

Analysis of Alternative Race and Ethnicity Questions For the 2003 National Census Test

Dave Sheppard and Michael Bentley and
U.S. Bureau of the Census, Washington, D.C. 20233
Michael.Bentley@census.gov, David.W.Sheppard@census.gov

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Introduction

The 2003 National Census Test was conducted to test various design solutions to several reporting problems identified in Census 2000 or earlier. These include:

- High rates of reporting in the “Some other race” category rather than one or more of the major race categories. Many Hispanic respondents report “Some other race” and write in “Hispanic” as their race, and many others leave the question on race blank.
- Loss of information about detailed Hispanic groups in Census 2000. Instead, many Hispanics provided a generic entry of “Hispanic”, “Latino”, or “Spanish”, perhaps because they interpreted the question as asking which of these terms they preferred.
- Rates of missing data for Hispanic origin are still high, although much improved compared to the 1990 Census.

1. Background

In early 2003, the Census Bureau implemented the 2003 National Census Test (NCT). This test had three major components: to study the impact of offering various self-response options, to study new or additional contact strategies, and to study alternative race and ethnicity questions on cooperation rates and data quality. This evaluation presents the methodology and analysis for the race and ethnicity portion of the 2003 NCT.

The Census Bureau has as a broad goal reducing the number of race and Hispanic origin responses that are missing or do not fall into one or more of the five major race categories defined by the Office of Management and Budget (OMB). These responses must be imputed for all uses other than release of products from the census. A second goal is improved reporting of detailed Hispanic origins in the Hispanic origin question.

In order to achieve these goals, four treatments were used in a variety of

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combinations, forming seven different experimental panels (RH panels) and a control panel. The control panel contained the questions on race and Hispanic origin used during Census 2000. All panels except the control included a revised Hispanic-origin question.

2. Prior research

Wording changes to the question on Hispanic origin

In Census 2000, some respondents did not complete the question on Hispanic origin and a large number wrote-in generic entries such as “Spanish,” “Hispanic,” or “Latino.” Results from Census 2000 show that 3.6 million or 10 percent of the responses to the question on Hispanic origin were generic responses. Another 2.5 million or 7 percent either just checked the “Other Hispanic” response category or provided a write-in entry that could not be classified into a detailed category. The absence of examples and other changes to the question between 1990 and 2000 may have affected the reporting of detailed Hispanic groups, such as “Dominican” and “Salvadoran.”

Results from the Census 2000 Alternative Questionnaire Experiment (AQE) suggested that changes to the 1990 question on Hispanic origin, including dropping the term “origin,” dropping examples, and modifying the question format, may have contributed to fewer Hispanics reporting their specific origin in Census 2000 (Martin, 2002). Results from the 2003 test will inform future research in this area, including the 2004 Site Test and the 2005 National Content Test.

Dropping the “Some other race” category from the question on race

Among federal data collection surveys and censuses, the “Some other race” category is

used only in the decennial census, under an exemption granted by the OMB. This response category is not used in household surveys conducted by the Census Bureau, in making population projections and estimates, or by other federal agencies. This results in problems of comparability of race data. Reporting in the “Some other race” category is also vulnerable to mode effects and other methodological differences between surveys. Consequently, “Some other race” responses in the decennial census are imputed into one of the five major OMB race categories (this is the information that most users of decennial data use).

The Census Bureau hopes to reduce the number of race responses that require such imputations by increasing the responses in the other five race groups. Therefore, the Census Bureau is considering dropping the “Some other race” response category from the question on race.

The 2003 NCT included panels without the “Some other race” category. Developmental work and testing are needed to evaluate the effects on race reporting, especially by Hispanics and other groups that report in the “Some other race” category. It is anticipated that dropping the category may have negative effects, including higher race nonresponse for Hispanics.

Including examples in the questions on race and Hispanic origin

Prior to Census 2000, the 1996 National Content Test experimented with different question formats that allowed multiple race reporting. The experiment included panels with and without examples, but did not provide direct evidence about their effects. Because there was no clear evidence to suggest that removing examples had an

adverse effect on the reporting of Hispanic origin and race, the examples were dropped in an effort to make the Census 2000 questionnaire more user friendly.

The Census Bureau's Advisory Committee on the Hispanic Population has strongly advised restoring the examples to improve Hispanic reporting. The 2003 NCT was designed to evaluate the effects of examples in both the questions on Hispanic origin and race, apart from wording and other changes. The examples used were those from the 1990 census question¹.

Instructions to answer both questions

The data collection instruments for Census 2000 included an instruction to the respondent to "Please answer both Questions 7 and 8" (the questions on Hispanic origin and on race on the Census 2000 mail instrument). This instruction was added to address two persistent concerns identified in previous decennial census evaluations.

First, some people see these questions as asking for the same information, and thus do not answer one of the questions. Second, research from the 1990 census and 2002 cognitive studies have shown that some Hispanics view themselves racially as Hispanic and do not identify with one of the specific racial categories (White, Black, etc.), or they find the question on race confusing (McKenney and Cresce, 1990, Davis, et al. 2002). Preliminary analyses of Census 2000 data suggest these are still

areas for concern. In light of these concerns, the 2003 Test included a modified instruction to the respondent that both questions on Hispanic origin and race should be answered and with different responses.

3. Overview of Methodology and Design

Treatments

This report focuses on the effects that the following treatments tested in the 2003 NCT have on how people report race and Hispanic origin. The treatments were:

1. Modifying the wording to the question on Hispanic origin by adding the term "origin," adding commas instead of slashes to differentiate the "Spanish, Hispanic, or Latino" terminology, clarifying the respondent instruction on how to answer the question, and modifying the "Yes, another Spanish, Hispanic or Latino" response category.
2. Dropping the "Some other race" response category to the question on race.
3. Adding examples to the "Yes, another Spanish, Hispanic or Latino," "Other Asian" and "Other Pacific Islander" response categories in the questions on Hispanic origin and race, respectively.
4. Modifying the respondent instruction to answer both the question on Hispanic origin and race by providing two different responses to these questions, and by modifying the instruction to the question on race to provide clarification that people of Hispanic origin may be of

¹ The examples added to the "Yes, another Spanish, Hispanic or Latino origin" category were Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard. The examples for the "Other Asian" category were Hmong, Laotian, Thai, Pakistani, Cambodian. The examples for the "Other Pacific Islander" category were Fijian and Tongan.

any race.

The methodology for the alternative race and ethnicity questions portion of the 2003 National Census Test consists of seven different experimental panels and a control panel. The control panel used the questions from the Census 2000 short form. Each experimental panel contained one or more of the four treatments.

The universe for this study includes housing units from the mailout/mailback areas from Census 2000. Furthermore, we excluded from our universe, American Community Survey (ACS) sampled cases scheduled to receive their initial mailout November 2002 - December 2003. The control panel contains 20,000 housing units and the seven race and Hispanic origin panels tested here also contained 20,000 housing units each.

Prior to sample selection, census tracts were stratified into two groups that reflect anticipated differences in the race and tenure composition of the population, as well as differences in Census 2000 mail return rates. The Low Response Area (LRA) stratum is expected to contain a very high proportion of the Black and Hispanic populations and renter occupied units. The remaining addresses comprise the High Response Area (HRA) stratum. The addresses in the low response stratum were sampled at a higher rate than those in the high response stratum. Estimates presented in this paper will be weighted to account for oversampling of the LRA stratum.

Mailing strategy

The mailing strategy for the RH panels used a multiple contact approach. Every panel received an advance letter as the first contact. The advance letter informed the respondent that they had been selected to

participate in the 2003 National Census Test and would be asked to complete a census form for their household.

The second mailing was the initial paper questionnaire package, along with first-class postage-paid envelopes for returning the questionnaire. The package also included a letter urging households to respond.

The third mailing was the reminder postcard. The reminder postcard included a statement reminding the respondent to answer the census test if he/she had not already done so and thanked those who had returned their questionnaire.

The fourth and final mailing was the replacement questionnaire. The replacement questionnaire was sent to all housing units that had not responded as of February 11. The replacement questionnaire was the same as the initial questionnaire. The fourth mailing also provided first-class postage-paid envelopes for returning the questionnaire. Table 2 outlines some of the key dates in the mailout/mailback operation.

The 2003 NCT mailout/mailback short form was modeled after the Census 2000 short form, with very few changes. The form allowed the respondent to list up to 12 household members. For up to six household members, it provided space for reporting the basic population data (i.e. name, relationship, age, sex, race, and Hispanic origin). The form also collected basic housing unit data (i.e. tenure and household population count).

4. Analyses

Cooperation rates

Analysis of the cooperation rates for the seven RH panels and the control panel was

done overall and by strata. Cooperation rate is a measure of respondent behavior with regard to returning a questionnaire. It is defined as the number of census responses returned for a panel divided by the number of cases in the panel less the questionnaire packages returned by the United States Postal Service (USPS) as “undeliverable as addressed” (UAA) for that panel. UAAs were defined on a housing unit basis as any unit having any mailing piece (the advance letter, questionnaire, reminder postcard, or replacement questionnaire) returned by the USPS. Cases determined to be UAAs were flagged on Census data files.

We found that the national cooperation rates for the control and the seven experimental panels ranged from 66.7% to 67.8%. No significant differences were found for the eight panels compared to the average rate. Similar results were found within both the high and low response strata.

Race distributions

Within each family of panels, the race distributions will be compared to determine if unacceptable differences exist between the panels. This will be done separately for people who responded as Hispanic and for those who responded as Not Hispanic. Chi-square tests will be used to analyze whether or not the single race distributions (i.e., White alone, Black or African American alone, American Indian and Alaska Native alone, Asian alone, Native Hawaiian and Other Pacific Islander alone, Some other race alone, and Two or more races) differ significantly between the panels. In addition, the proportion of races alone or in combination with one or more other races will be indicated.

We found that the national race distributions for the control and the seven experimental

panels exhibited no unacceptable differences. Similar results were found within both the high and low response strata.

Treatment analysis – what is the effect of the experimental treatments on improving race and ethnicity data?

The methodology for this supplemental analysis considered the effects of the various experimental treatments by comparing the collective effects of each treatment by panel. This analysis focused on determining the best treatments to the questions on race and Hispanic origin, rather than choosing the best panel.

The following factors were considered in this analysis:

- Percent classified as being of Hispanic origin.
- Item nonresponse rate to the question on race for people who respond as Hispanic.
- Item nonresponse rate to the question on race for people who respond as Not Hispanic.
- Item nonresponse rate to the question on Hispanic origin.
- Percent of nonspecific responses to the question on Hispanic origin (such as general “Spanish,” “Hispanic,” or “Latino” write-ins, or checking the “Other Hispanic” response category but not providing a write-in entry).
- Percent of Hispanics classified as “Some other race.”

A series of t-tests were performed to evaluate the main effects of each treatment by comparing panels that had only one treatment difference between them. Also, combined interaction effects were examined by testing pairwise comparisons between panels where more than one treatment differed between the panels.

Wording changes to the question on Hispanic origin

One pairwise comparison (control vs. RH1) was used to evaluate the main effect of wording changes to the question on Hispanic origin. This treatment appeared to have a significant effect in decreasing the proportion of nonspecific Hispanic responses. In the control panel, 17.6 percent of the Hispanic responses were identified as “nonspecific,” such as generic “Latino,” “Hispanic,” or “Spanish,” or checking the “Other Hispanic” checkbox without providing a write-in entry. In comparison, this figure significantly decreased to 9.3 percent in RH1 and was no higher than 10.2 percent in any of the seven experimental (RH) panels.

Dropping the “Some other race” category from the question on race

Three pairwise panel comparisons were used to evaluate the main effect of dropping “Some other race” from the question on race. These were RH1 vs. RH3, RH2 vs. RH4, and RH7 vs. RH6. For each of these three comparisons, the panel without SOR had a significantly higher rate of race nonresponse for Hispanics. Interestingly, though, the panel without SOR had a lower rate of race nonresponse for non-Hispanics and a lower rate of nonresponse to the question on Hispanic origin in two of the comparisons (RH3 and RH4). As expected, the panels without SOR had a significantly lower proportion of SOR responses. This difference in SOR responses seems to be strong enough as to offset the increased race nonresponse.

Adding examples in the questions on race and Hispanic origin

Three pairwise panel comparisons were used to evaluate the main effect of adding

examples in the Other-Hispanic-origin response category. These were RH1 vs. RH2, RH3 vs. RH4, and RH5 vs. RH6. Examples seem to have had a positive effect on reducing the proportion of nonspecific Hispanic responses between RH1 and RH2 and between RH5 and RH6. The difference in nonspecific responses was not significant between RH3 and RH4. In addition, RH2 (with the examples) had a significantly lower percentage of SOR responses and Hispanic responses than RH1. The SOR and Hispanic differences were not statistically sufficient in the other two comparisons, though.

Modified instructions to answer both questions and provide different responses

Three pairwise panel comparisons were used to evaluate the main effect of using modified instructions to clarify that respondents were to answer both questions and to provide different responses to the questions on race and Hispanic origin. These were RH2 vs. RH7, RH3 vs. RH5, and RH4 vs. RH6. For all three of these comparisons, the Hispanic origin nonresponse was significantly higher in the panel with the instruction. The percentage of SOR responses (for Hispanics) was significantly lower in RH7 than in RH2. The difference in SOR for Hispanics was not significant between RH3 and RH5, or between RH4 and RH6.

5. Future work

In order to understand the respondent reaction to the treatments in this test, not just respondent action augmented by the editing of response data, an additional analysis will focus on the distributions of the unedited data. This is help us better understand how the treatments changed respondent decisions and actions, and that to assess and ultimately improve upon the R/H question

presentations we need to consider the actual responses.

Additional analysis will also focus on the detailed race reporting. This will help us to determine whether the use of examples for the “Other Asian” and “Other Pacific Islander” race categories helps improve detailed reporting of race groups.

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