Economic Anxiety or Racial Resentment? An Evaluation of Attitudes Toward Immigration in the U.S. From 1992 to 2016: Supplemental Appendix

Steven V. Miller *Clemson University*

Contents

Introduction

This is the supplemental appendix to "Economic Anxiety or Racial Resentment? An Evaluation of Attitudes Toward Immigration in the U.S. From 1992 to 2016", currently a working paper in preparation for submission and hopeful acceptance at a peer-reviewed journal. The supplemental appendix, like the manuscript, is a dynamic document that automates the code and the presentation of the finished results in the document itself (Xie, 2013). This approach to document preparation has multiple benefits, namely in the ability to drive the incidence of transcription error to zero while calling specific results into the document. We will make some references in this document to specific statistics that the raw markup will show is a direct extrapolation from code into presentation. We plan to make the raw markup available upon request during the peer review process and will deposit the final analyses to the corresponding author's Github account upon publication. This will facilitate transparency in published statistical analysis, consistent with the Data Access and Research Transparency Initiative (DA-RT) by the American Political Science Association.

Robustness Checks

Cooperative Congressional Election Study, 2016

I conduct a substantively major robustness check of my analyses with the Cooperative Congressional Election Study (CCES) data from 2016. The data are from the 2016 election cycle, which by itself will not mollify concerns of how racial resentment may have spilled into assessments about the economy. However, the CCES data do have several advantages. First, the data form the largest time-series national public opinion data set in the U.S., with more than 50,000 respondents in a given national stratified sample.

Importantly, the 2016 wave is unique in how it probed racial attitudes. The 2016 wave eschewed the traditional "racial resentment" items in favor of four survey prompts that DeSante and Smith (2016) introduced into the survey. These four prompts are:

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.
3. I am angry that racism exists.
4. I often find myself fearful of people of other races.

DeSante and Smith (2016) argue these prompts have the benefit of separating racial attitudes from conservatism, a measurement problem of considerable debate in the field the extent to which a non-racist conservative person who believes in "rugged individualism" and an objective racist could respond to the four traditional "racial resentment" items in the same way and have completely different motivations. DeSante and Smith (2016) find these items correspond with prejudicial attitudes on race, but do not correlate with conservative ideology. However, they caution that these four items capture two concepts, not one. The first two items proxy what they call a "cognitive" dimension of racism in which respondents are not aware, or do not recognize as legitimate, the structural inequalities and institutional discrimination that cluster on matters of race. The second two capture an "empathetic" dimension to racism in which white respondents express their capacity to understand or feel reactions to racism or an openness to people from other races.

Importantly, the analyses I conduct here should allay concerns about the measurement bias of the racial resentment metric. I do the same item response technique to get two separate latent

measures of both dimensions of racism to mirror how I created the racial resentment metric for the main analyses.

One additional benefit of the CCES sample is the scope of its questions on immigration. The CCES asks several questions about immigration, probing attitudes toward specific policies of border patrols and amnesty and legal status for undocumented migrants. Further, the CCES unifies them all with one prompt. Here, the prompt begins, "what do you think the U.S. government should do about immigration?" The respondent then can select all that correspond to what s/he wants the government to do about immigration, or select none of them. The options are:

- Grant legal status to all illegal immigrants who have held jobs and paid taxes for at least 3 years, and not been convicted of any felony crimes.
- Increase the number of border patrols on the U.S.-Mexican border.
- Grant legal status to people who were brought to the US illegally as children, but who have graduated from a U.S. high school. . Identify and deport illegal immigrants

These prompts have both benefits and drawbacks for the sake of a robustness test and the benefits and drawbacks ultimately travel together. These questions all either explicitly prime the respondent to think of "illegal" immigration or, in the case of the prompt about border patrols, strongly imply that the topic of concern is "illegal" immigration. As such, a person who responds that they want to, for example, identify and deport "illegal" immigrants may want to deport all immigrants because they are immigrants and the respondent is functionally a nativist. Alternatively, the respondent could select that option and want to deport "illegal" immigrants for perceived violations of the law for residing in the country without proper paperwork and status, saying nothing of nativism or a general disposition toward immigrants. However, the nature of these questions, much more specific than what appears in the American National Election Studies (ANES) or Voter Study Group (VSG), should also address concerns from a normal citizen reading the main manuscript and wondering if the focus on "legal" immigration belies that the negative attitudes on immigration were purportedly toward just "illegal" immigration. This robustness check will address that.

The dependent variables that follow from those four questions are binary. The respondent either mentioned it as a preferred course of action for the U.S. government or did not mention it. The variable I code is a 1 for what could plausibly be interpreted as an anti-immigration attitude (i.e. would not grant legal status to law-abiding undocumented people with American jobs, wants to increase the number of border patrols, and wants to identify/deport "illegal" immigrants).

The variables I collect for the robustness test in this section are substantively identical to what I performed and presented in the appendix. I briefly summarize them in list format.

- Age (in years)
- Female (dummy)
- College educated
- Respondent is unemployed, but seeking work
- Family income (1-16, ranging from "less than $10,000" to "$200,000 or more")
- Ideology (1-5, "very liberal" to "very conservative")
- Partisanship (1-7, "strong Democrat" to "strong Republican")
- Over the past year, the nation's economy has "gotten worse" or "gotten much worse"
- Over the next year, the nation's economy will "get somewhat worse" or "get much worse"

The objective "economic anxiety" indicators will mirror the VSG analyses I present in the manuscript. The indicators are the state unemployment rate (with three, six, and 12-month differences), the percentage of tax returns with unemployment compensation at the ZIP code level,

the average unemployment compensation value from the tax returns (ZIP-level), the difference from the 2014 tax year to the 2015 tax year in tax forms with unemployment compensation, the difference in the value of unemployment compensation in tax returns from 2014 to 2015, the core-based statistical area (CBSA) measure of exposure to automation/outsourcing, and the state-level measure of exposure to automation/outsourcing.

I also scaled all non-binary independent variables by two standard deviations to provide a rough comparability of coefficients, per Gelman (2008). The figures I report are "small multiple" plots of mixed effects logistic regressions with random effects for the ZIP code and state, consistent with the VSG analyses in the manuscript.

The results I report in Figure A.1, Figure A.2, Figure A.3, and Figure A.4 are broadly consistent with the main findings from the analysis and match the VSG analyses in interpretation. There is some evidence in support of the "economic anxiety" argument, but the evidence is not as strong or as consistent as the effect of white racial attitudes. Unemployed respondents oppose legal status for those holding jobs/paying taxes but there is no effect of unemployment status on attitudes toward identifying and deporting illegal immigrants, denying legal status to those who came as children but graduated from a U.S. high school, or even increasing border patrols. The retrospective and prospective negative assessments were positive and significant across the board in explaining anti-immigration attitudes.

Despite the increase in sample size, few objective "economic anxiety" indicators emerge as positive and precise covariates of an anti-immigration attitude. The exceptions are that respondents in states whose state unemployment rates increased in the past three months are more likely to favor increasing border patrols in Figure A.2 and respondents in core-based statistical areas (CBSAs) with local economies vulnerable to automation/outsourcing are more likely to oppose legal status for those who came as children but graduated high school. The findings are a little more sanguine about identifying and deporting illegal immigrants. Generally, respondents in higher-unemployment states, broadly measured, are more open to a government policy of identifying and deporting illegal immigrants. Further, respondents in ZIP codes with higher percentages of tax returns are more open to this policy of identifying and deporting illegal immigrants as well. This amounts to seven in 40 regressions across these four figures with evidence in favor of how objective "economic anxiety" indicators may condition attitudes toward (here: "illegal") immigration.

The results from the CCES analyses tell several stories in evaluating the "economic anxiety" argument against an argument that attitudes about immigration can be better understood as functions of attitudes on matters of race. First, Table A.1 pools the coefficients and standard errors for the economic anxiety indicators and the racial attitudes questions, similar to Table 2 in the manuscript, using Rubin's (1987) rules for aggregating coefficient estimates and standard errors for, in his case, multiply imputed data sets. The results tell only a slight contrast from the story in the manuscript. The CCES analyses show two models in which the precision of an economic anxiety indicator is actually greater than the precision of a racial attitudes measure. The effect of thinking the nation's economy got worse or much worse over the preceding year is more *precise* than the cognitive dimension of measure in the models opposing legal status to those who have a job/pay taxes/have no felony record and increasing the number of border patrols. The latter two models exploring opposition to legal status to those "illegal" immigrants that came as children and identifying and deporting illegal immigrants are cases in which the z-statistics for both the cognitive and empathetic racism measures dwarf the z-statistics for the economic anxiety indicators. That would square with the findings from Table 2 in the manuscript where the z-statistic for the pooled coefficients and standard errors of the racial resentment measure was in the double digits.

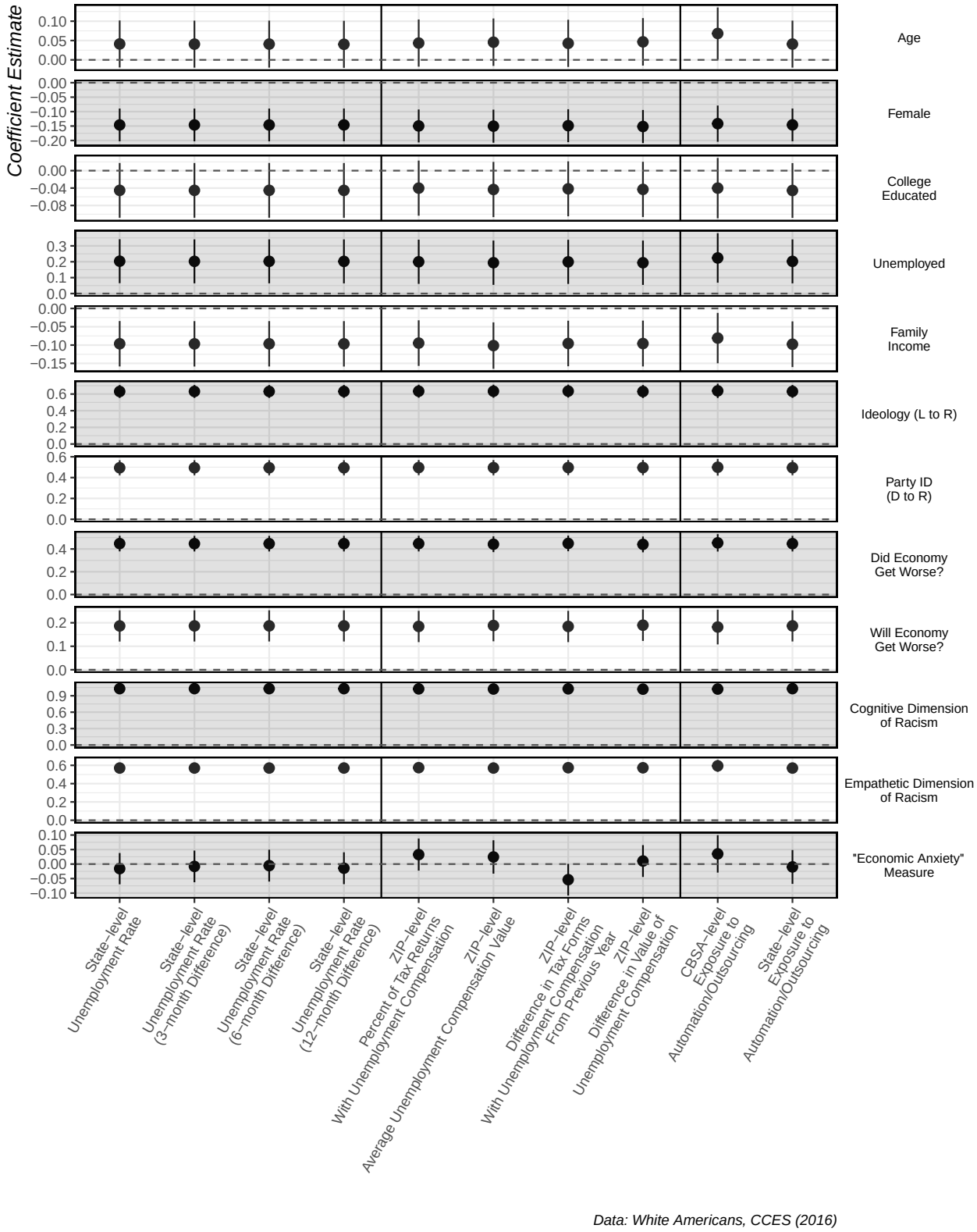

Figure A.1: The Covariates of White American Attitudes Toward Opposing Legal Status for Illegal Immigrants Who Are Holding Jobs, Paying Taxes, and No Criminal Record (CCES, 2016)

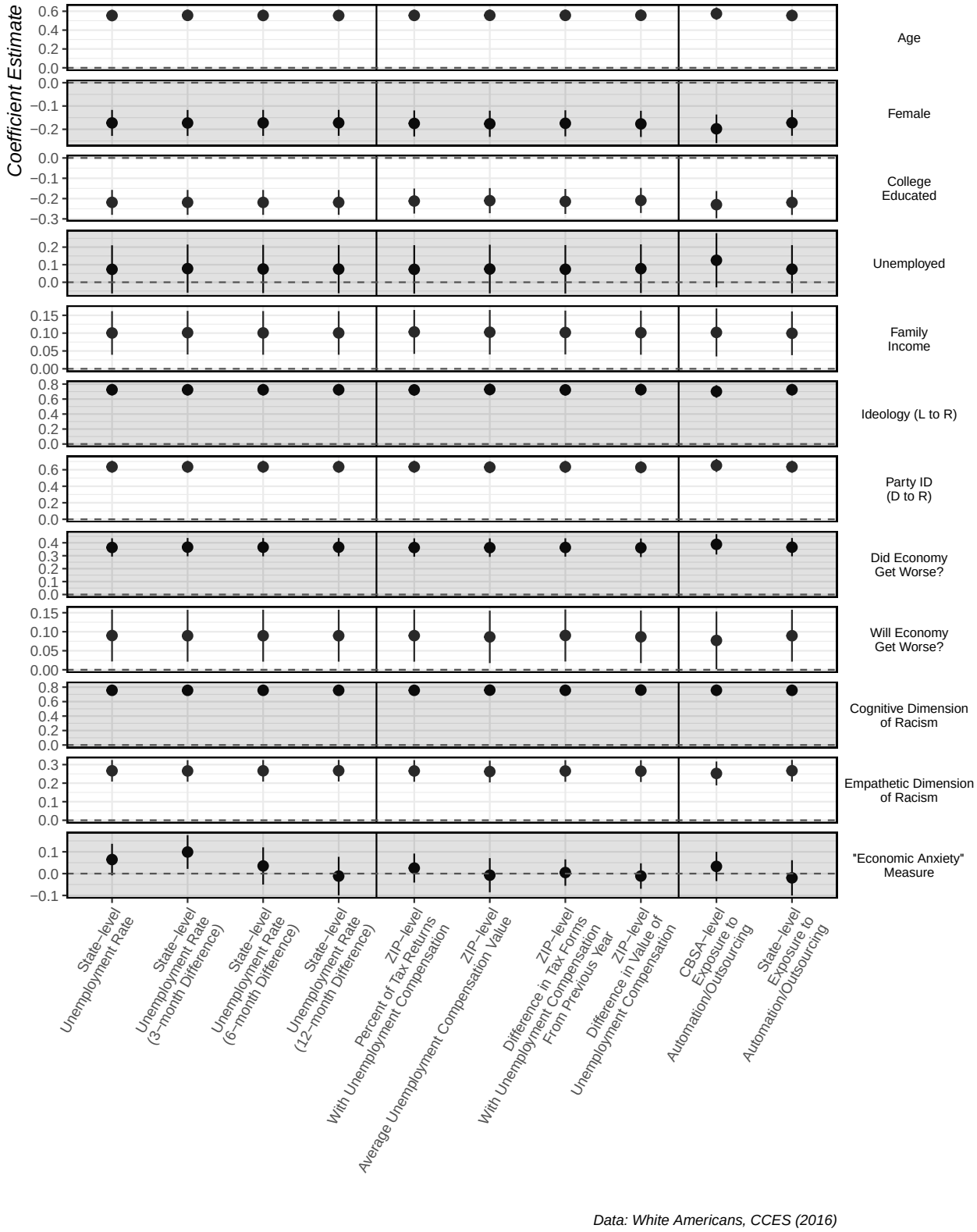

Figure A.2: The Covariates of White American Attitudes Toward Increasing Border Patrols on the U.S.-Mexico Border (CCES, 2016)

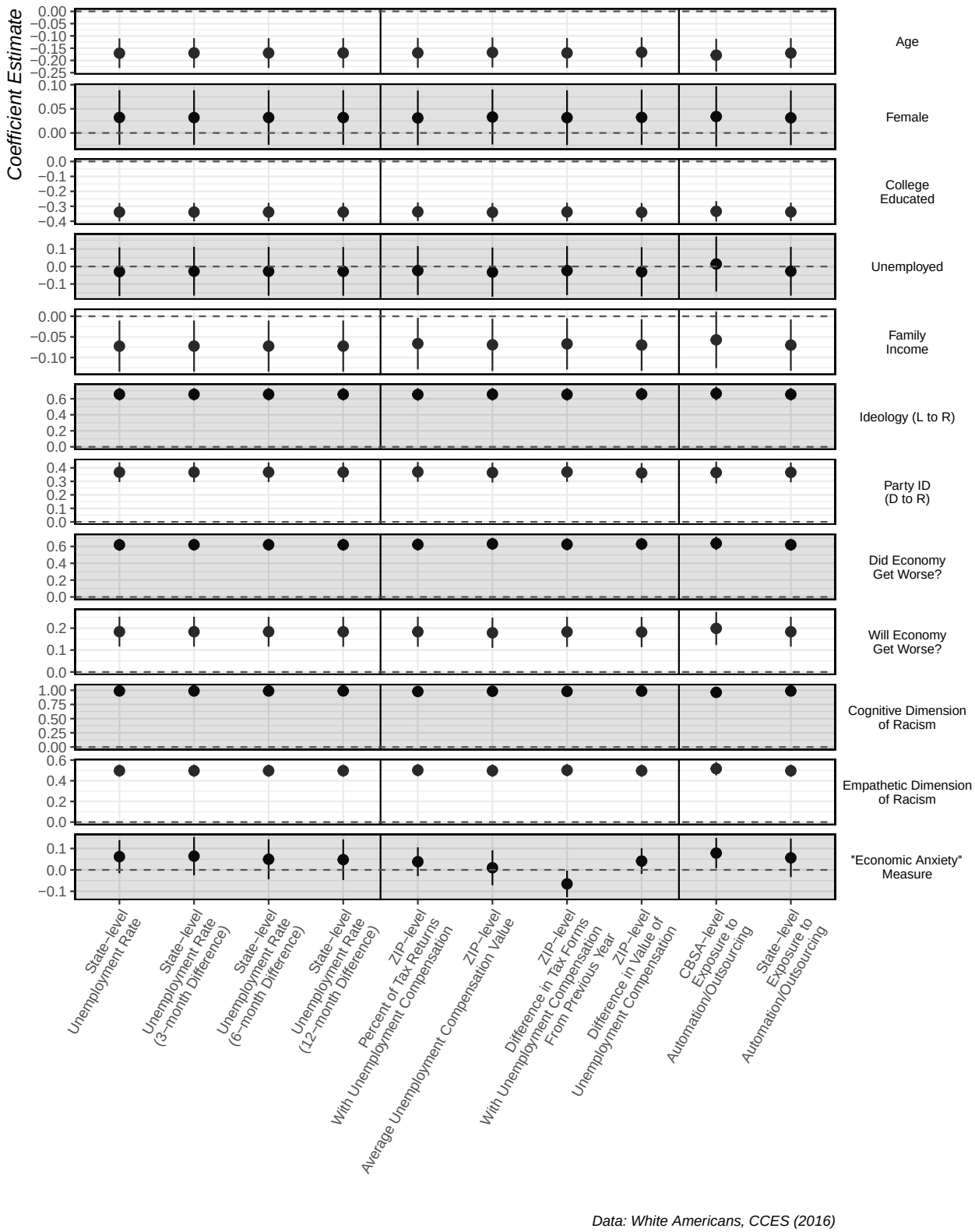

Figure A.3: The Covariates of White American Attitudes Opposing Legal Status for Illegal Immigrants Who Came as Children, But Graduated U.S. High School (CCES, 2016)

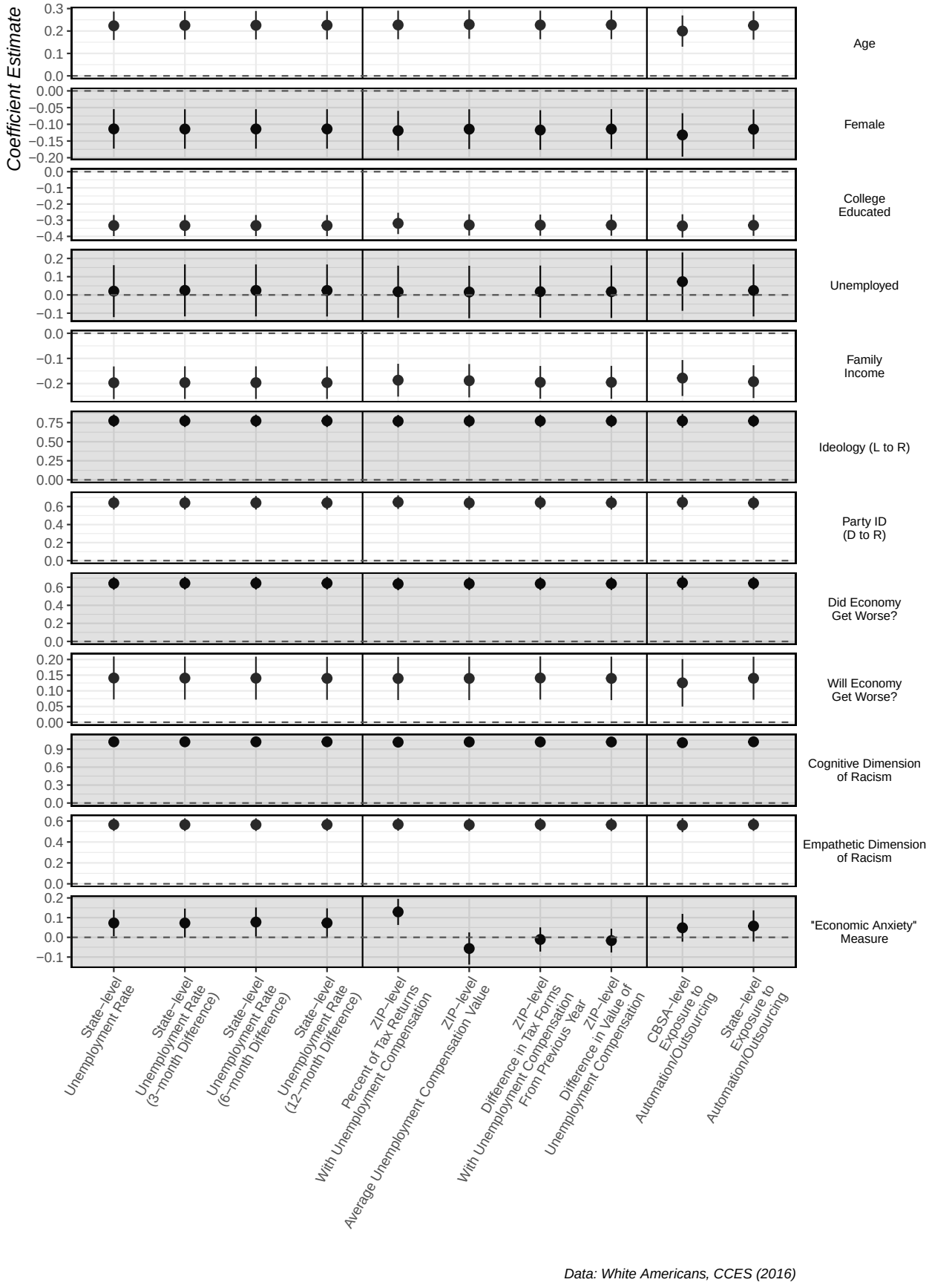

Figure A.4: The Covariates of White American Attitudes Toward Identifying and Deporting Illegal Immigrants (CCES, 2016)

To be clear, I emphasized *precise* in the preceding paragraph because the z-statistic for the retrospective economic assessment is only marginally greater than the z-statistic for the cognitive racism measure in those first two models but the coefficient size for the cognitive racism measure is more than twice the size of the coefficient for the negative retrospective assessment. In other words, the upper bound of the 95% confidence interval for the retrospective economic assessment measure is .518 (i.e. .414 + (1.96)*.053) in the model exploring attitudes opposing legal status for those "illegal" immigrants holding a job, paying taxes, and with no felony record. The lower bound estimate on the cognitive racism measure is .653 (i.e. .920 - (1.96*.053)).

Table A.1: Pooled Coefficients and Standard Errors of 'Economic Anxiety' and Cognitive/Empathetic Racism on Attitudes Toward Immigration in the CCES Data

Variable	**Avg. Estimate**	**Pooled S.E.**	**z-statistic**	**p-value**
Oppose Legal Status (Has Job/No Record)				
Unemployed	0.154	0.091	1.682	0.091
Will Economy Get Worse?	0.147	0.057	2.570	0.010
Did Economy Get Worse?	0.414	0.053	7.817	0.000
Objective 'Economic Anxiety' Measure	-0.001	0.033	-0.019	0.965
Cognitive Dimension of Racism	0.920	0.136	6.767	0.000
Empathetic Dimension of Racism	0.450	0.153	2.940	0.003
Increase Border Patrol?				
Unemployed	0.103	0.085	1.208	0.223
Will Economy Get Worse?	0.108	0.050	2.175	0.029
Did Economy Get Worse?	0.381	0.048	7.985	0.000
Objective 'Economic Anxiety' Measure	0.022	0.048	0.464	0.630
Cognitive Dimension of Racism	0.811	0.112	7.236	0.000
Empathetic Dimension of Racism	0.329	0.129	2.555	0.010
Oppose Legal Status (Came as Children)?				
Unemployed	0.021	0.116	0.177	0.842
Will Economy Get Worse?	0.183	0.032	5.712	0.000
Did Economy Get Worse?	0.589	0.076	7.700	0.000
Objective 'Economic Anxiety' Measure	0.027	0.051	0.530	0.584
Cognitive Dimension of Racism	0.993	0.038	26.078	0.000
Empathetic Dimension of Racism	0.515	0.044	11.767	0.000
Identify and Deport Illegal Immigrants?				
Unemployed	0.059	0.102	0.580	0.551
Will Economy Get Worse?	0.149	0.037	4.071	0.000
Did Economy Get Worse?	0.603	0.083	7.288	0.000
Objective 'Economic Anxiety' Measure	0.037	0.063	0.582	0.549
Cognitive Dimension of Racism	1.022	0.035	28.884	0.000
Empathetic Dimension of Racism	0.569	0.030	19.177	0.000

Figure A.5 presents a simulation analysis, similar to Figure 5 in the manuscript, to assess the effect of the cognitive and empathetic dimensions of white racial attitudes against all other economic anxiety indicators at their max. For each of the four dependent variables, I cherry-pick the model that provided the most support for "economic anxiety" argument (i.e. the z-statistic for an objective "economic anxiety" indicator was the highest and positive). Thereafter,

I create rows for the typical white male with no college education of average age, income, and social/political values. I create separate rows that allow the cognitive and empathetic dimensions of racism to increase by a standard deviation each, and then together. Thereafter, I create a separate row for the typical white male in which all other values are set at their average, but the "economic anxiety" indicators are set at their conceivable maxes in which he is unemployed, thinks the economy got worse or much worse over the past year, thinks the economy will get worse or much worse over the next year, and in which the particular objective indicator is two standard deviations above the mean (i.e. at the top 2.2 percentile). The results show that a standard deviation increase in both dimensions of racism still creates a simulated probability that cannot be distinguished from the effect of putting every single economic anxiety indicator at their conceivable max even as the models I cherry-pick are most sympathetic to the "economic anxiety" argument. Again, and informally, an ounce of prejudicial attitudes (here: an unawareness of or unwillingness to recognize structural discrimination on matters of race and a lack of empathy for racism or other races) is worth a pound of "economic anxiety."

A Regression-Based Approach to "Debiasing" Racial Resentment

The use of the "cognitive" and "empathetic" dimensions of racial attitudes in the CCES analysis addresses some of the debate of measurement bias in the literature on racial resentment. The nature of the racial resentment items, as they appear in the ANES, form a measurement problem the extent to which they measure both racial resentment and conservatism (e.g. Feldman and Huddy, 2005; Zigerell, 2015). Proponents of the racial resentment measure argue that those who first offered the concept never implied that racial resentment was explicit, or "old-fashioned" racism. They instead viewed it as a "new" or "subtle" racism that is couched in the language of American individualism as it appeared to express disapproval of the civil rights movement and the more racially liberal politics that followed it (McConahay and Hough, Jr., 1976; Kinder and Sanders, 1996). They offer additional defenses that rethinking white racial attitudes is still going to cluster on concepts that the racial resentment items proxy (Feldman and Huddy, 2010) or that a couple experimental controls can confirm the validity of racial resentment as a measure of prejudice (e.g. Valentino and Sears, 2005; Rabinowitz et al., 2009). However, this still confesses that "bias", in the measurement sense, could still be a problem. Two people—e.g. an objective racist and a non-racist conservative who believes in "rugged individualism"—could answer the same racial resentment items the same way and have two different motivations.

The machine learning literature offers one such tool toward debiasing measures (e.g. Bower et al., 2018), which it borrows from the "removing unwanted variation" family of methods of interested to genetics scholars (Gagnon-Bartsch, Jacob and Speed, 2013). The intuition is ultimately straightforward. If the observable outcome of interest (here: racial resentment) is operationally the sum of two separate components (i.e. racial resentment + conservative ideology), then regressing the observable outcome on a measure of the unwanted variation (here: conservative ideology) produces residuals that remove the bias in the measure.

Figure A.6 summarizes three regressions on the ANES data that shows the effect of the bias in the racial resentment measure on attitudes toward restricting immigration levels. For convenience sake, I select just one of the 12 models from Figure 1 in the manuscript. This is the model with the 12-month difference in the state unemployment rate, which had the highest z-statistic for any objective "economic anxiety" indicator across the whole range of the data (1992-2016). I re-run the regression that constitutes the eighth column in Figure 1 in the manuscript and report it in Figure A.6. Thereafter, I regress the racial resentment measure on two separate measures of conservatism for *each* survey wave. The first measure of conservatism is the liberalism-

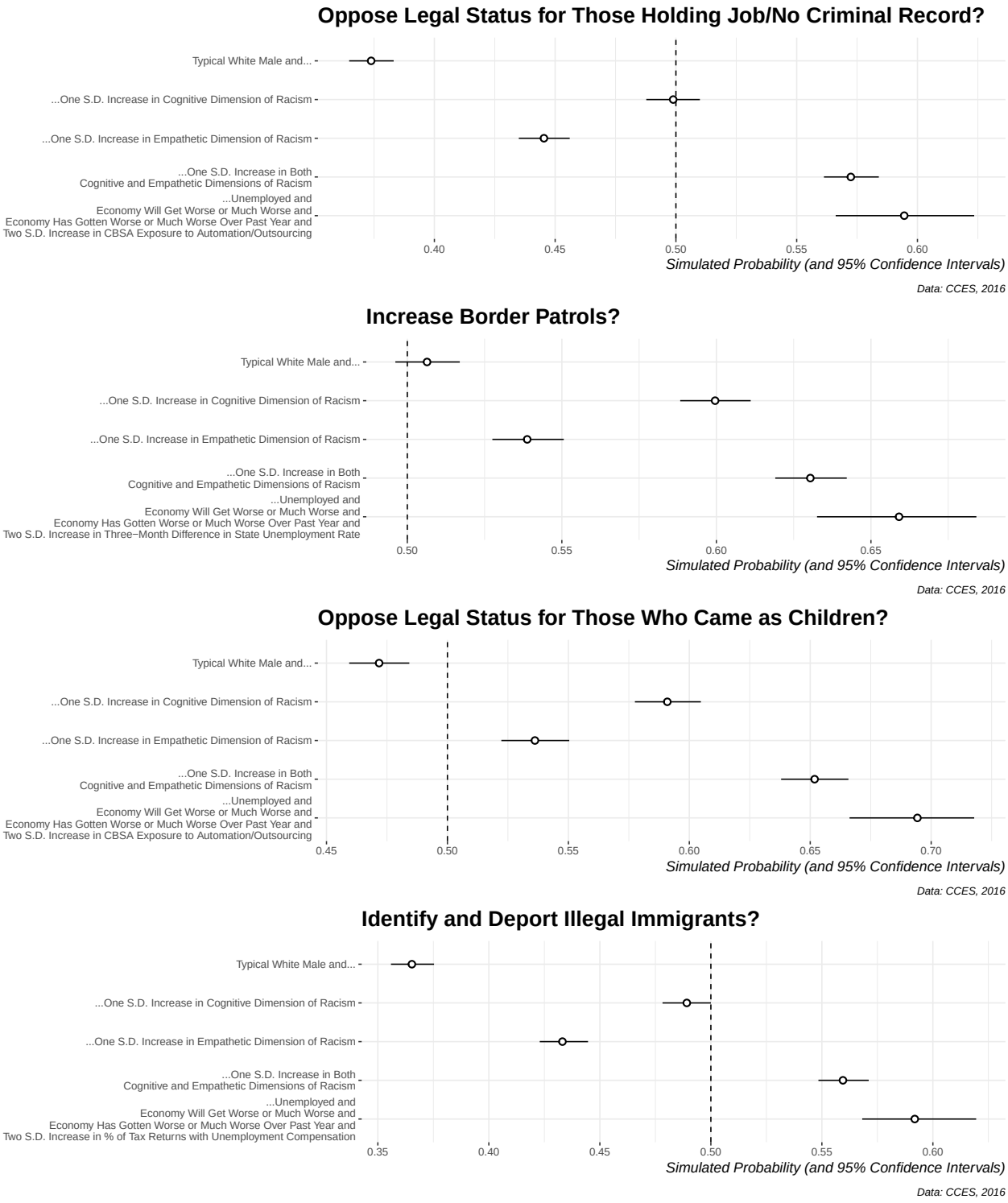

Figure A.5: Simulated Probabilities of Anti-Immigrant Attitudes in the CCES

conservatism index that appears as a statistical control in all ANES models in the manuscript. The second measure of conservatism is the seven-point ideological measure in which a respondent lists her/his ideology from "extremely liberal" to "extremely conservative." The residuals from those regressions form two separate "de-biased" racial resentment measures that I include as the proxy of racial resentment in a statistical analysis.

Figure A.6 shows that de-biasing racial resentment had substantively no effect on racial resentment's influence on wanting to restrict immigration levels. The extent to which there is bias in racial resentment, it may manifest more in how the effect of conservative ideology is down-weighted by being "double-counted" in the analysis when the racial resentment measure is biased. Ultimately, the racial resentment effect is substantively unchanged by these two "de-biasing" analyses.

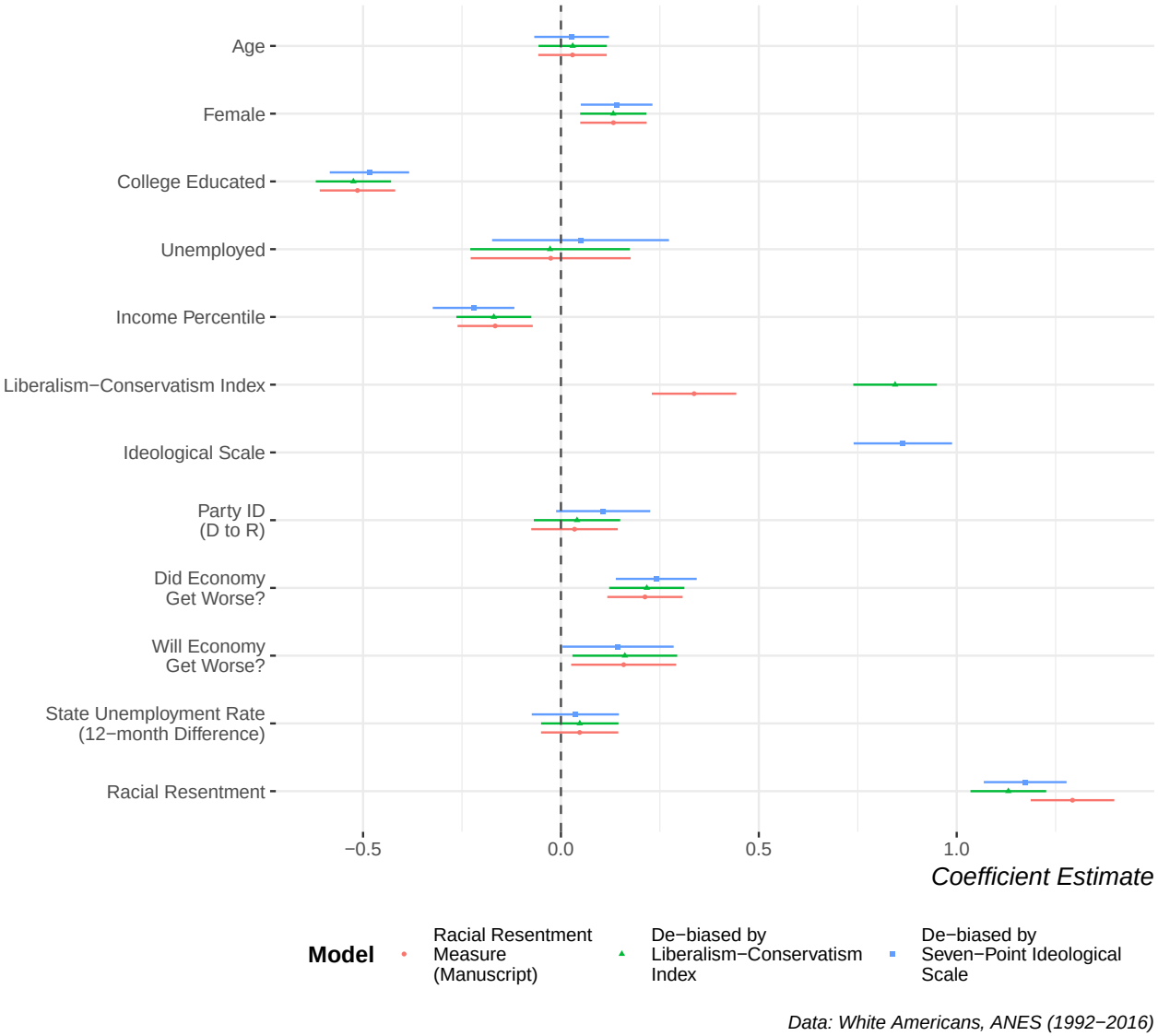

Figure A.6: The Covariates of White American Attitudes Toward Decreasing Immigration (With Biased and "De-biased" Measures of Racial Resentment) (ANES, 1992-2016)

References

Bower, Amanda, Laura Niss, Yuekai Sun and Alexander Vargo. 2018. "Debiasing Representations by Removing Unwanted Variation Due to Protected Attributes." arXiv:1807.00461.

DeSante, Christopher D. and Candis W. Smith. 2016. "The Two Dimensions of Whites' Racial Attitudes, or: The New New Racism." Working Paper.

Feldman, Stanley and Leonie Huddy. 2005. "Racial Resentment and White Opposition to Race-Conscious Programs: Principles or Prejudice?" *American Journal of Political Science* 49(1):168–183.

Feldman, Stanley and Leonie Huddy. 2010. "The Structure of White Racial Attitudes.".

Gagnon-Bartsch, Johann A., Laurent Jacob and Terence P Speed. 2013. "Removing Unwanted Variation from High Dimensional Data with Negative Controls." Berkeley, CA: University of California, Berkeley, Department of Statistics.

Gelman, Andrew. 2008. "Scaling Regression Inputs by Dividing by Two Standard Deviations." *Statistics in Medicine* 27(15):2865–2873.

Kinder, Donald R. and Lynn M. Sanders. 1996. *Divided by Color: Racial Politics and Democratic Ideals*. Chicago, IL: University of Chicago Press.

McConahay, John B. and Joseph C. Hough, Jr. 1976. "Symbolic Racism." *Journal of Social Issues* 32(2):23–45.

Rabinowitz, Joshua L., Davis O. Sears, Jim Sidanius and Jon A. Krosnick. 2009. "Why Do White Americans Oppose Race-Targeted Policies? Clarifying the Impact of Symbolic Racism." *Political Psychology* 30(5):805–828.

Rubin, Donald B. 1987. *Multiple Imputation for Nonresponse in Surveys*. New York, NY: Wiley.

Valentino, Nicholas A. and Davis O. Sears. 2005. "Old Times There Are Not Forgotten: Racism and Partisan Realignment in the Contemporary South." *American Journal of Political Science* 49(3):672–688.

Xie, Yihui. 2013. *Dynamic Documents with R and knitr*. Boca Raton, FL: CRC Press.

Zigerell, L.J. 2015. "Distinguishing Racism from Ideology: A Methodological Inquiry." *Political Research Quarterly* 68(3):521–536.