America's Churning Races:
Race Response Changes between Census 2000 and Census 2010

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Brief (150 word) Abstract:
  Race responses, Hispanic responses, and corresponding identities can change over time and across contexts. Are these changes widespread or rare? Which groups are affected by such changes? We use internal Census Bureau data from the 2000 and 2010 censuses in which individuals' responses have been linked across years to answer these questions. We find that millions of individuals (about 6% of people in our sample) changed their race and/or Hispanic origin responses between 2000 and 2010. These changes occur in every direction – into and out of single race groups, Hispanic and non-Hispanic designations, and across multiple-race categories. Response changes are widespread, happening among males and females, youth and adults, in the West region and in other regions. Multiple-race response groups experienced substantial churning, as did the race responses of Hispanics, American Indians, and Pacific Islanders. Some groups show substantial stability in race/Hispanic responses, particularly single-race non-Hispanic whites, blacks, and Asians.

Race responses, Hispanic responses, and corresponding identities sometimes change over time and across contexts (Alba and Islam 2009; Duncan and Trejo 2011; Eschbach 1993; Harris and Sim 2002; Perez and Hirschman 2009; Saperstein and Penner 2012). Are these changes widespread or rare? Which groups are affected by such changes? Using remarkably well-suited data, we document the extent to which individuals change their race and/or Hispanic origin responses between Census 2000 and Census 2010.

Prior Knowledge and Hypotheses

Future versions of this paper will have a substantial review of related literature aimed at formulating hypotheses about what we might find in these analyses.

Data

The U.S. Census Bureau has endeavored to link individuals' census records as part of an effort to understand response variability and reduce future data collection costs. We use internal Census Bureau data from the 2000 and 2010 censuses in which individuals' responses have been linked across years by the Census Bureau's Center for Administrative Records Research and Applications (CARRA). CARRA uses probability record linkage techniques and personal information such as name and date of birth to assign a "Personal Identification Key" or PIK (see Wagner and Layne 2013). This PIK is used to link a person's record in one census or survey (in this case, Census 2000) to their own record in another census or survey (in this case, Census 2010). CARRA anonymizes the linked data so that it can be used for Census Bureau statistical purposes and for research such as this study. Improvements to linkage data and methods are ongoing, and we use the best available data. Naturally, a few PIKs are not assigned to the correct

person. An assessment of false match rates yielded estimates ranging from 0.2% to 6.6% (Layne et al. 2013); we conservatively assume a false match rate of 6.6% in the results presented below.

The linked data in our study naturally exclude people who answered Census 2000 but died or left the country by 2010. Similarly, new immigrants and children under age 10 in 2010 are not included in the linked data. The linked data also exclude people who do not have a social security number or individual tax identification number (e.g., foreign guests) and those whose personal information was too ambiguous or incomplete to assign a PIK. Our primary data source contains about 193 million individuals who were present and able to be assigned a PIK in both the 2000 and 2010 full-count decennial censuses.

For several reasons, these data are remarkably well-suited for a study of race and Hispanic response change over time. First, the race and Hispanic origin questions did not undergo major changes over the decade and so many changes in the responses can be attributed to other factors. Second, the data have a very large sample size and cover a considerable portion of the US population. Third, because of the large sample size, we can examine movement between over 100 race/Hispanic origin categories in each census. And fourth, these are the decennial census data – data commonly used to study America's demographics and undergirding extensive social science research and policy analysis on racial disparities and how the disparities are changing over time.

Because we are using full-count data – data collected on the short form versions of each census – we are limited in what we know about individuals. We have three hypotheses based on prior research:

> **H1**: Women are socialized to have more complex and nuanced identities than men, and so women will be more likely to change their race/Hispanic responses.

H2: Young people (ages 0-17 in 2000) will be more likely to change their race/Hispanic responses for three reasons. First, they were probably reported by their parents in 2000 but may be self-reporting in 2010. Second, childhood and adolescence are times of personal identity development while adulthood involves a more stable identity. And third, many children of interracial/interethnic unions will still be children in 2000 while a lower proportion of adults in 2000 is thought to have strong ties to multiple race/Hispanic groups.

H3: People in the west, especially California and Hawaii, have a tradition of accepting complex and changing racial/Hispanic identities, so there will be more change in the west region than in other regions.

Conclusion

We will use matched census records for about 197 million Americans who in the 2000 and 2010 decennial censuses, and focus on 166 million who were most likely to self-report (or have a household member report) their race/Hispanic origins. Using these remarkable data, we will give a first look into the extent of race/Hispanic response churning happening in contemporary America. We see our work as having substantial implications for sociological theories about race and Hispanic identities, as well as for research on racial stratification and inequalities. In future versions of this manuscript, we will expand on both of these points.

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