Racial Bias in the 2008 Presidential Election

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1. Introduction

We investigate whether racial attitudes had a negative effect on the number of popular votes received by Barack Obama in the 2008 presidential election. Two pieces of indirect evidence point to the possibility that racial attitude did play a role. First, the increase in the Democratic vote share in the presidential election between 2004 and 2008 was relatively smaller in the Appalachia and some Southern states. Second, there was a significantly smaller 2004-2008 growth in votes for the Democratic presidential candidate than Democratic House candidates. While these two pieces of evidence are consistent with the possibility that racial attitudes lowered the number of votes for Obama, they are open to alternative interpretations.

To directly test whether racial attitudes played a significant role, we test whether Barack Obama underperformed in parts of the country where voters are more racially biased, on average. Specifically, we test whether the loss of votes experienced by Barack Obama (compared to John Kerry) relative to the votes that one may have predicted based on the general increase in the number of Democratic votes in House elections between 2004 and 2008 was larger in states where the white population is more racially biased on average. We measure racial attitudes using data from the General Social Survey on the fraction of white voters who support anti-interracial-marriage laws.[1]

We find little evidence that Obama underperformed relative to congressional Democrats in states that have a white electorate with stronger racial bias. We also find little evidence that turnout was higher among segments of the electorate that are predicted

[1] Variants of this index were used by Cutler, Glasar, and Vigdor (1999), Card, Rothstein, and Mas (2008) and Charles and Guryan (2008).

to be more racially biased. Overall, we conclude that racial attitudes did not play a major role in determining the outcome of the 2008 Presidential election.

2. Geographic patterns in the Democratic shift in the electorate

We begin our empirical analysis by showing the geographical variation in changes in Democratic vote share.[2] The top panel in Figure 1 shows the change between 2004 and 2008 in vote share for the democratic presidential candidate, by county. Overall, Obama received a larger vote share than Kerry, but there is considerable variation across state and counties in this increase. Notably, the increase in Democratic vote share is relatively small in the Appalachian region and some Southern areas, even without taking into account increased African American turnout in many of those areas.

To make precise the idea that there is geographic variation in race attitudes amongst whites, we use data on racial attitudes from the General Social Survey (GSS). The GSS asks whether the respondent supports laws against anti-interracial-marriage. We build an index of racial bias that equals the proportion of white respondents in each state who answers affirmatively to this question.[3] When we aggregate states depending on the value of the index to show how states differ based on this index[4], we find that while Southern states are overrepresented in the group with high values of the index, there seem to be some variation even within the South.

Figure 2 show the relationship between the 2004-2008 changes in Democratic vote share in presidential elections and the race attitude index, by state. Specifically, on

[2] Our county-level Presidential election data for 2004 and 2008 were purchased from "Dave Leip's Atlas of U.S. Presidential Elections". District level election outcomes for the House were hand collected from the CNN and Fox News web sites and aggregated up at the county level.

[3] To maximize sample size, we include all waves between 1990 and 2006. Sample size for this variable is 8757.

[4] We obtain the following grouping: Low: AK , AZ, CA, CO, CT, DC, IA, MA , ND, NY, OR , RI , UT,WA , WI . Medium: FL, IL, KS, MD , MI , MN , MT , NH , NJ , OH , PA, SD , TX , VA ,VT. High: AL AR DE GA IN KY LA MO MS NC OK SC TN WV WY.

the x-axis we show the fraction of white respondent in the GSS who report "supporting anti-interracial-marriage laws". On the y-axis we show the difference between the 2004-2008 change in Democratic votes in the Presidential election. The figure confirms that states which score worse in this index saw less growth in the Democratic presidential vote share in 2008 relative to 2004.[5]

A second piece of evidence suggesting the possibility of racial bias is that Obama gained fewer votes relative to Kerry than Congressional House Democrats between 2004 and 2008. Table 1 provides difference in differences estimates that compare the 2004-2008 changes in Democratic votes in the Presidential elections to the 2004-2008 changes in Democratic votes in House elections. The sample includes data for the 2004 and 2008 presidential and house election, by county. The level of observation is therefore county × year × type of election (Presidential and House). The dependent variable in columns (1)-(3) is the share of the votes of the Democratic candidate (scale from 0 to 100).[6] The dependent variable in columns (4)-(6) is the log of the absolute number of votes of the Democratic candidate. All models include county fixed effects and are weighted by the total number of votes in the county. The inclusion of county fixed effects is important because it allow us to absorb any permanent difference across counties in the determinants of election outcomes.

The Table shows that the 2004-2008 increase in Democratic votes in the Presidential elections was smaller than the 2004-2008 increase in Democratic votes in House elections. The coefficient in column (1) corresponding to the interaction of the indicator for presidential election and the indicator for year 2008 suggests that the

[5] This negative slope is more pronounced when adjusting for the African-American share in the state.
[6] Vote share can be 0 or 100 in uncontested races.

increase in Democratic votes in the Presidential elections was almost a percentage point smaller than the increase in the House elections.[7] The corresponding estimate in column (4) points to a statistically significant -6.6% difference.

While the above patterns are in principle consistent with the existence of racial bias, race of the candidates is clearly not the only factor that changed between 2004 and 2008. There are many other equally plausible explanations for the patterns in the figure, including variation across counties in the relative appeal of the Obama's program (relative to McCain's) compared to the Kerry's program (relative to Bush's), differential shifts in voter sentiment across regions, differences in economic conditions, etc. Even in the presence of a major realignment of the 2008 electorate toward Democrats, it is possible that moderate Democratic candidates for the House attracted more support than Obama for reasons that have nothing to do with race.

We therefore turn to more rigorous tests of racial bias. If there is significant racial bias, we should see that Obama underperformed relative to Democratic Congressional candidates in parts of the country where voters are more racially biased, on average, based on our external measure of racial attitudes.

Figure 3 shows the first evidence that Obama did not fare worse in less tolerant areas. The figure shows the change between 2004 and 2008 in vote share for the democratic candidate, aggregated at the county level. While there are differences between the Presidential and Congressional Democratic shifts, the areas where Obama underperformed also appear to be areas were Congressional Democrats underperformed.

[7] The large coefficient on the indicator for year 2008 reflects the overall shift to the left in 2008 relative to 2004. The coefficient in column 1, for example, points to a 5.5 percentage point higher vote share for democratic candidates relative to 2004.

Figure 4 shows the relationship between the relative 2004-2008 changes in Democratic vote share in presidential elections *relative* to house elections and our race attitudes index, by state. The figure shows virtually no relationship between these two variables, implying that Obama did not fare worse in less tolerant areas relative to Congressional Democrats, on average.[8]

Columns (2), (3), (5) and (6) in Table 1 provide a more formal test. We report estimates of model similar to the ones in columns (1) and (4), where we include the triple interaction of the presidential election indicator, the 2008 indicator and our attitudes index. We also include as controls all main effects and all pairwise interactions between the indicator for presidential election, the indicator for 2008 and our attitude index. Since the race attitude index varies only at the state level, standard errors in this table are clustered at the state level.

Point estimates in column (2) are based on a classification of states in three terciles of the attitude index, as shown in the Appendix. The estimates show a slight increase in the Obama relative decline for states in the top tercile of the race attitude index, but this difference is not statistically significant. Indeed, the more parsimonious specification in column (2) that impose a linear relationship fails to show any significant effect. Findings in column (4) and (5) based on the log of the absolute number of votes yield similar conclusions. Based on Figure 4 and Table 1, we conclude that the relative decline of Obama is not systematically associated with a higher race attitude index. This

[8] There are two visible outliers in this figure: Vermont and Mississippi. Vermont is an outlier because in 2004 the liberal Independent candidate, Bernie Sanders, ran virtually uncontested. However, in 2008 a Democratic candidate won overwhelmingly after Bernie Sanders went to the senate. Mississippi is explained by the first congressional district, where Democrats did not contest seat in 2004, but won the seat in 2008 against a different candidate. We have replicated our estimates dropping both Vermont and Mississippi, and found similar results.

evidence suggests that on average, racial preferences did not play an important role in the 2008 election.[9,10]

3. Analysis of turnout rates

The finding that Obama did not underperform relative to Congressional Democrats in areas where whites are traditionally less tolerant towards minorities does not rule out the possibility that racial bias played a factor in the election. It remains possible that Obama induced intolerant people to vote who would not have voted otherwise. If these new voters tended to vote Republican in down ticket races we would find the observed relationship.

To address this issue we use exit poll data from 2004 and 2008 to estimate white non-Hispanic turnout in 2004 and 2008 by state, state x age (18-29, 30-44, 45-64, or 65-plus), and state x education (college degree or no college degree). We ask whether less tolerant sub-groups, as measured by a disaggregated attitudes index, saw higher turnout.

In column (1) of Table 2 we present the estimated β from fitting:

$$\ln(t_{2008,s}) - \ln(t_{2004,S}) = \alpha + \beta * Index_S + \varepsilon_S,$$

where s denotes state, $Index_s$ is the race attitudes index for state s, and t_{ys} is the estimated non-Hispanic white turnout in state s in year y. Column (2) of Table 2 corresponds to:

$$\ln(t_{2008,s,a}) - \ln(t_{2004,s,a}) = \alpha + \beta * Index_{s,a} + \varepsilon_{s,a},$$

[9] In addition to the question on interracial marriage, the General Social Survey also asks whether the respondent "believes that whites have right to segregated neighborhoods", and whether he/she "believes that whites have right not to sell house to blacks." We have replicated our results using these variables as alternative way to characterize racial bias, and found results similar to the ones reported in Table 1.

[10] An obvious confounder in the above models is increased minority turnout in 2008. To deal with this issue we have estimated models similar to the ones in columns (3) and (6) of Table 1 controlling for the triple interaction of presidential race, year 2008 and the share of non-Hispanic whites, blacks and Hispanics in the population, with all the necessary main effects. Additionally, we included controls for five age groups, and all the relevant interactions. Estimates from these models are statistically not different from the ones in columns (3) and (6), indicating that relative changes in turn out rates are not driving our results.

where a denotes age, and $Index_{s,a}$ is the race attitudes index for state s and age group a. Column (3) of Table 2 corresponds to:

$$\ln(t_{2008,s,e}) - \ln(t_{2004,s,e}) = \alpha + \beta * Index_{s,e} + \varepsilon_{s,e},$$

where e denotes education, and $Index_{s,e}$ is the race attitudes index for state s and education level e. Because we are conducting analyses over more disaggregated data than before we compute the index over a longer span, 1980-2006, to ensure that the index can be computed reliably over these more narrow segments of the population.[11]

Column (1) shows that there is a small, positive but insignificant relationship between racial intolerance and the change in white turnout between 2004 and 2008 at the state-level. The point estimate implies that a state at the 75th percentile of the race attitudes index (0.26) has approximately 1% higher turnout amongst whites in 2008 relative to 2004 than a state at the 25th percentile (0.13). However, when disaggregating the data further by age and state the relationship becomes negative and significant. The reason for this reversal is that older people tend to be less tolerant of minorities, and their turnout was substantially lower in 2008 than in 2004. Likewise, the relationship is negative when disaggregating by state and education. GSS respondents without a college degree are more likely to assert that there should be laws against interracial marriage, and this segment of the population was less likely to vote in 2008 and in 2004. If anything, the exit poll data suggests that segments of the population that are less tolerant, on average, were less likely to vote in 2008 than in 2004.

[11] The 2004 exit poll micro data are from ICPSR study number 4181. The 2008 exit poll data are from the CNN website (http://www.cnn.com/ELECTION/2008/results/ polls.main/). Because CNN does not provide micro data, our analysis is constrained by the level of disaggregation provided by CNN. We aggregated the 2004 data into state, state × age, and state × education cells using the weights that were provided by the pollster.

4. Conclusion

Our reading of the overall body of evidence is that voters in less tolerant parts of the country were relatively more likely to vote Republican in 2008. This shift translated into fewer votes for Democratic candidates, but there did not appear to be bias against Obama. This interpretation does not rule out racism in the electorate. Certainly, racism may have strengthened the resolve against Obama in parts of the electorate, but the evidence points towards the conclusion that these segments would have voted Republican regardless. An additional possibility is that voters who were influenced by race justified their decision by voting Republican in all races. While we cannot rule out this possibility with the data at hand, it would be remarkable if this were to be the case as it would suggest no tendency amongst voters to split tickets based on racial preferences even in a small part of the electorate.

References:

Charles, Kerwin, and Jonathan Guryan (2008). "Prejudice and Wages: An Empirical Assessment of Becker's *The Economics of Discrimination*." *Journal of Political Economy* 116 (October), pp. 773-809.

Cutler, David, Edward Glaeser, and Jacob Vigdor (1999) . "The Rise and Decline of the American Ghetto." *Journal of Political Economy* 107 (June), pp. 441-463.

Card, David; Mas, Alexandre, and Jesse Rothstein (2008). "Tipping and the Dynamics of Segregation," *Quarterly Journal of Economics* 123 (February), pp. 177-218.

Figure 1. 2004-2008 Change in Democratic Vote Share in Presidential Elections

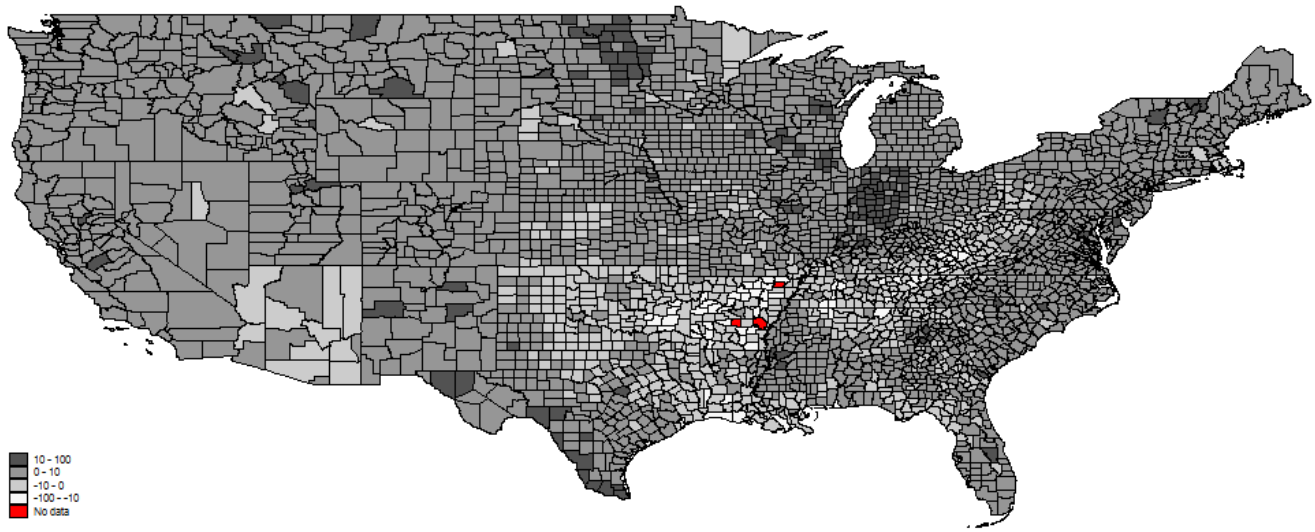
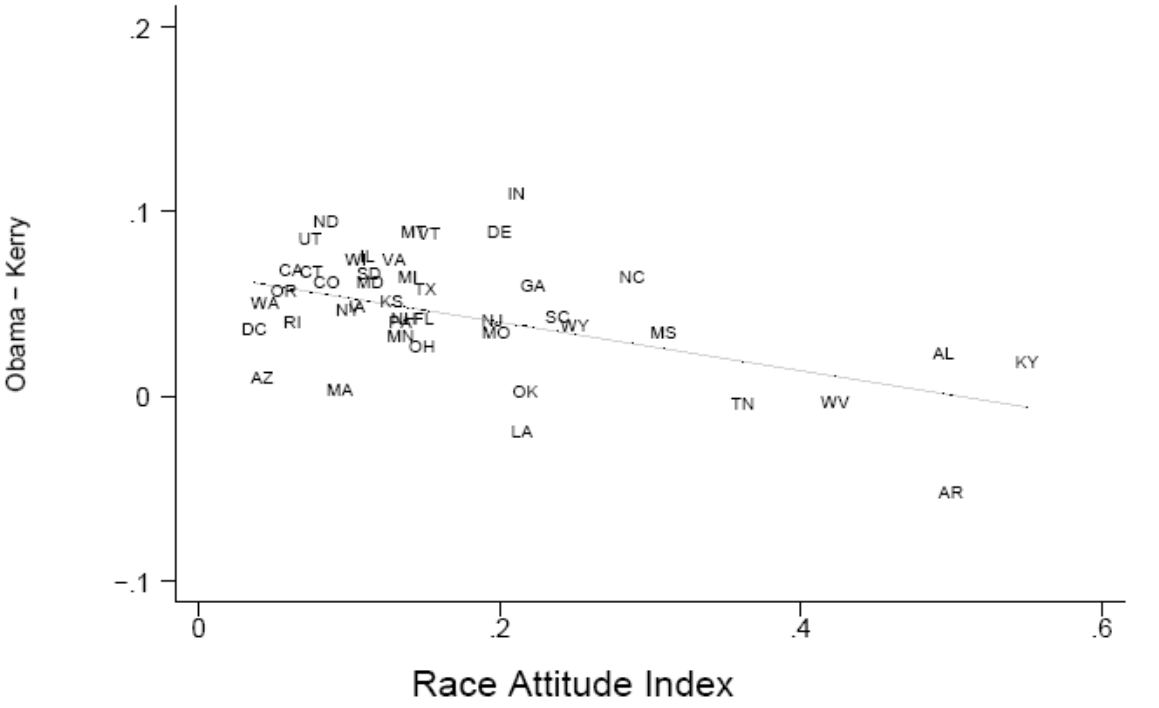


Figure 2. The Relationship between the 2004-2008 changes in Democratic vote share in presidential elections and the race attitude index, by State.



Notes: The x-axis is the fraction of white respondent in the General Social Survey who report "supporting anti-interracial-marriage laws". The y-axis is the 2004-2008 change in Democratic votes in the Presidential elections.

Figure 3. 2004-2008 Change in Democratic Vote Share in House Elections

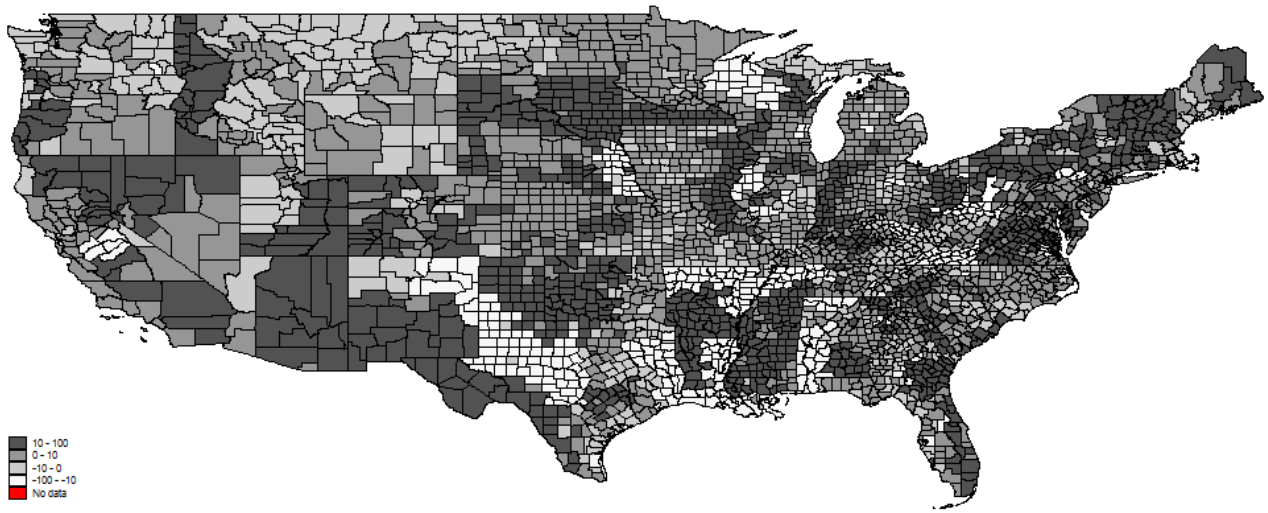
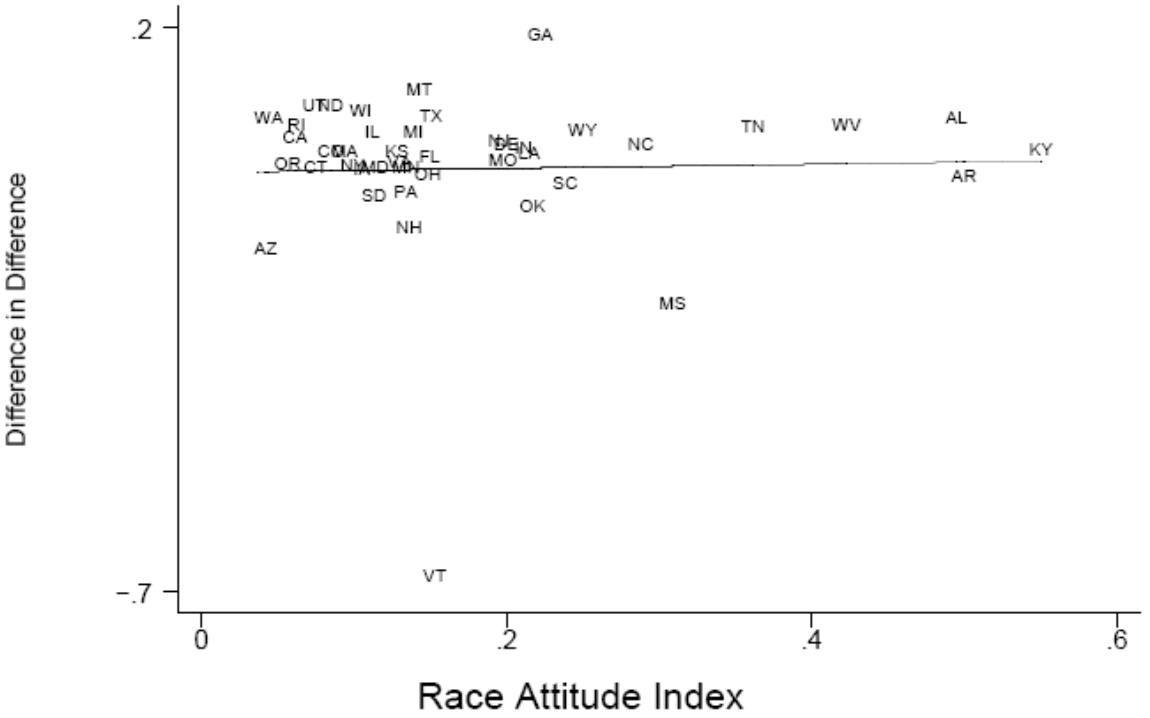


Figure 4. The Relationship between the 2004-2008 changes in Democratic votes in presidential elections relative to house elections and the race attitude index, by state.



Notes: The x-axis is the fraction of white respondent in the General Social Survey who report "supporting anti-interracial-marriage laws". The y-axis is the difference between the 2004-2008 change in democrat votes in the Presidential elections and the 2004-2008 change in democrat votes in the House elections.

Table 1: Comparison of 2004-2008 Changes in Democratic Votes between Presidential and House Elections.

	Democratic Vote Share			Log(Democratic Votes)		
	(1)	(2)	(3)	(4)	(5)	(6)
Presidential Election	.218	2.999	2.559	.164	.039	.261
	(.594)	(2.363)	(1.744)	(.018)	(.034)	(.059)
Year 2008	5.523	4.663	6.999	.195	.226	.161
	(.516)	(2.483)	(1.464)	(.019)	(.052)	(.059)
President*2008	-.942	-	-.629	-.066	-	-.033
	(.547)		(1.670)	(.018)		(.052)
President*2008*Race Index is Low		-.580			-.023	
		(1.519)			(.052)	
President*2008*Race Index is Medium		-1.011			-.093	
		(1.648)			(.048)	
President*2008*Race Index is High		-1.379			-.064	
		(2.459)			(.028)	
President*2008*Race Index			-1.703			-.208
			(8.332)			(.210)
County fixed effects	Y	Y	Y	Y	Y	Y
3 Index Dummies*Year		Y			Y	
3 Index Dummies*President						
Index*Year, Index*President			Y			Y

Notes: Standard errors clustered at the county level in parenthesis in columns 1 and 4. Standard errors clustered at the state level in parenthesis in columns 2,3, 5 and 6.The level of observation is county * year * type of election (Presidential and House). The sample includes data for 2004 and 2008. The dependent variable in columns 1 to 3 is the share of the votes of the Democratic candidate (scale from 0 to 100). Vote share can be 0 or 100 in uncontested races. The dependent variable in columns 4 to 6 is the log of the absolute number of votes of the Democratic candidate. All models are weighted by the total number of votes in the relevant county. Sample size is 11290.

Table 2: Comparison of 2004-2008 changes in white turnout

	(1) State cells	(2) State x age cells	(3) State x education cells
Race attitudes index	0.08	-0.43	-0.22
	(0.16)	(0.12)	(0.26)
Observations	45	180	90

Notes: OLS estimates. The dependent variable is the change in the log number of estimated white non-Hispanic voters by state (column 1), state x age (column 2), and state x education (column 3). Turnout estimates are derived from exit poll data from 2004 and 2008. Age cut-offs are 18-29, 30-44, 45-64, and 65-plus. Education refers to college or no college degree. The race attitudes index is disaggregated at the cell-level indicated in the column heading. The index is the fraction of white respondents who respond affirmatively to the question of whether there should be laws against interracial marriage in the General Social Survey between 1980 and 2006. In columns (2) and (3) the standard errors are clustered on state. All models weighted by total number of estimated votes for sub-group in 2004.