Understanding White Polarization in the 2016 Vote for President: The Sobering Role of Racism and Sexism

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THE 2016 PRESIDENTIAL CAMPAIGN FEATURED major-party candidates who both explicitly put issues of race and gender at the forefront of the discourse. Notably, 2016 also witnessed the largest gap between the presidential vote preferences of college-educated and non-college-educated whites since 1980. While Donald Trump enjoyed just a four-point margin over Hillary Clinton among whites with a college degree (10 points less than Mitt Romney's margin over Barack Obama among that group in 2012), his advantage among non-college-educated

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whites was nearly 40 points.[1] This gap between college-educated and non-college-educated whites was possibly the single most important divide documented in 2016, and it was the culmination of an increasing divide in party identification among college-educated and non-college-educated whites following Obama's election in 2008.[2]

While many election postmortems were quick to make note of the education gap among whites in terms of presidential vote choice in 2016, explanations for the origins of this gap were a subject of significant debate. Two primary explanations have been offered. The first is that white working-class Americans were left behind during the economic recovery that took place during the Obama presidency, and Trump's populist economic message, focusing on protectionism and other policies to help working people, resonated with this feeling.[3] A second explanation is that Trump's willingness to make explicitly racist and sexist appeals during the campaign, coupled with the presence of an African American president and the first major-party female nominee, made racism and sexism a dividing line in the vote in this election.[4] This led less educated whites, who tend to exhibit higher levels of sexism and racism, to support Trump, while more educated whites were more supportive of Clinton.[5]

In this article, we use data from two national surveys conducted during the 2016 general election to adjudicate these two popular explanations. Using unique measures of attitudes on racism and sexism, coupled with questions designed to tap into dissatisfaction with personal economic conditions, we are able to determine the extent to which each of these factors helped explain vote choices in 2016 and, ultimately, whether either explanation can account for the education gap in vote choice among whites. We find that while economic considerations were an important part of the story, racial attitudes and sexism were much more strongly related to support for Trump; these attitudes explain at

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[1]Jon Huang, Samual Jacoby, Michael Strickland, and K.K. Rebecca Lai, "Election 2016: Exit Polls," 8 November 2016, accessed at https://www.nytimes.com/interactive/2016/11/08/us/politics/election-exit-polls.html, 10 January 2017.

[2]John Sides, Michael Tesler, and Lynn Vavreck, "How Trump Lost and Won," *Journal of Democracy* 28 (April 2017): 34–44.

[3]Jim Tankersly, "How Trump Won: The Revenge of Working-Class Whites," *Washington Post,* 9 November 2016.

[4]John Sides and Henry Farrell, eds., *The Science of Trump* (Washington, DC: Monkey Cage, 2016).

[5]Peter Glick, Maria Lameiras, and Yolanda Rodriguez Castro, "Education and Catholic Religiosity as Predictors of Hostile and Benevolent Sexism toward Women and Men," *Sex Roles* 47 (November 2002): 433–441; and Howard Schuman, Steeh Charlotte, Bobo Lawrence, and Krysan Maria, *Racial Attitudes in America: Trends and Interpretations,* rev. ed. (Cambridge, MA: Harvard University Press, 1997).

least two-thirds of the education gap among white voters in the 2016 presidential election.

EXPLAINING THE EDUCATION DIVIDE AMONG WHITES

Figure 1 plots the Republican share of the two-party vote for president among whites with and without a college degree in each presidential election since 1980. Note that white voting behavior in presidential elections was rather similar from 1980 through 1996, regardless of education. Indeed, in none of these elections was there more than a five percentage point difference in how college-educated and non-college-educated whites voted. In 2000, a small but notable gap began to emerge, with non-college-educated whites providing more support for the Republican presidential nominee. This gap remained relatively small, ranging from five to seven points in the elections held from 2000 to 2012.

In 2016, however, the gap in vote preferences between college-educated and non-college-educated whites widened considerably to 18 points, nearly three times larger than it had been in any election during the series. Importantly, this 18-point gap resulted from an apparent polarization among whites: college-educated whites were more supportive of Clinton than they had been of Obama in 2012, while whites without a college degree moved even more dramatically toward Trump. In fact, Trump won

FIGURE 1

Share of the Two-Party Vote for the Republican Presidential Candidate among Whites with and without a College Degree, 1980–2016
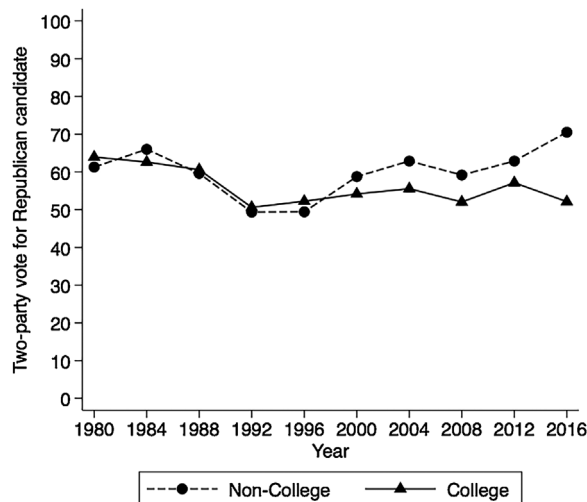
Source: National exit polls, accessed at http://www.nytimes.com/interactive/2016/11/08/us/politics/election-exit-polls.html.

more than 70 percent of the two-party vote among whites without a college degree, easily exceeding the performance of any Republican going back to at least 1980. His success with this group was particularly important in the three states that ultimately decided the election—Wisconsin, Michigan, and Pennsylvania. According to exit polls, in those three states, whites without a college degree made up between 40 percent and 47 percent of the electorate, and in each state they favored Trump by about 30 points over Clinton.

The emergence of the education gap in vote choice among whites after the turn of the century sparked journalistic and scholarly attention to why working-class whites were abandoning the Democratic Party. In the most prominent example of work directed at explaining this gap, Thomas Frank argues that cultural wedge issues such as abortion, gun control, same-sex marriage, and the death penalty were causing white working-class voters to abandon the Democratic Party.[6] In a response to Frank's book, Larry Bartels notes that "the partisan significance of educational attainment has largely evaporated."[7] But, as Figure 1 shows, if 2004 did not bring us a particularly large split in the voting preferences of whites based on education, 2016 clearly did. Based on Bartels's analysis of American National Election Studies (ANES) data going back to the 1952 presidential election, the 18-point gap in the vote choices of college-educated whites compared with non-college-educated whites would be the largest such gap since 1964. However, in 1964, that gap was reversed, with non-college-educated whites voting Democratic at a much higher rate than college-educated whites. As Seth Masket wrote shortly after the election, Frank's book "explains the 2016 election far better than it did the election cycle in which it was published."[8]

But why did education emerge as such a dividing line among whites in 2016? On one hand, it may be that the second part of Bartels's analysis remains correct even in 2016. That is, economic issues may still be the most important determinant of vote decisions, but economics may simply be dividing whites along educational lines more powerfully than in past election cycles. Indeed, Trump ran an especially populist campaign for the Republican nomination, focusing on protectionist positions on trade

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[6]Thomas Frank, *What's the Matter with Kansas? How Conservatives Won the Heart of America* (New York: Macmillan, 2007).

[7]Larry M. Bartels, "What's the Matter with What's the Matter with Kansas?," *Quarterly Journal of Political Science* 1 (2006): 201–226, at 209.

[8]Seth Masket, "What's the Matter with Kansas? Aptly Describes the 2016 Election—But Was Written in 2004," *Vox*, 1 December 2016, accessed at http://www.vox.com/mischiefs-of-faction/2016/12/1/13807382/thomas-frank-kansas-2016-election, 10 January 2017.

issues while generally refusing to call for cuts to popular government programs such as Medicare and Social Security. With some analyses indicating that working-class whites saw the least amount of benefit from the economic recovery,[9] it may be the case that this group voted decisively for the populist nominee of the out-party in 2016.

On the other hand, the explicit nature of the campaign rhetoric on race and sex in 2016 may be the culprit behind the education gap among whites. With regard to racism, Trump's rhetoric frequently violated norms that were supposed to inhibit politicians from making explicitly racist appeals. Specifically, one of the core tenets of the implicit/explicit model of racial priming is the expectation that racial appeals will be rejected by the mass public and therefore will be ineffective.[10] Yet Valentino, Neuner, and Vandenbroek find that the norms of racial political rhetoric have been shifting in recent years. In a series of survey experiments, they find that "[w]hites now view themselves as an embattled racial group, and this has led to both strong in-group identity and a greater tolerance for expressions of hostility toward out-groups."[11]

Thus, by 2016, it may have been possible for a candidate like Trump to make explicitly racist appeals to whites without undermining the effectiveness of those appeals in winning over voters with more racist attitudes. Importantly, education has been found to be related to views on race; whites with less education generally are less tolerant of other racial/ethnic groups and tend to exhibit more conservative racial attitudes than those with more education.[12] Thus, if Trump's racial rhetoric was effective, it was most likely to win him votes among less educated whites.

Of course, Trump's rhetoric went far beyond targeting racial and ethnic groups; he also invoked language that was explicitly hostile toward women. These remarks were often focused directly at opponents, such as Carly Fiorina and Hillary Clinton, or news reporters, such as Megyn Kelly. Adding to the litany of sexist remarks he had made before and during

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[9]Eduardo Porter, "Where Were Trump's Votes? Where the Jobs Weren't," *New York Times*, 14 December 2016.

[10]Tali Mendelberg, *The Race Card: Campaign Strategy, Implicit Messages, and the Norm of Equality* (Princeton, NJ: Princeton University Press, 2001); and Nicholas A. Valentino, Vincent L. Hutchings, and Ismail K. White, "Cues That Matter: How Political Ads Prime Racial Attitudes during Campaigns," *American Political Science Review* 96 (March 2002): 75–90.

[11]Nicholas A. Valentino, Fabian G. Neuner, and L. Matthew Vandenbroek, "The Changing Norms of Racial Political Rhetoric and the End of Racial Priming," 1 November 2016, 28, accessed at https://www.researchgate.net/publication/310230276_The_Changing_Norms_of_Racial_Political_Rhetoric_and_the_End_of_Racial_Priming, 15 January 2017.

[12]Schuman et al., *Racial Attitudes in America;* and Paul M. Sniderman and Thomas Piazza, *The Scar of Race* (Cambridge, MA: Belknap Press of Harvard University Press, 1993).

the campaign was the release of the Access Hollywood tape, which made major news about a month before Election Day and caused many Republicans to withdraw their support of him.

Such rhetoric was likely all the more salient given the presence of the first female major-party nominee for president in the race. Scholarship on the role of sexism and gender stereotypes in vote decisions involving women candidates is mixed. While many studies find that women candidates do not suffer a penalty from voters,[13] other work has pointed to important challenges faced by women when they run.[14] Bos, Schneider, and Utz point to the importance of role incongruity theory for understanding when a female candidate's gender may become salient to voters during a campaign. Specifically, role incongruity theory is based on the notion that people tend to think that women should behave but that political leaders ought to be assertive and independent. It may be the case that when a campaign highlights the way in which a female candidate is behaving incongruously, attitudes on sexism may become a stronger predictor of vote choice. As Bos, Schneider, and Utz note, "Prejudice against female candidates is likely to occur when context favors male stereotypical strengths, highlighting women's poor fit with the leader role. Prejudice should be reduced when the context favors female stereotypical strengths, such as cooperation and flexibility."[15] Thus, for example, when Trump referred to Clinton as a "nasty woman" during a debate, the reaction from voters may have been conditioned by their underlying views about how women should behave. For those with more sexist views, Trump's remark may have drawn attention to the fact that Clinton was not acting in the stereotypical way that they expect of a woman.

Additionally, Clinton, in an attempt to mobilize racial minorities such as African Americans and Latinos, consistently spoke to a number of issues of importance to these groups, such as her progressive positions on criminal

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[13]Ryan L. Claassen and John Barry Ryan, "Social Desirability, Hidden Biases, and Support for Hillary Clinton," *PS: Political Science & Politics* 49 (October 2016): 730–735; Kathleen Dolan, "Gender Stereotypes, Candidate Evaluations, and Voting for Women Candidates: What Really Matters?," *Political Research Quarterly* 67 (March 2014): 96–107; Danny Hayes, "When Gender and Party Collide: Stereotyping in Candidate Trait Attribution," *Politics & Gender* 7 (June 2011): 133–165; and Kathryn Pearson and Eric McGhee, "What It Takes to Win: Questioning 'Gender Neutral' Outcomes in US House Elections," *Politics & Gender* 9 (December 2013): 439–462.

[14]Leonie Huddy and Nayda Terkildsen, "Gender Stereotypes and the Perception of Male and Female Candidates," *American Journal of Political Science* 37 (February 1993): 119–147; and Matthew J. Streb, Barbara Burrell, Brian Frederick, and Michael A. Genovese, "Social Desirability Effects and Support for a Female American President," *Public Opinion Quarterly* 72 (January 2008): 76–89.

[15]Angela L. Bos, Monica C. Schneider, and Brittany L. Utz. 2017, "Navigating the Political Labyrinth: Gender Stereotypes and Prejudice in U.S. Elections," in Cheryl Travis and Jackie White, eds., *APA Handbook of the Psychology of Women* (Washington, DC: American Psychological Association, 2017), 28.

justice reform, immigration reform, and gender inequality. As Tesler notes, "Hillary Clinton moved to the left of Obama in both her rhetoric and policies on race-related issues in order to retain support from a coalition increasingly comprised of minorities and racially progressive whites."[16] Frymer shows that such appeals to racial minorities have historically been viewed in a negative light by white voters, most notably by racially conservative whites.[17]

Thus, while it is certainly possible that economic considerations were largely responsible for the education gap among whites in 2016, there is also reason to expect that attitudes related to race and gender may be behind this gap. Specifically, the rhetoric of the campaign and Clinton's attempt to be the first-ever female president may have combined to prime racial and gender attitudes in the minds of voters. If these factors were associated with support for Trump in 2016, and if non-college-educated whites are more likely to hold racist and sexist views, then the explicit role of racism and sexism in the 2016 campaign may account for the uniquely large education gap among whites.

DATA

To test which explanation—economic dissatisfaction or racist/sexist attitudes—better explains the education gap among whites, we analyze two nationally representative surveys of American adults administered online by YouGov. YouGov uses a matched sampling approach, which begins with a randomly selected target sample taken from the 2010 American Community Survey. YouGov then matches respondents from its volunteer panel on a variety of characteristics, including gender, age, race, education, party identification, ideology, and political interest, before using propensity score weights across those same characteristics to ensure that its samples are representative of the national adult population.

The first survey was a pre-election poll of 2,000 American adults fielded from 25 October to 31 October 2016. The survey questionnaire began by asking respondents whether they intended to vote in the November election and then asking which candidate they intended to vote for. A followup question was asked of those who said they were not sure whom they

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[16]Michael Tesler, "Views about Race Mattered More in Electing Trump than in Electing Obama," *Washington Post,* 22 November 2016, accessed at https://www.washingtonpost.com/news/monkey-cage/wp/2016/11/22/peoples-views-about-race-mattered-more-in-electing-trump-than-in-electing-obama, 5 January 2018.

[17]Paul Frymer, *Uneasy Alliances: Race and Party Competition in America* (Princeton, NJ: Princeton University Press, 1999).

would vote for to determine whether they leaned toward voting for a particular candidate. If we limit our analysis to individuals who said they would definitely vote or had already voted, the survey shows Clinton with a three percentage point lead over Trump (46 percent to 43 percent). This margin is close to the 2.1 points by which Clinton actually won the national popular vote.

The second survey was a module to the 2016 Cooperative Congressional Election Study (CCES). The module included interviews with 3,500 adults before the election (28 September to 3 November 2016) and then re-interviews with 2,830 of those same individuals after the election (9 November to 13 December 2016). The advantage of the CCES survey is that we can rely on a post-election question asking the respondents whom they voted for rather than the pre-election vote intention measure that we use in analyzing the first survey. Among the 2,418 self-reported voters, 48 percent reported voting for Clinton, while 45.6 percent said they voted for Trump, a margin of 2.4 percentage points.

Our primary dependent variable is the two-party vote for president. For the first survey, this variable includes people who said that they were leaning toward voting for one of the two major candidates. Individuals who chose a candidate other than Clinton or Trump are excluded from our analysis. We also restrict our analysis to likely voters when using the pre-election survey, defined as those who said they would definitely vote or had already voted. However, extending our scope to those who were not likely voters does not alter the conclusions reported. For the CCES analysis, we simply focus on individuals who said they voted in the November election.

Measuring Sexism and Racial Attitudes

Our first two primary independent variables are measures of attitudes regarding sexism and racism. For sexism attitudes, we create a scale from four items taken from the hostile sexism battery.[18] The hostile sexism battery is part of the Ambivalent Sexism Inventory and is designed to measure prejudiced attitudes toward women. While the full hostile sexism battery includes 11 items, space considerations limited us to the use of four of these items. We conducted a pre-test in June 2017 using subjects recruited from Mechanical Turk to determine

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[18]Peter Glick and Susan T. Fiske, "The Ambivalent Sexism Inventory: Differentiating Hostile and Benevolent Sexism," *Journal of Personality and Social Psychology* 70 (1996): 491–512.

the best subset of four items. The four items we use from this scale are as follows:

1. Women are too easily offended.
2. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
3. Women seek to gain power by getting control over men.
4. When women lose to men in a fair competition, they typically complain about being discriminated against.

Respondents were asked to indicate their agreement or disagreement with these items on a five-point scale. We then scaled these four items using an item response theory (IRT) graded response model, which resulted in a single standardized variable for hostile sexism, with a mean of 0 and a standard deviation of 1. We use an IRT graded response model rather than a factor analysis solution because, unlike factor analysis, the IRT approach allows us to include observations even if they have missing data on a subset of the items used to create the scale. The IRT graded response model is also more appropriate for categorical items. Nevertheless, our findings hold even if we use factor analysis to derive the underlying latent variable. The reliability for this scale was .90 in the pre-election survey and .88 in the CCES data.

To measure racial attitudes, we use three items that capture the extent to which an individual acknowledges and empathizes with racism. These items are related first and foremost to the concept of color-blind racial attitudes.[19] As Neville et al. explain, "color-blind racial attitudes refers to the belief that race should not and does not matter."[20] People who hold such attitudes essentially do not acknowledge the existence of racism in the United States. Thus, the two items we use from the Color-Blind Racial Attitudes Scale (CoBRAS) developed by Neville et al. are as follows:

1. White people in the U.S. have certain advantages because of the color of their skin.
2. Racial problems in the U.S. are rare, isolated situations.

As DeSante and Smith note, the CoBRAS items are useful in tapping the cognitive awareness or acknowledgment of racism in America, but

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[19]Eduardo Bonilla-Silva, *Racism without Racists: Color-Blind Racism and the Persistence of Racial Inequality in the United States* (Lanham, MD: Rowman & Littlefield, 1997).
[20]Helen A. Neville, Roderick L. Lilly, Georgia Duran, Richard M. Lee, and LaVonne Browne, "Construction and Initial Validation of the Color-Blind Racial Attitudes Scale (CoBRAS)," *Journal of Counseling Psychology* 47 (2000): 59–70, at 60.

additional items are needed to measure the extent to which people feel empathetic about the costs of racism.[21] Thus, based on the advice offered by DeSante and Smith, we add an additional item from the Psycho-Social Costs of Racism to Whites battery:[22]

3. I am angry that racism exists.

For each of these three items, respondents indicated on a six-point scale the strength with which they agreed or disagreed with each statement. These three questions were then scaled using an IRT graded response model to create a single racism measure on a standardized scale. As with the sexism scale, this is a standardized variable, such that −1 indicates an individual whose racism is 1 standard deviation below the mean (that is, he or she is more acknowledging of racism) and 1 indicates that the individual is 1 standard deviation above the mean (that is, he or she is more denying of the existence of racism). The reliability for this scale was .56 in the pre-election survey and .67 for the CCES data.

Figure 2 shows the distribution of responses on each of these two items, first for all voters (top row) and then for white voters only (bottom row). Note that about 15 percent of respondents take the least sexist position on the four items. However, the remaining 85 percent of respondents are distributed fairly evenly across the values. This distribution looks quite similar when we restrict the analysis to whites (two bottom-left plots). A somewhat similar pattern exists with the denial of racism scale, with over 10 to 15 percent of all likely voters taking the least racist positions on the three items, with the remaining adults distributed across the spectrum of racism denial.

The correlation between the two scales is .49 among likely voters in the pre-election survey (.60 among white likely voters) and .45 for voters in the CCES survey (.50 among white voters). Thus, individuals who score higher on the denial of racism battery are also more likely to score higher on the hostile sexism battery, but the scales are conceptually and statistically distinct.

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[21]Christopher D. DeSante and Candis W. Smith, "The Two Dimensions of Whites' Racial Attitudes, or: The New New Racism" (working paper).

[22]Lisa B. Spanierman and Mary J. Heppner, "Psychosocial Costs of Racism to Whites Scale (PCRW): Construction and Initial Validation," *Journal of Counseling Psychology* 51 (April 2004): 249–262; Lisa B. Spanierman, V. Paul Poteat, Amanda M. Beer, and Patrick Ian Armstrong, "Psychosocial Costs of Racism to Whites: Exploring Patterns through Cluster Analysis," *Journal of Counseling Psychology* 53 (October 2006): 434–441; and V. Paul Poteat and Lisa B. Spanierman, "Further Validation of the Psychosocial Costs of Racism to Whites Scale among Employed Adults," *The Counseling Psychologist* 36 (August 2008): 871–894.

FIGURE 2
Distribution of Voters and White Voters on Sexism and Racism Scales

All voters

White voters
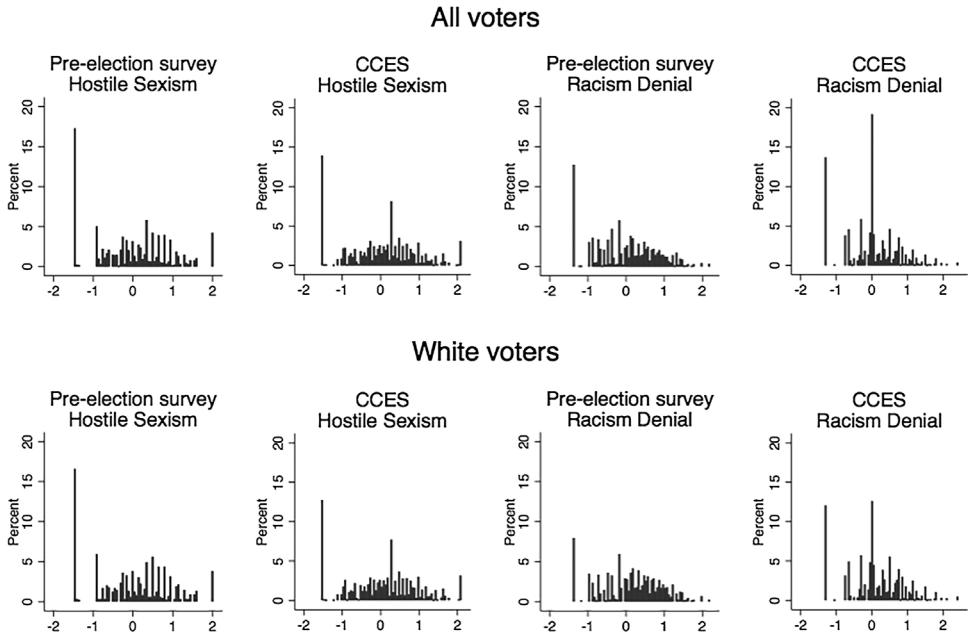
Source: Distribution on standardized scales with mean of 0 and standard deviation of 1 from pre-election. YouGov survey and CCES module used in analysis.

Measuring Economic Dissatisfaction

In addition to these scales for racism denial and hostile sexism, we test for the role of economic considerations in affecting vote choice. The pre-election survey included an item asking, "All things considered, how satisfied are you with your overall economic situation?" Respondents could choose from five options ranging from "extremely satisfied" to "not satisfied at all." The CCES module that we analyze does not include this same question. However, we instead rely on a related item that asked respondents whether their household income had increased, decreased, or stayed about the same over the past four years. While the CCES also includes items asking respondents to evaluate national economic conditions, scholars find that such questions are closely related to respondents' partisan preferences.[23] We found a similar pattern when we analyzed the responses to the national economic questions in the CCES. Fortunately, the question asking respondents about their household income change was much more weakly related to their partisanship and strongly associated with objective changes in their economic situations, such as their reported income or

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[23]Larry M. Bartels, "Beyond the Running Tally: Partisan Bias in Political Perceptions," *Political Behavior* 24 (June 2002): 117–150.

whether they reported having lost a job, taken a new job, or receiving a raise in the past few years. Accordingly, the item about an individual's change in household income appears to be the strongest measure of actual economic situation available in the CCES data and the one that is least endogenous to preexisting partisan preferences.
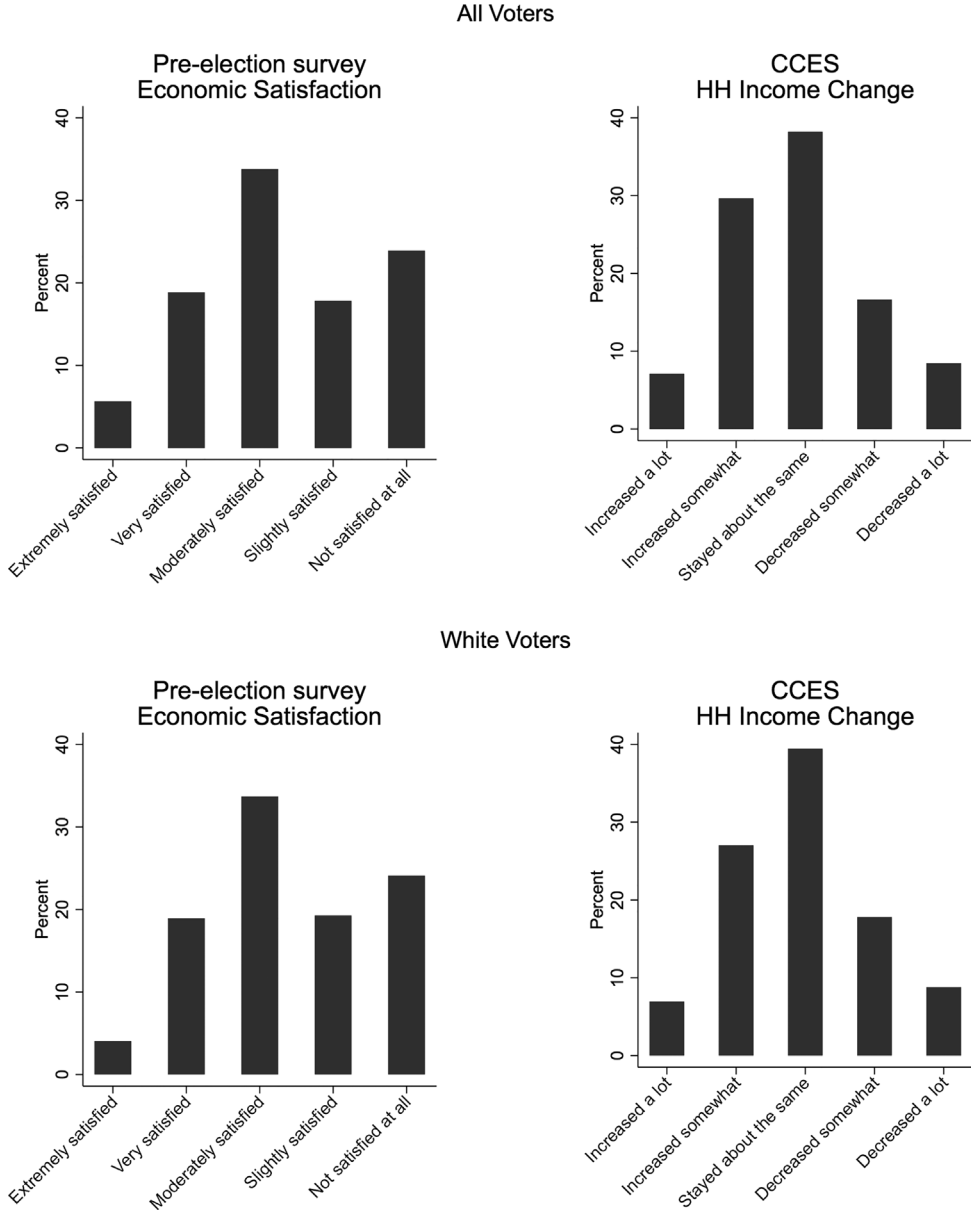
Figure 3 shows the distribution of responses from voters and white voters to these questions. Nearly one-quarter of voters reported that they were not satisfied at all with their economic situation, while very few reported that they were extremely satisfied. On the CCES, about one-third of voters reported an increase in household income, while two-thirds reported stagnant or declining income. Notably, responses to these questions are not strongly related to the denial of racism or hostile sexism scales —both scales correlated with the economic dissatisfaction item at just .10 and with the household income change variable at .22 and .15, respectively.

Table 1 presents the average values for non-college-educated whites and college-educated whites on each of our key measures across both surveys. The pattern is consistent across the three items—whites without a college degree expressed more economic dissatisfaction and scored higher on the denial of racism and hostile sexism scales. Specifically, on the question about economic dissatisfaction in the pre-election survey, whites without a college degree were more than a half point less satisfied with their economic conditions on the five-point scale. On the racism and sexism scales, non-college-educated whites scored about one-quarter of a standard deviation more racist/sexist than whites with a college degree. These differences are all statistically significant, and the magnitude of the differences is nontrivial. The patterns for the CCES survey (bottom half of the table) are very similar.

In the analysis of presidential vote choice that follows, we rescale the variables so that they range from 0 to 1. In addition to these independent variables, we include several control variables including partisanship (on a seven-point scale), ideology (five-point scale), gender, age, education, income, race, and whether the individual lives in the South. We rescaled the partisanship and ideology measures so that they range from 0 to 1, and the remaining control variables are simply incorporated as dummy variables for each relevant category. Gender is coded 1 if female and 0 if male. For age, we include indicators for whether the respondent is 30–54 or 55 and over (with 18–29 as the omitted category). For education, we include a dummy variable for whether the respondent has a four-year college degree. For family income, we include three categories—less than $40,000 per year, $40,000–$100,000, and over $100,000. Respondents who refused to provide their incomes were the omitted category. Finally, for race, we include indicators for whites, blacks, and Latinos, with all other races

FIGURE 3

Distribution of Responses on Question Asking about Satisfaction with Personal Economic Situation and Household Income Change

All Voters

White Voters

Source: Distribution of responses from YouGov pre-election survey and CCES module.

(Asian, Native American, Middle Eastern, mixed, and other) making up the omitted group.

All of our analyses incorporate sampling weights to ensure that our results are generalizable to the population of voters. Finally, the

TABLE 1

Average Values of Measures of Economic Dissatisfaction, Racism, and Sexism among Whites, by Education

Measure	Whites with a College Degree	Whites without a College Degree	Difference
	Pre-Election Survey		
Economic dissatisfaction	3.06	3.64	0.58
	(0.07)	(0.06)	($p < .001$)
Racism denial scale	0.06	0.30	0.24
	(0.04)	(0.04)	($p < .001$)
Hostile sexism scale	−0.11	0.18	0.29
	(0.05)	(0.04)	($p < .001$)
	CCES Survey		
Economic dissatisfaction	2.71	3.07	0.36
	(0.04)	(0.03)	($p < .001$)
Racism denial scale	−0.06	0.21	0.27
	(0.03)	(0.03)	($p < .001$)
Hostile sexism scale	−0.16	0.18	0.34
	(0.04)	(0.03)	($p < .001$)

Source: Authors' analysis of the pre-election survey and the CCES module.
Notes: Entries are means (incorporating sampling weights). Standard errors in parentheses.

Appendix includes an additional analysis demonstrating that our results are robust to alternative specifications. In particular, controlling for items capturing authoritarian attitudes, populist attitudes, and stereotyping of various racial and ethnic groups does not significantly weaken the results that we present in the following section. Furthermore, in each case, those variables are not as strongly associated with vote choice as the ones we focus on here.

RESULTS

Table 2 presents the results from four vote choice models estimated using probit. The first two models include all likely voters and white likely voters in our pre-election survey, while the second pair of models includes all voters and white voters from the CCES data. Notably, the coefficients for the variables are relatively similar across all of the models. While it is certainly true that whites score higher on the denial of racism scale than blacks and Latinos, racism denial does not operate much differently among whites in predicting support for Trump than it does for minority groups. Indeed, when we estimate a model in which we include interaction terms for each of these concepts and a respondent's race, the interaction terms are not statistically significant. It is also worth noting that since we have rescaled the variables from 0 to 1, the coefficients are somewhat comparable. Of particular note is the fact that the coefficients for the denial of racism and hostile sexism scales are quite large. In each of the models, the

TABLE 2
Probit Estimates of Factors Affecting Two-Party Vote for Trump

	Pre-Election Survey		CCES Module	
	All Likely Voters	*White Likely Voters*	*Voters*	*White Voters*
Hostile sexism scale	2.969	3.215	1.718	1.674
	(0.410)**	(0.610)**	(0.297)**	(0.314)**
Racism scale	2.902	3.017	3.849	4.160
	(0.543)**	(0.730)**	(0.495)**	(0.624)**
Economic situation	1.501	1.610	1.110	1.151
	(0.271)**	(0.374)**	(0.260)**	(0.309)**
Ideology	2.010	2.343	1.433	1.802
	(0.426)**	(0.627)**	(0.357)**	(0.377)**
7 point Party ID	3.537	3.646	2.951	2.902
	(0.304)**	(0.411)**	(0.217)**	(0.239)**
Female	0.461	0.499	0.025	0.030
	(0.180)*	(0.230)*	(0.121)	(0.138)
Age 30–54	1.402	1.802	0.268	0.372
	(0.394)**	(0.498)**	(0.269)	(0.319)
Age 55+	1.546	1.835	0.078	0.064
	(0.385)**	(0.469)**	(0.272)	(0.325)
College degree	–0.143	–0.328	0.019	0.068
	(0.187)	(0.237)	(0.118)	(0.129)
Income < $40k	–0.330	–0.523	–0.122	0.035
	(0.262)	(0.357)	(0.169)	(0.196)
Income $40k–$100k	–0.229	–0.454	–0.156	–0.135
	(0.254)	(0.343)	(0.153)	(0.171)
Income > $100k	–0.291	–0.346	0.218	0.250
	(0.305)	(0.435)	(0.183)	(0.210)
White	–0.329		0.324	
	(0.321)		(0.225)	
Black	–0.659		–0.173	
	(0.379)		(0.392)	
Hispanic	–0.713		–0.001	
	(0.360)*		(0.356)	
South	0.153	0.363	0.178	0.273
	(0.161)	(0.216)	(0.122)	(0.135)*
Constant	–7.274	–8.227	–5.307	–5.426
	(0.706)**	(0.935)**	(0.414)**	(0.428)**
Adjusted count R^2	0.839	0.898	0.838	0.830
N	1,397	785	2,137	1,610

*Source:* Authors' analysis of the pre-election survey and the CCES module.
Notes: Entries are OLS coefficients with standard errors in parentheses. Sampling weights applied to analysis.
*$p < .05$, one-tailed; **$p < .01$, one-tailed.

coefficient for denial of racism is exceeded only by partisanship in terms of its strength of association with support for Trump.

Figure 4 uses the first and third models in Table 1 to plot the predicted probability of voting for Trump across the range of the economic indicators, denial of racism scale, and hostile sexism scale while holding all other variables in the models at their mean values. This figure begins to answer the question of whether support for Trump was more about economic

FIGURE 4
Predicted Probability of Voting for Trump Based on Values of Economic Dissatisfaction, Racism, and Sexism
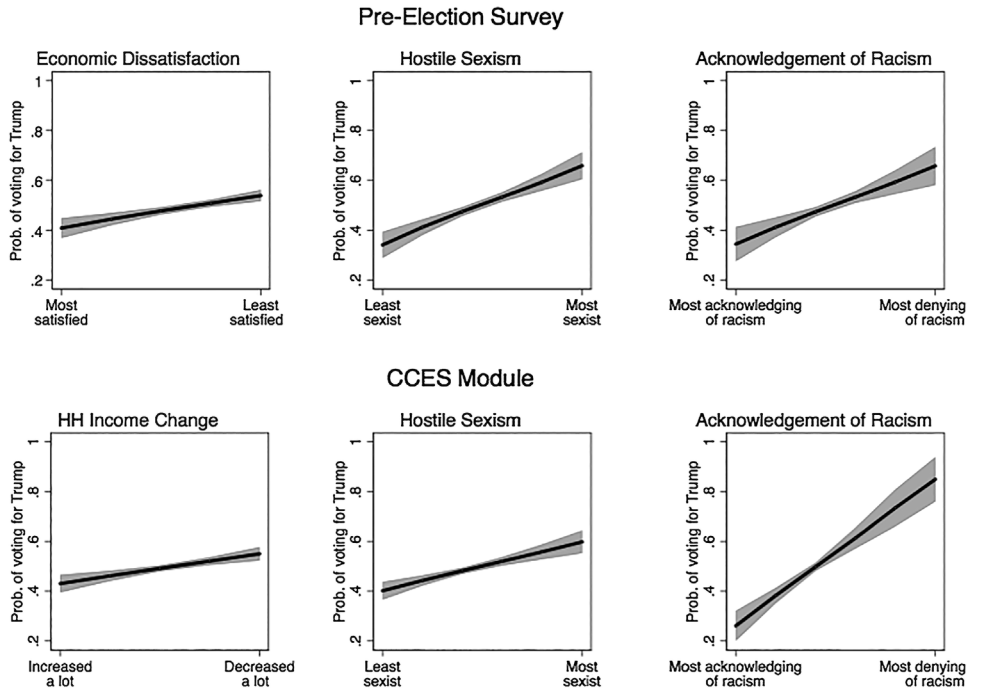
Source: Predicted probabilities based on the first and third models in Table 2 while holding all other variables in model at their mean values. Shaded areas represent 95 percent confidence intervals.

dissatisfaction or attitudes on race and gender. The left-hand panel in the first row of the figure shows that economic dissatisfaction was clearly associated with support for Trump in the pre-election survey. Moving from the highest to the lowest level of satisfaction with one's personal economic situation increased the predicted probability of voting for Trump by .13. The bottom left-hand plot shows a similar effect for the measure of change in household income in the CCES analysis. In that model, moving from reporting a significant increase in household income to a significant decrease was associated with a .12 higher probability of voting for Trump rather than Clinton.

While the economic variables in our models were significantly associated with vote choice, those effects were dwarfed by the relationship between hostile sexism and denial of racism and voting for Trump. For example, in the pre-election survey, an individual who was average on all other variables in the model but registered the most sexist attitudes on the hostile sexism scale had a .66 probability of voting for Trump. That same individual would have just a .34 predicted probability of voting for Trump

if he or she registered the least sexist attitudes. Thus, moving from one end of the sexism scale to the other was associated with more than a 30-point increase in support for Trump among the average likely voter. The relationship for the denial of racism scale was nearly identical—moving from the highest levels of acknowledgment and empathy for racism to the lowest levels was associated with about a 30-point increase in support for Trump.

In the CCES survey, the coefficients for hostile sexism and denial of racism were also quite strong. In the case of hostile sexism, moving from the least to the most sexist views coincided with an increase in support for Trump of about 20 points. This is a substantial shift in support, though not quite as large as the 30-point effect from the pre-election survey. The association with racism denial was stronger in the CCES survey, however. In fact, moving from the most acknowledging of racism to the most denying of racism was associated with a 60-point increase in support for Trump.

In contextualizing the strong results for racism and sexism in the 2016 vote choice model, it is important to keep two things in mind. First, the large changes in the probability of voting for Trump as one moves from low to high levels of racism or sexism occur while holding all other variables in the model at their mean values. This includes variables that are highly predictive of vote choice, such as partisanship and ideology. Second, these effects hold even when we control for other related concepts, such as authoritarianism, populism, and stereotyping toward racial and ethnic minorities. The Appendix includes an elaboration on the persistence of these findings even with these additional controls included.

Were Racism and Sexism Uniquely Important in 2016?
An important question regarding the powerful relationships between denial of racism, hostile sexism, and vote choice described earlier is whether those effects are unique to the 2016 presidential election or whether this is simply the continuation of a trend in recent presidential elections. Answering this question is not entirely straightforward, since we are unaware of any previous presidential election surveys that included measures of hostile sexism or the acknowledgment of racism scale that we analyze here. Nevertheless, the CCES survey that we analyze did include a question asking respondents whether they had voted in 2012 and whom they voted for in that election. Notably, this vote recall question has been shown to be more than 96 percent accurate for YouGov panelists.[24] Thus,

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[24]Benjamin Lauderdale and Douglas Rivers, "Beware the Phantom Swings: Why Dramatic Bounces in the Polls Aren't Always What They Seem," YouGov, 1 November 2016, accessed at https://today.yougov.com/news/2016/11/01/beware-phantom-swings-why-dramatic-swings-in-the-p/, 5 January 2018.

TABLE 3

Bivariate Probit Estimates of Factors Affecting Two-Party Vote for President in 2012 and 2016

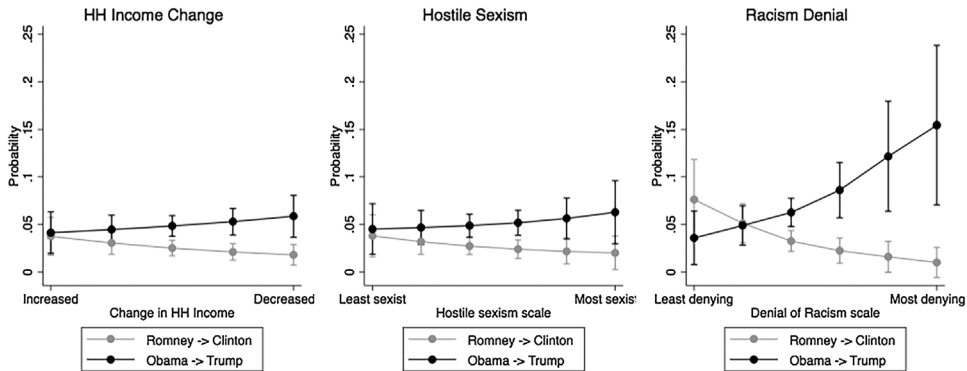|	All Respondents		White Respondents	
	2012	*2016*	*2012*	*2016*
Hostile sexism scale	1.226	1.759	1.200	1.641
	(0.326)**	(0.300)**	(0.359)**	(0.317)**
Racism scale	2.685	4.049	2.880	4.289
	(0.378)**	(0.545)**	(0.418)**	(0.648)**
Economic situation	0.806	1.307	0.707	1.286
	(0.305)**	(0.282)**	(0.333)*	(0.321)**
Ideology	2.060	1.993	2.159	2.221
	(0.346)**	(0.376)**	(0.363)**	(0.389)**
7-point Party ID	2.834	2.902	2.742	2.881
	(0.228)**	(0.230)**	(0.240)**	(0.253)**
Female	0.230	−0.009	0.287	0.030
	(0.134)	(0.134)	(0.147)	(0.152)
Age 30–54	0.155	0.602	0.206	0.690
	(0.372)	(0.406)	(0.384)	(0.441)
Age 55+	0.181	0.490	0.205	0.505
	(0.372)	(0.412)	(0.381)	(0.451)
College degree	0.069	0.109	0.153	0.233
	(0.137)	(0.133)	(0.149)	(0.148)
Income < $40k	−0.150	−0.075	−0.056	−0.000
	(0.208)	(0.198)	(0.221)	(0.227)
Income $40–$100k	−0.034	−0.044	0.006	−0.080
	(0.180)	(0.180)	(0.197)	(0.201)
Income > $100k	0.066	0.272	0.099	0.263
	(0.193)	(0.212)	(0.203)	(0.240)
White	−0.181	0.167		
	(0.216)	(0.250)		
Black	−1.530	−0.263		
	(0.357)**	(0.454)		
Hispanic	−1.168	−0.445		
	(0.348)**	(0.431)		
South	0.166	0.241	0.156	0.229
	(0.146)	(0.129)	(0.155)	(0.143)
Constant	−4.712	−6.205	−5.038	−6.288
	(0.527)**	(0.510)**	(0.540)**	(0.487)**
Rho	0.812		0.654	
	(0.108)		(0.064)	
N	1,875		1,434	

Source: Authors' analysis of the CCES survey.
Notes: Entries are OLS coefficients with standard errors in parentheses. Sampling weights applied to analysis.
p < .05, one-tailed; ** *p* < .01, one-tailed.

we use that question to examine whether hostile sexism and racism denial were especially potent forces in 2016.

Table 3 presents a bivariate probit model that simultaneously estimates each individual's two-party vote in 2012 and 2016. The use of a bivariate probit estimator is desirable here because the simultaneous estimation of

FIGURE 5

Predicted Probability of Voting for Obama and Trump or Romney and Clinton Based on Economic Considerations, Hostile Sexism, and Racism Denial

Source: Predicted probabilities based on the model for all respondents in Table 3 while holding all other variables in model at their mean values. Vertical bars represent 95 percent confidence intervals.

the two vote choice models (2012 and 2016) allows us to account for the fact that a respondent's vote in 2016 was likely related to his or her vote in 2012. To ensure maximum comparability, these models only include respondents who said they voted for a major-party candidate in both 2012 and 2016 and who were old enough to have voted in both elections. We show the results for all respondents who fit these criteria in the first two columns of Table 3, and we show the estimates from a model with white respondents in the second pair of columns. Note that the coefficients for hostile sexism and denial of racism are more strongly associated with 2016 vote choice than they are in 2012. In the case of hostile sexism, this difference is not statistically significant ($p=.14$), but the difference in coefficients is significant ($p=.01$) for the denial of racism measure.

To gain a better sense of how these factors might have mattered in 2016 relative to 2012, we use this bivariate probit model to examine the probability of an individual switching his or her vote from 2012 to 2016. Figure 5 presents these results. Specifically, the figure shows the predicted probability of being a voter who switched from Obama to Trump (an Obama/Trump voter) or from Romney to Clinton (a Romney/Clinton voter) based on the respondent's reported change in household income, level of hostile sexism, and denial of racism. As with the previous analysis, each of these plots shows the predicted probability while holding all other variables in the model at their mean values. The figure shows that economic concerns and hostile sexism were modestly associated with vote switching from 2012 to 2016. Specifically, people who saw their incomes increase a lot or scored low on the hostile sexism scale were about equally likely to be an

Obama/Trump voter as they were to be a Romney/Clinton voter. However, those who saw their incomes decrease by a lot or had high levels of hostile sexism were more likely to be Obama/Trump voters than they were to be Romney/Clinton voters.

The strongest relationship, however, is clearly for the denial of racism scale. Moving from the least to the most denying of racism was strongly associated with being a voter who supported Obama in 2012 and Trump in 2016. In fact, a voter who scored high on racism denial was about three times more likely to be an Obama/Trump voter than one who was acknowledging of racism. This increase in the probability of being an Obama/Trump voter with higher levels of racism denial also coincided with a decline in the probability of being a Romney/Clinton voter.

Thus, our analysis of the CCES data shows that denial of racism was clearly more important in 2016 and that it was related to the propensity of some Obama voters to become Trump supporters four years later. Hostile sexism and economic considerations were more modestly related to vote switching between 2012 and 2016. Overall, then, racial attitudes did appear to be uniquely important in 2016, a finding that is consistent with research using other data sources.[25]

Can Hostile Sexism and Denial of Racism Explain the Education Gap?

So far, we have demonstrated that hostile sexism and denial of racism were strongly associated with presidential vote choice in 2016. We have also provided some evidence to support the notion that denial of racism was uniquely potent in 2016 compared with 2012. But can these factors help explain the historic gap in voting behavior between college-educated and non-college-educated whites in 2016?

The 2016 exit polls found that 52 percent of the two-party vote among whites with at least a college degree went to Trump, while Trump won 71 percent of the two-party vote among whites without a college degree. This amounts to a 19-point gap in the vote choices of whites based on education. In the pre-election survey that we analyze in this article, we found a 22-point gap in the vote choices of college-educated and non-college-educated whites. In the CCES data, the gap was 18 points. The college education gap among whites is reflected by the coefficients on education in the first column of Table 4. This table presents a series of simple ordinary least squares (OLS) models for white likely voters in each of our surveys. The aim is to examine how controlling for each of our key

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[25]Tesler, "Views about Race."

TABLE 4
College Gap among White Likely Voters in the Two-Party Vote for Trump

	Base Gap	Economic Situation	Hostile Sexism	Racism Denial	Racism & Sexism
			Controlling for . . .		
		Pre-Election Survey			
College degree	−0.221	−0.176	−0.099	−0.108	−0.071
	(0.042)**	(0.042)**	(0.036)**	(0.032)**	(0.031)*
Economic dissatisfaction		0.370			
		(0.078)**			
Hostile sexism scale			1.097		0.641
			(0.054)**		(0.070)**
Racism scale				1.481	1.029
				(0.058)**	(0.087)**
Constant	0.636	0.394	0.115	−0.053	−0.147
	(0.027)	(0.055)	(0.038)	(0.036)	(0.034)
R^2	0.04	0.09	0.37	0.42	0.50
N	800	796	800	800	800
		CCES Survey			
College degree	−0.178	−0.107	−0.090	−0.044	−0.031
	(0.029)**	(0.028)**	(0.025)**	(0.021)*	(0.021)
Economic dissatisfaction		0.657			
		(0.053)**			
Hostile sexism scale			0.990		0.409
			(0.045)**		(0.053)**
Racism scale				1.434	1.184
				(0.036)**	(0.054)**
Constant	0.621	0.264	0.173	0.015	−0.065
	(0.020)**	(0.037)**	(0.029)**	(0.021)	(0.022)**
R^2	0.03	0.14	0.29	0.46	0.49
N	1,648	1,647	1,648	1,648	1,648

Source: Authors' analysis of the pre-election survey and the CCES module.
Notes: Entries are OLS coefficients with standard errors in parentheses. Sampling weights applied.
*$p < .05$, one-tailed; **$p < .01$, one-tailed.

variables might help explain the education gap among whites. Thus, the greater the reduction in the size of the coefficient for the college variable in a particular model, the more those variables help account for the gap.

The second column in Table 4 adds our variable for economic considerations. As we saw in our previous vote choice models, this variable is statistically significant and clearly important. However, controlling for economic dissatisfaction only reduces the size of the education gap from 22 points to 18 points in the pre-election survey and from 18 points to 11 points in the CCES. Thus, economic dissatisfaction does not account for most of this gap. In the third and fourth columns, we add our hostile sexism and racism denial scales, respectively. Adding each of those variables individually to the model results in a larger reduction in the education

gap. In fact, controlling for denial of racism or hostile sexism reduces the size of the education gap by at least half.

The final column in Table 4 includes both the scales for racism denial and hostile sexism to see the combined effect of the two items on reducing the education gap among whites. When we control for an individual's attitudes on both racism and sexism, the college gap drops to seven points in the pre-election survey; this is less than one-third of the size of the original education gap among whites. Including both variables in the CCES analysis leads to the gap shrinking to just three points—just one-sixth of its original size. It is perhaps worth remembering that the previous four presidential elections witnessed a college vote choice gap among whites of between five and seven percentage points. Thus, controlling for racism and sexism effectively restores the education gap among whites to what it had been in every election since 2000.

CONCLUSION

The 2016 campaign witnessed a dramatic polarization in the vote choices of whites based on education. In this article, we have demonstrated that very little of this gap can be explained by the economic difficulties faced by less educated whites. Rather, most of the divide appears to be associated with sexism and denial of racism, especially among whites without college degrees. Attitudes on race and gender were powerful forces in structuring the 2016 presidential vote, even after controlling for partisanship and ideology. Of course, it would be misguided to seek an understanding of Trump's success in the 2016 presidential election through any single lens. Yet in a campaign that was marked by exceptionally explicit rhetoric on race and gender, it is perhaps unsurprising to find that voters' attitudes on race and sex were so strongly associated with their vote choices. Indeed, our findings are consistent with those unearthed by Michael Tesler and John Sides using other data sources to study these relationships in the 2016 election.[26]

How might have racism and sexism mattered for affecting the final outcome? One way to approach this question is to consider how the vote might have differed if whites without college degrees had the same average levels on the racism denial and hostile sexism scales as whites with college degrees. If we make such an adjustment in our data, we find that Trump's total two-party vote share would have declined by two points. In other

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[26]Tesler, "Views about Race"; and John Sides, "Race, Religion, and Immigration in 2016," Voter Study Group, June 2017, accessed at https://www.voterstudygroup.org/reports/2016-elections/race-religion-immigration-2016, 4 August, 2017.

words, if non-college-educated whites became somewhat more progressive in their attitudes toward racism and sexism so that they matched those of college educated whites, Clinton would have won the popular vote by 4 points instead of two points. Given the narrowness with which Clinton lost states such as Wisconsin, Michigan, Pennsylvania, and Florida, such a shift could have had a dramatic effect in terms of the Electoral College outcome.

Whether the 2016 election will simply be an aberration or the beginning of a trend remains to be seen. However, there is reason to think that Trump's strategy of using explicitly racist and sexist appeals to win over white voters may be followed by candidates in future elections. After all, Valentino, Neuner, and Vandenborek show that there is no longer a price to be paid by politicians who make such explicit appeals.[27] Explicit racist and sexist appeals appeared to cost Trump some votes from more educated whites, but it may have won him even more support among whites with less education. If Republicans see little prospect of winning over racial or ethnic minorities in the near future, they have two choices—moderate their appeals in order to restore their advantage among more educated white voters (even if it costs them some votes among less educated whites) or repeat the Trump strategy to maximize their support among less educated whites (even at the expense of winning large margins among college-educated whites). As the norms governing political rhetoric appear to have largely been shattered in 2016, the latter strategy is at least as plausible as the former, and that may have significant consequences for the stability of American democracy.

APPENDIX
In this appendix, we estimate an additional vote choice model to examine the extent to which our results are robust when controlling for additional factors. We are only able to estimate this alternative model for our pre-election survey, since we had measures of these additional concepts in that questionnaire but not on the CCES survey.

First, we add a scale capturing a respondent's underlying authoritarian attitudes, using the four-item child rearing scale. These items ask respondents to indicate which competing traits they prefer that children have:

- Independence or respect for elders
- Good manners or curiosity
- Self-reliance or obedience
- Being considerate or well behaved

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[27]Valentino, Neuner, and Vandenbroek, "The Changing Norms of Racial Political Rhetoric."

We combine these items with a similar process we used for our other scales, using an IRT two-parameter logistic model in this case. We then rescaled this measure so that it would range from 0 (least authoritarian) to 1 (most authoritarian). These items have a reliability coefficient of .66.

Second, we also include a scale aimed at capturing underlying populist attitudes. This scale is based on three items that respondents were asked to give their degree of agreement/disagreement to:

- It doesn't really matter who you vote for because the rich control both political parties
- The system is stacked against people like me
- I'd rather put my trust in the wisdom of ordinary people than in the opinions of experts and intellectuals

Again, we scaled these items using an IRT graded response model to produce a single scale of populism for each respondent. This scale ranges from 0 (least populist) to 1 (most populist). The items have a reliability coefficient of .63.

Finally, we also include measures of the extent to which white respondents projected negative stereotypes onto African Americans, Latinos, and Muslims. Respondents were asked to indicate the extent to which each of these groups was hardworking versus lazy, peaceful versus violent, intelligent versus unintelligent, and had American values or not. Respondents also placed whites on each of these items. For white respondents, we coded whether they placed each of these minority groups as more negative on each of these trait scales. For example, if a white respondent placed blacks closer to the "lazy" end of the scale than they placed whites, then we coded that individual as holding a negative stereotype of blacks. From these measures, we then created three separate scales using IRT two-parameter logistic models—negative stereotypes toward African Americans, negative stereotypes toward Latinos, and negative stereotypes toward Muslims. Each of these scales range from 0 (no negative stereotyping of the group) to 1 (most negative stereotyping of the group).

Table A1 includes estimates from two models. The first is the baseline model we present in the paper, but in this case just for white likely voters. The second set of results is from the expanded model which includes these additional scales for authoritarianism, populism, and negative stereotyping. Of the five new scales added to this model, just two are statistically significant—populist attitudes and negative stereotypes toward Muslims. Whites who exhibited more populist attitudes

TABLE A1

Probit Estimates of Factors Affecting Two-Party Vote for Trump among White Likely Voters in Pre-Election YouGov Survey, Adding Additional Explanatory Variables to Test for Robustness

	Base Model	Added Variables
Hostile sexism scale	3.242	2.678
	(0.590)**	(0.530)**
Denial of racism scale	3.001	2.569
	(0.736)**	(0.671)**
Economic dissatisfaction	1.577	1.418
	(0.365)**	(0.389)**
Authoritarianism scale		0.767
		(0.410)
Populism scale		2.314
		(0.635)**
Negative African American stereotypes		−0.476
		(0.393)
Negative Latino stereotypes		0.139
		(0.458)
Negative Muslim Stereotypes		0.898
		(0.417)*
Ideology	2.454	2.663
	(0.627)**	(0.746)**
7-point Party ID	3.614	3.676
	(0.404)**	(0.419)**
Female	0.480	0.377
	(0.231)*	(0.233)
Age 30–54	1.856	1.806
	(0.506)**	(0.565)**
Age 55+	1.937	1.908
	(0.486)**	(0.549)**
College degree	−0.302	−0.272
	(0.226)	(0.243)
Income < $40k	−0.510	−0.547
	(0.343)	(0.352)
Income $40k–$100k	−0.452	−0.555
	(0.333)	(0.328)
Income > $100k	−0.410	−0.213
	(0.420)	(0.430)
Constant	−8.208	−9.628
	(0.938)**	(1.089)**
Adjusted count R^2	0.898	0.909
N	785	785

Notes: Entries are probit coefficients with standard errors in parentheses. Sampling weights applied to analysis. Data are from the pre-election YouGov survey.
*$p < .05$; ** $p < .01$.

and who had more negative stereotypes of Muslims were more likely to vote for Trump.

Importantly, adding these additional measures to the model does not greatly affect the coefficients on the key variables of interest in our paper.

The coefficients for hostile sexism and racism denial are nearly as strong as they are in the base model, losing only about one-sixth of their magnitude when we add these additional controls. In short, they remain strongly associated with Trump support even after accounting for these other factors.[*]