

Determinants of Race Reporting by Hispanics in a National Health Survey

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BACKGROUND

According to 2000 Census, Hispanics are the largest racial/ethnic minority group in the United States (12.5% of the U.S. population). The Office of Management and Budget (OMB) guidelines that are used to collect race and Hispanic origin data in federal data systems state that Hispanics may be of any race, and the 2000 Census was the first to offer respondents the opportunity to report more than one race. Still, nearly half of the Hispanic population (42%) selected “some other race”. Among persons who reported their race as “some other race” – most were Hispanic (97%).

These data, along with similar findings from other data systems, led us to formulate three study questions about race reporting by Hispanics:

- 1) Are Hispanics more likely to report their race as “some other race” than non-Hispanics, controlling for key demographic and geographic factors?
- 2) Are there differences in race reporting when the type of Hispanic origin subgroup (e.g., Cuban vs. Dominican) is considered?
- 3) Are the factors associated with race reporting the same for all Hispanic origin subgroups?

METHODS

We utilize data from the 1999 – 2005 National Health Interview Surveys (NHIS) in this study. The NHIS is an annual survey of a nationally representative sample of the civilian, noninstitutionalized population of the United States. Because of the complexity of these analyses, we constructed an analytic file with the following data:

- 1999-2005 NHIS person file data (for demographic characteristics such as race, Hispanic origin, educational attainment, place of birth, etc.)
- 1999-2005 NHIS household level data (used in combination with person level data to create race and Hispanic origin measures for the household)
- 1999-2005 imputed income data (due to high level of missing data on income)
- 2000 Census data geocoded to the 1999-2005 NHIS data files (to create population concentration measures)

As with all NHIS data, race and Hispanic origin information are collected in face-to-face interviews. While data for adults can be a combination of self and proxy reported data (depending on the household respondent and other adults present during the interview), data for children under 18 are entirely proxy reported.

To explore the determinants of race selection among Hispanics, we fitted bivariate and multinomial logistic models that controlled for covariates hypothesized to affect or be related to the outcome probabilities. First, we fitted logistic models to assess the probability of reporting one or more OMB-defined race groups vs. reporting a non-OMB group (“other, don’t know, or not ascertained”) for Hispanics and non-Hispanics (covariate of interest), while controlling for individual, household, and community characteristics hypothesized to be associated with individual identification with a race group. Second, we modelled the probabilities of selecting particular race categories for specific Hispanic sub-groups (i.e., Cuban, Mexican, Puerto Rican, Dominican Republican, and Central/South American) using multinomial logistic models, again controlling for individual, household, and community characteristics hypothesized to be associated with individual identification with a race group. The covariates hypothesized to be associated with race selection include: individual characteristics (age, sex, marital status, nativity, and education); household characteristics (family income, home ownership, family size, residence in a multiracial household, residence in a multiethnic household), geographic and community characteristics (region and place of residence, and co-ethnic concentration at the neighborhood level (measured using the isolation index). We also include a measure for whether the response to the race question was given by the individual to whom it pertains or by proxy.

All data were analyzed using SUDAAN version 9 to include the sample survey weights and account for the complex survey design.

PRELIMINARY RESULTS¹

Based on estimates calculated using pooled 1999-2003 NHIS data, Tables 1 and 2 show, first, the percent of persons in one or more OMB race categories by type of Hispanic origin, and, second, detailed race profiles for each Hispanic origin population. Cuban adults are the most likely to be in an OMB race category, and Dominican adults are the least likely (94.2% compared with 52.2%). With the exception of Dominicans, over 50% of Hispanics are white, although there is a large range from 55% among Other Hispanics to 90% among Cubans. There are also significant differences in the percents of multiracial

¹ These results are preliminary because the data presented here are based on analyses of the 1999-2003 data. We are updating the analytic data set to include 2004 and 2005 NHIS data. Additional information is provided about this in the “additional analyses” section.

persons between Hispanic sub-groups. The proportions who are multiracial range from a low of 1% among Cubans to a high of 7% among Other Hispanics.

Our preliminary logistic regression analyses (not shown here) indicate that Hispanic adults are far more likely to be Other/Refuse/Don't Know than non-Hispanic adults, and that none of the covariates included in the model explain this differential. In addition, net of all individual, household and community controls and reporting status (self vs. proxy), Dominicans continued to be the mostly to be in the "other" race category, and Cuban adults the least likely to be in the "other" race category. However, these preliminary results do indicate that some of the covariates hypothesized to be correlated with race selection did appear to have differential effects between Hispanic sub-populations. For example, income was found to be significantly associated with race group among Cuban adults, while age was a significant predictor for Mexican/Mexican American adults. A commonality among all sub-groups was that the racial composition of the household affected individual selection. Interestingly, however, the direction of the association differed among Hispanic sub-groups.

These preliminary results suggest great complexity with respect to racial categorization within the Hispanic population. Differences in the factors related to race reporting for different Hispanic origin subgroups reflect the distinct histories of their countries of origin. Hispanic respondents very likely bring to the U.S. race context these distinct histories, which are typically not compatible with the U.S. concept of race, thus affecting responses to race questions.

ADDITIONAL ANALYSES TO BE CONDUCTED

We are in the process of appending the analytic data set for this study to include the 2004 and 2005 NHIS data and imputed income data files, primarily to increase the sample size and (hopefully) the precision of the estimates for the Dominican population, which was the smallest Hispanic origin subgroup in the study. Once this is completed, we will re-estimate the bivariate logistic models of race selection differentials between Hispanics and non-Hispanics, and we will estimate multinomial logistic models for each Hispanic sub-group to gain a better understanding of the dynamic of race selection within each of these populations.

Table 1. Age-adjusted percent in one or more OMB race categories, by Hispanic origin subgroup, 1999-2003 National Health Interview Survey (weighted)

	Percent in one or more OMB Race categories
Hispanic origin subgroup	
<i>Puerto Rican</i>	68.3 %
<i>Cuban</i>	94.2 %
<i>Mexican/Mexican American</i>	75.8 %
<i>Dominican</i>	52.2%
<i>Central/South American</i>	73.0%

Table 2. Age-adjusted distribution of OMB race category, by Hispanic origin subgroup, 1999-2003 National Health Interview Survey (weighted)

	OMB Race Category					
	White	Black	AIAN²	Asian	Other	Multiple
<u>Hispanic Origin</u>	Percent					
Hispanic	70.9	1.4	0.6	0.3	24.9	2.0
<i>Puerto Rican</i>	59.9	4.3	0.5	0.5	30.8	4.0
<i>Mexican</i>	74.1	0.3	0.7	0.1	23.4	1.4
<i>Cuban</i>	89.6	3.9	0.0	0.0	5.3	1.1
<i>Dominican</i>	38.6	9.3	1.4	0.4	47.4	2.8
<i>Central/South American</i>	68.6	2.0	0.4	0.9	26.3	1.8
<i>Other Hispanic</i>	55.2	8.5	1.1	1.2	34.4	7.3
Non-Hispanic	79.7	13.7	0.7	4.2	0.4	1.4

² AIAN is American Indian/Alaska Native