Exploring Racial Bias Among Biracial and Single-Race Adults: The IAT

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About This Report

This report summarizes the results of an online experiment that utilized an Implicit Association Test (IAT) to measure racial bias in single-race whites, blacks, Asians and biracial adults with a white and black or a white and Asian racial background. The study sought to measure subconscious racial bias in the five racial groups and to see if biracial adults unconsciously view one of their racial backgrounds more favorably than the other. Pew Research Center worked with professors Shanto Iyengar of Stanford University and Sean Westwood of Dartmouth College to design and implement the IAT used in this experiment.

The report is a collaborative effort based on the input and analysis of the following individuals. Rich Morin, senior editor, analyzed the data and wrote the report. Kim Parker, director of social trends research; Scott Keeter, director of research; and Claudia Deane, vice president of research, provided editorial guidance. Survey Methodologist Andrew Mercer provided statistical and editorial guidance. Juliana Menasce Horowitz, associate director of research, edited the report. Number-checking was done by Research Assistant Renee Stepler. The report was copy edited by Molly Rohal. Michael Suh provided web support. Find related reports online at pewresearch.org/socialtrends.

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A Note on Terminology

The findings presented in this report are primarily based on the results of an Implicit Association Test. The test measures how long people take to associate positive and negative words with different racial groups. The combined result for each participant is summarized in a statistic called a “D score.” In this report the D score is referred to as the “IAT score” or “IAT effect score.”

Following the practice of social scientists who have used the race IAT in their research, the terms “bias,” “preference” and “automatic preference” are used interchangeably in this report.

The single-race white, black and Asian samples do not include Hispanics. Biracial white and black and white and Asian adults are no other races and not Hispanic.
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Exploring Racial Bias Among Biracial and Single-Race Adults: The IAT

By Rich Morin

It’s hard to talk about race. Fear of saying the wrong thing, fear of expressing an unpopular view or simply the fear of offending others can dampen honest conversations about racial attitudes.

Accurately measuring racial attitudes faces another formidable obstacle. Psychologists say that biased racial views are sometimes buried deep in a person’s subconscious – the byproducts of exposure to popular culture, the media and other factors.

To overcome these obstacles, Pew Research Center conducted an Implicit Association Test (IAT), a technique that psychologists say measures subconscious or “hidden” bias by tracking how quickly individuals associate good and bad words with specific racial groups.

The country is becoming more diverse and the multiracial population is growing, trends with significant implications for race relations. Pew Research Center used the IAT to explore the extent to which single-race whites, blacks and Asians have a subconscious bias for or against their own or another race, and whether similar biases exist among biracial adults. Decades of IAT testing has generally showed that most humans display a bias against out-groups – people who are different from them. The question this study sought to answer is whether multiracial adults are less likely to have those biases, or simply more divided in their racial preferences. The answer, fairly definitively, turns out to be the latter.

## Racial Preferences of White and Black, White and Asian Biracial Adults

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Note: Figures may not add to 100 due to rounding. Sample sizes for the white-black version of the IAT are 603 white-black biracial adults, 328 single-race white adults, and 370 single-race black adults. Sample sizes for the white-Asian IAT are 470 white-Asians, 342 single-race whites and 404 single-race Asians.

Source: Pew Research Center IAT, Feb. 4-Apr. 2, 2015 (n=2,517)
Overall the test found that about three-quarters of respondents in each of the five racial groups, including those who are biracial, demonstrated some degree of implicit racial bias. Across the groups, only about 20% to 30% of those in the study were found to have little or no bias toward the races they were tested against. (Note: Because the pool of adults from which these samples were drawn is not representative of the adult population, the results of this study should be viewed as exploratory. See Appendix A: Methodology)

The study found wide variation in racial preferences within each of the five test groups. For example, while pluralities of whites and blacks were biased in favor of their own racial group, the same was not true among single-race Asians, who were more evenly divided in their subconscious preferences.

Single-race Asians were about as likely to show a bias for whites over Asians (38%) as they were to regard Asians more favorably than whites (42%). The remaining 20% did not clearly favor one race over the other.

By contrast, fully half of all single-race whites preferred whites over Asians, or more than double the share (20%) that preferred Asians. Three-in-ten whites favored neither race over the other.

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Measuring Subconscious Racial Bias

To test for hidden racial biases, Pew Research Center conducted an online Implicit Association Test (IAT) with single-race whites, blacks and Asians, as well as biracial white and Asian and white and black adults.

The IAT measures automatic associations between two words or concepts. Psychologists say individuals are quicker to categorize words or concepts they believe to be linked, for example “candy” with “sweet,” rather than “candy” with “bitter.”

In the case of the Pew Research Center IAT, the test measured differences in how quickly subjects were able to correctly categorize positive and negative words or the photos of black and white or white and Asian men. By varying the test conditions, the IAT measures, in theory, the degree to which individuals automatically and subconsciously view one race more positively or negatively than the other. Social scientists who conduct IAT studies claim that the test is a more accurate way to detect ingrained racial bias than self-reports in traditional surveys.

Researchers caution that the IAT is not a “racism test” nor does it measure overt racial prejudice. Racial prejudice is a set of explicit beliefs that an individual knowingly holds. The IAT produces an indirect measure of subconscious racial preferences that a person might be dismayed to learn they harbor.

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1 To be consistent with the terms commonly used by researchers who conduct IAT studies, the words “preference” and “bias” are used interchangeably in this report to describe IAT findings.
The experiment also found that about half of all single-race whites in the Pew Research Center test automatically preferred whites over blacks (48%), including about a third (35%) who favored whites moderately to strongly. A quarter of all whites demonstrated an implicit bias for blacks, and a similar share (27%) was race-neutral.

Among single-race blacks, 45% were quicker to associate positive words with blacks and negative words with whites, including 28% with a moderate or strong automatic preference for blacks.

An additional 29% of single-race blacks favored whites, while 26% were race-neutral. (Single-race blacks and white and black biracial adults were not tested for bias against Asians. Asians and biracial white and Asian adults were not tested for bias against blacks.)

Two different but equally striking patterns emerged when the analysis turned to the level of bias among the two biracial groups. First, few biracial adults are race-neutral: Only 23% of white and black biracial adults and 22% of white and Asian biracial adults have little or no bias.

Second, in contrast to the lopsided pluralities of whites and blacks who favored their own race, biracial white and black adults were more evenly divided: 42% favored whites over blacks – including 23% who had a moderate or strong implicit preference for whites and 19% with a slight preference. At the same time, about a third (35%) preferred blacks.

A third pattern emerged from the results of those whose racial background includes both white and black ancestry: Their levels of bias look much more like those of white respondents than those of black respondents. According to the test, fully 42% of all white and black biracial adults had a
pro-white bias, just short of the 48% of all whites that felt the same way and 7 percentage points higher than the share with a pro-black bias (35%).

Biracial white and Asian adults were even more divided in their subconscious racial preferences. Much like single-race Asians, about four-in-ten (39%) biracial white and Asian adults favored whites, while 38% preferred Asians.

Unlike traditional public opinion polls, which often find clear differences in racial tolerance between many key demographic groups, the Pew Research Center study found that most adults in the test samples subconsciously favored one race over another. Roughly equal levels of implicit racial bias were found among men and women, old and young, and college educated and those with a high school diploma or less formal schooling. Republicans and Democrats with the same racial background also had similar levels of underlying racial bias.

The results of the Pew Research Center IAT race experiment are similar in many respects to previous IAT studies. Data from the race IAT on the “Project Implicit” website have consistently found that most whites demonstrate a clear bias for whites and against blacks; this is consistent with the Pew Research Center findings on single-race whites. While the Pew Research Center data suggests that blacks demonstrate bias for blacks and against whites, the Project Implicit data suggests that blacks are more evenly divided.

**Testing for Racial Preferences**

To measure racial bias toward blacks, whites and Asians, Pew Research Center conducted an online Implicit Association Test. Study participants were drawn from the YouGov online panel and asked to complete the IAT on their home computers. A sample of 370 single-race blacks and 603 white and black biracial adults took an IAT measuring bias toward whites and blacks. A total of 404 single-race Asians and 470 biracial white and Asian adults were assigned to take an IAT comparing whites and Asians. A sample of 670 single-race whites were randomly assigned to take either the white-black or white-Asian IAT.

Following the practice of researchers who conduct race studies of this type, only those Asians who were from or whose family was originally from East Asia or the Pacific Rim were included in the single-race Asian and biracial white and Asian groups. Those countries included China, South

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2 The 6 percentage point difference between the findings for white and black biracial adults and whites is not statistically significant.
3 Project Implicit is an international collaboration of researchers who study implicit social cognition, which they describe as “thoughts and feeling outside of conscious awareness and control.” The consortium was found in 1998 by psychologists Tony Greenwald of the University of Washington, Mahzarin Banaji of Harvard University and Brian Nosek of the University of Virginia.
4 Each of the five samples in the Pew Research Center IAT were weighted by age, gender and education to match Census estimates for the respective racial group. Project Implicit data is unweighted and no weights are provided in the datasets available online.
Korea, Japan, Vietnam, Thailand and the Philippines. About three-quarters of all Asians in the United States trace their ancestry to one or more of the East Asian or the Pacific Rim countries. Asians who trace their families back to a West Asian country – India, Pakistan, Sri Lanka and Bangladesh – were not included in the samples of Asians or white and Asian biracial adults.

According to U.S. Census figures, white and black biracial adults constituted 0.6% of the U.S. population in 2010, and white and Asian biracial adults made up 0.5%. Because of the practical difficulties of sampling populations this small, the techniques used to obtain the samples of the five racial groups differ from those used in other Pew Research Center national surveys.

For this study, the samples were drawn from the YouGov panel, which is composed of approximately 1.5 million adults nationally who have volunteered to take surveys. Each sample was adjusted to match census figures for each group in terms age, gender and education, as well as to match other surveys on characteristics such as voter registration and party affiliation. *Because the panel from which these samples were drawn is not representative of the adult population as a whole, both in that not everyone has the internet and that the panelists are not randomly selected, the results of this study should not be compared with the results of other Pew Research Center surveys that use probability-based sampling techniques, including the recent* Multiracial in America *report.*

In the experiment, white and black biracial adults, single-race blacks and half the single-race white sample were tested for bias against blacks and whites. White and Asian biracial adults, single-race Asians and the other half of the white sample were tested for bias against whites and Asians.

The participants were asked to sort a series of photos and words into two categories. The names of the categories appeared at the top of the screen. Half the time the categories were “African American” and “good.” On the other half of the tests, the categories were “white American” and “good.” For the white-Asian version of the test, the words “Asian American” or “white American” appeared at the top of the screen along with the word “good.”

Below the category and in quick succession, a word appeared that was synonymous for “good” or “bad,” or the photo of a young black or a white man (or a photo of a young Asian or a white man). These words or images were the “targets” to be sorted. Participants had to correctly identify whether the word or image they saw was a synonym for the category word “good” or whether it was a photo of a member of the racial group listed at the top of the page. The time it took

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5 The synonyms for “good” used in the test were wonderful, best, excellent and superb. The “bad” words were terrible, horrible, awful and worst. Participants were instructed before they began the IAT that they were not to judge whether the target word accurately described the category race—only to determine if the target was a synonym for “Good” or a photo of someone in that race.
participants to correctly match the word or photo with the right category was carefully measured and recorded.

These reaction times, expressed as a summary statistical measure called a “D score,” became the raw data used to analyze the results. The test is based on decades of psychological research findings that people are quicker to associate words or images together that are consistent with their internal beliefs, such as “flower” and “pretty,” and less quick to associate concepts they view as dissimilar, such as “flower” and “ugly.”6 In the Pew Research Center test, people who subconsciously favored whites over blacks would be expected to take less time to correctly match the picture of a white man with the category “white American” than to correctly match the picture of a black man with the category “African American” when the word “good” also appeared on the screen.

**Measuring Racial Preferences**

Reaction-time data for participants were used to determine subconscious bias toward the races they were tested against. Participants were grouped into seven categories based on their reaction times. For example, in the white-black version of the test, participants were sorted by their scores into those who showed a “strong” preference for whites, a “moderate” preference for whites, a “slight” preference for whites, “little or no” preference for either group, and a “slight,” “moderate” or “strong” preference for blacks. Results of the white-Asian version of the test were categorized in a similar fashion.

The categories were based on a widely used scoring scale developed by psychology professor Brian Nosek of the University of Virginia, a pioneer in the use of the IAT to measure subconscious racial bias.7 Overall the experiment found that most people in the five racial groups had some degree of bias toward the races they were tested against.

In the white-black version of the IAT, about a quarter of white and black biracial adults (23%) were found to have little or no preference for either blacks or whites, virtually identical to the shares of single-race whites (27%) and single-race blacks (26%) who were race-neutral.

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7 The Project Implicit website explains the different IAT scoring labels this way: “The labels ‘slight,’ ‘moderate,’ and ‘strong’ refer to the strength of the association (i.e. how strongly you associate flower pictures with pleasant words). No matter which IAT you took, if a speed difference between different pairings was so great as to be obvious to you, it would likely be labeled a ‘strong’ effect. The ‘moderate’ label also indicates a difference large enough so that you would probably notice it. A ‘slight’ effect is one that is noticeable in statistical analysis, but you may not have been aware of it.”
The results were similar for the white-Asian version of the experiment: 22% of white and Asian biracial adults, 30% of single-race whites and 20% of single-race Asians had no clear preference for whites or Asians.

**Demographic Differences**

Apart from some large differences by racial group, the Pew Research Center experiment suggests that automatic racial preferences for one race are roughly shared equally by men and women, the old and young, as well as college graduates and those with less education.

For example, among single-race whites, about half of all men (50%) and about the same share of women (46%) favored whites over blacks. Single-race black men and women were the mirror-opposite of whites: Identical shares of black men and women (45% for both) were quicker to associate positive words with blacks and negative words with whites. Among white and black biracial adults, roughly a third of men (35%) and women (34%) favored blacks, while 45% of men and 39% of women preferred whites, a difference that was not statistically significant.

While some studies have shown that younger adults are more likely to express racially tolerant views, the IAT experiment suggests a somewhat different story. Younger and older adults, regardless of their racial background, were found to have similar levels of underlying racial bias. Half of single-race whites younger than 40 favored, to varying degrees, whites over blacks – and so did 47% of those 40 and older. Similarly, 42% of younger single-race blacks and 46% of those 40 and older showed a preference for blacks.

Among biracial white and black adults, 42% of those 39 and younger and 43% of those 40 and older preferred whites over blacks. About a third of younger (35%) and older adults (34%) in this group favored blacks. The remainder had no preference for either race over the other.

Similarly, no significant differences by level of education were found. Across the three racial groups in the white and black IAT, roughly equal shares of those with a college degree (a group that included those with a two-year college degree) and those with less formal education expressed similar levels of racial bias.

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8 While social commentators have speculated that women should be more racially tolerant than men, few academic studies have systematically compared gender differences in racial attitudes. One major study published in 2003 examined white men and women and found that where they existed, women held more favorable racial views than men but these differences were small, inconsistent and limited.

9 Not all traditional surveys have found the young to be more racially tolerant. A Washington Post analysis of questions asked in the General Social Survey that used self-reports found that Millennial-aged adults (those born after 1980) are about as likely as Gen X (born 1965-80) or Baby Boomers (1946-64) to express biased views.

10 To get a large enough sample in each racial group to analyze, age as well as education level were combined to form two categories of roughly equal size.
When it comes to biases toward Asians and whites, the findings of the demographic analysis were less consistent. No clear differences by age, gender and education emerged among single-race Asians and white and Asian biracial adults. But among single-race whites, men were more likely than women to favor whites over Asians (60% vs. 40%). At the same time, 57% of single-race whites with a two-year college degree or more education favored whites over Asians, compared with 46% of those with less formal schooling, a difference that falls just short of being statistically significant at the 95% confidence level.

To further explore the relationship between demographics and racial bias, a multivariate linear regression analysis was conducted to assess the independent impact of race, gender, age and education on IAT scores, all other factors being equal.

This analysis offered a more nuanced view of the relationship between demographics and IAT scores. Race remained the single strongest predictor of IAT scores, but, among those who took the white and black IAT, younger adults ages 18 to 29 were slightly more likely than older adults to prefer whites to blacks, other factors being equal.

In the white-Asian test the regression findings for education were mixed. While having a two-year college degree or more education was not a significant predictor of IAT scores, when the sample was divided into those with at least a four-year college degree and those with less education, the analysis suggests that better educated adults have a slightly more favorable view of whites than those who did not graduate from a four-year college.

When party identification was added to the analysis, it proved not to be statistically significant: Democrats and Republicans were found to have roughly similar levels of racial bias in both versions of the IAT, all other factors held constant. In that case, too, race proved to be the strongest predictor of IAT scores.

**Explicit vs. Implicit Measures of Bias**

After completing the IAT, participants took a short survey that included questions often used in traditional public opinion polls to measure racial prejudice. Consistent with other studies, the Pew Research Center analysis found little or no relationship between IAT scores and the results of these explicit measures of racial bias. In other words, respondents with higher levels of racial bias were about as likely as those with lower levels to give unbiased – or biased – answers to survey questions.

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11 Also called a D score. For purposes of this report, the term “IAT effect score” and “IAT score” will be used instead of D score.
One series of questions measured belief in racial stereotypes. Respondents were asked how well six phrases described whites, blacks and Asians. Three phrases reflected a positive stereotype: “self-reliant,” “value work over pleasure” and “high achievers in school.” Three were cast in the negative: “insist on special privileges,” “lack good moral values” and “involved in drugs and gangs.”

Respondents could answer that the phrase described the racial group “very well,” “fairly well,” “not too well” or “not at all.” These answers were then scored on a four-point numeric scale that ranged from zero to three. A score of zero indicated the most positive answer and three the most negative. For example, someone who responded that the phrase “lack good moral values” described whites “very well” would be coded as three; their answer would be coded as two if they said it described whites “fairly well,” as one if they answered “not too well” and zero if they said “not well at all.” The scoring was reversed when the phrase reflected a positive stereotype. For example, those who said the phrase “high achievers in school” described whites “very well” would be given a zero, while someone who said it described whites “not well at all” would get a three, indicating a negative view of whites.

Each respondent’s answers to the six questions were then totaled to form a racial stereotype scale that ranged from zero for those who consistently offered the most positive evaluation of the target race to 18 for those who consistently had the most negative responses and somewhere in between if their answers varied.

A regression analysis was then conducted to see how closely IAT scores were correlated with the scores on the racial stereotype scale. In both the white-black and white-Asian versions of the experiment, the scores on the IAT did not predict scores on the racial stereotype scale once the independent effects of gender, age, education and racial group were accounted for in the analysis. The same pattern emerged when the analysis was reversed: Scores in the stereotype scale did not predict an individual’s IAT score after age, gender, education and race were held constant.

These findings are broadly consistent with other studies comparing explicit and implicit measures of racial attitudes. A research team headed by psychologist Brian Nosek of the University of Virginia found in an experiment conducted with visitors to a website that blacks demonstrated a stronger preference for blacks over whites on the explicit measure but a weak preference for whites on the IAT. Whites had an automatic preference for whites over blacks on the IAT but a
significantly weaker preference for their own race on a standard survey question testing explicit racial preferences.\textsuperscript{12}

In a \textit{direct comparison between IAT scores and explicit measures of racial bias}, a research team headed by Stanford professor Shanto Iyengar, a consultant on the Pew Research Center IAT experiment, that “the number of respondents classified as prejudiced on the implicit measure substantially exceeds the corresponding number based on explicit indicators.”

**Does the IAT Predict Behavior?**

Social scientists judge the value of a test such as the IAT by its ability to predict how people will act. In the case of the race IAT, the question becomes: Do IAT scores predict differences in how people treat people of different races?

In a number of studies, researchers have found that the IAT predicted a range of race-based behaviors.\textsuperscript{13} Alexander R. Green of Harvard Medical School led a research team that found doctors’ IAT scores predicted their attitudes toward their black and white heart patients and the treatment decisions they made.\textsuperscript{14} Specifically Green found that the IAT “revealed implicit preference favoring white Americans…and implicit stereotypes of black Americans as less cooperative with medical procedures…and less cooperative generally.” The researchers also found that “as physicians’ pro-white implicit bias increased, so did their likelihood of treating white patients and not treating black patients with thrombolysis,” a procedure used to dissolve dangerous blood clots. Other researchers have found that anti-black implicit attitudes of white freshmen who had been randomly assigned a black roommate predicted the success of the roommate relationship.\textsuperscript{15}

A Swedish researcher found that implicit measures of anti-Muslim stereotypes among Swedish hiring managers predicted the decision to interview Swedes over Arab and Muslim job applicants.\textsuperscript{16} Moreover, the study reported that the IAT performed better than explicit measures of racial attitudes in predicting who would be interviewed for a job.

Other tests also have found that the IAT is useful in detecting views that individuals may be reluctant to divulge to others or even to admit to themselves. In one striking example,

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Researchers used an IAT that measured an implicit sexual preference for adults or children to distinguish convicted pedophiles from other violent offenders.¹⁷

Researchers caution that no social science test can perfectly predict racial prejudice or other antisocial behaviors. After reviewing 122 research reports, Mahzarin R. Banaji and Anthony G. Greenwald, who first developed the IAT, conclude that “IAT scores correlated moderately with discriminatory judgments and behavior.”¹⁸ Their study also found that the IAT predicted racially biased behaviors “significantly more effectively than did the types of question-asking measures that have long been used in studies of prejudice.”¹⁹

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¹⁹ Ibid, (pp. 52).
Appendix A: Methodology

The Implicit Association Test (IAT) was developed in 1995 by Anthony G. Greenwald of the University of Washington and Mahzarin R. Banaji, now at Harvard University. The test is designed to measure unconscious or implicit preferences of individuals. In the case of race, the goal of the IAT is to measure preference for one race over another. Social psychologists who conduct IAT tests claim that the IAT is more accurate than survey self-reports when measuring the public’s hidden or “implicit” bias against racial and ethnic minorities, immigrants, gays and lesbians, older adults and other historically stigmatized groups.20

Implicit association studies of single-race blacks and whites have generally shown that whites, on average, have an automatic and subconscious preference for whites over blacks. Blacks, on the other hand, are divided or tend to favor blacks over whites, but to a lesser degree. A significant proportion of blacks also hold more favorable views of whites than they do of their own race.21

Pew Research Center, working with consultant Shanto Iyengar of Stanford University and Sean Westwood of Dartmouth College, applied the IAT race design to study multiracial adults.22 The research goal was to see if biracial adults unconsciously view one of their racial backgrounds more favorably than the other or whether they have no preference.

Who Was Tested

The big picture: The Pew Research Center team tested the racial preferences of two mixed-race groups: Adults who reported having a black and white racial background and those with a white and Asian background. Samples of single-race blacks, whites and Asians also were tested to provide a basis for comparing mixed-race with single-race adults.

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21 A summary of IAT findings on race and gender as well as answers to frequently asked questions about the IAT can be found here on the website of Project Implicit. The site also contains a selection of academic articles on the results of IAT experiments on a range of topics including race and gender.
22 Iyengar is the Chandler Professor of Communication and a Professor of Political Science at Stanford and a pioneer in online experiments in the social sciences. Programming for the mixed race IAT and analysis of the results was done by another Pew Research Center consultant, Sean Westwood. Westwood is an assistant professor at Dartmouth College who collaborated with Iyengar on IAT experiments when he was a graduate student at Stanford.
Using a nonprobability sample to research a small population: For this study, researchers were interested in reaching adults with a multiracial heritage that would be willing to be involved in an online study. These groups are so rare in the population that we simply would not be able to reach enough of them using the probability-based sampling methods that are standard for Pew Research Center surveys. For this reason, we decided to take advantage of the size and online capability of an online nonprobability panel.

Specifically, in this case, study participants were selected from the YouGov online panel. The YouGov panel includes 1.5 million individuals in the United States who were recruited to take a survey through web advertising campaigns, partner-sponsored solicitations, email campaigns and telephone or mail recruitment.

Because members of the YouGov panel are not invited to join using probability-based methods, the results cannot be used to estimate precisely what would be found if the whole population of mixed-race adults or specific subgroups within that population had taken the IAT.

Creating, and matching to, a target sample: YouGov first created a target sample by randomly selecting single-race whites and blacks from the U. S. Census Bureau’s 2010 American Community Survey Public Use Microdata sample. The selected targets were replaced with individuals from the YouGov panel who were similar to the targets in the frame in terms of their race, gender, age and education. Data on voter registration status and turnout were matched to this frame using the November 2010 Current Population Survey. Data on interest in politics and party identification were then matched to this frame from the 2007 Pew Research Center Religious Landscape Survey.

Asian respondents were matched to a sampling frame of Asian Americans who were not of Indian, Bangladeshi, Pakistani or Sri Lankan descent on gender, age and education. The frame was constructed by stratified sampling from the full 2013 American Community Survey (ACS) sample with selection within strata by weighted sampling with replacements (using the person weights on the public use file).

Sampling frames of white and black and white and Asian biracial adults (excluding Asians from the Indian subcontinent and Sri Lanka) were created by first drawing samples of each target group from the Census Bureau’s full 2013 American Community Survey. Then those in the sampling frame were matched and replaced with YouGov panelists who were similar in terms of their racial background, gender, age and education.
After the matching was complete, the panelists were invited to participate in the Pew Research Center study.

**Study participants:** In all, a total of 3,029 adults took the Pew Research Center IAT. To avoid distorting the test results, those who made too many errors while doing the test were excluded from the analysis. The remaining 2,517 test subjects included 603 white and black biracial adults, 370 single-race blacks and 670 single-race whites. Roughly half of the single-race white control sample (n=328) was randomly assigned to take the white-black version of the IAT, the other half (n=342) took the white-Asian version of the test.

In addition, study participants included 470 white and Asian biracial adults and 404 single-race Asians whose country of origin or family’s country of origin was one of the countries in East Asia or the Pacific Rim, including China, South Korea, Japan, Vietnam, Thailand and the Philippines. About three-quarters of all Asians in the United States trace their ancestry to one or more of the East Asian or Pacific Rim countries. Asians who trace their families back to a West Asian country – India, Pakistan, Bangladesh, Sri Lanka or Nepal – were not included in the samples of Asians or white-Asian biracial adults.

**How the Mixed-Race IAT Worked**

The mechanics of an Implicit Association Test are straightforward. Respondents are given a deceptively simple task to complete: They are instructed to sort a series of words and photos into two groups. In the Pew Research Center study, participants were shown photos and asked to identify whether the person in the photo was a member of a specific racial group or not. In the case of words, they were told to identify the word as being synonymous with “good” or not.

YouGov panelists chosen for the experiment received email invitations to participate in the study and were given a link to the test site. An introductory screen informed them that they would be participating in “a brief reaction-time task” but did not disclose the purpose of the research. They also were informed that they would be asked to complete a short survey immediately following the IAT.

An instruction screen contained detailed directions on what participants were to do, followed by two practice rounds of the IAT so they could become comfortable with the task.

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23 Those who failed to accurately categorize 35% or more of the words or images were excluded. The purpose of the error filter was to eliminate from the study those who did not understand or follow the instructions as well as those who hit keys haphazardly just to get through the task.
Respondents then moved on to the first test screen. If the participant was white and black biracial or single-race white or black, the category words “African American” or “white American” and the word “good” appeared at the top of the screen in large letters. These were the “category” groups – the buckets that respondents were told to use to sort the photos or words.

In the center of the screen below the race name and the word “good,” a photo of a black or a white man appeared. On the other half, a word synonymous with “good” or “bad” would be shown.

The synonyms for “good” used in the test were “wonderful,” “best,” “excellent” and “superb.” The “bad” words were “terrible,” “horrible,” “awful” and “worst.” Each good and bad word appeared at random and an equal number of times in the test. Four photos of different young white and black men also appeared randomly. (The white-Asian IAT used four photos of young Asian men along with the same photos of white men and the same “good” or “bad” words used in the white-black test.)

These photos or words were the “targets” to be categorized. The task for participants to complete was to correctly identify and categorize as quickly as they could the word or image as being either a photo of a black or white person, or a word synonymous with “good.” Study subjects were instructed to press the “I” key on their computer keyboards if the target was a photo of a member of the racial group named at the top of the screen or a “good” word. If the image in the photo was not a member of the racial group shown or if the word was one of the four “bad” words, participants were told to hit the “E” key.

Participants were specifically instructed before they began the IAT that they were not to judge whether the target word was an accurate or inaccurate description of the racial group listed at the top of the page. They only were being asked to determine if the word was a synonym for “good” or a photo of someone in the category group.
The image below is a screen shot taken from the Pew Research Center IAT. The categories are “African American” and “good.” In this case, the target is the image of a young black man. Respondents pressed the “I” key to record a correct response.

The target in the screen shot to the right is the word “wonderful.” Since the target word is a synonym for “good”, the participant also would press the “I” key to register a correct answer.
Correcting Mistakes

The instructions also urged participants to react to the target word or image quickly. If they mis-categorized the word or image and hit the wrong key, a red “X” appeared. The participant had to hit the correct key before he or she could move on to the next screen. In the example below, the red X appeared because the test subject hit the “I” key, recording that the word “awful” was a synonym for good. The red X would also appear if a photo of a young white man had been the target and the participant incorrectly hit the “I” key.

The photos of blacks, whites and Asians used in the test came from a database maintained by the Stanford University psychology department. Four different photos of individuals from each race were used. The images were tested to determine that they were considered to be photos of individuals of about the same age and of average physical attractiveness. Only photos of young men were shown to avoid any differences due to age or gender. Each image and word appeared randomly an equal number of times for each category race. The race category that appeared first also varied so that category pair appeared first an equal number of times.

What the Test Measures

As test subjects took the IAT, the time it took them to correctly put the target word or image in the right category was being carefully measured and recorded.

Researchers first computed the average time it took to correctly identify the target word or image depending on the race identified as the category group. In the case of black and white biracial adults, the time it took to match the photo of a black man with the category “African American” when the word “good” was also displayed was subtracted from the time it took the test subject to match the photo of a white man with “white American” and “good.” Analysts followed the same steps when the words were used as the targets instead of photos.
The analysts determined if there was a significant difference between the average length of time it took individuals to associate good and bad words with a specific race by computing a statistic called the “D score.” The score can range from -2 to 2, and is calculated by subtracting the average response times for the screens that paired targets from Category A (for example, Asian American with good) with one of the positive (or negative) terms from the mean response times for the round pairing the same target from Category B (white Americans/good), then dividing this number by the standard deviation of all response times.

Those with D scores that were less than .15 but more than -.15 were classified as having little or no preference for one of the target races. Those with scores between .15 and .34 (or -.15 and -.34) were classified as having a “slight” preference. Scores between .35 and .64 (or -.35 and -.64) were classified as reflecting a “moderate” preference, while scores of .65 and higher (or -.65 and lower) were classified as indicating a “strong” preference.

The test relies on research, replicated in decades of psychological studies, that finds people are more quickly able to pair words or images together that are consistent with their internal beliefs. For example, say a test subject subconsciously views whites more positively than Asians. He or she will be quicker to associate positive words with the category “good” if the racial category is “white Americans” than if it is “Asian Americans,” and vice-versa. The same holds true when the target is a photo – respondents are faster sorting the photo of a young white man into the right category if the category race is “white American” than if it is “Asian American.”

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Appendix B: IAT Script and Questionnaire

**IAT/RACE YOUGOV SURVEY**

**Field Period:** Feb. 4-April 2, 2015  
**Sample description:** Total number used in analysis = 2,517 adults 18 or older drawn from the YouGov panel; samples of racial groups to be nationally representative by gender, age and education.  
- 603 white-black biracial adults  
- 470 white-Asian biracial adults  
- 670 non-Hispanic single-race whites  
- 370 single-race blacks  
- 404 single-race Asians (not including South Asians)

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**INTRODUCTION**

Welcome! Thank you for agreeing to participate in this research project. This project is sponsored by the Pew Research Center, a non-partisan and non-profit research organization located in Washington, DC. The results will be part of a major report on important issues facing our country.

The study should take about ten minutes. You first will be asked to complete a brief reaction-time task. After completing the task you will be asked to take a short survey.

It is important for this study that you complete the task and the survey. However, if you want to quit and not resume at a later time, just close your browser. But we think you will enjoy participating in this study and hope you will finish both parts.

Please carefully read the instructions on the next page before starting.

**INSTRUCTIONS [PROGRAMMING NOTE: PLEASE DISPLAY THIS HEADING]**

The study begins with what is known as a Brief Implicit Association Test. We want to see how quickly people recognize and categorize particular types of words and images of human faces.

To begin, place the index finger of your left hand on the “E” key of your keyboard. Place your right index finger on the “I” key and either thumb on the spacebar. Pressing the I or E key is how you record your responses; hitting the spacebar is how you advance to the next part of the task.

You will be instructed to press the 'I' key when you see 'GOOD' words such as WONDERFUL or BEST or a photo of either a WHITE AMERICAN or an [INSERT: ASIAN AMERICAN/AFRICAN AMERICAN]. The 'E' key is used for 'BAD' words such as WORST or AWFUL and for images of the other race. You’ll do this task a few times, and the race associated with GOOD will switch each time.

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25 Horizontal line separating blocks of text or questions indicates that the text appeared on a new screen.
The test measures how quickly you can correctly identify the racial group of an individual by their face. It separately measures how quickly you can correctly recognize words as being bad or good. The test does not ask you if you think the good or bad word applies to any racial group. It merely records your reaction times to a mix of words and images.

The instructions may seem complicated but you will pick it up after a few tries. The first items are practice. They will help you become familiar with what you will be doing during the rest of the test. Classify items as quickly as you can while making as few mistakes as possible. You will see a red "X" if you press an incorrect key. If you make a mistake, rapidly correct the error by pressing the other key.

We want you to go quickly so expect to make a few mistakes. That's OK.

Press the space bar to begin.

[Note: IAT test begins]

DISPLAY FOR ALL
Thank you for completing this portion of the study. Now please answer a short survey about some important national issues.

ASK ALL
Q.1 If you were asked to use one of these commonly used names for the social classes, which would you say you belong in?

[SHOW RESPONSE OPTIONS IN REVERSE ORDER FOR A RANDOM HALF OF THE SAMPLE]

RESPONSE OPTIONS:
1 Upper class
2 Upper-middle class
3 Middle class
4 Lower-middle class
5 Lower class

[PROGRAMMING NOTE: THERE SHOULD BE NO BACK BUTTON ON THIS PAGE. IF YOU CLICK IT YOU CAN RETAKE THE IAT SERIES.]
ASK ALL
Q.2  How much do you think discrimination against people from each of the following groups in the U.S. today limits their chances to get ahead?

[RANDOMIZE ORDERING OF ITEMS A THROUGH E; DISPLAY IN GRID]

a. Whites
b. Blacks
c. Latinos
d. Asians
e. Immigrants

RESPONSE OPTIONS:
1  Limits a lot
2  Limits some
3  Limits a little
4  Does not limit their chances

DISCRIMINATION

[RANDOMIZE ORDER OF Q.3A AND Q.3B]

ASK ALL
Q.3a  How much do you think discrimination against people born to one white and one black parent in the U.S. today limits their chances to get ahead?

RESPONSE OPTIONS:
1  Limits a lot
2  Limits some
3  Limits a little
4  Does not limit their chances

ASK ALL
Q.3b  How much do you think discrimination against people born to one white and one Asian parent in the U.S. today limits their chances to get ahead?

RESPONSE OPTIONS:
1  Limits a lot
2  Limits some
3  Limits a little
4  Does not limit their chances
ASK ALL

Q.4 We’d like to get your feelings toward a number of groups and individuals on a “feeling thermometer.” A rating of zero degrees means you feel as cold and negative as possible. A rating of 100 degrees means you feel as warm and positive as possible. You would rate the group at 50 degrees if you don’t feel particularly positive or negative toward the group or individual. How do you feel toward...

Click on the thermometer and drag the pointer to indicate your rating.

RESPONSE OPTIONS:
0-100 [Rating on thermometer]
888 Not sure
999 [No answer/Skipped - DO NOT SHOW]
RACIAL RESENTMENT SCALE

ASK ALL
Q.5 How strongly do you agree or disagree with the following statements?

[RANDOMIZE ORDERING OF ITEMS A THROUGH D]

a. The Irish, Italian, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.

RESPONSE OPTIONS:
1 Strongly agree
2 Somewhat agree
3 Somewhat disagree
4 Strongly disagree

b. It’s really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.

RESPONSE OPTIONS:
1 Strongly agree
2 Somewhat agree
3 Somewhat disagree
4 Strongly disagree

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c. Over the past few years, blacks have gotten less than they deserve.

RESPONSE OPTIONS:
1 Strongly agree
2 Somewhat agree
3 Somewhat disagree
4 Strongly disagree

d. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.

RESPONSE OPTIONS:
1 Strongly agree
2 Somewhat agree
3 Somewhat disagree
4 Strongly disagree
ASK ALL

Q.6 We’d like to know how important various things are to your sense of personal identity. Please think about each thing listed below and indicate how important it is to your sense of who you are.

Click on each item and drag it into the box that most represents how you feel. You may place more than one item in each box or no items in some boxes if you wish.

LIST ALL ITEMS IN TEXT BOXES WITH FOUR DROP BOXES BELOW LABELED WITH THE RESPONSE OPTIONS TO DRAG THE ITEM TEXT BOXES INTO (SEE SCREENSHOT BELOW); RANDOMIZE ORDERING OF ITEMS A THROUGH F

a. Your social class
b. Your racial background
c. Your age
d. Your gender
e. Your political beliefs
f. Your religious beliefs

RESPONSE OPTIONS:
1 Very important
2 Fairly important
3 Not too important
4 Not at all important
LINKED FATE SCALE

ASK ALL
Q.7 How strongly do you agree or disagree with the following [IF BIRACIAL: statements/IF SINGLE RACE: statement]?

[RANDOMIZE ORDERING OF ITEMS A THROUGH C]

ASK IF WHITE ALONE OR WHITE-BLACK BIRACIAL OR WHITE-ASIAN BIRACIAL
a. If things get better for WHITE AMERICANS in general, things will get better for me.

RESPONSE OPTIONS:
1    Strongly agree
2    Somewhat agree
3    Somewhat disagree
4    Strongly disagree

ASK IF BLACK ALONE OR WHITE-BLACK BIRACIAL
b. If things get better for BLACK AMERICANS in general, things will get better for me.

RESPONSE OPTIONS:
1    Strongly agree
2    Somewhat agree
3    Somewhat disagree
4    Strongly disagree

ASK IF ASIAN ALONE OR WHITE-ASIAN BIRACIAL
c. If things get better for ASIAN AMERICANS in general, things will get better for me.

RESPONSE OPTIONS:
1    Strongly agree
2    Somewhat agree
3    Somewhat disagree
4    Strongly disagree
STEREOTYPES

[RANDOMIZE ORDER OF Q.8, Q.9, Q.10 ON SEPARATE SCREENS]

ASK ALL
Q.8 Thinking generally about ASIAN AMERICANS...

How well, if at all, does the following trait apply to ASIAN AMERICANS?

[RANDOMIZE ITEM A-G ORDER IN SAME ORDER FOR Q.8, Q.9, Q.10; PLACE EACH ITEM ON A SEPARATE SCREEN; SEE SCREENSHOT BELOW FOR FORMATTING EXAMPLE]

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a. Value work over pleasure

RESPONSE OPTIONS:
1  Very well
2  Fairly well
3  Not too well
4  Not at all well

b. Insist on special privileges

RESPONSE OPTIONS:
1  Very well
2  Fairly well
3  Not too well
4  Not at all well
QUESTION 8 CONTINUED ...

c. High achievers in school
   RESPONSE OPTIONS:
   1  Very well
   2  Fairly well
   3  Not too well
   4  Not at all well

[NO ITEM D]

d. Lack good moral values
   RESPONSE OPTIONS:
   1  Very well
   2  Fairly well
   3  Not too well
   4  Not at all well

f. Self-reliant
   RESPONSE OPTIONS:
   1  Very well
   2  Fairly well
   3  Not too well
   4  Not at all well

g. Involved in drugs and gangs
   RESPONSE OPTIONS:
   1  Very well
   2  Fairly well
   3  Not too well
   4  Not at all well
ASK ALL
Q.9   Thinking generally about WHITE AMERICANS...

How well, if at all, does the following trait apply to WHITE AMERICANS?

How well, if at all, does the following trait apply to WHITE AMERICANS?

a. Value work over pleasure

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well

b. Insist on special privileges

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well

c. High achievers in school

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well
QUESTION 9 CONTINUED ...

[NO ITEM D]

e. Lack good moral values

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well

f. Self-reliant

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well

g. Involved in drugs and gangs

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well
ASK ALL
Q.10 Thinking generally about BLACK AMERICANS...

How well, if at all, does the following trait apply to BLACK AMERICANS?

[RANDOMIZE ITEM A-G ORDER IN SAME ORDER FOR Q.8, Q.9, Q.10; PLACE EACH ITEM ON A SEPARATE SCREEN; SEE SCREENSHOT BELOW FOR Formatting EXAMPLE]

Thinking generally about BLACK AMERICANS...

How well, if at all, does the following trait apply to BLACK AMERICANS?

Lack good moral values

RESPONSE OPTIONS:
1 Very well
2 Fairly well
3 Not too well
4 Not at all well

a. Value work over pleasure

RESPONSE OPTIONS:
1 Very well
2 Fairly well
3 Not too well
4 Not at all well

b. Insist on special privileges

RESPONSE OPTIONS:
1 Very well
2 Fairly well
3 Not too well
4 Not at all well

c. High achievers in school

RESPONSE OPTIONS:
1 Very well
2 Fairly well
3 Not too well
4 Not at all well
QUESTION 10 CONTINUED ...

[NO ITEM D]

e. Lack good moral values

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well

f. Self-reliant

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well

g. Involved in drugs and gangs

RESPONSE OPTIONS:
1. Very well
2. Fairly well
3. Not too well
4. Not at all well
MIXED RACE
[RANDOMIZE ORDER OF Q11a, Q11b, Q11c, Q11d ON THE SAME SCREEN]

ASK IF WHITE ALONE OR BLACK ALONE OR WHITE-BLACK BIRACIAL
Q.11a  Do you believe that Americans born to one WHITE and one BLACK parent have more, fewer, or about the same opportunities in life as Americans born to two WHITE parents?

RESPONSE OPTIONS:
1  More opportunities
2  Fewer opportunities
3  About the same opportunities

ASK IF WHITE ALONE OR ASIAN ALONE OR WHITE-ASIAN BIRACIAL
Q.11b  Do you believe that Americans born to one WHITE and one ASIAN parent have more, fewer, or about the same opportunities in life as Americans born to two WHITE parents?

RESPONSE OPTIONS:
1  More opportunities
2  Fewer opportunities
3  About the same opportunities

ASK IF WHITE ALONE OR BLACK ALONE OR WHITE-BLACK BIRACIAL
Q.11c  Do you believe that Americans born to one WHITE and one BLACK parent have more, fewer, or about the same opportunities in life as Americans born to two BLACK parents?

RESPONSE OPTIONS:
1  More opportunities
2  Fewer opportunities
3  About the same opportunities

ASK IF WHITE ALONE OR ASIAN ALONE OR WHITE-ASIAN BIRACIAL
Q.11d  Do you believe that Americans born to one WHITE and one ASIAN parent have more, fewer, or about the same opportunities in life as Americans born to two ASIAN parents?

RESPONSE OPTIONS:
1  More opportunities
2  Fewer opportunities
3  About the same opportunities
ASK ALL
Q.12 In terms of your ideas and values, how close do you feel to the following groups of Americans?

[RANDOMIZE ORDERING OF ITEMS A THROUGH E; DISPLAY IN GRID]

a. Whites  
b. Blacks  
c. Asians  
d. Latinos  
e. Immigrants

RESPONSE OPTIONS:
1 Very close  
2 Fairly close  
3 Not too close  
4 Not at all close

ASK ALL
Q.13 Which of these two statements comes closer to your own view, even if neither is exactly right?

[ROTATE RESPONSE OPTIONS]

RESPONSE OPTIONS:
1 The government should provide fewer services in order to reduce spending  
2 It is important for the government to provide more services even if it means an increase in spending
[RANDOMIZE ORDER OF Q.14 THROUGH Q.17 ON THE SAME SCREEN]

ASK ALL
Q.14  Which of these two statements comes closer to your own view, even if neither is exactly right?

[ROTATE RESPONSE OPTIONS]

RESPONSE OPTIONS:
1  Immigrants today strengthen our country because of their hard work and talents
2  Immigrants today are a burden on our country because they take our jobs, housing and health care

ASK ALL
Q.15  What is your opinion about allowing gays and lesbians to marry legally?

[SHOW RESPONSE OPTIONS IN REVERSE ORDER FOR A RANDOM HALF OF THE SAMPLE]

RESPONSE OPTIONS:
1  Strongly favor
2  Favor
3  Oppose
4  Strongly oppose

ASK ALL
Q.16  In general, what do you think should be the punishment for people convicted of murder?

[ROTATE RESPONSE OPTIONS 1 AND 2]

RESPONSE OPTIONS:
1  The death penalty
2  Life in prison with no chance of parole
3  Depends on the circumstances

ASK ALL
Q.17  Do you approve or disapprove of the health care law passed by Barack Obama and Congress in 2010?

[DO NOT ROTATE RESPONSE OPTIONS]

RESPONSE OPTIONS:
1  Approve
2  Disapprove
ASK ALL
Q.18  Do you think abortion should be...

[SHOW RESPONSE OPTIONS IN REVERSE ORDER FOR A RANDOM HALF OF THE SAMPLE]

1  Legal in ALL cases
2  Legal in MOST cases
3  Illegal in MOST cases
4  Illegal in ALL cases

ASK ALL
Q.19  Some people believe that women should have an equal role with men in running business, industry and government. Others believe that women's place is in the home.

Where would you place yourself on the scale shown below?

[PROGRAMMING NOTE: 5 HORIZONTAL RADIO BUTTONS. LABEL NEXT TO LEFT BUTTON=Women should have equal role; LABEL NEXT TO RIGHT BUTTON=Women's place is in the home]

RESPONSE OPTIONS:
1   Women should have an equal role
2   2
3   3
4   4
5   Women’s place is in the home
8   Not sure
9   [No answer/Skipped - DO NOT SHOW]

Here is a screenshot of what it looks like:
ASK ALL
Q.20 Overall, how good a job are police departments around the country doing when it comes to treating racial and ethnic groups equally?

[SHOW RESPONSE OPTIONS IN REVERSE ORDER FOR A RANDOM HALF OF THE SAMPLE]

RESPONSE OPTIONS:
1 Excellent job
2 Good job
3 Only a fair job
4 Poor job

ASK ALL
Q.21 In politics today, do you consider yourself a...

RESPONSE OPTIONS:
1 Democrat
2 Republican
3 Independent
4 Other (please specify)
8 Not sure
9 [No answer/Skipped - DO NOT SHOW]

ASK IF INDEPENDENT, OTHER, NOT SURE OR MISSING [Q.20=3,4,8,9]
Q.21a As of today, do you lean more to...

RESPONSE OPTIONS:
1 The Democratic Party
2 The Republican Party

ASK IF REPUBLICAN/DEMOCRAT [Q.20=1,2]
Q.21b Would you call yourself a strong [INSERT: Democrat/Republican] or a not very strong [INSERT: Democrat/Republican]?

RESPONSE OPTIONS:
1 Strong [INSERT: Democrat/Republican]
2 Not very strong [INSERT: Democrat/Republican]
ASK ALL
Q.22 In general, would you describe your political views as...

RESPONSE OPTIONS:
1 Very conservative
2 Conservative
3 Moderate
4 Liberal
5 Very liberal

ASK ALL WHO ARE REGISTERED TO VOTE:
Q.23 Now, thinking back to the 2012 presidential election. Did you happen to vote for...

[ROTATE RESPONSE OPTIONS 1 AND 2]

RESPONSE OPTIONS:
1 Mitt Romney
2 Barack Obama
3 Some other candidate
4 I was registered to vote in 2012, but I did not vote
5 I was not registered to vote in 2012

ASK IF ASIAN ALONE OR WHITE-ASIAN BIRACIAL
Q.24 What is your ancestry or ethnic background? Are you...

Mark one or more boxes.

[PROGRAMMING NOTE: ALLOW FOR MULTIPLE RESPONSES; DISPLAY CHECKBOXES INSTEAD OF RADIO BUTTONS NEXT TO EACH RESPONSE OPTION]

RESPONSE OPTIONS:
1 Chinese
2 Indian
3 South Asian
4 Filipino
5 Vietnamese
6 Korean
7 Japanese
8 Hmong
9 Some other ancestry or ethnic background
Thank you for participating in this Pew Research Center survey. A report based on the findings of this survey will be available online later this year at www.pewresearch.org. If you have questions about this study, email them to iat@pewresearch.org.