of the householder's parent. If race could not be obtained from the householder's parent, an attempt was made to impute race from the householder's sibling, and so on. In addition, for the ACS, household members could only "donate" a race if the household member needing a race (donee) was of the same Hispanic origin as the donor.

#### Hot Deck Allocation

For both the 2004 ACS and the 2004 ASEC, if race could not be imputed from other members of the household, race was allocated from a hot deck matrix. A hot deck is a data table (or matrix) in which the values of reported responses (donor) are stored and updated on a flow basis and are used to allocate missing values to people (donees) with similar characteristics.

The 2004 ACS used hot decks more extensively than the 2004 ASEC to allocate a missing race value. The 2004 ASEC allocated race values from one hot deck (stratified by Hispanic origin, sex, and age) on a rotational basis. For the 2004 ACS, multiple hot decks existed to allocate a missing race. When a householder needed both race and Hispanic origin allocated, surname-assisted hot decks stratified by age were used.<sup>6</sup> When only race needed to be allocated, a specific hot deck stratified by Hispanic origin and age was used. The hot decks were stratified in this manner and segmented by surname in order to improve the allocation of race from a pool of donors who had selected characteristics in common with the person whose race was missing.

#### **Controls and Weighting**

There are notable differences in the application of population controls and the calculation of weights between the two surveys that may lead to differences in estimates. The 2004 ACS and the 2004 ASEC were both weighted to account for the probability of selection and housing unit nonresponse.

After the initial weighting, data from the ACS and the ASEC were both controlled to be consistent with independent PEP population estimates. PEP annually produces these independent estimates of the population by sex, age, race, and Hispanic origin. Differences in the way the data from each survey were controlled to the PEP population

<sup>&</sup>lt;sup>6</sup> The 2004 ACS used 3 surname-assisted hot decks to allocate both race and Hispanic origin to householders missing these values. The first hot deck was updated by Hispanic householders with Spanish surnames and the donees were restricted to householders with Spanish surnames. The second hot deck was updated by non-Hispanic householders with non-Spanish surnames and the donees were restricted to householders with hot deck was updated by all householders and the donees were restricted to householders with no/indeterminate surname. For more information on the use of surname-assisted hot decks in the 2004 ACS, see the paper *Comparison of ACS and ASEC data on Hispanic Origin: 2004* available at http://www.census.gov/acs/www/AdvMeth/Papers/Papers1.htm.

estimates may lead to differences in the estimates of the size of race groups. For example, in the 2004 ACS, race and Hispanic origin data were combined to create six unique race-ethnic weighting groups that were controlled to corresponding PEP population estimates. Those weighting groups were non-Hispanic White, non-Hispanic Black, non-Hispanic American Indian and Alaska Native, non-Hispanic Asian, non-Hispanic Native Hawaiian and Other Pacific Islander, and Hispanic. For the 2004 ACS, an algorithm was used to assign those who reported being more than one race, or as Some Other Race alone, to one of the six unique race-ethnic weighting groups in order to control ACS estimates to the PEP population estimates. This algorithm was used for weighting purposes only, not for data product tabulation purposes. The 2004 ACS data products included uncontrolled estimates of the household population who reported being more than one race, as well as being Some Other Race alone. Due to the treatment of multiple race and the use of the six race-ethnic weighting groups in the application of population controls, the 2004 ACS estimates of race alone groups will be close, but not exactly equal, to the PEP household population estimates. Further, the 2004 ACS data were controlled to PEP household population estimates at the county level as of July 1, 2004.7

In contrast, the 2004 ASEC controlled race and Hispanic origin data separately to PEP population estimates. Three race weighting groups (White alone, Black alone, and Residual race) and two Hispanic weighting groups (Hispanic and non-Hispanic) were used. A raking procedure (iterative process) was used to adjust the ASEC weights until

<sup>&</sup>lt;sup>7</sup> The 2004 ACS did 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 are then controlled at the weighting area level.

the ASEC sample data estimates converged to the PEP population controls. Thus, for the 2004 ASEC, national-level estimates for the White alone and the Black alone populations will be equal to the PEP population controls, however, estimates for other race groups will be uncontrolled.<sup>8</sup> Further, the 2004 ASEC data were controlled to PEP national estimates of the civilian noninstitutionalized population as of March 1,2004.<sup>9</sup> The final estimates from the 2004 ASEC also include the armed forces population living off post or with their families on post.

Additionally, the 2004 ACS presents the average of race responses over a 12-month period, while the 2004 ASEC data on race represents the February-April time period, although the population is controlled to PEP March estimates.

#### RESULTS

# **Overall Race Distribution**

The population that reported only one race category is referred to as the race alone or single race population. Six major race categories are reflected – White alone, Black or African American alone, American Indian and Alaska Native alone, Asian alone, Native Hawaiian and Other Pacific Islander alone, and Some Other Race alone (ACS only). People choosing more than one of these six race categories are referred to as the Two or More Races population. The combination of the six single race categories and the Two

<sup>&</sup>lt;sup>8</sup> Recall from the previous section on edit procedures that the 2004 ASEC blanks and imputes or allocates a race for any response to the race question that cannot be categorized into one or more of the 5 race groups defined by the Office of Management and Budget in 1997.

<sup>&</sup>lt;sup>9</sup> For more information regarding the application of PEP controls to the ACS and the ASEC data, see the following documents: *Technical Paper 66, Design and Methodology* at

http://www.census.gov/apsd/techdoc/cps/cps-main.html and Design and Methodology, American Community Survey, Technical Paper 67 at http://www.census.gov/acs/www/SBasics/.

or More races category represent seven mutually exclusive and exhaustive categories. Respondents who reported only one race together with those who reported that same race plus one or more other races are combined to create the race alone or in combination categories. For example, the White alone or in combination group consists of those respondents who reported White alone plus those who reported White combined with one or more other race groups, such as "White *and* Black or African American," or "White *and* Asian *and* American Indian and Alaska Native." There are six race alone or in combination categories, which represent tallies of *responses* rather than *respondents*. That is, the race alone or in combination categories are not mutually exclusive. The race distribution presented in Table 1 is based on both of these approaches.

The major findings from the 2004 ACS also hold for the 2004 ASEC – about 98 percent of all individuals reported only one race and the largest group was White.<sup>10</sup> About 12 percent were Black or African American alone, 4 percent were Asian alone, and less than 1 percent were American Indian and Alaska Native alone or Native Hawaiian and Other Pacific Islander alone. There are however, noteworthy differences in the distributions for the single race categories observed in the ACS compared with the ASEC. Table 1 shows that the area of largest difference is in the percent of people in the Some Other Race alone category (5 percent in ACS, the tabulation category is absent in the ASEC). Due to the absence of the Some Other Race tabulation category in the ASEC, one observes a significant increase in the proportion of people in the White tabulation category in the ASEC; about a 5 percentage-point difference.

<sup>&</sup>lt;sup>10</sup> The difference between these two percentages (those reporting one race) is statistically significant but small (0.1 percentage points).

There are large, statistically significant differences between the survey estimates for the American Indian and Alaska Native alone or in combination population. This is likely a reflection of the extremely small number of American Indians and Alaska Natives included in the survey sample, particularly in the ASEC sample. The small sample size is likely also impacting the large, statistically significant differences between the survey estimates for both the Native Hawaiian and Other Pacific Islander alone and the alone or in combination populations. However, the percentage-point differences between the proportions of these groups across the two surveys are small, yet statistically significant. This pattern is observed in Tables 1, 2, and 3.

#### **Race Distribution for Non-Hispanics**

The race distribution for non-Hispanics is presented in Table 2. By far, about 79 percent of non-Hispanics were categorized as White alone. In both the 2004 ACS and the 2004 ASEC about 21 percent of all non-Hispanics were categorized as a single race of Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, or Some Other Race (ACS only). While there are several statistically significant differences in the proportions of some race alone groups across the two surveys, all of the percentage-point differences were less than 0.5.

#### **Race Distribution for Hispanics**

Table 3 shows that nearly 93 percent of Hispanics were categorized as White alone in the 2004 ASEC in contrast to 59 percent in the 2004 ACS. Further, in the 2004 ASEC, the proportions of Hispanics categorized as Black alone and as American Indian or Alaska Native alone were about double the proportions in the 2004 ACS. Additionally, 35

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percent of Hispanics were categorized as Some Other Race in the ACS. This is significant because it is known that a large proportion of the Hispanic population does not identify with the race categories defined by the OMB in 1997.<sup>11</sup> Thus, when the Some Other Race option was presented to Hispanic ACS respondents, many reported groups that were categorized as Some Other Race (e.g., Mexican, Hispanic, Dominican, etc.). As described earlier, in the ASEC, respondents were not presented with an Other Race option. If ASEC Hispanic respondents did report groups that were categorized as Other Race, the response was later blanked and imputed or allocated to other race categories, which may be directly related to the large, statistically significant differences found in the race alone distribution of Hispanics across the two surveys.

Table 3 shows that most of the 2004 ACS race distribution for the Hispanic population differed from the 2004 ASEC. However, the major conclusions drawn from the ACS on race of Hispanics are also true in the ASEC. Nine-out-of-ten Hispanics in the ACS were categorized as White alone or Some Other Race alone. A greater contribution to that 90 percent came from White alone than from Some Other Race alone. Less than 4 percent of Hispanics reported as Black or African American, American Indian and Alaska Native, Asian, or Native Hawaiian and Other Pacific Islander in the ACS<sup>12</sup>

#### SUMMARY

Data from the 2004 ACS on the overall race distribution are, for the most part, comparable with those from the 2004 ASEC, with one major exception. The principal

<sup>&</sup>lt;sup>11</sup> See E. Grieco and R. Cassidy (2001) *Overview of Race and Hispanic Origin: 2000* at the following website: http://www.census.gov/population/www/cen2000/briefs/index.html

<sup>&</sup>lt;sup>12</sup> The percentages of Hispanics who reported themselves as Asian in the 2004 ACS and the 2004 ASEC are not statistically significantly different.

differences noted focus on the Some Other Race tabulation category, which is included in the ACS but excluded from the ASEC. This resulted in over 90 percent of Hispanics selecting, or being categorized in, the White alone category in the ASEC for the race question, whereas over 35 percent of Hispanics selected, or were categorized in, the Some Other Race alone category in the ACS. It is suggested that some of the differences can be traced to the different collection and editing procedures used to identify the race responses made by the respondents. In addition, the different weighting procedures used in the two surveys to estimate the race populations must be considered in any analysis of the race data.

# Table 1. Overall Distribution of Major Race Groups Alone and Alone or In Combination: 2004 ACS and 2004 ASEC (Numbers in thousands.)

	2004 ACS		2004 ASEC		
United States	Estimate	Margin of Error <sup>1</sup>	Estimate	Margin of Error <sup>1</sup>	Difference <sup>2</sup>
Total Number	285,692	(X)	288,281	(X)	-0.9
One Race	280,286	129	283,193	282	-1.0 *
White	216,036	228	232,254	(X)	-7.0*
Black or African American	34,772	94	36,121	(X)	-3.7 *
American Indian and Alaska Native	2,151	48	2,253	144	-4.5
Asian	12,097	52	11,869	221	1.9*
Native Hawaiian and Other Pacific Islander	404	23	696	83	-42.0*
Some Other Race	14,825	212	(X)	(X)	(X)
Two or More Races	5,406	129	5,088	198	6.2*
Race alone or in combination with one or more other races					
White	220,708	216	236,875	181	-6.8 *
Black or African American	36,597	69	37,651	124	-2.8 *
American Indian and Alaska Native	4,006	66	5,089	198	-21.3 *
Asian	13,466	50	12,905	215	4.4 *
Native Hawaiian and Other Pacific Islander	743	33	1,150	106	-35.4 *
Some Other Race	15,984	222	(X)	(X)	(X)
Total Percent	100.0	(X)	100.0	(X)	(X)
One Race	98.1	0.05	98.2	0.07	-0.1 *
White	75.6	0.08	80.6	(X)	-4.9*
Black or African American	12.2	0.03	12.5	(X)	-0.4 *
American Indian and Alaska Native	0.8	0.02	0.8	0.05	0.0
Asian	4.2	0.02	4.1	0.12	0.1
Native Hawaiian and Other Pacific	0.1	0.01	0.2	0.03	-0.1 *
Some Other Race	5.2	0.07	(X)	(X)	-0.1 (X)
Two or More Races	1.9	0.05	1.8	0.08	0.1 *
Race alone or in combination with one or more other races					
White	77.3	0.08	82.2	0.06	-4.9*
Black or African American	12.8	0.02	13.1	0.04	-0.3 *
American Indian and Alaska Native	1.4	0.02	1.8	0.08	-0.4 *
Asian Native Hawaiian and Other Pacific	4.7	0.02	4.5	0.12	0.2*
Islander Some Other Pace	0.3 5 c	0.01	0.4 (V)	0.04	-0.1 *
Some Other Kace	5.6	0.08	(X)	(X)	(A)

(X) = Not Applicable.

An asterisk (\*) denotes statistical significance at the 90-percent confidence level.

<sup>1</sup>This number added to and subtracted from the estimate yields the 90-percent confidence interval around the estimate.

<sup>2</sup>For the number, the percent difference is calculated as (ACS-ASEC)/(ASEC)\*100. For the percent, the percentage-point difference is calculated

as ACS-ASEC. All calculations and tests are completed on unrounded estimates and standard errors.

Source: U.S. Census Bureau, 2004 Annual Social and Economic Supplement (ASEC) to the Current Population Survey unpublished data, and the 2004 American Community Survey (ACS), Tables B02003, B02008, B02009, B02010, B02011, B02012, and B02013.

Table 2. Distribution of Major Race Groups for the Non-Hispanic Population: 2004 ACS and 2004 ASEC (Numbers in thousands.)

	2004 ACS		2004 ASEC		
United States	Estimate	Margin of Error <sup>1</sup>	Estimate	Margin of Error <sup>1</sup>	Difference <sup>2</sup>
Total Number Not Hispanic or Latino	245,232	24	247,856	(X)	-1.1 *
White alone	192,363	39	194,877	690	-1.3 *
Black or African American alone American Indian and Alaska	34,143	91	34,919	369	-2.2*
Native alone	1,853	39	1,591	123	16.5 *
Asian alone	11,955	51	11,719	222	2.0
Native Hawaiian and Other Pacific Islander alone	365	20	624	79	-41.6*
Some Other Race alone	601	41	(X)	(X)	(X)
Two or More Races	3,953	103	4,127	184	-4.2*
Total Percent					
Not Hispanic or Latino	100.0	(X)	100.0	(X)	(X)
White alone	78.4	0.01	78.6	0.22	-0.2
Black or African American alone	13.9	0.04	14.1	0.23	-0.2
American Indian and Alaska Native alone	0.8	0.02	0.6	0.05	0.1 *
Asian alone Native Hawaiian and Other	4.9	0.02	4.7	0.14	0.1 *
Pacific Islander alone	0.1	0.01	0.3	0.03	-0.1 *
Some Other Race alone	0.2	0.02	(X)	(X)	(X)
Two or More Races	1.6	0.04	1.7	0.08	-0.1

(X) = Not Applicable.

An asterisk (\*) denotes statistical significance at the 90-percent confidence level.

<sup>1</sup>This number added to and subtracted from the estimate yields the 90-percent confidence interval around the estimate. <sup>2</sup>For the number, the percent difference is calculated as (ACS-ASEC)/(ASEC)\*100. For the percent, the percentagepoint difference is calculated as ACS-ASEC. All calculations and tests are completed on unrounded estimates and standard errors.

Source: U.S. Census Bureau, 2004 Annual Social and Economic Supplement (ASEC) to the Current Population Survey unpublished data and the 2004 American Community Survey (ACS), Table B03002.

Table 3. Distribution of Major Race Groups for the Hispanic Population: 2004 ACS and 2004 ASEC (Numbers in thousands.)

	2004 ACS		2004 ASEC		
United States	Estimate	Margin of Error <sup>1</sup>	Estimate	Margin of Error <sup>1</sup>	Difference <sup>2</sup>
Total Number Hispanic or Latino	40,459	24	40,425	(X)	0.1 *
White alone	23,673	219	37,377	173	-36.7 *
Black or African American alone American Indian and Alaska	630	44	1,201	110	-47.6*
Native alone	299	31	662	182	-54.9*
Asian alone	142	17	150	39	-5.4
Native Hawaiian and Other Pacific Islander alone	39	11	72	27	-45.6*
Some Other Race alone	14,224	207	(X)	(X)	(X)
Two or More Races	1,453	61	962	97	51.0*
Total Percent					
Hispanic or Latino	100.0	(X)	100.0	( <b>X</b> )	( <b>X</b> )
White alone	58.5	0.54	92.5	0.42	-33.9*
Black or African American alone American Indian and Alaska	1.6	0.11	3.0	0.27	-1.4 *
Native alone	0.7	0.08	1.6	0.20	-0.9 *
Asian alone	0.4	0.04	0.4	0.10	0.0
Native Hawaiian and Other Pacific Islander alone	0.1	0.03	0.2	0.07	-0.1 *
Some Other Race alone	35.2	0.51	(X)	(X)	(X)
Two or More Races	3.6	0.15	2.4	0.24	1.2*

(X) = Not Applicable.

An asterisk (\*) denotes statistical significance at the 90-percent confidence level.

<sup>1</sup>This number added to and subtracted from the estimate yields the 90-percent confidence interval around the estimate. <sup>2</sup>For the number, the percent difference is calculated as (ACS-ASEC)/(ASEC)\*100. For the percent, the percentage-point difference is calculated as ACS-ASEC. All calculations and tests are significant and completed on unrounded estimates and standard errors.

Source: U.S. Census Bureau, 2004 Annual Social and Economic Supplement (ASEC) to the Current Population Survey unpublished data and the 2004 American Community Survey (ACS), Table B03002.

# References

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

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