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Asking Differently About Race and Ethnicity: New Needs for a Changing Population

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Abstract

Now is an opportune time to consider new ways to ask registrants for the *GRE*[®] General Test about their race and ethnicity. Growth in the percentage of Americans who identify as multiracial suggests the possibility that a sizeable percentage of registrants would self-report more than one race or ethnicity if given the opportunity to do so; furthermore, racial and ethnic questions currently asked might be inappropriate or insufficient for the increasing number of registrants who are not U.S. citizens or permanent U.S. residents and continuing to consider Hispanic origin a racial classification might be too restrictive. Because fairness at the group level can reflect only the groups that can be identified, how we ask people to identify their race and ethnicity is fundamental. Using stratified sampling and online questionnaires, we explored U.S.-style and international-style questions about race and ethnicity as potential replacements of or supplements to the questions on ETS's current GRE Background Information Questionnaire (BIQ). We investigated the effects of U.S. citizenship, birth country, U.S. permanent residency status, mono- and multiraciality, and Hispanic origin on the preferences that survey respondents had for certain question formats and content. Furthermore, we analyzed the qualitative survey responses to determine respondents' major concerns about various question formats. In response to the survey results, we recommend that ETS's current BIQ be amended to include (a) more pluralistic U.S.-style questions about race and ethnicity that conform to U.S. federal standards and (b) certain international-style questions.

Key words: race, ethnicity, diversity, demographics, monoracial, multiracial, Background Information Questionnaire, BIQ, 1997 Standards, differential item functioning, DIF, differential prediction, predictive bias, fairness

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Executive Summary

The population of those who seek graduate or professional education in programs that use the *GRE*[®] General Test (now the GRE revised General Test) is changing substantially. Among other things, there are more multiracial and international registrants than in the past. It appears that this trend will continue into the future. In addition, the legal landscape has changed. U.S. federal regulations now require certain institutions to collect and report racial and ethnic information using prescribed formats and content (e.g., Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education, 2007). Even if the regulations and other laws do not directly govern an organization, there may be prudent reasons to follow them anyway.

In recognition of these changes, ETS has undertaken a study to examine if and how it should change the current questions about race and ethnicity on its GRE Background Information Questionnaire (BIQ). This report explains some of the implications of how questions about race and ethnicity are asked, as well as describes an investigation of U.S.-style and international-style questions. Our major findings are as follows:

- U.S. acculturation (being a U.S. citizen, being born in the United States, and/or being a permanent U.S. resident) was related to a preference for a more pluralistic racial and ethnic question format that permits multiracial self-reporting and separate questions about Hispanic origin and race.
- Registrants who are not acculturated to U.S. conceptualizations of race and ethnicity generally preferred a simpler design like the one in ETS's current GRE BIQ.
- Regardless of one's acculturation, being monoracial was related to being inclined toward the simpler format, whereas being multiracial was related to being inclined toward a more pluralistic format (i.e., one that recognizes more complex diversity).
- Many registrants who prefer a more pluralistic question do so because they want to be able to identify their race and ethnicity more specifically, such as in the form of national origin or tribal affiliation.
- However, Hispanic respondents often did not want racial and ethnic choices in addition to those for Hispanic origin. In fact, they often expressed confusion about how to report their race.

- There was an overall desire for questions that permit reporting of more than one race as well as national origin/ancestry (especially when the respondent’s national origin/ancestry was not provided as an option).
- In general, the international respondents did not express objections to the international-style questions on the survey; however, some of their comments (as well as their expressed question preferences) indicated that ethnicity, race, and citizenship have complex and varying relationships that U.S.-style questions about race and ethnicity may not capture well or at all outside of the United States.

In response to the survey results, we recommend that ETS’s current BIQ be amended to include (a) certain U.S.-style questions about race and ethnicity that conform to the 1997 Standards and are more pluralistic as well as (b) certain international-style questions.

Overview

ETS’s collection of racial and ethnic information from the users of its assessments permits ETS to conduct *differential item functioning* (DIF) and *differential prediction* (DP) analyses. DIF occurs when people from different groups (racial, ethnic, etc.) but of the same level of ability (or other trait) that is being measured by a test item are not equally likely to answer that item correctly (or the same; see Dorans & Holland, 1993). DP, occasionally referred to as *predictive bias*, occurs when an assessment predicts an outcome criterion (e.g., future GPA) differently for different groups (see Kuncel & Klieger, 2012). Sometimes DIF and DP analyses will be referred to in this report as types of fairness analyses, because they detect situations when a difference in group membership that is unrelated to a predictor (a test) or outcome criterion is nevertheless related to measurement on that predictor or outcome criterion. In addition, ETS’s collection of racial and ethnic information could allow ETS to determine the extent to which certain groups may be under- or overrepresented among those who consider and those who apply to graduate and professional schools that use the GRE revised General Test. Moreover, the collection and reporting of racial and ethnic information might be required legally or contractually as part of ETS’s work for governmental and other organizations.

Thus, there are important reasons for ETS to collect racial and ethnic information from the users of its assessments. *How* ETS elicits information about race and ethnicity is an integral but distinct issue that may affect, among other things:

1. whether ETS is in compliance with applicable U.S. federal regulations (or other federal, state, local, international, and foreign laws);
2. what ETS can know about DIF and DP for the GRE General Test;
3. the accuracy of responses to race and ethnicity questions (i.e., the extent to which registrants understand and produce the kind of responses that the questions are intended to elicit); and
4. registrants' comfort level with the race and ethnicity questions and consequently their opinions about their experience with the assessment (and its developer, ETS).

The way in which ETS elicits racial and ethnic information might need to conform to various laws. Notably, the U.S. federal Office of Management and Budget (OMB) issued a government-wide directive in 1997, sometimes referred to as the 1997 Standards or the Revisions to Directive 15 (Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997). The 1997 Standards established the parameters for the questions about race and ethnicity in the 2000 U.S. Census questionnaire and the surveys, forms, and records that have been used by the U.S. federal government's departments and agencies as of January 2003. This includes the U.S. Department of Education (DOE), which issued its own final guidance for compliance with the 1997 Standards in 2007 (Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education, 2007). The DOE instructed educational institutions to follow the 1997 Standards by the fall of 2010. If, and the extent to which, these or other regulations and laws apply to ETS may depend upon whether ETS or one of its programs has or intends to seek government contracts, funding, assistance, or endorsement. ETS research sponsors or participants, as well as ETS stakeholders, might be legally bound by the 1997 Standards or other data collection and reporting laws. Therefore, it might be practical for ETS to abide by those laws even if they do not directly govern data collection or reporting by ETS.

How ETS collects racial and ethnic information determines what ETS can know about DIF and DP for the GRE General Test. More information about race and ethnicity permits more detailed DIF and DP analyses, although one could reasonably argue that more information is not necessarily better. The division of registrants into additional demographic groups reduces sample sizes and thus increases the risk of sampling error.

Sampling error increases or decreases true effect sizes by random magnitudes. The more often one conducts comparisons, the more likely that one of these comparisons will erroneously result in an observed effect size that is large enough to be considered practically significant when the true effect size would not be. In addition, as long as sample sizes and risk tolerance are large enough, there is no clear scientific basis for knowing when to stop the process of dividing people into additional categories for purposes of DIF or DP analyses. With more groups, the choices about whether certain groups should be combined or treated separately become more numerous. On the other hand, it is impossible to detect even large and enduring effect sizes without sufficient information. An assessment may function or predict differently for two groups, but if one lacks the data to create these groups, then the differential functioning or prediction will continue undetected. Also, one cannot determine the risk of sampling error or the number of DIF and DP analyses that could feasibly be run without at least some exploration into uncharted territory.

The 1997 Standards and 2010 U.S. Census Questionnaire

Because we did not possess actual test data (GRE scores), we could not directly address the impact of question format and content on DIF or DP analyses. However, we could explore how question format and content would affect the accuracy of racial and ethnic responses in terms of whether registrants understand what is being asked as well as their comfort levels with these questions. In particular, we explored the racial and ethnic categorizations that the 1997 Standards and 2010 U.S. Census questionnaire facilitate. As discussed, ETS's compliance with the 1997 Standards and the U.S. Census content and format might at least be prudent (if not required). While the 1997 Standards and the U.S. Census content and format are in the end based on debatable value judgments, they nevertheless have a thoughtful and sizeable research basis (see, e.g., Alberti, 2006; Martin, 2006, 2007; Martin, Sheppard, Bentley, & Bennett, 2007; Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997; U.S. Census Bureau, 2006). Although it might not have been the specific intent of their creators, the 1997 Standards and the U.S. Census form also address major changes in the population that seeks higher education in the United States, including a substantial increase in multiracial applicants (see Saulny & Steinberg, 2011).

Using the 1997 Standards and U.S. Census form as our models, the main objectives of this study were to determine how the question content and format might affect the accuracy of

the response (i.e., the extent to which registrants understand and produce the response that the question is intended to elicit) and registrants' comfort level with the question. Given the subjectivity and fluidity of ethnic and racial self-identification, our focus on accuracy consisted of simply asking participants whether they understood the questions about race and ethnicity. We also asked participants to indicate if these questions made them uncomfortable. Because this study is intended to inform ETS about how to best operationalize questions about race and ethnicity, we also inquired about how the questions should be changed if they were misunderstood or caused discomfort.

Concerns About International Test-Takers

In addition to examining race and ethnicity, we also looked at citizenship and country of birth. Issues of race and ethnicity are complicated by the fact that, over the past several years, about 25% of those who have registered for the GRE General Test reported being a citizen of a country other than the United States. Because the BIQ allows a registrant to report only one citizenship, it is possible that some respondents classified as non-U.S. citizens are actually dual U.S. citizens. Differences in how race and ethnicity are conceptualized and defined across nations (and sometimes within those nations) make the collection of racial and ethnic data more complex. The BIQ requests racial and ethnic information from U.S. citizens only. The number of non-U.S. citizens who go on to graduate and professional programs in the United States has been increasing markedly (Appel, 2011). Collecting racial and ethnic data for non-U.S. citizens might result in information useful to those who wish to examine if DIF and DP occur across racial and ethnic groups outside of a traditional U.S. context. Non-U.S. educational institutions, where racial and ethnic equity typically uses a very different framework, might seek to use the GRE General Test for admissions and other purposes. For example, a German university might primarily be concerned about whether the GRE Verbal Reasoning section functions similarly for ethnic Germans and Germans of recent Turkish descent (because Turkish immigrant families comprise a sizeable minority in Germany and have experienced particular educational challenges there; see Mandell, 2008). The large number of non-U.S. citizens who take the GRE General Test also raises the question of whether differences in citizenship should be examined in the same way as differences in race and ethnicity. Sometimes citizenship serves as the basis for groups examined in DIF analyses when it represents variability in cultural norms for a

personality assessment or serves as a proxy for differences in language familiarity for a measure of nonverbal abilities (see, e.g., Huang, Church, & Katigbak, 1997).

Our response to these issues of citizenship and country of birth was twofold. In addition to asking questions about race and ethnicity from a United States perspective, we developed and asked questions that we thought would capture racial and ethnic differences for a broad range of non-U.S. contexts. Much of the content of these questions came from the Organisation for Economic Co-operation and Development's (OECD's) 2006 Programme for International Student Assessment (PISA) Student Questionnaire and International Association for the Evaluation of Educational Achievement's (IEA's) 2007 Trends in International Mathematics and Science Study (TIMSS) Student Questionnaire. Both questionnaires inquire about country of birth for the registrants and their parents, how old the registrants were when they came to the country in which the test was being taken, and the language spoken at the registrants' home (see Foy & Olsen, 2009; OECD, 2005). Furthermore, for the U.S.-style questions about race and ethnicity we examined citizenship and country of birth as individual difference variables within the larger context of race and ethnicity. We hoped that, among other things, this approach would clarify whether the U.S.-style questions about race and ethnicity were appropriate for those who are not U.S. citizens, were born outside of the United States, and/or are not permanent U.S. residents.

Methodology

Sample

Sampling for this study is a fundamental issue. It determines the groups about which we can make inferences. A sample consisting largely of monoracial White U.S. citizens would provide very limited information to the authors and others concerned about the possibility that GRE items mismeasure examinees' skills due to their race or ethnicity. We assumed that traditionally recognized ethnic and racial minorities that are underrepresented in quaternary education (i.e., the Hispanic and monoracial Black communities) as well as minorities not traditionally recognized in ethnic and racial analyses but who arguably should be (i.e., multiracial respondents and international students) would be most at risk of being misidentified if questions about race and ethnicity are poorly understood or cause discomfort. Misidentification, in an operational context, undermines the legitimacy of DIF and DP analyses. Although DIF and DP can negatively impact majorities well-represented in quaternary education,

researchers generally conduct DIF and DP analyses with the goal of revealing assessments and items that mismeasure the skills of underrepresented groups. By definition, underrepresented groups are often small in size (at least in a relative sense), so misidentification of their members can be especially harmful. Historically, underrepresented groups have been subject to overt discrimination as well as insensitive treatment. Therefore, it was especially important to try to obtain sample sizes large enough to determine how best to appropriately elicit information from these groups in particular.

The analyses in this study are based on responses from 720 individuals who responded to a final survey. In order to obtain a diverse sample while minimizing sampling error and cost, the original target sample consisted of 1,000 individuals who had registered to take the GRE General Test in the prior 3 years. For these registrants, we could obtain racial, ethnic, citizenship, residency, and contact information from the BIQ. In order to increase the likelihood that we would receive survey responses from registrants of a wide range of races/ethnicities, multiracial identities, and citizenships, we created specific numerical targets as part of a stratified sampling design (see Table 1). We initially based these targets on monoracial and citizenship frequency information that we obtained for respondents to the BIQ over the past 3 years. As described in greater detail below, we then adjusted this information so that we could oversample certain groups whose opinions we believed to be especially important for purposes of this study but who might represent a very small percentage of GRE registrants (e.g., multiracial Black registrants). The stratifications included separate monoracial and multiracial categories for U.S. citizens who described themselves in the BIQ as American Indian/Alaska Native, Asian, Native Hawaiian or Pacific Islander, Black/African-American, Hispanic/Latino, or White. Registrants could choose only a single racial and ethnic group in the BIQ, but by using procedures described below we were able to preselect participants for the final survey based on their probability of describing themselves as monoracial or multiracial, if given the opportunity to do so. For the most part, available BIQ racial and ethnic information was limited to U.S. citizens, because the BIQ's question about race and ethnicity specifically requested a response from U.S. citizens only. Additional subgroups included citizens of nations in Africa, Asia, Australia/Oceania/Polynesia, Europe, and Caribbean/Latin America. In the BIQ, registrants could choose only a single citizenship.

Table 1***Sampling Targets and Results***

	Target <i>n</i>	Resulting <i>n</i>
U.S. citizens:	750	460 (388 U.S.-only + 72 dual U.S.)
Multiracial, with self-identification as partly:		
Black/African American	113	36
Asian	89	15
Native Hawaiian or Other Pacific Islander	15	3
American Indian/Alaska Native	112	82
White	38	101
Hispanic/Latino	188	115
Monoracial (or no indication of being multiracial):		
Black/African American	94	127
Asian	40	56
Native Hawaiian or Other Pacific Islander	15	0
American Indian/Alaska Native	24	38
White	22	88
Citizens of countries in:	250	339 (245 single-country + 94 dual)
Asia	48	107 [84]
Europe	47	59 [39]
Africa	65	83 [60]
Caribbean/ Latin America	65	72 [48]
Australia/Oceania/Polynesia	25	18 [14]
Total	1,000	

Note. Target *n* values represent independent persons. Unless otherwise indicated, resulting *n* values are not independent and therefore they sum to more than 720 (720 = the number of distinct respondents to the final survey) or to more than the totals in the rows headed *U.S. citizens* and *Citizens of countries in*. For example, a White Hispanic participant can be counted twice—once in the Hispanic/Latino row and then again in the monoracial White row. As another example, a U.S. citizen may be counted once in the multiracial Asian row and then again in the multiracial American Indian/Alaska Native row. For continent of citizenship (lower third of the table), a dual citizen is counted more than once for the resulting *n* values that are not in square brackets. Some dual citizens may be U.S. citizens. [] = totals for those with only one citizenship. Resulting *n* values for U.S. citizens are based on data from Format C of the final survey.

Furthermore, this study was designed to oversample (a) Black participants, Hispanic participants, and Asian participants who were U.S. citizens and (b) citizens of African, Caribbean, and Latin American countries. It was unclear how to calibrate our targets for Native Hawaiian and other Pacific Islander participants who were U.S. citizens, given their tiny percentage of the test-taking population. To a lesser extent, the same issue existed for American Indian/Alaska Native participants. Over the past few decades in the United States, issues of

fairness and equal opportunity with regard to race and ethnicity have focused principally on Black and Hispanic U.S. citizens, but with some focus on Asian U.S. citizens as well (see, e.g., Zwick, 2002). Also, empirical research indicates that among the commonly compared racial and ethnic groups, African American and Hispanic test-takers attain the lowest mean group scores among takers of the GRE General Test while Asian test-takers attain the highest (particularly on the Quantitative Reasoning subtest; Gallagher, Bridgeman, & Cahalan, 2000). With regard to educational assessment, the need to address fairness issues (underprediction, overprediction, etc.) for these groups is therefore important. The study was also designed to oversample citizens of African nations under the assumption that most citizens of African countries would self-report as Black in response to a U.S.-style question about race. To a lesser extent, we had this expectation for oversampled citizens of Caribbean and Latin American countries as well. We also wanted to be able to compare responses from non-U.S. citizens who would self-report as Hispanic against responses from Hispanic U.S. citizens. Statistical analyses show that African-born, Caribbean-born, and Latin American-born Black test-takers in the United States on average attain higher levels of education than Black American test-takers whose families have resided in the United States for several generations (African-Born U.S. Residents, 1996; Kent, 2007). For that reason, as well as due to the possibility that grouping Black non-U.S. citizens with Black U.S. citizens in the same fairness analysis might obscure differences between each of those subgroups and other racial groups, it would be helpful for future educational research (including DIF and DP studies) to also pay particular attention to Black test-takers who are not U.S. citizens or who were born outside of the United States.

Although the target sample consisted of 1,000 participants, there were only 720 participants in the final sample because attempts to obtain all demographic targets became prohibitively difficult and expensive. Because the BIQ permits the selection of only one choice among response options that treat Hispanic and racial categories separately, the BIQ cannot provide information about one's identification with more than one race, one's racial background if one indicated that one was Hispanic, or one's Hispanic background if one indicated membership in a racial group. Furthermore, the BIQ does not permit indication of multiple citizenships, and it is unclear whether people with both a U.S. and other citizenship should be grouped with U.S. citizens, non-U.S. citizens, both, or neither for purposes of this study (or for

any fairness analyses). It seemed prudent to have the ability to categorize dual citizens as a distinct group.

Given these challenges and the desire to recruit a certain number of people from different groups, we used an interim short survey to increase the prospects of achieving monoracial, multiracial, and Hispanic targets while accounting for those with multiple citizenships. We attempted to achieve our targets by first using BIQ demographic and contact information to e-mail a short survey to GRE registrants most likely to fit those targets. In the short survey, we asked about race (including the possibility of self-identification with more than one race), possible Hispanic ethnicity, and citizenship. Recipients were told that if they responded to the short survey, then they might be selected to participate in the full study for compensation (a \$25 Visa gift card). When we received a completed survey that indicated that a person was likely to fit a demographic target, we then e-mailed a full survey to that individual. We informed respondents who, based on their responses to the short survey, were unlikely to satisfy a demographic target that they would not be invited to participate in the full study. Recruiting certain demographic backgrounds (e.g., multiracial Black and multiracial Asian participants) eventually became so labor-intensive, time-consuming, and thus potentially expensive that we had to cease recruitment even though recruitment targets were not fully met. Ultimately, out of the 10,507 test-takers to whom we e-mailed short surveys, 1,362 responded (a 13% response rate), and we selected for participation in the final survey 720 out of those 1,362 respondents (a 53% selection ratio).

The resulting demographics appear in Table 1. In relation to respective target numbers in the table, White U.S. citizens were especially oversampled, and multiracial Black and multiracial Asian U.S. citizens were notably undersampled. When a response to the question about race and ethnicity in the final survey did not match a response to the question about race and ethnicity in the interim short survey, it typically resulted in the count of another monoracial or multiracial White participant. Because the substantial majority of U.S. citizens who take the GRE General Test report that they are White, this result is not surprising. In general, it was extremely difficult to recruit Native Hawaiian and other Pacific Islander test-takers (all U.S. citizens). Citizens of Asian countries were oversampled. When a response to the citizenship questions in the final survey did not match a response to the citizenship question in the interim short survey, it typically resulted in the count of another citizen of an Asian country. Ultimately, our recruitment

of participants resulted in small sample sizes for some of the subgroups analyzed in this study (e.g., multiracial Asian participants). Nevertheless, we believe that it is a lesser offense to analyze small samples for the subgroups that should be the focus of this study than to lose completely the ability to infer anything about these subgroups as a result of aggregating them into larger groups (e.g., all Asian participants).¹

Measures

Interim Short Survey

The interim short survey, which was sent as an e-mail attachment, requested that the recipient provide basic contact and citizenship information and check *Yes* or *No* for whether the respondent sometimes thought of herself/himself as belonging to more than one racial and/or ethnic group. For those who responded *Yes*, the survey asked the respondent to write in the racial and ethnic groups with which the respondent identified.

Final Survey

Recipients of the final survey received an e-mail message with a hyperlink that took them to the final survey. The survey had six versions and each participant was randomly assigned to one of them. The versions were substantively identical. (Figures 1–16 comprise one full version of the survey.) They differed only in the presentation order of three question formats for the U.S.-style questions about race and ethnicity (see formats A, B, and C in Figures 13–15 of the full survey). There were six survey versions administered (sequences ABC, ACB, BAC, BCA, CAB, and CBA) to eliminate ordering effects that might have affected differences in response patterns.

Aside from an initial informed consent section and a closing section that sought personal contact information from each respondent, the final survey consisted of approximately 31 items. This is an approximation, because the final survey was in an online format that routed respondents to items based on responses to previous items. The survey consisted of two halves, with the first half (Figures 1–11 and part of Figure 16) created with an international group of test-takers in mind and the second half (Figures 12–16) created with U.S. test-takers in mind. We placed the international-style questions first, because we felt that the international-style questions would make equal sense to U.S. citizens and non-U.S. citizens but that the U.S.-style questions might make less sense to non-U.S. citizens. By placing the U.S.-style questions last, we

eliminated the risk that they would negatively affect the responses of non-U.S. citizens to the international-style questions. The international-style questions (first half) consisted of about 14 items, and the U.S.-style questions (second half) consisted of 17 items. Using drop-down menus, radio buttons, check boxes, and text boxes, the international-style questions asked about citizenship status, residency, birth country, birth country of parents/guardians, whether or not the respondent resided in an English-speaking country for at least one half of the respondent's life, up to two languages spoken primarily at home, and English proficiency level. Using similar formats, the U.S.-style questions asked about Hispanic origin, race, and ethnicity; the extent to which respondents understood, were comfortable with, and wanted to eliminate or change the three question formats that were posed; and which of the three question formats respondents preferred and why.

As discussed earlier, much of the content was based on the OECD's 2006 PISA Student Questionnaire and IEA's 2007 TIMSS Student Questionnaire. We allowed respondents to report more than one citizenship. Under the assumption that citizenship is a reasonable measure of culture, we were concerned that people with a U.S. citizenship and another citizenship might typically think about race and ethnicity very differently than people with just U.S. citizenship or just non-U.S. citizenship. Given uncertainties about the relevance of certain questions about race and ethnicity and frameworks for people of different cultures, this citizenship information was used for several analyses.

Because the BIQ seeks parental information and the OECD's 2006 PISA Student Questionnaire and IEA's 2007 TIMSS Student Questionnaire both inquire about the country of birth for the test-taker and the test-taker's parents, we included similar questions (see Figures 6 and 8). Given the complexity of the modern family structure in the Western world and our particular uncertainty about who generally raises a child in non-Western cultures, we thought it prudent to ask about *guardians* and *caregivers*, in addition to *parents*. We also did not want to assume that the appropriate number of parents, guardians, or caregivers for a respondent was two, so we allowed the respondent to provide information for one to five of them (see Figures 7–8). We chose five as our upper bound, given the length of the survey and our assumption that few if any participants would choose more than five parents/guardians/caregivers.

Furthermore, the survey requested information about language proficiency. The BIQ already asks whether the registrant's English communication is at least as proficient as the

registrant’s communication in another language. In addition, PISA and TIMSS Student Questionnaires ask for the language spoken at the test-taker’s home. We added similar language proficiency content here not simply in the belief that information about language proficiency has its own merits, but largely with the idea that it can identify important racial or ethnic background information about a registrant. For example, it can help distinguish a Canadian citizen whose primary language is French and who—when compared to a Canadian citizen whose primary language is English—may be at a disadvantage in terms of performance on the GRE Quantitative Reasoning section due to construct-irrelevant differences in English reading ability. Without language information, one might conclude that these test-takers are both monoracial White and non-Hispanic Canadian citizens who should always be grouped together for purposes of conducting DIF or DP analyses.

As part of this focus on English proficiency, we incorporated the BIQ language proficiency question into the survey but with its response options broken out into more specific aspects of English communication ability (see Figure 11). The BIQ asks, “Do you communicate better (or as well) in English than in any other language?” However, there are different aspects of communication in English, and there can be major discrepancies in a person’s strengths across these different aspects. For example, one may speak English well but be unable to read it. In addition, the relevance of each aspect of English communication to performance on an ETS assessment may vary considerably. English reading ability is the aspect of English communication primarily relevant for success on the GRE Verbal Reasoning and Quantitative Reasoning subtests, whereas English writing ability is the aspect primarily relevant for success on the GRE Analytical Writing subtest. The separation of English proficiency into separate competencies would, therefore, allow ETS to collect information for a relevant English competency rather than for an irrelevant one.



GRE Test Taker Survey (123)

CITIZENSHIP STATUS

Country of citizenship? (NOTE: In a later question, you may choose a second country)

If you selected "None of the above", please provide below your country of citizenship or reason for not choosing from the drop-down list of countries.

Figure 1. Citizenship status.



GRE Test Taker Survey (123)

Do you possess citizenship from a another country, too?

- Yes
- No

Figure 2. Do you possess citizenship from another country?



GRE Test Taker Survey (123)

From what other country do you possess citizenship?

If you selected "None of the above", please provide below your other country of citizenship or reason for not choosing from the drop-down list of countries.

Figure 3. From what other country do you possess citizenship?



GRE Test Taker Survey (123)

Are you a nonresident alien or a permanent resident in the United States?

- Yes
- No

Figure 4. Are you a nonresident alien or a permanent resident in the United States?



GRE Test Taker Survey (123)

If you are a United States citizen, resident alien in the United States, or permanent resident in the United States, what U.S. state or territory do you consider to be your permanent U.S. residence?

Figure 5. If you are a United States citizen, resident alien in the United States, or permanent resident in the United states, what U.S. state or territory do you consider to be your permanent U.S. residence?



GRE Test Taker Survey (123)

In what country were you born?

If you selected "None of the above", please provide below your country of birth or reason for not choosing from the drop-down list of countries.

Figure 6. In what country were you born?



GRE Test Taker Survey (123)

How many parents, guardians, or other caregivers raised you? You may choose up to 5.

Figure 7. How many parents, guardians, or other caregivers raised you?



GRE Test Taker Survey (123)

Please describe parent/guardian/caregiver 1 who raised you:

In what country was your parent/guardian/caregiver 1 who raised you born?

If you selected "None of the above", please provide below the country of birth of parent/guardian/caregiver 1 or reason for not choosing from the drop-down list of countries.

Figure 8. Please describe Parent/Guardian/Caregiver 1 who raised you.



GRE Test Taker Survey (123)

Have you resided in an English-speaking country for at least one-half of your life?

- Yes
 No

Figure 9. Have you resided in an English-speaking country for at least one half of your life?

GRE Test Taker Survey (123)

What languages were primarily spoken in the home in which you were raised? You may choose up to 2 languages.

NOTE: If only one language was primarily spoken, then after choosing language #1, please click on "Next Page" below.

Language #1

If a language does not appear in the drop-down menu list, please provide it below:

Language #2

If a language does not appear in the drop-down menu list, please provide it below:

Figure 10. What languages were primarily spoken in the home in which you were raised?



GRE Test Taker Survey (123)

Do you communicate better (or as well as) in English than in any other language? (Select all that apply.)

- Yes, for understanding others' spoken words (listening comprehension)
- Yes, for speaking to others (spoken communication)
- Yes, for reading (reading comprehension)
- Yes, for writing to others (written communication)
- No, not at all

Figure 11. Do you communicate better (or as well as) in English than in any other language?

The second half of the survey (see Figures 12–16) focuses on U.S.-style categorizations of race and ethnicity. There were three formats for the question about race and ethnicity: Format A, Format B, and Format C. Format A (Figure 13) is identical to the current BIQ question about race and ethnicity in terms of substance and format. It represents ETS’s potential decision not to make any changes to the BIQ question about race and ethnicity. Also, it permits a straightforward analysis of the stability of racial and ethnic self-identification (a comparison between BIQ responses and final survey responses). Granted, self-reported race/ethnicity is subjective and fluid. Nevertheless, if stability is too low, then it may be impossible to generalize many of the results from this study. Format C (Figure 15) represents the most pluralistic questions about race and ethnicity of the three formats and is virtually identical to the questions about race and ethnicity of the 2010 U.S. Census. We believe that Format C satisfies (and exceeds) the OMB’s 1997 Standards as implemented by the DOE. Among other things, the DOE requires the following for data collection purposes (Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education, 2007):

1. the use of the following racial categories that, at minimum (except for No Child Left Behind), should be (a) American Indian or Alaska Native, (b) Asian, (c) Black or African American, (d) Native Hawaiian or Other Pacific Islander, and (e) White;
2. the use of a two-question format with a race question permitting the reporting of more than one race from the five required groups; and
3. that if there is a question asking whether the person is Hispanic, it precedes the race question.



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GRE Test Taker Survey (123)

On each of the next three pages, you will see a different format for questions about race and ethnicity. Please answer the questions for all three formats. After you answer all of these questions, you will have an opportunity to tell us which format, if any, you prefer and why.

Figure 12. Introduction to questions on race and ethnicity.

GRE Test Taker Survey (123)

Format A

How do you describe yourself? (select one)

- American Indian or Alaska Native
- Asian or Asian American
- Black or African American
- Mexican, Mexican American or Chicano
- Native Hawaiian or Other Pacific islander
- Puerto Rican
- Other Hispanic, Latino, or Latin American
- White (non-Hispanic)
- Other

If you did not adequately understand the preceding question or its response choices, please tell us, and explain why below:

If the preceding question or its response choices made you feel uncomfortable in any way, please tell us, and explain why below:

If you think that the preceding question or its response choices should be eliminated or changed in any way, please tell us below. Please specify any changes that you think should be made:

Figure 13. Format A.

GRE Test Taker Survey (123)

Format B

Are you of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
 Yes, Mexican, Mexican-American, Chicano
 Yes, Puerto Rican
 Yes, Cuban
 Yes, another Hispanic, Latino, or Spanish origin (*Type in origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on*) ↓

How do you describe yourself?

- American Indian or Alaska Native
 Asian or Asian American
 Black or African American
 Native Hawaiian or Other Pacific Islander
 White
 Other - *Type in race below* ↓

If you did not adequately understand the preceding questions or their response choices, please tell us, and explain why below:

If the preceding questions or their response choices made you feel uncomfortable in any way, please tell us, and explain why below:

If you think that the preceding questions or their response choices should be eliminated or changed in any way, please tell us below. Please specify any changes that you think should be made:

Figure 14. Format B.

GRE Test Taker Survey (123)

Format C

Please answer BOTH questions about Hispanic origin and race. For Format C, Hispanic origins are not races.

Are you of Hispanic, Latino, or Spanish origin?

- No, not of Hispanic, Latino, or Spanish origin
- Yes, Mexican, Mexican-American, Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, another Hispanic, Latino, or Spanish origin - Type in origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. *1*

What is your race (and ancestry)? (Select all that apply.)

- White
 - Black or African American
 - American Indian or Alaska Native - Type in name of enrolled or principal tribe. *1*
-
- Asian Indian
 - Chinese
 - Filipino
 - Other Asian - Type in race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. *1*
 - Japanese
 - Korean
 - Vietnamese
 - Native Hawaiian
 - Guamanian or Chamorro
 - Samoan
 - Other Pacific Islander - Type in race, for example, Fijian, Tongan, and so on. *1*

- Some other race - Type in race. *1*

If you did not adequately understand the preceding questions or their response choices, please tell us, and explain why below:

If the preceding questions or their response choices made you feel uncomfortable in any way, please tell us, and explain why below:

If you think that the preceding questions or their response choices should be eliminated or changed in any way, please tell us below. Please specify any changes that you think should be made:

Figure 15. Format C.



GRE Test Taker Survey (123)

Which format (Format A, Format B, or Format C) do you prefer?

If you would like to review the three formats, please click on the following link: [Formats](#)

- Format A
- Format B
- Format C
- None of the above

Please explain below why you prefer that particular format. If you did not like any of the formats, please explain why, and feel free to suggest a different format below.

We also would appreciate below your general comments about this survey and the other questions and response choices in it.

If you would like to review the other survey questions and response choices, please click on the following link: [Survey questions and response choices](#)

Figure 16. Which format do you prefer and why?

The DOE requires, for data reporting purposes (possibly limited to when reporting is made to DOE), aggregated data in the following seven categories: (a) Hispanic/Latino of any race and for test-takers who are non-Hispanic/Latino only, (b) American Indian or Alaska Native, (c) Asian, (d) Black or African American, (e) Native Hawaiian or Other Pacific Islander, (f) White, and (g) two or more races (Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education, 2007). The implication is that the data collection process can break each of the first six groups into finer distinctions. In addition, there are guidelines for when third-party identification of race and ethnicity is permitted or required, maintaining and bridging to records with racial and ethnic information in an old format,

and there are special rules for No Child Left Behind. ETS should refer to the DOE requirements for further information. It is possible that the 1997 Standards impose additional data collection and reporting requirements, and different DOE and OMB requirements may apply to different ETS programs.

We based Format C (Figure 15) of the final survey on the 2010 Census questions about race and ethnicity in part because a tremendous amount of research conducted by the U.S. Census Bureau has served as the main empirical foundation for the 1997 Standards (Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997). The 1997 Standards established the parameters for the questions about race and ethnicity in the 2000 U.S. Census questionnaire and the surveys, forms, and records used by the U.S. federal government's departments and agencies as of January 2003. For the 2010 U.S. Census, the U.S. Census Bureau conducted additional research (e.g., the 2003 and 2005 National Census Tests) to collect data in an effort to determine if and how questions about race and ethnicity from the 2000 Census questionnaire should be amended. We believed it sound and prudent to offer Format C for feedback purposes whether or not it should be used in an operational context.

Format B (Figure 14) is a hybrid of Format A and Format C. It separates the one-part question of Format A into two parts, with the first question about Hispanic origin and the second question about race. However, it does not permit the respondent to choose more than one race. Therefore, it does not fully comply with the DOE's implementation of the 1997 Standards. Regardless, we felt that, for the purpose of this empirical study, the responses to Format B would provide useful context for Formats A and C.

Analysis, Results, and Discussion

Stability of Racial and Ethnic Self-Identification

Racial self-identification without a clear set of common rules is at least somewhat subjective and fluid. Nevertheless, sufficient stability in self-identification is required for one to be able to make predictions based on it. In other words, validity requires reliability. We were able to compare racial and ethnic self-identification on the BIQ to racial and ethnic self-identification on the final survey (Format A) where response options for Hispanic background and response options for race appear together in a single question, and a respondent can select only one response option. Racial and ethnic self-identification when the respondent has a single response option is relatively stable (see Table 2). Values for % *within BIQ* indicate the

percentage of respondents to the BIQ who chose the same racial and ethnic group later in the final survey (Format A). Values for *% within Final Survey Format A* indicate the percentage of respondents to the final survey who chose the same racial and ethnic group earlier in the BIQ. At first glance, it would appear that all or almost all of those who had self-reported on the final survey (Format A) as Puerto Rican, Mexican, Mexican American, or Chicano self-reported as Other Hispanic or Latin American on the BIQ (the adjacent 100% and 78% values in Table 2 where the Other Hispanic or Latin American category for the BIQ intersects with the Puerto Rican and Mexican, Mexican American, or Chicano categories for the final survey). Similarly, it would seem that all of those who self-reported on the final survey (Format A) as Native Hawaiian or Pacific Islander self-reported as Asian, Asian American, or Pacific Islander on the BIQ (the 100% value in Table 2 where the Asian, Asian American, or Pacific Islander category for the BIQ intersects with the Native Hawaiian or Other Pacific Islander category for the final survey). However, these results may not be as they seem. The BIQ provides separate response options for Puerto Rican, Mexican, Mexican American, or Chicano and for Native Hawaiian or Other Pacific Islander. Regardless of how the racial and ethnic information is collected, it nevertheless was internally reported to the authors in an aggregated fashion such that (a) all Hispanic participants were grouped together, and (b) Native Hawaiian and Pacific Islander participants were grouped with Asian test-takers. The DOE requires that Native Hawaiian or Other Pacific Islander remains a distinct category for data collection and reporting to the DOE (Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education, 2007). Finally, those who simply reported as Other in the final survey were split fairly evenly among BIQ groups (the 37%, 23%, and 23% values in Table 2 where American Indian, Alaskan Native, or Other Native American; Black/African American; and Other Hispanic or Latin American categories for the BIQ intersect with the Other category for the final survey). Aggregation issues aside, there is enough stability in racial and ethnic self-reporting over time to justify use of the final survey to investigate racial and ethnic self-reporting further.

Table 2

Consistency of Single-Choice Racial and Ethnic Self-Identification Over Time (GRE Background Information Questionnaire Versus Final Survey Format A)

Background Information Questionnaire (BIQ)		Final Survey Format A									Total
		American Indian or Alaska Native	Asian or Asian American	Black or African American	Other Hispanic, Latino, or Latin American	White (Non-Hispanic)	Puerto Rican	Mexican, Mexican American, or Chicano	Native Hawaiian or Other Pacific Islander	Other	
American Indian, <i>n</i>		82	0	0	0	12	0	0	0	11	105
Alaskan Native, or Other Native American Group	% within BIQ	78% ^a	0%	0%	0%	11%	0%	0%	0%	10%	100%
	% within Final Survey Format A	100% ^b	0%	0%	0%	27%	0%	0%	0%	37% ^e	23%
Asian, Asian American, or Pacific Islander	<i>n</i>	0	58	0	0	0	0	1	2	3	64
	% within BIQ	0%	91% ^a	0%	0%	0%	0%	2%	3%	5%	100%
	% within Final Survey Format A	0%	100% ^b	0%	0%	0%	0%	11%	100% ^d	10%	14%
Black/African American	<i>n</i>	0	0	145	0	0	0	0	0	7	152
	% within BIQ	0%	0%	95% ^a	0%	0%	0%	0%	0%	5%	100%
	% within Final Survey Format A	0%	0%	100% ^b	0%	0%	0%	0%	0%	23% ^e	33%
Other Hispanic or Latin American	<i>n</i>	0	0	0	89	1	1	7	0	7	105
	% within BIQ	0%	0%	0%	85% ^a	1%	1%	7%	0%	7%	100%
	% within Final Survey Format A	0%	0%	0%	100% ^b	2%	100% ^c	78% ^c	0%	23% ^e	23%
White (Non-Hispanic)	<i>n</i>	0	0	0	0	29	0	1	0	2	32
	% within BIQ	0%	0%	0%	0%	91% ^a	0%	3%	0%	6%	100%
	% within Final Survey Format A	0%	0%	0%	0%	66% ^b	0%	11%	0%	7%	7%
Nothing reported	<i>n</i>	0	0	0	0	2	0	0	0	0	2
	% within BIQ	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
	% within Final Survey Format A	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%
Total	<i>N</i>	82	58	145	89	44	1	9	2	30	460
	% within BIQ	18%	13%	32%	19%	10%	0%	2%	0%	7%	100%
	% within Final Survey Format A	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

^aThese values (% within BIQ) indicate the percentage of respondents to the BIQ who chose the same racial or ethnic group later in the final survey (Format A). ^bThese values (% within Final Survey Format A) indicate the percentage of respondents to the final survey who chose the same racial or ethnic group earlier in the BIQ. ^cIndicates consistency in reporting for Hispanic and Latin American groups when the BIQ subcategories for Hispanic and Latin American groups are combined. ^dIndicates consistency in reporting for Native Hawaiian and Other Pacific Islander groups when the BIQ category for Native Hawaiians and Other Pacific Islanders is combined with the BIQ category for Asians and Asian Americans. ^eIndicates how those who reported as Other in the Final Survey (Format A) primarily reported in the BIQ.

The U.S.-Style Questions About Race and Ethnicity

Preferences. In general, participants preferred the question format that they felt was most relevant to their racial and ethnic backgrounds. Tables 3 through 15 generally show that regardless of background, respondents preferred Format A or Format C (i.e., almost never Format B). Table 3 shows that respondents were fairly evenly split between preferring Formats A and C, with Format A being only slightly preferred. We expected that Format A, with its one-question design that permits only one response to items that treat Hispanic origin as equivalent to race, would be most preferred by monoracial respondents, non-Hispanic respondents, and persons who do not necessarily relate to or desire a question format based on U.S. standards of race and ethnicity (e.g., non-U.S. citizens). One would expect Format C's great pluralism to appeal to Hispanic, multiracial, Asian, and Native American respondents. Format C recognizes Hispanic origin separately from race; it permits multiracial respondents to describe themselves as such; it allows Native American respondents to report their tribes; and it provides several explicit subcategories for Asian respondents (Chinese, Korean, etc.).

Table 3

All Respondents

Format A		Format B		Format C		None of the above	
38.3% ^a	<i>n</i> = 276	15.7%	<i>n</i> = 113	36.7%	<i>n</i> = 264	9.3%	<i>n</i> = 67

^aPreferred format is in **boldface**.

We believed that those who are not personally familiar with the way that race and ethnicity are perceived in the United States would generally prefer Format A because, as the most streamlined of the formats, it is the option to which such registrants will best relate. We will refer to those having an understanding of and preference for racial and ethnic categories that are shaped primarily by U.S. culture as being U.S.-acculturated and everyone else as being not U.S.-acculturated.² We also believed that only U.S.-acculturated registrants would, on the whole, prefer Format C, because its complexity is irrelevant and perhaps confusing in general to registrants who are not U.S.-acculturated. Format C is based on U.S. Census Bureau research that determined it to be the most appropriate format for the U.S. population. Nevertheless, we believed that having or acquiring U.S. citizenship (especially as one's only citizenship) and

being born in the United States would typically indicate socialization in favor of a more pluralistic question in the form of Format C. The data in Tables 4 and 5 support our beliefs about the effects of socialization on a preference for more pluralistic questions. Having dual citizenship (U.S. + other citizenship) may indicate acculturation partially or predominantly to non-U.S. norms, which might explain why U.S. citizens with dual citizenship do not prefer Format C over Format A (see Table 4). However, Format C is preferred by U.S. citizens with dual citizenship who were born in the United States as well as by Americans with sole U.S. citizenship who were born outside of the United States (see Table 5).

Table 4
By Citizenship/Residency Status

Citizenship/residency status	Format A	Format B	Format C	None of the above
U.S. citizenship only	36% (<i>n</i> = 140)	15% (<i>n</i> = 57)	41%^a (<i>n</i> = 160)	8% (<i>n</i> = 31)
U.S. + other citizenship	38%^a (<i>n</i> = 27)	19% (<i>n</i> = 14)	36% (<i>n</i> = 26)	7% (<i>n</i> = 5)
Other citizenship only				
U.S. permanent resident /alien	37%^a (<i>n</i> = 21)	18% (<i>n</i> = 10)	33% (<i>n</i> = 19)	12% (<i>n</i> = 7)
Not U.S. permanent resident /alien	43%^a (<i>n</i> = 87)	16% (<i>n</i> = 32)	29% (<i>n</i> = 59)	12% (<i>n</i> = 24)
Total (across citizenship/residency status)	38%^a (<i>N</i> = 275)	16% (<i>N</i> = 113)	37% (<i>N</i> = 264)	9% (<i>N</i> = 67)

^aPreferred format is in **boldface**.

Table 5
By Birthplace and Citizenship

Citizenship/residency status	Format A	Format B	Format C	None of the above
Born in the U.S. (native-born U.S. citizens)				
U.S. citizenship only	36% (<i>n</i> = 124)	15% (<i>n</i> = 53)	41%^a (<i>n</i> = 143)	8% (<i>n</i> = 27)
U.S. + other citizenship	39% (<i>n</i> = 11)	14% (<i>n</i> = 4)	46%^a (<i>n</i> = 13)	0% (<i>n</i> = 0)
Born outside of the U.S.				
U.S. citizenship only	39% (<i>n</i> = 16)	10% (<i>n</i> = 4)	41%^a (<i>n</i> = 17)	10% (<i>n</i> = 4)
U.S. + other citizenship	36%^a (<i>n</i> = 16)	23% (<i>n</i> = 10)	30% (<i>n</i> = 13)	11% (<i>n</i> = 5)
Other citizenship only	42%^a (<i>n</i> = 109)	16% (<i>n</i> = 42)	30% (<i>n</i> = 78)	12% (<i>n</i> = 31)
Subtotal for born outside of U.S.	41%^a (<i>N</i> = 141)	16% (<i>N</i> = 56)	31% (<i>N</i> = 108)	12% (<i>N</i> = 40)

^aPreferred format is in **boldface**.

In general, registrants who are not U.S.-acculturated prefer simpler Format A more than other registrants do. In general, the pluralistic Format C will be preferred more by U.S.-acculturated registrants than by those who are not U.S.-acculturated, but there are important differences among U.S.-acculturated subgroups: With regard to question preference, a U.S.-

acculturated registrant’s mono/multiraciality appears to supersede the effects of being U.S.-acculturated. Monoracial U.S. citizens as well as monoracial non-U.S. citizens prefer format A (see Table 7). Moreover, a registrant who is a multiracial U.S. citizen is more likely to prefer Format C regardless of whether she or he is a dual citizen (see Table 7). Non-U.S. citizens prefer Format A unless they are multiracial permanent residents of the United States, in which case they prefer Format C (see Table 7). Table 8 illustrates how Table 5 is not a complete story—unlike their multiracial counterparts, monoracial registrants born in the United States actually prefer Format A over Format C. Also, multiracial registrants born outside of the United States prefer Format C to Format A (see Table 8). In addition, the trend for U.S. citizens to favor Format C does not hold for Black respondents or the majority of Hispanic respondents (see Table 6). However, that appears to be due to the fact that most of them identify as being monoracial (and thus prefer Format A). When one differentiates Black respondents and Hispanic respondents by mono/multiraciality, one observes that multiracial Black and multiracial Hispanic U.S. citizens prefer Format C (see Tables 9 and 12). In fact, *monoracial* White U.S. citizens prefer Format A—it is the strong preference of *multiracial* White U.S. citizens for Format C that makes it seem that White U.S. citizens in general prefer Format C (see Table 11).

Table 6
U.S. Citizenship Only: Preferences by Race/Ethnicity (When Only One Race/Ethnicity Can Be Chosen)

Race/ethnicity	Format A	Format B	Format C	None of the above
American Indian or Alaska Native	21.3% (<i>n</i> = 17)	6.3% (<i>n</i> = 5)	65.0%^a (<i>n</i> = 52)	7.5% (<i>n</i> = 6)
Asian or Asian American	38.3% (<i>n</i> = 18)	8.5% (<i>n</i> = 4)	48.9%^a (<i>n</i> = 23)	4.3% (<i>n</i> = 2)
Black or African American	46.0%^a (<i>n</i> = 57)	20.2% (<i>n</i> = 25)	27.4% (<i>n</i> = 34)	6.5% (<i>n</i> = 8)
Native Hawaiian or Other Pacific Islander	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	50.0%^a (<i>n</i> = 1)	50.0%^a (<i>n</i> = 1)
White (non-Hispanic)	41.9% (<i>n</i> = 13)	6.5% (<i>n</i> = 2)	51.6%^a (<i>n</i> = 16)	0.0% (<i>n</i> = 0)
Mexican, Mexican American, or Chicano	25.0% (<i>n</i> = 2)	37.5% ^a (<i>n</i> = 3)	12.5% (<i>n</i> = 1)	25.0% (<i>n</i> = 2)
Puerto Rican	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	100.0%^a (<i>n</i> = 1)	0.0% (<i>n</i> = 0)
Other Hispanic, Latino, or Latin American	42.3%^a (<i>n</i> = 30)	21.1% (<i>n</i> = 15)	25.4% (<i>n</i> = 18)	11.3% (<i>n</i> = 8)
Other	12.5% (<i>n</i> = 3)	12.5% (<i>n</i> = 3)	65.0%^a (<i>n</i> = 14)	16.7% (<i>n</i> = 4)
Total	36.1% (<i>N</i> = 140)	15.0% (<i>N</i> = 57)	41.2%^a (<i>N</i> = 160)	8.0% (<i>N</i> = 31)

^aPreferred format is in **boldface**.

Table 7***By Citizenship/Residency Status and Mono/Multiracial Self-Identification***

Citizenship/residency status and ethnicity/race	Format A	Format B	Format C	None of the above
U.S. citizenship only				
Monoracial	42.6% ^a (<i>n</i> = 113)	17.7% (<i>n</i> = 47)	32.5% (<i>n</i> = 86)	7.2% (<i>n</i> = 19)
Multiracial	19.3% (<i>n</i> = 22)	07.0% (<i>n</i> = 8)	64.9% ^a (<i>n</i> = 74)	8.8% (<i>n</i> = 10)
U.S. + other citizenship				
Monoracial	41.9% ^a (<i>n</i> = 26)	22.6% (<i>n</i> = 14)	30.6% (<i>n</i> = 19)	4.8% (<i>n</i> = 3)
Multiracial	12.5% (<i>n</i> = 1)	00.0% (<i>n</i> = 0)	75.0% ^a (<i>n</i> = 6)	12.5% (<i>n</i> = 1)
Other citizenship only				
Monoracial	43.4% ^a (<i>n</i> = 96)	15.8% (<i>n</i> = 35)	30.8% (<i>n</i> = 68)	10.0% (<i>n</i> = 22)
Multiracial	37.0% ^a (<i>n</i> = 10)	22.2% (<i>n</i> = 6)	25.9% (<i>n</i> = 7)	14.8% (<i>n</i> = 4)
Non-U.S. permanent resident/alien				
Monoracial	44.8% ^a (<i>n</i> = 78)	15.5% (<i>n</i> = 27)	30.5% (<i>n</i> = 53)	9.2% (<i>n</i> = 16)
Multiracial	42.1% ^a (<i>n</i> = 8)	21.1% (<i>n</i> = 4)	15.8% (<i>n</i> = 3)	21.1% (<i>n</i> = 4)
U.S. permanent resident/alien				
Monoracial	37.0% ^a (<i>n</i> = 17)	17.4% (<i>n</i> = 8)	32.6% (<i>n</i> = 15)	13.0% (<i>n</i> = 6)
Multiracial	25.0% (<i>n</i> = 2)	25.0% (<i>n</i> = 2)	50.0% ^a (<i>n</i> = 4)	0.0% (<i>n</i> = 0)

^aPreferred format is in **boldface**.**Table 8*****By Birthplace and Mono/Multiracial Self-Identification***

Citizenship status and ethnicity/race	Format A	Format B	Format C	None of the above
Born in the U.S.				
Monoracial	42.6% ^a (<i>n</i> = 110)	18.2% (<i>n</i> = 47)	32.2% (<i>n</i> = 83)	7.0% (<i>n</i> = 18)
Multiracial	19.1% (<i>n</i> = 21)	7.3% (<i>n</i> = 8)	66.4% ^a (<i>n</i> = 73)	7.3% (<i>n</i> = 8)
Born outside of the U.S.				
Monoracial	43.1% ^a (<i>n</i> = 125)	16.9% (<i>n</i> = 49)	31.0% (<i>n</i> = 90)	9.0% (<i>n</i> = 26)
Multiracial	30.8% (<i>n</i> = 12)	15.4% (<i>n</i> = 6)	35.9% ^a (<i>n</i> = 14)	17.9% (<i>n</i> = 7)

^aPreferred format is in **boldface**.**Table 9*****By Hispanic/Non-Hispanic Self-Identification and Citizenship Status***

Citizenship status and ethnicity/race	Format A	Format B	Format C	None of the above
All respondents (ignoring citizenship)				
Hispanic	40.4% ^a (<i>N</i> = 64)	21.7% (<i>N</i> = 36)	30.0% (<i>N</i> = 47)	13.4% (<i>N</i> = 19)
Non-Hispanic	38.3% (<i>N</i> = 206)	14.0% (<i>N</i> = 74)	40.8% ^a (<i>N</i> = 214)	10.5% (<i>N</i> = 46)
U.S. citizenship only				
Hispanic	36.6% ^a (<i>n</i> = 34)	21.5% (<i>n</i> = 20)	26.9% (<i>n</i> = 25)	15.1% (<i>n</i> = 14)
Non-Hispanic	36.1% (<i>n</i> = 105)	12.4% (<i>n</i> = 36)	46.0% ^a (<i>n</i> = 134)	5.5% (<i>n</i> = 16)
U.S. + other citizenship				
Hispanic	24.0% (<i>n</i> = 6)	20.0% (<i>n</i> = 5)	44.0% ^a (<i>n</i> = 11)	12.0% (<i>n</i> = 3)
Non-Hispanic	42.2% ^a (<i>n</i> = 19)	20.0% (<i>n</i> = 9)	33.3% (<i>n</i> = 15)	4.4% (<i>n</i> = 2)
Other citizenship only				
Hispanic	50.0% ^a (<i>n</i> = 24)	22.9% (<i>n</i> = 11)	22.9% (<i>n</i> = 11)	4.2% (<i>n</i> = 2)
Non-Hispanic	40.2% ^a (<i>n</i> = 82)	14.2% (<i>n</i> = 29)	31.9% (<i>n</i> = 65)	13.7% (<i>n</i> = 28)

^aPreferred format is in **boldface**.

Table 10***Hispanic Respondents by Citizenship and Mono/Multiracial Self-Identification***

Citizenship status and ethnicity/race	Format A	Format B	Format C	None of the above
All Hispanic respondents (ignoring citizenship)				
Monoracial Hispanic	39.9%^a (N = 47)	24.5% (N = 30)	27.9% (N = 34)	11.9% (N = 12)
Multiracial Hispanic	32.1% (N = 9)	28.1% (N = 6)	47.8%^a (N = 11)	18.8% (N = 3)
U.S. citizenship only				
Monoracial Hispanic	34.8%^a (n = 24)	24.6% (n = 17)	27.5% (n = 19)	13.0% (n = 9)
Multiracial Hispanic	31.3%^a (n = 5)	18.8% (n = 3)	31.3%^a (n = 5)	18.8% (n = 3)
U.S. + other citizenship				
Monoracial Hispanic	27.8% (n = 5)	27.8% (n = 5)	33.3%^a (n = 6)	11.1% (n = 2)
Multiracial Hispanic	20.0% (n = 1)	0.0% (n = 0)	80.0%^a (n = 4)	0.0% (n = 0)
Other citizenship only				
Monoracial Hispanic	50.0%^a (n = 18)	22.2% (n = 8)	25.0% (n = 9)	2.8% (n = 1)
Multiracial Hispanic	37.5%^a (n = 3)	37.5%^a (n = 3)	25.0% (n = 2)	0.0% (n = 0)

^aPreferred format is in **boldface**.

Table 11***White Respondents by Citizenship and Mono/Multiracial Self-Identification***

Citizenship status and ethnicity/race	Format A	Format B	Format C	None of the above
All White respondents (ignoring citizenship)				
Monoracial White	45.2%^a (N = 72)	21.4% (N = 34)	25.4% (N = 40)	9.1% (N = 14)
Multiracial White	23.1% (N = 26)	16.3% (N = 12)	64.1%^a (N = 74)	10.0% (N = 12)
U.S. citizenship only				
Monoracial White	41.9%^a (n = 26)	19.4% (n = 12)	29.0% (n = 18)	9.7% (n = 6)
Multiracial White	18.3% (n = 17)	6.5% (n = 6)	66.7%^a (n = 62)	8.6% (n = 8)
U.S. + other citizenship				
Monoracial White	42.3%^a (n = 11)	23.1% (n = 6)	23.1% (n = 6)	11.5% (n = 3)
Multiracial White	12.5% (n = 1)	0.0% (n = 0)	75.0%^a (n = 6)	12.5% (n = 1)
Other citizenship only				
Monoracial White	48.6%^a (n = 35)	22.2% (n = 16)	22.2% (n = 16)	6.9% (n = 5)
Multiracial White	34.8%^a (n = 8)	26.1% (n = 6)	26.1% (n = 6)	13.0% (n = 3)

^aPreferred format is in **boldface**.

How do the findings for format preferences explain the virtually universal preference of some minorities (namely Asian respondents and American Indians/Alaska Native respondents) for Format C, regardless of mono/multiraciality? With respect to one's question preference, just as mono/multiraciality supersedes the effects of U.S. acculturation, being able to identify one's race/ethnicity by subcategory (and not just at a broad category level) supersedes the effects of mono/multiraciality. An example is being able to select Chinese rather than just Asian. Only Format C asks or even allows American Indian/Alaska Native respondents to write in their tribal affiliations or Asian respondents (including Asian Americans respondents) to describe their

national origin (checkbox and write-in). One can think of tribal affiliation as a type of national origin, too, because many American Indian people think of tribes as nations. No such options to report ancestry/national origin are offered to White or Black respondents. When one compares Tables 13 and 15 (Asian respondents and American Indian/Alaska Native respondents, respectively) to Tables 11 and 12 (White and Black respondents, respectively), one sees that *only* multiracial White or multiracial Black U.S. citizens as a group prefer Format C, whereas *all* Asian respondents and *all* American Indian/Alaska Native respondents as a group prefer Format C.

Table 12

Black Respondents by Citizenship and Mono/Multiracial Self-Identification

Citizenship status and ethnicity/race	Format A	Format B	Format C	None of the above
All Black respondents (ignoring citizenship)				
Monoracial Black	47.7%^a (N = 80)	20.8% (N = 34)	24.0% (N = 40)	11.8% (N = 14)
Multiracial Black	28.3% (N = 12)	15.5% (N = 4)	53.9%^a (N = 23)	16.4% (N = 5)
U.S. citizenship only				
Monoracial Black	47.2%^a (n = 50)	22.6% (n = 24)	23.6% (n = 25)	6.6% (n = 7)
Multiracial Black	24.2% (n = 8)	6.1% (n = 2)	57.6%^a (n = 19)	12.1% (n = 4)
U.S. + other citizenship				
Monoracial Black	52.4%^a (n = 11)	19.0% (n = 4)	28.6% (n = 6)	0.0% (n = 0)
Multiracial Black	33.3%^a (n = 1)	0.0% (n = 0)	33.3%^a (n = 1)	33.3% (n = 1)
Other citizenship only				
Monoracial Black	46.3%^a (n = 19)	14.6% (n = 6)	22.0% (n = 9)	17.1% (n = 7)
Multiracial Black	37.5%^a (n = 3)	25.0% (n = 2)	37.5%^a (n = 3)	0.0% (n = 0)

^aPreferred format is in **boldface**.

Table 13

Asian Respondents by Citizenship and Mono/Multiracial Self-Identification

Citizenship status and ethnicity	Format A	Format B	Format C	None of the above
All Asian respondents (ignoring citizenship)				
Monoracial Asian	38.3% (N = 51)	12.9% (N = 14)	47.1%^a (N = 63)	5.7% (N = 6)
Multiracial Asian	23.8% (N = 5)	20.4% (N = 4)	53.6%^a (N = 11)	19.2% (N = 3)
U.S. citizenship only				
Monoracial Asian	40.0% (n = 18)	8.9% (n = 4)	48.9%^a (n = 22)	2.2% (n = 1)
Multiracial Asian	23.1% (n = 3)	23.1% (n = 3)	46.2%^a (n = 6)	7.7% (n = 1)
U.S. + other citizenship				
Monoracial Asian	27.3% (n = 3)	27.3% (n = 3)	45.5%^a (n = 5)	0.0% (n = 0)
Multiracial Asian	0.0% (n = 0)	0.0% (n = 0)	100.0%^a (n = 2)	0.0% (n = 0)
Other citizenship only				
Monoracial Asian	38.5% (n = 30)	9.0% (n = 7)	46.2%^a (n = 36)	6.4% (n = 5)
Multiracial Asian	25.0% (n = 2)	12.5% (n = 1)	37.5%^a (n = 3)	25.0% (n = 2)

^aPreferred format is in **boldface**.

Table 14***Hawaiian/Pacific Islander Respondents by Citizenship and Mono/Multiracial Self-Identification***

Citizenship status and ethnicity	Format A	Format B	Format C	None of the above
All Native Hawaiian/Pacific Islander respondents (ignoring citizenship)				
Monoracial Native Hawaiian/Pacific Islander	0.0% (<i>N</i> = 0)	33.3% (<i>N</i> = 1)	67.7%^a (<i>N</i> = 2)	0.0% (<i>N</i> = 0)
Multiracial Native Hawaiian/Pacific Islander	33.3% (<i>N</i> = 1)	0.0% (<i>N</i> = 0)	33.3% (<i>N</i> = 1)	66.7%^a (<i>N</i> = 2)
U.S. citizenship only				
Monoracial Native Hawaiian/Pacific Islander	0.0% (<i>n</i> = 0)	33.3% (<i>n</i> = 1)	67.7%^a (<i>n</i> = 2)	0.0% (<i>n</i> = 0)
Multiracial Native Hawaiian/Pacific Islander	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	100.0%^a (<i>n</i> = 1)
Other citizenship only				
Multiracial Native Hawaiian/Pacific Islander	33.3%^a (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	33.3%^a (<i>n</i> = 1)	33.3%^a (<i>n</i> = 1)

^aPreferred format is in **boldface**.

Table 15***American Indian/Alaska Native Respondents by Citizenship and Mono/Multiracial Self-Identification***

Citizenship status and ethnicity/race	Format A	Format B	Format C	None of the above
All American Indian/Alaska Native Respondents (ignoring citizenship)				
Monoracial Amer Ind / Alaska Nat	30.6% (<i>N</i> = 11)	13.9% (<i>N</i> = 5)	55.0%^a (<i>N</i> = 20)	5.6% (<i>N</i> = 2)
Multiracial Amer Ind / Alaska Nat	21.5% (<i>N</i> = 17)	2.5% (<i>N</i> = 2)	72.9%^a (<i>N</i> = 61)	4.9% (<i>N</i> = 4)
U.S. citizenship only				
Monoracial Amer Ind / Alaska Nat	30.6% (<i>n</i> = 11)	13.9% (<i>n</i> = 5)	50.0%^a (<i>n</i> = 18)	5.6% (<i>n</i> = 2)
Multiracial Amer Ind / Alaska Nat	19.8% (<i>n</i> = 16)	2.5% (<i>n</i> = 2)	72.8%^a (<i>n</i> = 59)	4.9% (<i>n</i> = 4)
U.S. + other citizenship				
Multiracial Amer Ind / Alaska Nat	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	100.0%^a (<i>n</i> = 2)	0.0% (<i>n</i> = 0)
Monoracial Amer Ind / Alaska Nat	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	100.0%^a (<i>n</i> = 1)	0.0% (<i>n</i> = 0)
Other citizenship only				
Monoracial Amer Ind / Alaska Nat	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Multiracial Amer Ind / Alaska Nat	50.0%^a (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	50.0%^a (<i>n</i> = 1)	0.0% (<i>n</i> = 0)

Note. Amer Ind = American Indian; Alaska Nat = Alaska Native.

^aPreferred format is in **boldface**.

Hispanic U.S. citizens and Hawaiian/Pacific Islander respondents represent a possible exception to the effect that the provision of subcategorization options has on the format preferences of respondents regardless of how U.S.-acculturated they are. The sample sizes

for Hawaiian/Pacific Islander respondents are too small to draw any conclusions (see Table 14). Formats B and C, but not A, permit a Hispanic respondent to write in national origin (compare Figures 14 and 15 with Figure 13). Yet Hispanic U.S.-only citizens tend to prefer Format A (see Table 9). However, a closer look at the Hispanic American group tells a somewhat more complex story. Although sample sizes are somewhat small, multiracial Hispanic respondents who have U.S. citizenship (sole or dual) do prefer Format C at least as much as Format A (see Table 10), which arguably could support the notion of a mono/multiraciality effect on format preferences. Nevertheless, for Hispanic respondents, we do not observe the trend for preferring Format C that we observe for Asian respondents or American Indian/Alaska Native respondents (compare Table 10 to Tables 13 and 15). Based on findings discussed in further detail below, we have concluded that many Hispanic U.S. citizens (including those who non-Hispanic respondents might consider to be multiracial) primarily self-identify with a Hispanic identity that cuts across U.S. notions of race, and asking them to consider race separately from their Hispanic identity causes them confusion and/or discomfort. An unreceptive or ambivalent attitude toward race as an additional identity may contribute to Hispanic respondents' lukewarm responses to anything other than a single question that treats Hispanic origin the same as race. For open-ended questions that had exceedingly low response rates in general as well as within specific racial and ethnic groups (see further discussion in the section Issues Raised With Regard to the U.S.-Style Questions), Hispanic respondents' most widely expressed opinions concerned misunderstanding and discomfort over what to select for race after self-identifying as being of Hispanic origin. Moreover, 3.6% of Hispanic participants (and 3.2% of Hispanic participants who were U.S.-only citizens) expressly indicated that they wanted the two questions about race and ethnicity in Format B to be collapsed into a single question. For other open-ended questions that had very low overall response rates, 2.4% of Hispanic participants (and 3.2% of Hispanic participants who were U.S.-only citizens) expressly indicated that they wanted the two questions about race and ethnicity in Format C to be collapsed into a single question. In addition, while 34% of Hispanic U.S.-only citizens indicated a desire to change Format A, 42% indicated a desire to change Format B, and 44% indicated a desire to change Format C. Out of the 26 sets of comments from Hispanic U.S.-only citizens regarding their understanding of Format C, 17 (65%) explicitly indicated

confusion about how to identify race separately from Hispanic origin. As one Hispanic U.S. citizen in this study remarked, “As a Hispanic, it seems wrong to separate us into White, Black, Asian, and so on. When asked, I say that I’m Latin, not White Latin, or Black Latin, or whatever.” Hispanic U.S.-only citizens’ comments regarding comfort levels with Format C as well as their comments regarding Format B reinforce the notion that many Hispanic respondents prefer a single question that treats Hispanic origin similar to race (i.e., Format A). This conclusion is consistent with previous research that has shown that Hispanic respondents generally do not identify with racial groups (see discussion in Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997). The U.S. Census Bureau’s attempts to encourage this identification by adding additional explanatory language to questions about race and ethnicity have been unsuccessful; the U.S. Census Bureau concluded, “[E]fforts to instruct respondents about the distinction between race and Hispanic origin may not be worthwhile” (Martin, 2006, p. 26).

In summary, the evidence indicates that U.S. acculturation (being a U.S. citizen, being born in the United States, and/or being a permanent U.S. resident) is related to a preference for a more pluralistic format for the question about race and ethnicity exemplified by Format C. Registrants who are not U.S.-acculturated generally preferred a simpler design like Format A. Regardless of one’s U.S. acculturation (or lack thereof), being monoracial is related to being inclined toward a simpler Format exemplified by Format A, and being multiracial is related to being more inclined toward a more pluralistic format. Although Hispanic registrants often did not want racial and ethnic choices in addition to those for Hispanic origin, other registrants who could, conceivably, self-identify their race and ethnicity more specifically (such as in the form of national origin or tribal affiliation) generally preferred a more pluralistic question.

Issues raised with regard to the U.S.-style questions. After each of the three formats for the U.S.-style questions about race and ethnicity (Formats A, B, and C), the final survey asked respondents to indicate in an open-ended response if and why they did not understand the question format, were made uncomfortable by the question format, or wanted to eliminate or change the question format. The lower halves of Figures 13–15 depict the specific questions. After data collection ended, research assistants coded the comments of the 720 respondents on the following dimensions: respondents’ understanding of the formats, comfort with the formats, and desired changes to the formats. In order to make a potentially onerous coding task more

manageable, the coders were allowed to select up to three qualitative codes to describe each response (see Tables 16–24). Although there were hardly any instances in which coders selected three codes (less than 1.3% of the time for all dimensions for all formats), it is possible that for some responses coders would have selected more than three codes if given the opportunity to do so. Therefore, some of the frequencies reported in Tables 16–24 might underreport participants' concerns. In order to determine coder accuracy, the four different coders each independently recoded responses for 30 of the 720 participants, resulting in recoding for 120 participants in total (17%). Coder agreement between the first round of coding and the recoding was extremely high. The lowest agreement for any code was 95%, and coders achieved perfect agreement for the substantial majority of codes. When coders disagreed, it was usually over the specific nature of any changes that respondents described that they wanted to be made to a question format. Even here there was perfect agreement between coders approximately half of the time.

Tables 16–24 set forth each code used (i.e., each issue) as well as the percentages and frequencies of respondents who made a comment that each code paraphrases (overall and by citizenship status). We omitted from the tables any codes that we had anticipated would summarize at least some of the participants' comments but that we later discovered did not (i.e., whenever the percentage would equal zero in the column *% who raised issue [N = 720]*). The most frequently raised issues (generally the two most often mentioned for each tabled group or column) are highlighted in boldface. A relatively small percentage of the participants provided any responses to the open-ended questions. With regard to failure to understand questions, only 10% of all participants indicated whether or not they understood Format A, only 12% Format B, and only 13% Format C (see Tables 16, 19, and 22, respectively). Response rates regarding discomfort with question formats were somewhat better—24% for Format A, 23% for Format B, and 27% for Format C (see Tables 17, 20, and 23, respectively). Response rates regarding the necessity of a change to the questions were 38% for Format A, 38% for Format B, and 32% for Format C (see Tables 18, 21, and 24, respectively). We do not know whether or the extent to which the nonresponses were due to general understanding and comfort with the formats, apathy toward the questions, other factors, or some combination of these reasons. Therefore, the practical significance of specific substantive comments from those who did provide a response is unclear.

Table 16

Issues Raised With Regard to Understanding Format A

Issue (summarized comments)	% who raised issue (N = 720)	% of those who raised the issue, by citizenship status		
		U.S. (N = 388)	U.S. + other (N = 72)	Other (N = 260)
Yes, I understand the question	4.7% (n = 34)	3.4% (n = 13)	4.2% (n = 3)	6.9% (n = 18)
No, I do not understand the question	5.4% (n = 39)	4.1% (n = 16)	5.6% (n = 4)	7.3% (n = 19)
No response	89.9% (n = 647)	92.5% (n = 359)	90.3% (n = 65)	85.8% (n = 223)
Don't understand what <i>African American</i> means	0.1% (n = 1)	0.0% (n = 0)	0.0% (n = 0)	0.4% (n = 1)
Hard to understand if not American citizen/Question constructed for American citizens	0.8% (n = 6)	0.0% (n = 0)	0.0% (n = 0)	2.3%^a (n = 6)
Asian doesn't represent all Asians	0.4% (n = 3)	0.0% (n = 0)	1.4% (n = 1)	0.8% (n = 2)
What if you're African?	0.1% (n = 1)	0.0% (n = 0)	0.0% (n = 0)	0.4% (n = 1)
<i>How do you describe yourself?</i> might be different from your race	0.3% (n = 2)	0.5% (n = 2)	0.0% (n = 0)	0.0% (n = 0)
Don't understand difference between Hispanic, Latino, and Spanish	0.1% (n = 1)	0.3% (n = 1)	0.0% (n = 0)	0.0% (n = 0)
What to select if multiple races?	1.4%^a (n = 10)	1.8%^a (n = 7)	1.4% (n = 1)	0.8% (n = 2)
Race/subchoice isn't included in choices (Example: What to put if Middle Eastern?)	1.3%^a (n = 9)	0.8%^a (n = 3)	4.2%^a (n = 3)	1.2%^a (n = 3)
Does <i>race</i> mean national or ethnic identity?	0.3% (n = 2)	0.0% (n = 0)	1.4% (n = 1)	0.4% (n = 1)
The answers mix racial categories with nationality categories	0.3% (n = 2)	0.0% (n = 0)	1.4% (n = 1)	0.4% (n = 1)
If chose response with “/,” does it mean you're both items on either side of “/”?	0.1% (n = 1)	0.0% (n = 0)	0.0% (n = 0)	0.4% (n = 1)
<i>How do you describe yourself?</i> is too vague	0.4% (n = 3)	0.5% (n = 2)	0.0% (n = 0)	0.4% (n = 1)

Note. N = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); n = number of participants with that citizenship status who expressed the comment in the first column. If fewer than two issues have an n that is greater than 1, then fewer than two percentages are in **boldface**. Each percentage is based on the total sample size (N) for the column in which it appears.

^aPercentages for the two most frequently raised issues are in **boldface**.

Table 17

Issues Raised With Regard to Comfort With Format A

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I am uncomfortable with the question	18.5% (<i>n</i> = 133)	18.0% (<i>n</i> = 70)	19.4% (<i>n</i> = 14)	18.8% (<i>n</i> = 49)
No, I am not uncomfortable with the question/I am comfortable with the question	5.1% (<i>n</i> = 37)	4.4% (<i>n</i> = 17)	2.8% (<i>n</i> = 2)	6.9% (<i>n</i> = 18)
No response	76.4% (<i>n</i> = 550)	77.6% (<i>n</i> = 301)	77.8% (<i>n</i> = 56)	74.2% (<i>n</i> = 193)
Question constructed for American citizens	1.0% (<i>n</i> = 7)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	2.3% (<i>n</i> = 6)
Uncomfortable not being able to clarify answer of Other	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Skin color is not the determiner of race	0.3% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
White and Black aren't ancestries	0.6% (<i>n</i> = 4)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
<i>How do you describe yourself?</i> doesn't just mean <i>What is the color of your skin?'</i>	0.7% (<i>n</i> = 5)	1% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Not comfortable with Hispanic categories being interspersed in list	0.7% (<i>n</i> = 5)	0.3% (<i>n</i> = 1)	2.8% (<i>n</i> = 2)	0.8% (<i>n</i> = 2)
What to select if multiple races?	6.1%^a (<i>n</i> = 44)	9.3%^a (<i>n</i> = 36)	6.9%^a (<i>n</i> = 5)	1.2% (<i>n</i> = 3)
<i>American Indian</i> should be <i>Native American</i>	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Uncomfortable with the word <i>Hispanic</i>	0.3% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Should have the option to not select any race	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable having to select Other	1.1% (<i>n</i> = 8)	0.8% (<i>n</i> = 3)	2.8% (<i>n</i> = 2)	1.2% (<i>n</i> = 3)
Not comfortable with Puerto Ricans, etc., having own category	0.8% (<i>n</i> = 6)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Uncomfortable being asked about race or ethnicity	1.8% (<i>n</i> = 13)	1.3% (<i>n</i> = 5)	0.0% (<i>n</i> = 0)	3.1%^a (<i>n</i> = 8)
Race/subchoice isn't included in choices (Example: What to put if Middle Eastern?)	2.9%^a (<i>n</i> = 21)	2.1%^a (<i>n</i> = 8)	4.2%^a (<i>n</i> = 3)	3.8%^a (<i>n</i> = 10)
Redundancy in answer choices	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable with separation of Hispanic, Latino, or Spanish origin	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)
If chose response with “/”, does it mean you're both items on either side of “/”?	0.6% (<i>n</i> = 4)	0.3% (<i>n</i> = 1)	2.8% (<i>n</i> = 2)	0.4% (<i>n</i> = 1)
Stereotype threat	0.7% (<i>n</i> = 5)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Uncomfortable with use of the word <i>Black</i> or <i>White</i>	1.1% (<i>n</i> = 8)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	1.5% (<i>n</i> = 4)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues are in **boldface**.

Table 18

Issues Raised With Regard to Desire to Change (or Eliminate) Format A

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I would like the question to be changed	33.8% (<i>n</i> = 243)	34.8% (<i>n</i> = 135)	26.4% (<i>n</i> = 19)	34.2% (<i>n</i> = 89)
No, I don't think the question needs to be changed	3.9% (<i>n</i> = 28)	3.6% (<i>n</i> = 14)	4.2% (<i>n</i> = 3)	4.2% (<i>n</i> = 11)
No response	62.4% (<i>n</i> = 449)	61.6% (<i>n</i> = 239)	69.4% (<i>n</i> = 50)	61.5% (<i>n</i> = 160)
Have options for people who are not American	2.4% (<i>n</i> = 17)	1.5% (<i>n</i> = 6)	1.4% (<i>n</i> = 1)	3.8% (<i>n</i> = 10)
Eliminate the word <i>Chicano</i> (it's offensive)	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Let Other specify what they are	2.5% (<i>n</i> = 18)	2.1% (<i>n</i> = 8)	5.6% (<i>n</i> = 4)	2.3% (<i>n</i> = 6)
Change the phrase <i>American Indian</i> to clearly eliminate people from the Indian subcontinent (or clarify what you mean)	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Include fewer choices (it's too intrusive)	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Let people just list all of their races	1.7% (<i>n</i> = 12)	2.1% (<i>n</i> = 8)	1.4% (<i>n</i> = 1)	1.2% (<i>n</i> = 3)
Add a Mestizo option	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Allow for multiple races	11.8% ^a (<i>n</i> = 85)	18.6% ^a (<i>n</i> = 72)	8.3% ^a (<i>n</i> = 6)	2.7% (<i>n</i> = 7)
Use Native American Indian rather than American Indian	0.4% (<i>n</i> = 3)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Allow people to describe themselves according to nationality	2.4% (<i>n</i> = 17)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	5.4% ^a (<i>n</i> = 14)
Allow people to opt out	0.4% (<i>n</i> = 3)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Don't make Puerto Rican and Mexican their own categories	2.4% (<i>n</i> = 17)	1.8% (<i>n</i> = 7)	4.2% (<i>n</i> = 3)	2.7% (<i>n</i> = 7)
Include a description of the purpose of the question	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Include more races or subchoices	6.5% ^a (<i>n</i> = 47)	5.2% ^a (<i>n</i> = 20)	6.9% ^a (<i>n</i> = 5)	8.5% ^a (<i>n</i> = 22)
Remove question altogether	1.8% (<i>n</i> = 13)	1.8% (<i>n</i> = 7)	0.0% (<i>n</i> = 0)	2.3% (<i>n</i> = 6)
Rephrase <i>How do you describe yourself?</i>	1.8% (<i>n</i> = 13)	2.3% (<i>n</i> = 9)	1.4% (<i>n</i> = 1)	1.2% (<i>n</i> = 3)
Separate Asian and Asian American (or Black or African American)	1.8% (<i>n</i> = 13)	0.5% (<i>n</i> = 2)	1.4% (<i>n</i> = 1)	3.8% (<i>n</i> = 10)
Ask questions about race after the test, not before	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Change the formatting of the text boxes	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Eliminate the word <i>Black</i> or <i>White</i>	1.3% (<i>n</i> = 9)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	1.9% (<i>n</i> = 5)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues are in **boldface**.

Table 19

Issues Raised With Regard to Understanding Format B

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I understand the question	4.2% (<i>n</i> = 30)	3.9% (<i>n</i> = 15)	2.8% (<i>n</i> = 2)	5.0% (<i>n</i> = 13)
No, I do not understand the question	7.9% (<i>n</i> = 57)	7.0% (<i>n</i> = 27)	12.5% (<i>n</i> = 9)	8.1% (<i>n</i> = 21)
No response	87.9% (<i>n</i> = 633)	89.2% (<i>n</i> = 346)	84.7% (<i>n</i> = 61)	86.9% (<i>n</i> = 226)
Don't understand what <i>African American</i> means	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Hard to understand if not American citizen/Question constructed for American citizens	0.6% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	1.5%^a (<i>n</i> = 4)
What if you're African?	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Unclear if should answer both questions	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
<i>How do you describe yourself?</i> might be different from your race	0.6% (<i>n</i> = 4)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
If answer to first question is Hispanic, don't understand how to answer second question	1.4%^a (<i>n</i> = 10)	1.3% (<i>n</i> = 5)	4.2%^a (<i>n</i> = 3)	0.8% (<i>n</i> = 2)
Don't understand difference between Hispanic, Latino, and Spanish	0.4% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
Why need to know Hispanic, Latino, or Spanish origin?	0.6% (<i>n</i> = 4)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Don't understand why Hispanic origins are not races	0.4% (<i>n</i> = 3)	0.3% (<i>n</i> = 1)	1.4% (<i>n</i> = 1)	0.4% (<i>n</i> = 1)
What to select if multiple races?	1.1%^a (<i>n</i> = 8)	1.5%^a (<i>n</i> = 6)	2.8%^a (<i>n</i> = 2)	0.0% (<i>n</i> = 0)
Don't understand purpose of question (why need this information?)	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Race/subchoice isn't included in choices (Example: What to put if Middle Eastern?)	1.1% (<i>n</i> = 8)	0.5% (<i>n</i> = 2)	1.4% (<i>n</i> = 1)	1.9%^a (<i>n</i> = 5)
Does <i>race</i> mean national or ethnic identity?	0.3% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	0.4% (<i>n</i> = 1)
The answers mix racial categories with nationality categories	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Redundancy in question	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
If answer something with a slash, does it mean you're both items on either side of the slash? (Example: If answer <i>Black/African American</i> , are you both? What if you're a Black African?)	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
<i>How do you describe yourself?</i> is too vague	1.0% (<i>n</i> = 7)	1.5%^a (<i>n</i> = 6)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues for each column are in **boldface**.

Table 20

Issues Raised With Regard to Comfort With Format B

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I am uncomfortable with the question	19.0% (<i>n</i> = 137)	19.8% (<i>n</i> = 77)	16.7% (<i>n</i> = 12)	18.5% (<i>n</i> = 48)
No, I am not uncomfortable with the question/I am comfortable with the question	4.4% (<i>n</i> = 32)	3.6% (<i>n</i> = 14)	1.4% (<i>n</i> = 1)	6.5% (<i>n</i> = 17)
No response	76.5% (<i>n</i> = 551)	76.5% (<i>n</i> = 297)	81.9% (<i>n</i> = 59)	75.0% (<i>n</i> = 195)
Question constructed for American citizens	1.1% (<i>n</i> = 8)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	2.7% (<i>n</i> = 7)
Skin color is not the determiner of race	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
White and Black aren't ancestries	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Black and White are colors, not races	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
<i>How do you describe yourself?</i> doesn't just mean <i>What is the color of your skin?</i>	0.4% (<i>n</i> = 3)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Some Hispanics don't identify with another race	0.3% (<i>n</i> = 2)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
What to select if multiple races?	4.3%^a (<i>n</i> = 31)	7.2%^a (<i>n</i> = 28)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
American Indian should be Native American	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Uncomfortable with the word <i>Hispanic</i>	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Should have the option to not select any race	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable having to select Other	0.7% (<i>n</i> = 5)	0.5% (<i>n</i> = 2)	2.8%^a (<i>n</i> = 2)	0.4% (<i>n</i> = 1)
Not comfortable with Puerto Ricans, etc., having own category	0.6% (<i>n</i> = 4)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable being asked about race or ethnicity	1.4% (<i>n</i> = 10)	1.3% (<i>n</i> = 5)	0.0% (<i>n</i> = 0)	1.9% (<i>n</i> = 5)
Race/subchoice isn't included in choices (Example: What to put if Middle Eastern?)	3.2% (<i>n</i> = 23)	2.3% (<i>n</i> = 9)	2.8%^a (<i>n</i> = 2)	4.6%^a (<i>n</i> = 12)
Redundancy in answer choices	0.6% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	1.5% (<i>n</i> = 4)
Uncomfortable with separation of Hispanic, Latino, or Spanish origin	4.2%^a (<i>n</i> = 30)	3.6%^a (<i>n</i> = 14)	5.6%^a (<i>n</i> = 4)	4.6%^a (<i>n</i> = 12)
If chose response with “/,” does it mean you're both items on either side of “/”?	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Stereotype threat	0.7% (<i>n</i> = 5)	1.0% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable with the word <i>race</i>	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Uncomfortable with use of the word <i>Black</i> or <i>White</i>	1.1% (<i>n</i> = 8)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	1.5% (<i>n</i> = 4)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. In each column, more than two percentages are in **boldface** in the case of ties. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues for each column are in **boldface**.

Table 21

Issues Raised With Regard to Desire to Change (or Eliminate) Format B

Issue (summarized comments)	% who raised issue (N = 720)	% of those who raised the issue, by citizenship status		
		U.S. (N = 388)	U.S. + other (N = 72)	Other (N = 260)
Yes, I would like the question to be changed	35.1% (n = 253)	36.3% (n = 141)	33.3% (n = 24)	33.8% (n = 88)
No, I don't think the question needs to be changed	2.9% (n = 21)	3.4% (n = 13)	1.4% (n = 1)	2.7% (n = 7)
No response	61.9% (n = 446)	60.3% (n = 234)	65.3% (n = 47)	63.5% (n = 165)
Put races in alphabetical order	0.1% (n = 1)	0.0% (n = 0)	0.0% (n = 0)	0.4% (n = 1)
Have options for people who are not American	1.1% (n = 8)	0.3% (n = 1)	1.4% (n = 1)	2.3% (n = 6)
Eliminate the word <i>Chicano</i> (it's offensive)	0.3% (n = 2)	0.3% (n = 1)	0.0% (n = 0)	0.4% (n = 1)
Let Other specify what they are	0.7% (n = 5)	0.8% (n = 3)	1.4% (n = 1)	0.4% (n = 1)
Hispanic should be listed for Question 2 as well as Question 1	0.7% (n = 5)	1% (n = 4)	0.0% (n = 0)	0.4% (n = 1)
Hispanic origins should be considered races	0.1% (n = 1)	0.3% (n = 1)	0.0% (n = 0)	0.0% (n = 0)
Change the phrase <i>American Indian</i> to clearly eliminate people from the Indian subcontinent (or clarify what you mean)	0.3% (n = 2)	0.3% (n = 1)	0.0% (n = 0)	0.4% (n = 1)
Include fewer choices (it's too intrusive)	0.7% (n = 5)	0.8% (n = 3)	1.4% (n = 1)	0.4% (n = 1)
Let people just list all of their races	1.4% (n = 10)	1% (n = 4)	2.8% (n = 2)	1.5% (n = 4)
Add a Mestizo option	0.1% (n = 1)	0.3% (n = 1)	0.0% (n = 0)	0.0% (n = 0)
Allow for multiple races	7.8%^a (n = 56)	11.9%^a (n = 46)	6.9%^a (n = 5)	1.9% (n = 5)
Use Native American Indian rather than American Indian	0.4% (n = 3)	0.8% (n = 3)	0.0% (n = 0)	0.0% (n = 0)
Allow people to describe themselves according to nationality	2.2% (n = 16)	1.3% (n = 5)	0.0% (n = 0)	4.2% (n = 11)
Allow people to opt out	0.4% (n = 3)	0.3% (n = 1)	0.0% (n = 0)	0.8% (n = 2)
Don't make Puerto Rican and Mexican their own categories	0.8% (n = 6)	0.5% (n = 2)	1.4% (n = 1)	1.2% (n = 3)
Include a description of the purpose of the question	0.3% (n = 2)	0.5% (n = 2)	0.0% (n = 0)	0.0% (n = 0)
Include more races or subchoices	6.9%^a (n = 50)	5.2% (n = 20)	11.1%^a (n = 8)	8.5%^a (n = 22)
Remove question altogether	3.1% (n = 22)	3.1% (n = 12)	0.0% (n = 0)	3.8% (n = 10)
Rephrase <i>How do you describe yourself?</i>	1.9% (n = 14)	2.6% (n = 10)	0.0% (n = 0)	1.5% (n = 4)
Separate Asian and Asian American (or Black or African American)	1.3% (n = 9)	0.5% (n = 2)	0.0% (n = 0)	2.7% (n = 7)
Make all the choices one question (don't separate Hispanic, Latin, or Spanish origin)	6.3% (n = 45)	7.2%^a (n = 28)	2.8% (n = 2)	5.8%^a (n = 15)
Ask questions about race after the test, not before	0.3% (n = 2)	0.5% (n = 2)	0.0% (n = 0)	0.0% (n = 0)
Change the formatting of the text boxes	0.3% (n = 2)	0.5% (n = 2)	0.0% (n = 0)	0.0% (n = 0)
Eliminate the word <i>Black</i> or <i>White</i>	1.3% (n = 9)	1.0% (n = 4)	1.4% (n = 1)	1.5% (n = 4)

Note. N = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column). n = number of participants with that citizenship status who expressed the comment in the first column. Each percentage is based on the total sample size (N) for the column in which it appears.

^aPercentages for the two most frequently raised issues for each column are in **boldface**.

Table 22

Issues Raised With Regard to Understanding Format C

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I understand the question	3.9% (<i>n</i> = 28)	3.1% (<i>n</i> = 12)	1.4% (<i>n</i> = 1)	5.8% (<i>n</i> = 15)
No, I do not understand the question	9.4% (<i>n</i> = 68)	9.3% (<i>n</i> = 36)	11.1% (<i>n</i> = 8)	9.2% (<i>n</i> = 24)
No response	86.7% (<i>n</i> = 624)	87.6% (<i>n</i> = 340)	87.5% (<i>n</i> = 63)	85.0% (<i>n</i> = 221)
Don't understand what <i>African American</i> means	0.3% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	0.4% (<i>n</i> = 1)
What if you're African but not Black?	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Hard to understand if not American citizen/Question constructed for American citizens	0.3% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	1.4% (<i>n</i> = 1)	0.4% (<i>n</i> = 1)
How far back does ancestry go?	0.7% (<i>n</i> = 5)	1.0% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
What if you're African?	0.6% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	1.5%^a (<i>n</i> = 4)
If answer to the first question is <i>Hispanic</i> , don't understand what to answer second question	1.4%^a (<i>n</i> = 10)	2.6%^a (<i>n</i> = 10)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Don't understand difference between Hispanic, Latino, and Spanish	0.6% (<i>n</i> = 4)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Why need to know Hispanic, Latino, or Spanish origin?	0.3% (<i>n</i> = 2)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Don't understand why Hispanic origins are not races	0.8% (<i>n</i> = 6)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
What to select if multiple races?	0.6% (<i>n</i> = 4)	0.3% (<i>n</i> = 1)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
Don't understand purpose of question (why need this information?)	0.6% (<i>n</i> = 4)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Race/subchoice isn't included in choices (Example: What to put if Middle Eastern?)	2.1%^a (<i>n</i> = 15)	0.8% (<i>n</i> = 3)	4.2%^a (<i>n</i> = 3)	3.5%^a (<i>n</i> = 9)
Does <i>race</i> mean national or ethnic identity?	0.7% (<i>n</i> = 5)	1.3%^a (<i>n</i> = 5)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
The answers mix racial categories with nationality categories	0.3% (<i>n</i> = 2)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Redundancy in question	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. If fewer than two issues have an *n* that is greater than 1, then fewer than two percentages are in **boldface**. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues for each column are in **boldface**.

Table 23

Issues Raised With Regard to Comfort With Format C

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I am uncomfortable with the question	19.2% (<i>n</i> = 138)	20.1% (<i>n</i> = 78)	16.7% (<i>n</i> = 12)	18.5% (<i>n</i> = 48)
No, I am not uncomfortable with the question/I am comfortable with the question	5.0% (<i>n</i> = 36)	3.4% (<i>n</i> = 13)	5.6% (<i>n</i> = 4)	7.3% (<i>n</i> = 19)
No response	75.7% (<i>n</i> = 545)	76.5% (<i>n</i> = 297)	76.4% (<i>n</i> = 55)	74.2% (<i>n</i> = 193)
Uncomfortable with fact that White is first (should be alphabetical)	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Question constructed for American citizens	0.8% (<i>n</i> = 6)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Uncomfortable not being able to clarify answer of Other	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
White and Black aren't ancestries	0.6% (<i>n</i> = 4)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Black and White are colors, not races	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Some Hispanics don't identify with another race	0.8% (<i>n</i> = 6)	1.3% (<i>n</i> = 5)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
What to select if multiple races?	1.3% (<i>n</i> = 9)	2.1% (<i>n</i> = 8)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
American Indian should be Native American	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Uncomfortable with the word <i>Hispanic</i>	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Should have the option to not select any race	0.6% (<i>n</i> = 4)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable having to select Other	0.7% (<i>n</i> = 5)	0.5% (<i>n</i> = 2)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
Not comfortable with Puerto Ricans, etc., having own category	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable being asked about race or ethnicity	1.9% (<i>n</i> = 14)	1.5% (<i>n</i> = 6)	0.0% (<i>n</i> = 0)	3.1%^a (<i>n</i> = 8)
Race/subchoice isn't included in choices (Example: What to put if Middle Eastern?)	3.3%^a (<i>n</i> = 24)	3.6%^a (<i>n</i> = 14)	2.8%^a (<i>n</i> = 2)	3.1%^a (<i>n</i> = 8)
Redundancy in answer choices	0.1% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Uncomfortable with separation of Hispanic, Latino, or Spanish origin	3.6%^a (<i>n</i> = 26)	3.9%^a (<i>n</i> = 15)	2.8%^a (<i>n</i> = 2)	3.5%^a (<i>n</i> = 9)
If chose response with “/,” does it mean you're both items on either side of “/”?	0.6% (<i>n</i> = 4)	0.5% (<i>n</i> = 2)	1.4% (<i>n</i> = 1)	0.4% (<i>n</i> = 1)
Uncomfortable with the phrasing <i>Some other race</i>	0.8% (<i>n</i> = 6)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
Stereotype threat	0.6% (<i>n</i> = 4)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Uncomfortable specifying tribe for American Indian or Alaskan Native	1.0% (<i>n</i> = 7)	1.8% (<i>n</i> = 7)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Uncomfortable with the word <i>race</i>	1.0% (<i>n</i> = 7)	1.0% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Uncomfortable with use of the word <i>Black</i> or <i>White</i>	1.1% (<i>n</i> = 8)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	1.5% (<i>n</i> = 4)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. In each column, more than two percentages are in **boldface** in the case of ties. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues for each column are in **boldface**.

Table 24

Issues Raised With Regard to Desire to Change (or Eliminate) Format C

Issue (summarized comments)	% who raised issue (<i>N</i> = 720)	% of those who raised the issue, by citizenship status		
		U.S. (<i>N</i> = 388)	U.S. + other (<i>N</i> = 72)	Other (<i>N</i> = 260)
Yes, I would like the question to be changed	28.5% (<i>n</i> = 205)	26.5% (<i>n</i> = 103)	22.2% (<i>n</i> = 16)	33.1% (<i>n</i> = 86)
No, I don't think the question needs to be changed	3.8% (<i>n</i> = 27)	3.6% (<i>n</i> = 14)	5.6% (<i>n</i> = 4)	3.5% (<i>n</i> = 9)
No response	67.8% (<i>n</i> = 488)	69.8% (<i>n</i> = 271)	72.2% (<i>n</i> = 52)	63.5% (<i>n</i> = 165)
Put races in alphabetical order	0.6% (<i>n</i> = 4)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Have options for people who are not American	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Eliminate the word <i>Chicano</i> (it's offensive)	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Hispanic should be listed for Question 2 as well as Question 1	1.0% (<i>n</i> = 7)	1.0% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Hispanic origins should be considered races	1.1% (<i>n</i> = 8)	1.0% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	1.5% (<i>n</i> = 4)
Change the phrase <i>American Indian</i> to clearly eliminate people from the Indian subcontinent (or clarify what you mean)	0.4% (<i>n</i> = 3)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Include fewer choices (it's too intrusive)	2.1% (<i>n</i> = 15)	2.1% (<i>n</i> = 8)	1.4% (<i>n</i> = 1)	2.3% (<i>n</i> = 6)
Let people just list all of their races	1.5% (<i>n</i> = 11)	1.5% (<i>n</i> = 6)	1.4% (<i>n</i> = 1)	1.5% (<i>n</i> = 4)
Add a Mestizo option	0.3% (<i>n</i> = 2)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Allow for multiple races	1.1% (<i>n</i> = 8)	1.5% (<i>n</i> = 6)	0.0% (<i>n</i> = 0)	0.8% (<i>n</i> = 2)
Use Native American Indian rather than American Indian	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Allow people to describe themselves according to nationality	2.5% (<i>n</i> = 18)	1.0% (<i>n</i> = 4)	0.0% (<i>n</i> = 0)	5.4%^a (<i>n</i> = 14)
Allow people to opt out	0.8% (<i>n</i> = 6)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	1.2% (<i>n</i> = 3)
Don't make Puerto Rican and Mexican their own categories	0.3% (<i>n</i> = 2)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Include a description of the purpose of the question	0.7% (<i>n</i> = 5)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	1.5% (<i>n</i> = 4)
Include more races or subchoices	6.1%^a (<i>n</i> = 44)	4.6%^a (<i>n</i> = 18)	5.6%^a (<i>n</i> = 4)	8.5%^a (<i>n</i> = 22)
Remove question altogether	3.3% (<i>n</i> = 24)	3.4% (<i>n</i> = 13)	0.0% (<i>n</i> = 0)	4.2% (<i>n</i> = 11)
Rephrase <i>How do you describe yourself?</i>	0.4% (<i>n</i> = 3)	0.8% (<i>n</i> = 3)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Separate Asian and Asian American (or Black or African American)	1.0% (<i>n</i> = 7)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	1.9% (<i>n</i> = 5)
Make all the choices one question (don't separate Hispanic, Latin, or Spanish origin)	4.0%^a (<i>n</i> = 29)	4.1%^a (<i>n</i> = 16)	4.2%^a (<i>n</i> = 3)	3.8% (<i>n</i> = 10)
Remove <i>some</i> in <i>Some other race</i>	0.8% (<i>n</i> = 6)	0.8% (<i>n</i> = 3)	1.4% (<i>n</i> = 1)	0.8% (<i>n</i> = 2)
Ask questions about race after the test, not before	0.1% (<i>n</i> = 1)	0.3% (<i>n</i> = 1)	0.0% (<i>n</i> = 0)	0.0% (<i>n</i> = 0)
Change the formatting of the text boxes	0.4% (<i>n</i> = 3)	0.5% (<i>n</i> = 2)	0.0% (<i>n</i> = 0)	0.4% (<i>n</i> = 1)
Eliminate the word <i>Black</i> or <i>White</i>	1.1% (<i>n</i> = 8)	0.5% (<i>n</i> = 2)	1.4% (<i>n</i> = 1)	1.9% (<i>n</i> = 5)

Note. *N* = total sample size for all respondents or for a particular citizenship status (i.e., total sample size for a column); *n* = number of participants with that citizenship status who expressed the comment in the first column. Each percentage is based on the total sample size (*N*) for the column in which it appears.

^aPercentages for the two most frequently raised issues for each column are in **boldface**.

What follows is a summary of the major findings, where percentages are conservatively based on the entire sample of 720 participants or, in the case of a subsample based on citizenship status, the entire subsample. (If one assumed instead that nonresponses did not reliably indicate understanding of, comfort with, and lack of desire to make any changes to question formats, then given the relatively low overall response rates to the open-ended questions—between 10% and 39% [a low response in Dillman’s (2000) standards]—the percentages below could be 2½ to 10 times as large.) In terms of misunderstanding Format A (Figure 13; Table 16), the most common comments (1.4% overall; 1.8% for U.S.-only citizens) were concerns about what to select if one identifies with more than one race or if one’s race and/or ethnicity is not included in the options (e.g., Middle Eastern). For instance, one respondent (a U.S.-only citizen) stated, “I don’t understand the responses because they are limited to one race, and I describe myself as more than one race (White and Native American), which is why I selected Other.” These percentages jumped to 6.1% (9.3% for U.S.-only citizens) in terms of the discomfort people felt when they wanted to select more than one race but could not and to 2.9% (2.1% for U.S.-only citizens) if one’s race and/or ethnicity was not included in the options (see Table 17). One participant (a U.S.-only citizen) commented:

I am not sure what selection applies to Middle Eastern or Arabs, which is my ethnic descent. I feel I can be classified as Asian or possibly White (and in some cases for Saudi Arabians, Egyptians, or UAE may feel like they are classified as African!). I feel uncomfortable selecting Other, so often I will just select White.

As to whether Format A should be changed, the percentages again jumped for these two issues in particular: 11.8% (18.6% for U.S.-only citizens) of the respondents wanted changes made to allow multiracial responding, and 6.5% (5.2% for U.S.-only citizens) desired additional racial and ethnic groups (see Table 18). Only 1.8% of participants (also 1.8% of U.S.-only citizens) expressly indicated that they wanted Format A eliminated altogether (see Table 18).

In terms of misunderstanding, discomfort with, and desire to change Format B (Figure 14; Tables 19–21), respondents were concerned only to a slightly lesser extent with what to select if one identifies with more than one race or if one’s race and/or ethnicity is not included in the options. As with Format A, these were the most commonly raised issues for Format B. Furthermore, several persons (1.4% overall; 1.3% of U.S.-only citizens) stated that they did not

understand how to identify race in the second question of Format B if they identified as Hispanic in the first question of Format B (see Table 19). One dual U.S. citizen wrote:

I always find this type of framework confusing. So it splits me up based on whether I am Hispanic or not, then asks me about my race? I guess this is a good way to get at Black Hispanics, for instance, or etc. But sometimes I wonder whether asking the top portion (about whether I am Hispanic or not) prevents me from answering the second section.

In addition, 3.1% of respondents (and 3.1% of U.S.-only citizens) wanted Format B eliminated altogether (see Table 21).

In comparison to Formats A and B, there was notably less misunderstanding (0.6% overall; 0.3% for U.S.-only citizens), less discomfort (1.3% overall; 2.1% for U.S.-only citizens), and less desire to change (1.1% overall; 1.5% for U.S.-only citizens) Format C (Figure 15) in terms of the ability to report more than one race (see Tables 22–24). Given the pluralism of Format C, this is not surprising. As with Formats A and B, participants expressed concerns about what to report if a race and/or ethnicity was not explicitly provided as a response option, although the level of concern was lower for Format C (compare Tables 16 and 19 to Table 22). As with Format B, some participants indicated (a) that they did not understand how to identify race in the second question if they identified as Hispanic in the first question (1.4% overall; 2.6% for U.S.-only citizens; see Table 22) and (b) that they wanted to eliminate the question format presented to them (3.3% overall; also 3.4% for U.S.-only citizens; see Table 24). For Format C, non-U.S. citizens particularly expressed a desire to be able to report additional nationalities and ancestries (8.5%/5.4%; the percentages for U.S.-only citizens were lower at 4.6%/1.0%; see Table 24). One non-U.S. citizen went as far as saying, “I think that instead of having questions based on race, it should suffice to have questions based on nationality only.” This desire on the part of non-U.S. citizens to identify nationality (e.g., Brazilian) in lieu of race (e.g., Black) raises a question about whether U.S.-style questions about race and ethnicity are appropriate for non-U.S. citizens. To sum up, the open-ended nature of the responses makes interpretation of the practical significance of the issues raised unclear. This ambiguity notwithstanding, the most pervasively raised concerns focused on what to select if one identifies with more than one race or if one’s race and/or ethnicity is not included in the response options (e.g., Middle Eastern). The other trends affected Hispanic respondents; participants did not understand how to identify race in the second question if they identified as Hispanic in the first question.

Issues Raised With Regard to the International-Style Questions

Because we designed the international-style questions (Figures 1–11) primarily for a non-U.S. population, we focused our analyses of these questions on non-U.S. citizens. An open-ended item requesting feedback about these international-style questions appearing in the bottom half of Figure 16 states, “We also would appreciate below your general comments about this survey and the other response choices in it.” Below this statement appeared a hyperlink that displayed on one screen just the international-style questions (see Figure 16). In response to the open-ended item, only 29 (12%) of the 245 non-U.S. citizens in this study provided any comments, and many of the comments did not apply to the international-style questions in particular. It is unclear whether this low response rate indicates satisfaction with the international-style questions, apathy toward the open-ended item, a belief that previous questions had already captured participants’ concerns, and/or other factors. Those who did reply raised the following themes: (a) how to deal with overlaps and inconsistencies among the concepts of citizenship, ethnicity, and race ($n = 16$); (b) concerns about the final survey asking for information about parents and guardians ($n = 9$; see Figures 7–8); (c) the underinclusion of response options for languages ($n = 4$; see Figure 10); (d) U.S. residency issues ($n = 3$); (e) other issues about ethnicity and race ($n = 2$); (f) other issues about citizenship ($n = 2$); and (g) an issue about parents/guardians and language ($n = 1$). (Note that total N is larger than 29, because some respondents provided more than one comment.)

We are unable to distill down the issues raised with regard to the international-style questions, because those comments were infrequent, nonspecific, conflicting, and/or abstruse. The issues about overlaps and inconsistencies among citizenship, ethnicity, and race that respondents raised did not focus on the international-style questions specifically. Rather, they tended to be more general and included contradictory reactions about whether ETS should ask about race, ethnicity, and/or citizenship; whether those concepts should be narrowly or broadly defined; whether the survey questions were specific enough for citizens of African nations; and whether ETS should have a separate question not just for Hispanic registrants (e.g., one also for Arabic registrants). Five out of the nine comments about the survey questions concerning parents and guardians (see Figures 7–8) indicated confusion and concern about the propriety and purpose of those questions. Comments about the language question (Figure 10) generally consisted of requests for response options for additional languages (e.g., Nepal Bhasa/Newari). The

remaining comments lacked common themes. On the whole, the comments about the international-style questions suggest that asking about race and ethnicity to an international subpopulation involves complex issues that may warrant further investigation. That being said, the international-style questions that we asked (Figures 1–11) did not prompt non-U.S. citizens to express many concerns.

Conclusion

The authors believe that the BIQ question about race and ethnicity should be changed, because the known benefits of changing the question outweigh the known costs. Although the purpose of this study is not to conduct a legal or business analysis, we nevertheless reiterate that the 1997 Standards that the DOE implemented might apply to ETS—and even if they do not, it may make good business sense to comply with them anyway. From a more empirical perspective, U.S.-acculturated and multiracial registrants prefer a more pluralistic question (Format C) than the one that the BIQ currently uses (Format A). U.S.-acculturated respondents comprise the majority of the GRE General Test registrants, and the multiracial population in the United States is growing rapidly. Monoracial Asian respondents and monoracial American Indian/Native Alaskan respondents wanted to be able to report national origins and tribal affiliations unavailable on the BIQ. The most common comments about Formats A, B, and C were about the desire to report racial and ethnic designations that not even Format C explicitly provided; equally common for Formats A and B were desires to be able to report more than one race. Furthermore, the vast majority of non-U.S. citizens did not express any objections to the international-style questions, most of which do not appear in the current BIQ. To the extent that non-U.S. citizens did comment on the international-style questions, their remarks were mixed and sometimes contradictory.

We recommend that the question about race and ethnicity be changed to a format that shares many of the aspects of Format C but is not identical to it. Among the three formats—A, B, and C—only Format C satisfies the requirements of the 1997 Standards and many of the desired specifications that participants expressed in this study. Contrary to the 1997 Standards, Format A (which is virtually identical to the current BIQ format) combines the Hispanic and race questions into a single question, and neither Format A nor B permits multiracial responding. In addition, only Format C provides Asian respondents and American Indians/Native Alaskan respondents with the opportunity to report national origin or tribal affiliation. However, some respondents

desired the ability to report national/regional origins not explicitly provided in Format C (e.g., Middle Eastern). Furthermore, several Hispanic U.S. citizens often thought of themselves as just Hispanic and not in terms of race as classified in Formats B and C. Based on the 1997 Standards and opinions of the respondents in our study, we recommend that the current BIQ question about race and ethnicity be replaced with one that has the following characteristics:

1. It includes a two-question format for Hispanic origin and race as defined by U.S. standards. Formats B and C illustrate this two-question format. We recommend that the Hispanic-origin question omit the terms *Latino* and *Spanish* from its stem except to clarify the term *Hispanic*. Specifically, we recommend that instead of “Are you of Hispanic, Latino, or Spanish origin?” the stem read, “Are you of Hispanic origin? People who identify as Hispanic were born in or have family from a Latin American or Caribbean country in which Spanish is the main language.” Although participants did not generally complain about the grouping Hispanic, Latino, or Spanish, past research cited by Martin (2006) indicates that some respondents to surveys using these labels misinterpret *Latino* as including all nations with languages that have Latin roots and *Spanish* as including only those born in Spain (Gerber & Crowley, 2005). In fact, one of the participants in the present study remarked, “From question about what Hispanic, Latino, or Spanish origin. I am considered Latino, because Brazil is part of Latin America, however not from Spanish origin (Portuguese origin).”
2. The Hispanic-origin question is positioned as the first of these two questions, with the racial question coming second. Formats B and C illustrate this ordering.
3. The following are provided as main choices in the race question: (a) American Indian or Alaska Native, (b) Asian, (c) Black or African American, (d) Native Hawaiian or Other Pacific Islander, and (e) White. Formats A, B, and C provide these options. Although these options are not alphabetized on the 2010 U.S. Census form, some respondents indicated that alphabetical ordering would seem to be more neutral.
4. The Some Other Race option is retained from the 2010 U.S. Census form (Format C) but with the option shortened to Other Race because *Some* may make the option seem pejorative. In this study, some participants expressed discomfort over the option

Some Other Race and requested that the word *Some* be removed (0.8% overall; 0.8% of U.S.-only citizens; and 1.4% of dual U.S. citizens; see Tables 23 and 24). The extent to which removing the word *Some* would alleviate this discomfort remains unclear, because some registrants might dislike the option for other reasons.

Historically, Hispanic respondents have been the most frequent choosers of the Some Other Race option on the U.S. Census form (see Recommendations From the Interagency Committee, 1997). Therefore, the provision of a separate prior question for Hispanic origin combined with the proposed changes described in Points 6 and 7 might, on their own, reduce dissatisfaction with the Some Other Race option.

5. Respondents are permitted to select more than one race in the racial question. Format C illustrates this flexibility.
6. A response option is provided for the race question, “I do not identify with any of the choices for this question.”
7. American Indians/Alaskan Natives are permitted to input a tribal affiliation.
8. All respondents, not just Asian respondents, are permitted to select national origin (which includes birth country) from a drop-down list of countries. This might require the creation of a third question, which would supplement the requirements of the 1997 Standards. Because many people identify with more than one national origin (e.g., father from Kenya, mother from England), the question could permit more than one response to national origin. We recognize that these additional responses do not necessarily facilitate the identification of groups for which DIF or DP would be required or necessary. However, there is some evidence that these identifications would be helpful to fairness analyses. As already discussed above, Black respondents born in Africa, Latin America, or the Caribbean or who would identify a national origin there experience better educational outcomes than African Americans whose families have lived in the United States for several generations. Also, there is nontrivial variability in educational expectations and attainment of Asian Americans based upon national origin (see, e.g., Sakamoto, Goyette, & Kim, 2009). Goyette and Xie (1999) reported that the expectation of graduation from college is almost 30% higher for South Asian American students than for Southeast Asian American

students. It is because of such discrepancies that Asian respondents would benefit from fairness analyses made possible by identification of national origin.

Figure 17 illustrates the U.S.-style questions that we recommend.

Are you of Hispanic origin? People who identify as Hispanic were born in or have family from a Latin American or Caribbean country in which Spanish is the main language.

No, not of Hispanic origin

Yes, Mexican, Mexican American, Chicano/a

Yes, Puerto Rican

Yes, Cuban

Yes, another Hispanic origin -- *Type in origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, and so on.*

[FREE RESPONSE TEXT BOX GOES HERE]

What is your race? Mark one or more boxes.

American Indian or Alaska Native -- *Type in name of enrolled or principal tribe.*

[FREE RESPONSE TEXT BOX GOES HERE]

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

White

Other race -- *Type in race.*

[FREE RESPONSE TEXT BOX GOES HERE]

I do not identify with any of the choices for this question.

What is your ancestry? For many respondents, ancestry is different from citizenship. Ancestry often describes a country from which a person's family or ancestors immigrated to the United States. You may make up to two selections. You may skip this question.

[DROP-DOWN ALPHABETICAL MENU 1, WITH "I DO NOT WISH TO RESPOND" AND "I DO NOT KNOW" AS THE FIRST TWO OPTIONS AND "UNITED STATES" AND "NONE OF THE ABOVE" LISTED LAST]

[DROP-DOWN ALPHABETICAL MENU 2, WITH "I DO NOT WISH TO RESPOND" AND "I DO NOT KNOW" AS THE FIRST TWO OPTIONS AND "UNITED STATES" AND "NONE OF THE ABOVE" LISTED LAST]

Figure 17. Recommended format for U.S.-style question about race and ethnicity.

With the exception of U.S. permanent residents, evidence suggests that there would be little or no benefit to allowing non-U.S. citizens to respond to U.S.-style questions about ethnicity and race. We lack enough data to offer an opinion about whether ETS should add response options for groups that span several countries (e.g., Middle Eastern/Arabic, Hmong, Kurdish) or are ethnic minorities in a single foreign country (e.g., the Karen people in

Myanmar). The U.S. Census Bureau has considered adding a Middle Eastern/Arabic category, but the 1997 Standards did not advocate this decision due to difficulties encountered in defining such a category (see Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997), and the 2010 U.S. Census form lacked this option. Allowing U.S. citizens to select a national origin and permanent U.S. residents to select a citizenship may resolve some aspects of this issue, because national origins and citizenships can be aggregated to form these transnational groups. However, some groups are minorities within the single country in which they primarily reside (e.g., the Karen people in Myanmar). GRE sample sizes for these minorities are likely to be extremely small or nonexistent, so we do not consider this to be a practical issue.

In addition, we believe that the international-style questions in the final survey, if included in the BIQ, would require some modification. We see no reasons to exclude U.S. citizens from answering these questions. Given that 72 (16%) of the 460 U.S. citizens in this study possessed dual citizenship, we believe that eliciting information about a second citizenship is important. (The current BIQ asks for only a single citizenship.) GRE General Test items might not function or predict the same scores for U.S.-only citizens and dual U.S. citizens because of cultural, linguistic, and educational differences between the two groups. Citizenship (especially if it is dual citizenship) does not always clarify the country in which one was raised, and where one was raised can affect how an assessment functions or predicts for that person. Therefore, either a question about one's country of birth (like Figure 6) or the country in which one was raised seems appropriate. Some non-U.S. citizens expressed concerns about questions regarding parents, guardians, and caregivers. It is possible that national origin questions can adequately substitute for questions about parent/guardian/caregiver country of birth (see Figures 7–8). (Although this substitution might avoid confusion for questions about race/ethnicity, given the complexity of family structures it does not resolve the issue of how best to seek information about parents for other questions in the BIQ.) As discussed previously, questions about English language proficiency (see Figures 9–11) are important, because not only can English language proficiency affect the functioning and prediction of assessments, but these questions can also help identify ethnic groups that otherwise might go undetected (e.g., French-speaking Canadians versus English-speaking Canadians). It is important to know the nature of a registrant's familiarity with English (writing, speaking, etc.), because reading is the skill relevant to performance on the Verbal and Quantitative Reasoning sections of the GRE General Test, and

writing ability is the skill relevant to performance on the Analytical Writing section. The current BIQ makes no such distinctions among language skills. Knowing the non-English languages with which a registrant is familiar can also inform how to conduct DIF and DP analyses, because some languages (e.g., Romance languages) can facilitate comprehension of English, whereas other languages would not (e.g., Chinese). It might be helpful to categorize registrants by language families to look at DIF and DP. Considering the small sample sizes involved, we believe that requests that additional languages spoken by relatively few be added to the list of languages spoken at home (see Figure 10) do not present a practical concern. Nevertheless, ETS could periodically add them. In conclusion, we believe that ETS should retain and/or consider adding the content and format of Figures 1–6 and Figures 9–11 to the BIQ.

Further research is needed on this highly complex issue. Several of the sample sizes in this study are very small (including Native Hawaiian and Other Pacific Islander respondents, multiracial Black respondents, multiracial Asian respondents, and citizens of Australia/Oceania/Polynesia). Additional data collection is therefore warranted. One issue concerns the additional racial and ethnic groups with which respondents may wish to identify (e.g., Middle Eastern/Arabic). What additional groups make sense, and how does ETS ask about them in a way that is comprehensible and respectful? Given that many Hispanic U.S. citizens have difficulty identifying with racial groups or the terms *Latino* and *Spanish*, how best do we frame questions about ethnicity and race for them? Are there other demographic constructs that, in some cases, might be no less relevant than race or ethnicity to fairness analyses (e.g., religion, sexual orientation)? Ultimately, it is necessary to determine the impact of these changes on DIF and DP analyses, which requires making determinations of what groups to create and how to categorize registrants who may belong to more than one group. Should a multiracial respondent be classified with each group with which he or she identifies, with just one group randomly chosen, or with no groups at all? Theory, legal requirements, political necessity, economics, practicality, statistical concerns, personal values, and/or mere curiosity may drive decisions. Among other concerns, dividing registrants into additional groups for a single analysis risks reducing group sizes to the point where the possibility of sampling error becomes large. Additional analyses also increase the risk of finding statistically and practically significant effect sizes by mere chance.

References

- African-born U.S. residents are the most highly educated group in American society. (1996). *The Journal of Blacks in Higher Education*, 13, 33–34.
- Alberti, N. (2006). *2005 national census test: Analysis of the race and ethnicity questions*. Retrieved from http://www.census.gov/cac/race_ethnic_advisory_committees/docs/2006_Nov_results_3_2005_test.pdf
- Appel, R. (2011, November 13). First-time foreign students in U.S. increased by 8%. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/11/14/education/first-time-foreign-students-in-us-increased-by-8.html>
- Dillman, D. (2000). *Mail and Internet surveys*. New York, NY: John Wiley & Sons.
- Dorans, N. J., & Holland, P. W. (1993). DIF detection and description: Mantel-Haenszel and standardization. In P. W. Holland & H. Wainer (Eds.), *Differential item functioning* (pp. 35–66). Hillsdale, NJ: Lawrence Erlbaum.
- Final Guidance on Maintaining, Collecting, and Reporting Racial and Ethnic Data to the U.S. Department of Education, 72 Fed. Reg. 59266 (2007).
- Foy, P., & Olsen, J. F. (Eds.). (2009). *TIMSS 2007 user guide for the international database. Supplement 1—International version of the TIMSS 2007 background and curriculum questionnaires*. Chestnut Hill, MA: TIMSS & PIRLS International Study Center.
- Gallagher, A., Bridgeman, B., & Cahalan, C. (2000). *The effect of computer-based tests on racial/ethnic, gender, and language groups* (Research Report No. RR-00-08). Princeton, NJ: Educational Testing Service.
- Gerber, E., & Crowley, M. (2005). *Report on cognitive testing of a shortened sequence of Hispanic origin, race, and modified ancestry questions: Content development for the 2005 National Content Test*. Unpublished manuscript, U.S. Census Bureau.
- Goyette, K., & Xie, Y. (1999). Educational expectations of Asian American youths: Determinants and ethnic differences. *Sociology of Education*, 72(1), 22–36.
- Huang, C. D., Church, A. T., & Katigbak, M. S. (1997). Identifying cultural differences in items and traits: Differential item functioning in the NEO Personality Inventory. *Journal of Cross-Cultural Psychology*, 28, 192–218.

- Kent, M. M. (2007). Immigration and America's Black population. *Population Bulletin*, 62(4), 3–16.
- Kuncel, N. R., & Klieger, D. M. (2012). Predictive bias in work and educational settings. In N. Schmitt (Ed.), *The Oxford handbook of personnel assessment and selection* (pp. 62–84). New York, NY: Oxford University Press.
- Mandell, R. E. (2008). *Cosmopolitan anxieties: Turkish challenges to citizenship and belonging in Germany*. Chapel Hill, NC: Duke University Press.
- Martin, E. (2006). *2005 national census test: Results for "space saving" format changes and reversal of age and date of birth items*. Retrieved from http://www.census.gov/cac/race_ethnic_advisory_committees/docs/2006_Nov_results_2005_test.pdf
- Martin, E. (2007). *Questionnaire effects on reporting of race and Hispanic origin: Results of a replication of the 1990 mail short form in Census 2000 with Supplemental Analyses 1 and 2* (Survey Methodology No. 2007-24). Retrieved from <http://www.census.gov/srd/papers/pdf/rsm2007-24.pdf>
- Martin, E., Sheppard, D., Bentley, M., & Bennett, C. (2007). *Results of the 2003 national census test of race and Hispanic questions* (Survey Methodology No. 2007-34). Retrieved from <http://www.census.gov/srd/papers/pdf/rsm2007-34.pdf>
- Organisation for Economic Co-operation and Development. (2005). *Student questionnaire for PISA 2006*. Retrieved from http://pisa2006.acer.edu.au/downloads/PISA06_Student_questionnaire.pdf
- Recommendations from the Interagency Committee for the review of the racial and ethnic standards to the Office of Management and Budget concerning changes to the standards for the classification of federal data on race and ethnicity, 72 Fed. Reg. 36873 (1997).
- Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 62 Fed. Reg. 58781 (1997).
- Sakamoto, A., Goyette, K. A., & Kim, C.-H. (2009). Socioeconomic attainments of Asian Americans. *The Annual Review of Sociology*, 35, 255–276.
- Saulny, S., & Steinberg, J. (2011, June 13). On college forms, a question of race, or races, can perplex. *The New York Times*. Retrieved from <http://www.nytimes.com/2011/06/14/us/14admissions.html?pagewanted=all>

U.S. Census Bureau. (2006). *Content determination for the 2010 Decennial Census Program*.

Retrieved from

http://www.census.gov/cac/race_ethnic_advisory_committees/docs/2006_Nov_2010_content_determination.pdf

Zwick, R. (2002). *Fair game? The use of standardized admissions tests in higher education*.

New York, NY: Routledge Falmer.

Notes

- ¹ This study is intended to be a descriptive investigation. We did not conduct statistical significance testing of results, because many of the sample sizes for racial and ethnic groups would result in low statistical power.
- ² Unfortunately, measurement of the construct U.S.-acculturated is not crystal clear, partly because it can be based on citizenship, residency, and/or birthplace (among other things). Citizenship and birthplace are not always clearly distinguishable, because legally everyone born in the United States is automatically a U.S. citizen, and relatively few people who have U.S. citizenship give up that citizenship. Also, there is a difference between (a) birthplace and citizenship and (b) where someone was raised (and thus socialized). For the purposes of this study, U.S.-acculturated test-takers include those who are U.S. citizens, born in the United States, and/or permanent U.S. residents.



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