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State IQ, well-being and racial composition as predictors of U.S. presidential election outcomes

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ABSTRACT

We report state-level relationships between measures of well-being (e.g., IQ, income) and racial minority composition as predictors of this century's U.S. presidential election outcomes. In bivariate analyses, race only weakly predicted votes cast for democrats. Instead, large mutual suppression effects existed between racial composition and well-being. For example, when race appeared in the regression, the IQ sub-domain of well-being predicted votes cast for democrats in all elections since 2000. Likewise, when IQ (or any other well-being sub-domain) appeared in the regression, race strongly predicted votes cast for democrats. Suppression effects emerged because of negative correlations between well-being and minority composition, yet positive correlations between these variables and election outcomes. In sum, states with high well-being tended to favor democrats, as did states with larger minority populations.

1. Introduction

The goal of this descriptive study is to predict presidential election outcomes for the 50 U.S. states by considering state-level measures of well-being and racial composition (i.e., % minority). We focus on well-being because it has been a theme in campaigns going back to at least the 1980 election, wherein Ronald Reagan remarked: "Are you better off today than you were four years ago?" (Commission on Presidential Debates, 2012). We focus on racial differences in candidate preference because race is a strong predictor of democratic voting patterns. In 2012, for example, only 41% of White Americans voted for Barack Obama. For Black and Hispanic Americans, these values were 93% and 71%, respectively (Pew Research Center, 2012).

The U.S. president is clearly one of the most powerful and important persons in the world. Showing that well-being variables predict presidential election outcomes would therefore meaningfully expand our knowledge of both voting behaviors and the well-being nexus (see Pesta, McDaniel, & Bertsch, 2010a,b). And, because many well-being variables (e.g., income, education) are also human capital variables, knowledge of the relationship between well-being and voting behavior would contribute significantly to the human capital literature (see Organization for Economic Cooperation & Development (OECD), 2001).

Regarding well-being, economists and political scientists have had some success predicting election outcomes by appealing to income differences across voters within and between the 50 U.S. states. In this literature, income differences are often used as a proxy for voter-differences in well-being. For example, Gelman (2009) showed that whereas richer states vote democrat, richer people within richer states vote republican. Recently, however, Pesta et al. (2010a, 2010b) showed that single, state-level variables (e.g., income, intelligence) rarely exist independently of other state-level variables (e.g., education, crime). Instead, they appear as nodes in an inter-correlated nexus containing a large number of state-level variables. For example, strong inter-correlations exist between state measures of income, crime, education, intelligence, health, and religiosity. The size and consistency of these correlations allowed Pesta et al.

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(2010a, 2010b) to derive a general factor of state well-being. The well-being factor explained most of the variance in the component variables, and predicted other important social and political state-level outcomes (Pesta, Bertsch, McDaniel, Mahoney, & Poznanski, 2012; Pesta et al., 2010a,b).

1.1. The g/well-being nexus

Across dozens of studies, *g* is correlated with important, real-world outcomes (e.g., Jensen, 1998; Pesta et al., 2010a, b). The finding that *g* is essential to predicting a variety of life outcomes has led researchers to propose the existence of a *g* nexus (Jensen, 1998; Nyborg, 2003). As identified by Jensen (1998), the *g* nexus is a network of inter-correlated variables with general mental ability at the center. It has both horizontal and vertical components. The horizontal component comprises variables which co-vary and interact with general mental ability. Examples include income, education and health (Jensen, 1998). The vertical component includes presumed causes of individual differences in *g*, with a special focus on biological and neuropsychological variables (e.g., individual differences in properties of the human brain).

At the level of the U.S. state, we suggest that a well-being nexus exists which subsumes the *g* nexus. The horizontal and vertical components of the well-being nexus are similar to those seen with *g* at the individual level. Postulated causes of individual and group differences in well-being comprise the vertical dimension, while the consequences that follow from these differences comprise the horizontal dimension. Consistent with this idea, variables that correlate strongly with state-level *g* also correlate strongly with state-level well-being (Pesta et al., 2010a,b, 2012). How voting behavior fits within the well-being nexus might depend on various personality traits and political ideologies, which are issues we turn to next.

1.2. Liberalism, well-being and IQ

Pesta et al. (2010a, 2010b) discovered that state well-being co-varied with liberalism/conservatism. High well-being states (e.g., Massachusetts and New Hampshire) tended to be more liberal, and low well-being states (e.g., Mississippi and Louisiana) tended to be more conservative. Pesta et al. (2010a, 2010b) reported the following correlations between state well-being, and teacher salaries ($r = .39$), minimum wage ($r = .35$); whether a state has amended its constitution to ban gay marriage ($r = -.43$); the percentage of state residents who are registered democrats ($r = .47$); live in same sex households; ($r = .42$); own guns ($r = -.34$); are atheist ($r = .58$); or are protestant ($r = -.68$). In the present paper, we anticipate that well-being will co-vary with presidential voting behavior through its relationship with liberal versus conservative dispositions.

Various personality traits measuring political ideologies may potentially explain why well-being correlates with liberalism/conservatism. Examples include right wing authoritarianism (RWA; Altemeyer, 1981) and social dominance orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994). High scores on RWA represent people who are committed to tradition and authority, and are resistant to change. High scores on SDO represent people who are more comfortable with social inequality, and who prefer hierarchical group orientations—often based on social dominance. Research has linked both personality traits to liberal versus conservative political ideologies. People high in either RWA or SDO tend to be more conservative (Heaven, Ciarrochi, & Leeson, 2011; Kemmelmiere, 2008; Laythe, Finkel, & Kirkpatrick, 2001; Mavor, Louis, & Sibley, 2010; Schoon, Cheng, Gale, Batty, & Deary, 2010; Sidanius & Pratto, 2001).

Regarding IQ and voting behavior, the literature suggests that high IQ is associated with increased voter turnout, political involvement and liberal attitudes (Cheng, Gale, Batty, & Deary, 2010; Deary, Batty, & Gale, 2008; Hauser, 2000). Recently, however, Rindermann, Flores-Mendoza, and Woodley (2012) reported that high intelligence is associated with more central political orientations. In reconciling these effects, perhaps American liberals are perceived as less "far" from center, relative to American conservatives, particularly those conservatives who align themselves with the Tea Party movement. Nonetheless, we anticipate that liberalism/conservatism will co-vary with IQ and the other sub-domains of well-being. Specifically, given correlations reported by Pesta et al. (2010a, 2010b), and given personality traits like RWA and SDO, we predict that high well-being states will be more likely to vote democratic.

Studies that tie RWA and SDO to political beliefs, however, use data from individual respondents, versus data aggregated to group levels. To our knowledge, no state-level data exist on these constructs. Further complicating the issue is the potential to commit an ecological fallacy (Robinson, 1950). The causality underlying individual differences might differ from that which explains aggregate-level data (we return to this issue in the discussion section). At any rate, a growing body of research shows that individual-difference variables (e.g., intelligence, personality) also predict when aggregated to geographically-clustered groups (e.g., nations across the world, or the 50 U.S. states).

For example, Rentfrow, Jost, Gosling, and Potter (2009) have calculated Big-five personality scores for each of the 50 U.S. states. State personality scores predict many important social and cultural phenomena (Jost et al., 2009). Likewise, researchers for nations (Lynn & Meisenberg, 2010; Whetzel & McDaniel, 2006) and for the 50 U.S. states (McDaniel, 2006; Pesta et al., 2012) have shown that intelligence measured at the aggregate level is a potent predictor of economic, psychological, and social outcomes. Thus, our goal is to examine whether state-level measures of well-being, combined with consideration of state racial composition, provide useful prediction of state voting behavior for this century's presidential elections.

Finally, we include state racial composition in our analyses because it co-varied strongly with the well-being variables reported by Pesta et al. (2010a, 2010b), and because we suspect it will also co-vary strongly with election outcomes. In the Pesta et al. data set, states with larger minority populations fared worse on all well-being sub-domains. We note, however, an unusual situation here in that our predictors (percent minority and well-being) are negatively correlated with each other, yet positively correlated with votes cast for democrats. This pattern of correlations typically results in a regression suppression situation (Tzelgov & Henik, 1991).

Most regression analyses are categorized as "redundancy regression" situations because the predictor variables are

partially redundant in the prediction of the criterion. This can be seen when the beta weights for predictors decrease as additional predictors are added. In contrast to the typical redundancy regression situation, beta weights for variables in a "regression suppression" situation increase as additional variables are added into the equation. This regression scenario substantially increases variance accounted for in the criterion. Here, potential suppression effects stemming from the pattern of correlations among the predictors and a criterion are considered as either *reciprocal suppression effects*, or as *suppressing confounders*. (Pandey & Elliot, 2010, p. 30).

Cohen and Cohen (1983) noted that suppression effects appear when "models of homeostatic mechanisms [exist] in which force and counterforce tend to occur together and have counteractive effects" (p. 96). Here, well-being and % Black/Hispanic might be viewed as "force" and "counter-force". The causality, however, is not necessarily clear. It may be the case that percent increases in Black/Hispanic residents result in lower well-being. Conversely, percent increases in well-being may alter conditions such that a state becomes less attractive to Black or Hispanic residents. For example, perhaps high well-being states tend to attract job applicants with higher cognitive and/or educational skills. Such factors may make high well-being states less attractive to minority populations. Finally, a third alternative is that there is reciprocal causality.

2. Method

2.1. Sample and measures

The unit of analysis was the U.S. state, yielding a sample size of 50. We first coded four variables from the U.S. census, representing the percentage of state residents voting for the democratic candidate in the 2012, 2008, 2004, or 2000 presidential elections (U. S. Census, 2012a). Race data for each election were retrieved from the census, and involved summing the percentage of Black or Hispanic residents in each state for that year (U. S. Census, 2012b; because no 2012 data were available at the time of data analysis, our race estimates for the 2012 election came from 2011 census data; U. S. Census, 2012c).[1]

The state well-being data were taken from Pesta et al. (2010a, 2010b), who derived a global scale from six sub-domains of well-being, including: intelligence, religiosity, crime, education, health, and income. The IQ sub-domain was obtained from McDaniel (2006) who estimated state IQs from public school achievement test scores. The religiosity scale was created with state-level survey data measuring fundamentalist religious beliefs (e.g., "My holy book is literally true;" "Mine is the one true faith"). The crime scale was derived from burglary, murder, rape, and violent crime rates, as well as the number of inmates per capita, in each state. Education included the percentage of state residents with college degrees, and the percentage of the workforce in jobs related to science, technology, engineering or mathematics. The health scale contained a set of variables ranging from infant mortality to the incidence of obesity, smoking, and heart disease by U.S. state. Finally, income was composed of variables including: income per capita, disposable income per capita, percent of families in poverty, and percent of individuals in poverty. Complete descriptions and statistical analyses of the well-being variables appear in Pesta et al. (2010a, 2010b).

2.2. Analyses

The analyses were ordinary least-square regressions with the percentage of state residents who voted democratic in the presidential election as the dependent variable. Independent variables were % Black/Hispanic within states, and the seven well-being measures from Pesta et al. (2010a, 2010b); i.e., the six well-being subdomains, IQ, religiosity, crime, education, health, and income; and their composite, global well-being score).

In preliminary analyses, large regression residuals existed for the home states of each presidential candidate. We therefore included a "home state" variable in all analyses, by coding the democratic candidate's home state as one, the republican candidate's home state as negative one, and the remaining 48 states as zero. Finally, we tested for suppression effects because of the likely negative correlation between measures of state well-being and minority composition, but positive correlations with each variable predicting votes cast for democrats.

3. Results

3.1. Descriptive statistics and correlation matrix

Table 1 presents bivariate correlations, means, and standard deviations for all study variables. The pattern of correlations is fairly consistent across the four election years. For example, state racial composition was a surprisingly poor predictor of outcomes in all election years, with correlations ranging from only .08 (2008 election) to .24 (2000 election). State IQ also failed to predict election outcomes (highest $r = .15$, in the 2008 election). Global well-being, however, correlated moderately with votes cast for the democrat ($r = .37$ to .47) in all but the 2000 election ($r = .19$). In the post-2000 elections, this effect was driven by correlations between election outcomes and four of the six global well-being sub-domains: religiosity, education, health and income.

From the bivariate correlations in Table 1, it appears that state racial composition did little to predict election outcomes, and that well-being correlated moderately, but somewhat consistently, with votes cast for democrats. On balance, democratic candidates fared better in states that were less religious, and that were more educated, healthier, and wealthier (the inverse relationship between religiosity and most other well-being variables is consistent with Pesta et al. (2010a, 2010b). However, the bivariate correlations do not capture the expected regression suppression effects.

[1] The U.S. Census codes race and Hispanic as separate variables such that Hispanics may be of any race. We defined Hispanic as any Hispanic regardless of race, and we defined Blacks as non-Hispanic Blacks.

Table 1
Correlation matrix of all variables with means and standard deviations.

		Mean	Sd	1. %Gore	2. Home State 2000	3. %Black/ Hispanic 2000	4. %Kerry	5. Home State 2004	6. %Black/ Hispanic 2004	7. %Obama 2008	8. Home State 2008	9. %Black/ Hispanic 2008
1.	% Gore Vote 2000	45.24	8.62									
2.	Home State 2000	0.00	0.20	.11								
3.	% Black & Hispanic 2000	17.68	12.04	.24	−.21							
4.	% Kerry Vote 2004	45.71	8.48	.95	.05	.12						
5.	Home State 2004	0.00	0.20	.26	.50	−.26	.28					
6.	% Black & Hispanic 2004	18.94	12.33	.25	−.21	1.00	.12	−.26				
7.	% Obama Vote 2008	50.38	9.65	.84	−.02	.07	.91	.19	.08			
8.	Home State 2008	0.00	0.20	.12	.00	−.01	.12	.00	−.02	.18		
9.	% Black & Hispanic 2008	20.23	12.68	.25	−.22	1.00	.12	−.26	1.00	.08	−.02	
10.	% Obama Vote 2012	48.12	10.20	.86	−.02	.13	.94	.20	.14	.97	.13	.14
11.	Home State 2012	0.00	0.20	.34	.00	.15	.34	.00	.14	.29	.50	.13
12.	% Black & Hispanic 2011	21.03	12.88	.25	−.22	.99	.12	−.26	1.00	.09	−.03	1.00
13.	IQ	100.34	2.71	−.06	−.09	−.66	.10	.16	−.65	.15	.09	−.65
14.	Religiosity	0.00	1.00	−.39	.06	.36	−.59	−.24	.35	−.61	.01	.34
15.	Crime	0.00	1.00	.01	−.01	.75	−.11	−.21	.74	−.23	−.08	.74
16.	Education	0.00	1.00	.22	−.13	−.06	.38	.23	−.05	.46	.02	−.04
17.	Health	0.00	1.00	.04	−.09	−.63	.22	.18	−.62	.35	.04	−.60
18.	Income	0.00	1.00	.36	.01	−.22	.44	.25	−.20	.52	.11	−.19
19.	Well Being Composite	0.00	1.00	.19	−.07	−.56	.37	.26	−.54	.47	.07	−.53

		Mean	Sd	10. %Obama 2012	11. Home State 2012	12. %Black/Hispanic 2011	13. IQ.	14. Religiosity	15. Crime	16. Education	17. Health	18. Income
1.	% Gore Vote 2000	45.24	8.62									
2.	Home State 2000	0.00	0.20									
3.	% Black & Hispanic 2000	17.68	12.04									
4.	% Kerry Vote 2004	45.71	8.48									
5.	Home State 2004	0.00	0.20									
6.	% Black & Hispanic 2004	18.94	12.33									
7.	%Obama Vote 2008	50.38	9.65									
8.	Home State 2008	0.00	0.20									
9.	% Black & Hispanic 2008	20.23	12.68									
10.	% Obama Vote 2012	48.12	10.20									
11.	Home State 2012	0.00	0.20	.32								
12.	% Black & Hispanic 2011	21.03	12.88	.14	.13							
13.	IQ	100.34	2.71	.08	−.04	−.64						
14.	Religiosity	0.00	1.00	−.61	−.18	.33	−.55					
15.	Crime	0.00	1.00	−.13	.13	.73	−.76	.51				
16.	Education	0.00	1.00	.47	−.02	−.04	.41	−.62	−.26			
17.	Health	0.00	1.00	.28	−.21	−.59	.75	−.68	−.82	.61		
18.	Income	0.00	1.00	.51	.08	−.18	.57	−.72	−.42	.66	.63	
19.	Well Being Composite	0.00	1.00	.42	−.03	−.52	.83	−.83	−.78	.72	.92	.81

Notes. A correlation of $r = .279$ is significant ($p < .05$) for a directional test. Variables 14 through 19 are expressed as *Z* scores.

3.2. Multiple regression and suppression effects

Tables 2–5 appear by election year, and show hierarchical regression results predicting % democrat from % Black/Hispanic, and the well-being measures. Because all variables were first transformed to *Z* scores, all beta weights are standardized.

The sample size of 50 necessitated judicious consideration of which variables to enter into the equations. We thus limited each regression to a maximum of three independent variables. Each included the home state variable, the % Black/Hispanic variable, and one of the well-being variables. Although the same 50 states appear in all analyses, we conducted regressions separately by election year. Each analysis may therefore be viewed as a replication across elections. Finally, because each regression included just one well-being variable, the analyses permit evaluation of the robustness of our findings across seven operational definitions of well-being (i.e., the global measure and its six sub-domains).

Hierarchical regressions included three steps, with the first containing only the home state variable. To evaluate suppression effects, we entered Step 2 variables in one of two ways. The first involved entering only a single well-being variable. In the second, we entered the % Black/Hispanic variable. Step 3 of all regressions contained both variables. This framework allowed us to identify suppression situations by comparing the magnitude of Step 2 regression weights with those from Step 3. If the beta weight for either the well-being or race variable were larger at Step 3, then evidence of suppression would exist. Further, if the Step 3 beta weights were larger for both variables, then evidence of mutual suppression would exist.

Table 2 represents the 2012 election, with the first row displaying results for the IQ sub-domain of well-being. In Column 1, the IQ beta weight is .099 before entering % Black/Hispanic into the equation, and .279 after. Because the IQ beta weight increased from .099 to .279 with the addition of % Black/Hispanic, the regression illustrates a suppression situation. Specifically, the inclusion of % Black/Hispanic in the equation substantially increased IQ's predictive power.

In the second column of Table 2, the beta weight for % Black/Hispanic without inclusion of IQ was .103. When IQ was also in the equation, the beta weight for % Black/Hispanic increased to .284. This effect also illustrates suppression. Because the beta weights of both IQ and % Black/Hispanic increased with the addition of the other variable, the regression results illustrate mutual suppression. Also, in the second column of Table 2, note that the beta for % Black/Hispanic is constant at .103. This occurs because only % Black/Hispanic and home state advantage are independent variables in these analyses (i.e., no well-being variable appears in these equations).

The final column of Table 2 shows the R^2 for all three-variable regressions (i.e., analyses with home state advantage, % Black/Hispanic, and a well-being measure as independent variables). These values range from .157 (when IQ is the well-being variable) to .530 (when Religiosity is the well-being variable). In combination, % Black/Hispanic and well-being are powerful predictors of 2012 state-level election results.

Across Tables 2–5, we report 28 analyses of "mutual suppression effects" (i.e., four election years times seven well-being variables). To varying degrees, the mutual suppression situation is present in 25 of these analyses. For three elections (2004, 2008, 2012), the suppression effect involving education is absent or of trivial magnitude, with likewise small effects for the race suppression effect. In the remaining analyses, the beta weights are always meaningfully larger for both well-being and % Black/Hispanic when they appear together—versus separately—in the regression equations. In many cases, the mutual suppression effects are quite large. In Table 2, for example, Crime's beta weight was −.173 and −.532, before and after including % Black/Hispanic. Likewise, % Black/Hispanic's beta weight was .103 and .491, before and after including Crime. In Table 4, for example, Health's beta weight was .176 and .467, before and after including % Black/Hispanic. Similarly, % Black/Hispanic's beta weight was .208 and .494, before and after including Health.

Results generally replicate across election years, as the largest effects appear with % Black/Hispanic and the remaining measures of well-being. Note also the large amount of variance that the combination of well-being and race explains in predicting election outcomes across Tables 2–5. However, in addition to the general absence of suppression effects for analyses involving education, the suppression effects for income (although appearing consistently) tended to be smaller in magnitude compared with other suppression effects.

Table 2
Regression analyses predicting percent-democrat in the 2012 presidential election.

Sub-domain of well-being	Beta weight for the well-being sub-domain with home state advantage in the equation (beta weight when percent-Black/Hispanic is also in the equation).	Beta weight for percent-Black/Hispanic with home state advantage in the equation (beta weight when the well-being sub-domain is also in the equation).	R^2 for the three variable equation
IQ	.099 (.279)	.103 (.284)	.157
Religiosity	−.575 (−.707)	.103 (.359)	.530
Crime	−.173 (−.532)	.103 (.491)	.241
Education	.473 (.477)	.103 (.120)	.338
Health	.361 (.640)	.103 (.471)	.369
Income	.492 (.530)	.103 (.204)	.381
Global well- being	.433 (.669)	.103 (.455)	.435

Notes. All beta-weights are standardized. The beta-weight for Home State Advantage as the sole predictor is .317. For the statistical significance of the R^2, all *p*'s < .001. Based on the trivial difference between the education beta-weights (.473 vs .477), we argue that there is not strong evidence for a suppression effect for education. We also acknowledge that the magnitude of the suppression effect in race for the education analysis is weak.

Table 3
Regression analyses predicting percent-democrat in the 2008 presidential election.

Sub-domain of well-being	Beta weight for the well- being sub-domain with home state advantage in the equation (beta weight when percent-Black/Hispanic is also in the equation).	Beta weight for percent-Black/Hispanic with home state advantage in the equation (beta weight when the well-being sub-domain is also in the equation).	R^2 for the three variable equation
IQ	.137 (.333)	.088 (.302)	.103
Religiosity	−.610 (−.724)	.088 (.334)	.503
Crime	−.215 (−.616)	.088 (.542)	.211
Education	.452 (.457)	.088 (.108)	.248
Health	.341 (.616)	.088 (.458)	.281
Income	.510 (.545)	.088 (.188)	.323
Global well- being	.459 (.704)	.088 (.460)	.394

Notes. All beta-weights are standardized. The beta-weight for Home State Advantage as the sole predictor is .178. For the statistical significance of the R^2, all *p*'s < .001. Based on the trivial difference between the education beta-weights (.452 vs .457), we argue that there is not strong evidence for a suppression effect for education. We also acknowledge that the magnitude of the suppression effect in race for the education analysis is weak.

4. Discussion

We reported state-level relationships between racial composition, well-being, and this century's four presidential election outcomes. In bivariate analyses, race did little to predict the percentage of votes cast for democrats. The well-being measures fared better as predictors, though results were not completely consistent across election years (except that less-religious, higher-income states were more likely to vote democratic in all elections). The bivariate correlations, however, are misleading, given the large mutual suppression effects we found in multiple regression analyses.

With consistency across various operational definitions of well-being (excluding education), and across four election years, well-being measures predicted election outcomes better when race also appeared in the equation, and vice versa. Specifically, the percentage of democratic votes was (often considerably) greater in states with (1) more Black or Hispanic residents, (2) higher global well-being, IQ, and health, and (3) lower rates of crime and religiosity. Race and well-being therefore resulted in mutual suppression situations when predicting presidential election outcomes.

4.1. Causality

We are reluctant to speculate on which variables are cause and which are effect. Pesta et al. (2010b) also cautioned researchers against reaching strong conclusions about causality based on variance explained in regression analyses. Here, for example, numerous additional analyses are possible, wherein one sub-domain of well-being is controlled to determine the unique variance that some other sub-domain explains. We believe these analyses are likely futile, given the large inter-correlations among the well-being variables, and given that the sample size is only 50 observations.

4.2. Red states/blue states, IQ, and urban legends

In the U.S., the term *red states* refers to states in which the voting population generally favors political candidates from the republican party, while the term *blue states* refers to states where the voting population generally favors political candidates from the democratic party. The website, www.snopes.com, seems to be a reliable source of information on various urban legends (i.e., widely accepted myths; Henry, 2007). Going back to the 2000 presidential election, the website claims that links between state IQ and election results are legend (Snopes.com, 2013). Here, however, we show that after considering state racial composition, state IQ predicts outcomes in all presidential elections since 2000. IQ beta weights (in regressions including race) range from .272 (2000 election) to .333 (2008 election).

We suggest that links between IQ and state-level election results stem partly from correlations between IQ and liberal versus conservative ideologies. As mentioned above, IQ seems inversely related to both the personality traits of Right Wing Authoritarianism, and Social Dominance

Table 4
Regression analyses predicting percent-democrat in the 2004 presidential election.

Sub-domain of well-being	Beta weight for the well- being sub-domain with home state advantage in the equation (beta weight when percent-Black/Hispanic is also in the equation).	Beta weight for percent-Black/Hispanic with home state advantage in the equation (beta weight when the well-being sub-domain is also in the equation).	R^2 for the three variable equation
IQ	.051 (.311)	.208 (.412)	.176
Religiosity	−.555 (−.681)	.208 (.417)	.517
Crime	−.054 (−.436)	.208 (.531)	.206
Education	.336 (.333)	.208 (.204)	.226
Health	.176 (.467)	.208 (.494)	.256
Income	.397 (.438)	.208 (.273)	.296
Global well- being	.321 (.578)	.208 (.504)	.351

Notes. All beta-weights are standardized. The beta-weight for Home State Advantage as the sole predictor is .284. For the statistical significance of the R^2, all *p*'s < .001. The education analyses do not show a suppression effect for either education or race.

Table 5
Regression analyses predicting percent-democrat in the 2000 presidential election.

Sub-domain of well-being	Beta weight for the well- being sub-domain with home state advantage in the equation (beta weight when percent-Black/Hispanic is also in the equation).	Beta weight for percent-Black/Hispanic with home state advantage in the equation (beta weight when the well-being sub-domain is also in the equation).	R^2 for the three variable equation
IQ	−.050 (.272)	.277 (.470)	.122
Religiosity	−.394 (−.586)	.277 (.508)	.376
Crime	.014 (−.456)	.277 (.632)	.172
Education	.236 (.263)	.277 (.302)	.152
Health	.053 (.428)	.277 (.569)	.185
Income	.354 (.437)	.277 (.378)	.266
Global well- being	.195 (.541)	.277 (.601)	.275

Notes. All beta-weights are standardized. The beta-weight for Home State Advantage as the sole predictor is .105. For the statistical significance of the R^2, all p's < .001.

Orientation (Heaven et al., 2011; Kemmelmiere, 2008; Schoon et al., 2010). Given, however, that no state-level data exist measuring these personality traits, this suggestion is speculation.

4.3. Study limitations and conclusion

Our results are descriptive and may fail to predict future presidential election outcomes. For example, the next election's republican candidate, platform, and rhetoric may be less distasteful to minority voters than was the case in the 2012 election. Likewise, the future republican candidate, platform, and rhetoric may be more appealing to voting residents of states with higher well-being. Future democratic candidates may also be less able to energize the Black vote, as compared with past elections, particularly the 2012 election.

States may also change their standing on well-being variables. Virginia, for example, is historically a politically conservative state, yet the more educated northern Virginia population has grown substantially over time. With the influence of northern Virginia, Mr. Obama carried the majority of this state's votes in both the 2008 and 2012 elections (U. S. Census, 2012a, 2012b, 2012c). State well-being may also change due to shifts in demography (e.g., Senator Lindsey Graham with reference to the Republican Party, 2012). Increasing minority populations will likely provide a growing advantage to democratic presidential candidates. This trend may not hold, however, if republicans nominate a Black or a Hispanic candidate, or if the party radically changes its appeal to minority voters. Finally, states may alter their rank in average income as some industries (e.g., coal) decline while others (e.g., natural gas) expand.

The state well-being data are readily accessible in the Pesta et al. (2010a, 2010b) paper and the presidential voting/racial composition data are available in public sources. We offered the regression models that we considered most appropriate for the data. Other models are possible. Scholars and constituencies who find our conclusions inconsistent with their beliefs, theories, or ideologies can readily access the data and consider alternative analyses and explanations.

Our results are based on state-level data. Conclusions drawn about individuals are best made with individual-level data. We encourage the conduct of individual-level research linking IQ and other well-being variables to political behavior. We also encourage the comparison of results at the individual level with results at the state level. Nonetheless, we make no strong claims about causality for any of the relationships reported here. However, across all election years and in nearly every analysis, well-being significantly predicts election outcomes better when race is in the regression equation, and race significantly predicts election outcomes better when IQ is in the regression equation.

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