

## Political Parties and Labor-Market Outcomes: Evidence from US States<sup>†</sup>

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*This paper estimates the causal impact of the party allegiance (Republican or Democratic) of US governors on labor-market outcomes. I match gubernatorial elections with March Current Population Survey (CPS) data for income years 1977 to 2008. Using a regression discontinuity design, I find that Democratic governors cause an increase in the annual hours worked by blacks relative to whites, which leads to a reduction in the racial earnings gap between black and white workers. The results are consistent and robust to using a wide range of models, controls, and specifications. (JEL D72, J15, J22, J31, R23)*

Politicians and political parties play a crucial role in the US economy. The common perception is that Democrats favor pro-labor policies, and are more averse to income inequality than Republicans. This paper evaluates the veracity of such claims at the US state level by estimating the causal impact of the party affiliation of US governors (Republican versus Democratic) on several labor-market outcomes.

Recent work provides evidence that political allegiance plays a role in determining politicians' policy choices and voting behavior at the US state level. Besley and Case (1995) find that Democratic governors are more likely to raise taxes, while Republican governors are less likely to increase the minimum wage. They also find that when Democrats have a majority in the state upper and lower houses and occupy the governor's office, there is a significant impact on tax revenue, spending, family assistance, and workers' compensation (Besley and Case 2003). Building on this, Reed (2006) finds that tax burdens are higher when Democrats control the state legislature than when Republicans have control, and that the political party of the governor has little effect on tax burdens, after controlling for partisan influences in the state legislature. Lee, Moretti, and Butler (2004) use a regression discontinuity

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design (RDD) for congressional elections and show that party affiliation explains a large proportion of congressional voting behavior. Leigh (2008) studies numerous policies and outcomes under Democratic and Republican governors in US states from 1941 to 2002. He finds that Democratic governors tend to preside over lower after-tax inequality, implement a higher minimum wage, and oversee a lower incarceration rate.

This paper adds to the literature by studying the impact of gubernatorial party affiliation on labor-market outcomes. I match data from gubernatorial elections with data from the Current Population Survey's (CPS's) March supplements from 1977 to 2008. I use an RDD to estimate causal effects by comparing labor-market outcomes when a Democrat barely wins an election with labor-market outcomes when a Democrat barely loses.

This paper's contribution to the literature is twofold. First, this paper studies the causal impact of gubernatorial party affiliation on labor-market outcomes, namely hours worked, weeks worked, employment, labor-force participation, and earnings. Second, it sheds light on whether the party affiliation of governors has a different impact on different groups within the labor force, especially with regard to white and black workers. There is an important and well-documented earnings gap between black and white workers (e.g., Card and Krueger 1993; and Bjerk 2007), and this paper investigates whether the party affiliation of governors affects this gap, given that a large proportion of black workers vote for Democrats.

The results indicate that blacks are more likely to work and to participate in the labor market under Democratic governors. There is an increase in the annual hours worked by blacks relative to whites and a decrease in the earnings gap between blacks and whites when there is a Democratic governor.

The rest of the paper is organized as follows: Section I discusses the powers and role of governors. Section II presents the methodology used. Section III provides a description of the data used and descriptive statistics. Section IV presents the main results. Section V discusses the validity of the RDD and presents some robustness checks.

## **I. Power and Role of Governors**

The United States political system allows states to exercise a high degree of autonomy. States can levy taxes, establish license fees, spend tax revenues, regulate businesses, manage the health-care system, and provide emergency services. The governor heads the executive branch in each state. The governor sets policies, prepares and administers a budget, recommends legislation, signs laws, and appoints department heads. In some states, the governor has additional roles, such as commander-in-chief of the National Guard, and has partial or absolute power to commute or pardon criminal sentences. Governors can veto state bills, which gives them considerable control over policies.<sup>1</sup> In all but seven states, governors have the power to use a line-item veto on appropriations bills. This gives the governor the authority

<sup>1</sup> A governor's veto can be overruled by the legislature by a simple two-thirds or three-fifths majority, depending on the state.

to reject part of a bill passed by the legislature that involves taxing or spending. US governors now serve for four-year terms, except in New Hampshire and Vermont, which have two-year terms. Gubernatorial elections are held in November and the governor takes office the following January. Election years differ from state to state.

## II. Methodology

The identification strategy used in this paper is an RDD to account for the potential endogeneity of election outcomes. It follows the work of Lee (2001, 2008) and Pettersson-Lidbom (2001), and is used in papers such as Lee, Moretti, and Butler (2004), Pettersson-Lidbom (2008), and Ferreira and Gyourko (2009, 2014). Endogeneity concerns surrounding election outcomes come from factors such as labor-market conditions, voter characteristics, the quality of candidates, which party is the incumbent, the resources available for campaigns, and other unmeasured characteristics of states and candidates that would bias estimates of the impact of the party allegiance of governors. These factors can influence who wins the election. Lee (2001, 2008) demonstrates that looking at close elections provides quasi-random variation in winners and allows for the identification of causal effects.

An RDD also allows for the estimation of the local average treatment effect in cases where randomization is infeasible. This estimation can be done using either a parametric or nonparametric approach. My main specification uses a parametric approach, which allows for straightforward hypothesis testing.<sup>2</sup> The discontinuity is defined where the margin of victory is 0 percent. Positive values for margin of victory indicate that a Democratic governor was elected, while negative values indicate that a Republican won. The main regression equation being estimated is as follows:

$$\begin{aligned}
 (1) \quad Y_{ist} = & \beta_0 + \beta_1 D_{st} + \beta_2 D_{st} \times Black_{ist} + \beta_3 Black_{ist} \\
 & + \beta_4 X_{ist} + \beta_5 Z_{ist} + F(MV_{st}) \\
 & + F_b(MV_{st}) \times Black_{ist} + \varepsilon_{ist}.
 \end{aligned}$$

The main coefficients of interest are  $\beta_1$  and  $\beta_2$ .  $Y_{ist}$  represents the labor-market outcome of interest for individual  $i$  in state  $s$  in year  $t$ . I consider the following labor-market outcomes (conditional on an individual having positive earnings and wages): annual earnings, weekly earnings, and hourly wages. I also look at labor-force participation and employment, as well as (conditional on working) total hours worked per year, usual hours worked per week, and weeks worked per year. All earnings and wage variables are in real terms, and I use the logarithm for earnings, hours, and weeks worked regressions.  $Black_{ist}$  represents a dummy for the worker being black.  $D_{st}$  is a dummy variable that takes on a value of one if a Democratic governor is in power in state  $s$  during year  $t$ .  $MV_{st}$  refers to the margin of victory

<sup>2</sup>My specification is similar to that of Ferreira and Gyourko (2009, 2012), who also use a parametric approach and third-order polynomial. In Section V, I examine regressions with other polynomial degrees and local-linear regressions.

in the most recent gubernatorial election prior to year  $t$  in state  $s$ .<sup>3</sup> The margin of victory is defined as the proportion of votes cast for the winner minus the proportion of votes cast for the candidate who finished second. The value is positive if the Democratic candidate won and negative if he or she lost.<sup>4</sup> The pure party effect,  $\beta_1$ , is estimated by controlling for the margin of victory using a third-order polynomial  $F(MV_{st})$ .  $X_{ist}$  refers to individual characteristics and includes variables such as dummies for level of education, marital status, age, and gender.  $Z_{st}$  includes state fixed effects and year fixed effects.  $F_b(MV_{st}) \times Black_{ist}$  allows for a different trend for black workers. I focus on blacks and whites aged 20 to 55.<sup>5</sup> Standard errors are clustered at the state level to account for potential serial correlation.<sup>6</sup>

### III. Data and Descriptive Statistics

#### A. Data

Data are drawn from various sources. For gubernatorial elections, two main data sources are used. For elections data prior to 1990, I use the ICPSR 7757 (1995) files called “Candidate and Constituency Statistics of Elections in the United States, 1788–1990.” Data post–1990 comes from the Atlas of US Presidential Elections (2011).<sup>7</sup> Only elections where either a Democrat or a Republican won are included.<sup>8</sup> All states are included. Variables of interests taken from these sources are the party of the winner and the margin of victory.

The March Current Population Survey (CPS) provides a large sample size of workers and individual characteristics such as age, education, race, and marital status. I use data from 1978 to 2009, which represents income years 1977 to 2008. The state identifier available after 1977 in CPS data allows for the matching of gubernatorial election data to the CPS. For robustness, I use the CPS Merged Outgoing Rotation Groups (MORG) data from 1979 to 2008 for the following outcome variables: being employed and hours worked last week.

Some additional state characteristics are added when checking for robustness. Data on state senate and house elections are taken from the University of Kentucky Center for Poverty Research (UKCPR) (2011) for 1980 to 2010, and from Leigh (2008) for 1977 to 1980.

<sup>3</sup>For example, in California, 1978 election results (the political party of the winner and the margin of victory) are used in employment regressions for 1979, 1980, 1981, and 1982.

<sup>4</sup>I exclude observations on where neither a Democrat nor a Republican won.

<sup>5</sup>The results are robust to a number of different specifications. For example, results are robust to using different age groups (e.g., 18 to 64) and to replacing the black dummy with a nonwhite dummy.

<sup>6</sup>I present clustering at the state-term level in section F of the Appendix.

<sup>7</sup>Data were double-checked using official sources (such as state legislature websites and Council of State Governments data) wherever possible.

<sup>8</sup>There are a few cases where there was a special appointment within a term and there was a change of governor (for example, if a governor dies). I include observations where the new governor is from the same party. However, if the special appointment within a term changes the party in power, I drop these observations from my regressions because I do not have the relevant margin of victory.

### B. Descriptive Statistics

In the 1,566 *year*  $\times$  *state* observations in my sample, Republicans governed 730 times, while Democrats governed 836 times. Democrats were more likely to be in office in earlier years (486 observations for Democratic governors versus 300 for Republicans from 1977 to 1992), while Republicans held power more in recent years (430 observations for Republicans versus 350 for Democrats between 1993 and 2008).<sup>9</sup>

Table 1 presents descriptive statistics for states in years where the election results are close, that is when the margin of victory is within 5 or 10 percentage points. There are 346 *year*  $\times$  *state* observations within a 5 percentage point margin of victory (163 observations for Democrat winners and 183 for Republicans), while there are 678 observations within a 10 percentage point margin of victory, with Democratic governors in power 339 times.

Table 1 indicates that states close to the threshold are similar along a number of dimensions: the proportion of blacks in the population; the proportion of the population less than 15 years old; the proportion of the population older than 65; the proportion of the population between 20 and 55; the proportion of the population for whom the highest level of education completed is elementary school; the proportion of the population for whom the highest level of education is some high school education, a high school diploma, or some college; the proportion of the population for whom the highest level of study is having a college degree or more; and the logarithm of the population of the state. Table 1 presents *p*-values of the test of equality in means for the above variables for Republicans and Democrats. It shows that those are generally not statistically significant. This suggests that the key underlying assumption of the RDD estimates, which is that states where a Democratic governor barely won should be similar to states where a Republican barely won, is satisfied. I later use these variables as dependent variables when I examine the robustness of the results.

### C. Graphical Evidence

Figures 1 and 2 explore the discontinuity at 0 percent when a Democratic governor barely wins over a Republican. Figure 1 presents the proportion of whites and blacks employed, and Figure 2 presents the hours worked by white and black workers.

Each dot in the panel corresponds to the average outcome that follows election *t*, grouped by margin of victory intervals. The solid lines in the figures represent the predicted values from the cubic polynomial fit without covariates. The horizontal axis is the margin of victory in percentage points, and the vertical axis is the outcome of interest. Figures 1 and 2 suggest that there is a higher proportion of blacks who work under Democratic governors and that they work more hours.

<sup>9</sup> As mentioned above, I exclude from my sample cases when the governor is neither Republican nor Democrat, or when the party in office changes during the term.

TABLE 1—DESCRIPTIVE STATISTICS OF SELECTED VARIABLES FOR STATES CLOSE TO DISCONTINUITY

		Black	Age < 15	Age > 65	Age 20 to 55
Margin of victory less than 5 percent	Republican	0.0998 (0.0003)	0.2347 (0.0020)	0.1199 (0.0014)	0.5049 (0.0016)
	Democrat	0.1004 (0.0004)	0.2360 (0.0022)	0.1169 (0.0020)	0.5044 (0.0020)
	<i>p</i> -value	0.1860	0.6749	0.2097	0.8695
Margin of victory less than 10 percent	Republican	0.1001 (0.0002)	0.2362 (0.0015)	0.1204 (0.0011)	0.5016 (0.0012)
	Democrat	0.0999 (0.0003)	0.2359 (0.0016)	0.1163 (0.0013)	0.5038 (0.0014)
	<i>p</i> -value	0.4265	0.8812	0.0137	0.2373
		Elementary	Some HS, HS, or some college	College or more	ln(population)
Margin of victory less than 5 percent	Republican	0.2837 (0.0029)	0.4950 (0.0027)	0.2213 (0.0036)	14.9833 (0.0065)
	Democrat	0.2777 (0.0031)	0.5014 (0.0028)	0.2209 (0.0030)	14.9969 (0.0080)
	<i>p</i> -value	0.1628	0.0988	0.9200	0.1861
Margin of victory less than 10 percent	Republican	0.2856 (0.0020)	0.4981 (0.0019)	0.2163 (0.0025)	14.9913 (0.0049)
	Democrat	0.2812 (0.0023)	0.4975 (0.0018)	0.2212 (0.0022)	14.9854 (0.0056)
	<i>p</i> -value	0.1633	0.8220	0.1366	0.4265

Notes: Table 1 reports the proportions of blacks and individuals less than 15 years old, older than 65, and between 20 and 55. It also reports the proportion of the population by the highest level of education completed: elementary school, some high school or a high-school diploma or some college, and a college degree or more, as well as the logarithm of the states' population. Standard errors (of the mean) are in parentheses.

Source: March CPS data, UKCPR data, Leigh data (2008)

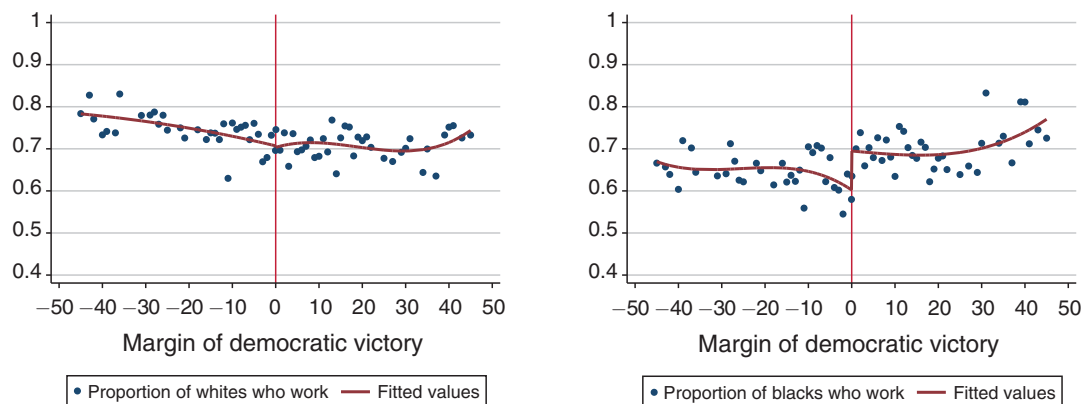


FIGURE 1. MARGIN OF DEMOCRATIC VICTORY AND THE PROPORTION OF WHITES (*left*) AND BLACKS (*right*) WHO WORK



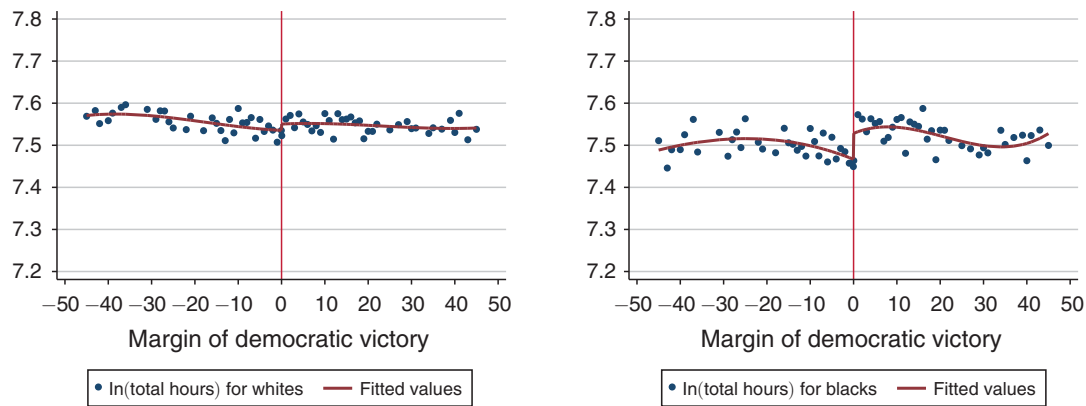


FIGURE 2. MARGIN OF DEMOCRATIC VICTORY AND TOTAL HOURS WORKED PER YEAR FOR WHITES (*left*) AND BLACKS (*right*)

Appendix Table A1 presents RD estimates without any covariates. In the next section, I add covariates to improve precision of the estimates. Results are similar.

#### IV. Main Results

Tables 2 and 3 present coefficients from the estimation of the main specification (1) for the variables *Democratic governor*, *Democratic governor*  $\times$  *black*, and *black*, respectively. *Democratic governor* and *Democratic governor*  $\times$  *black* are the variables of interest. Column 1 presents results for all black and white men and women, and columns 2 and 3 present results for men and women separately.

Table 2 presents results for the following dependent variables: total hours worked per year, weeks worked per year, and usual hours worked per week. Table 2 shows how much more or less an average individual works when a Democrat is in office, conditional on that individual working. Democratic governors do not have a significant impact on the intensive margin for whites. However, there is an increase in blacks' hours worked relative to whites under a Democratic governor. On average, blacks increase their hours worked per year (3.79 percent) and weeks worked per week (2.91 percent) relative to whites under Democratic governors.<sup>10</sup>

Table 3 presents results when the dependent variables measure labor-force participation and employment. The coefficients for  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  of specification (1) are estimated using a linear probability model. Table 3 shows that the political party of the governor has an impact on black labor-force participation and employment. Democratic governors have a statistically significant impact on blacks' labor-force participation and the likelihood of being employed (2.48 percent and 2.59 percent, respectively). There is no statistically significant effect of Democratic governors on employment for whites.

Section A of the Appendix presents results for earnings (annual, weekly, and hourly). The results indicate that there is a decrease in the annual earnings gap

<sup>10</sup>The differences found in Tables 2 and 3 between men and women are not statistically significant except for weeks worked.

TABLE 2—RD ESTIMATES FOR HOURS WORKED, WEEKS WORKED, AND USUAL HOURS

Intensive	Variables	All	Men	Women
Total hours worked	Democrat	−0.63 (0.60)	−1.13 (0.75)	0.08 (0.82)
	Democrat × Black	3.79** (1.81)	4.47* (2.54)	2.33 (1.99)
	Black	−6.49*** (1.16)	−14.00*** (1.29)	−0.91 (1.48)
Weeks worked	Democrat	−0.15 (0.42)	−0.51 (0.51)	0.35 (0.64)
	Democrat × Black	2.91** (1.38)	2.71 (2.09)	2.68** (1.29)
	Black	−6.00*** (0.86)	−8.81*** (1.24)	−4.13*** (0.99)
Usual hours	Democrat	−0.48* (0.27)	−0.62** (0.28)	−0.27 (0.38)
	Democrat × Black	0.87 (0.64)	1.76** (0.74)	−0.35 (1.39)
	Black	−0.49 (0.57)	−5.19*** (0.47)	3.22*** (1.15)

*Notes:* Control variables include highest level of education, marital status, age, age two, age three, age four, a female dummy, state fixed effects, and year fixed effects. Outcome variables are expressed in log form and coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state level.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE 3—RD ESTIMATES FOR BEING IN LABOR FORCE AND EMPLOYED

Extensive	Variables	All	Men	Women
In labor force	Democrat	−0.69** (0.30)	−0.26 (0.30)	−1.08** (0.49)
	Democrat × Black	2.48** (1.24)	1.37 (1.59)	3.65*** (1.35)
	Black	−4.71*** (1.06)	−8.75*** (0.99)	−2.61* (1.45)
Employed	Democrat	−0.77* (0.45)	−0.40 (0.53)	−1.11* (0.58)
	Democrat × Black	2.59* (1.52)	1.50 (1.81)	3.82** (1.69)
	Black	−8.65*** (1.13)	−13.15*** (1.13)	−6.23*** (1.44)

*Notes:* The controls are the same as in Table 2. The in-labor-force variable is 1 if an individual is in the labor force and is 0 otherwise. The employed variable is 1 if an individual is employed, and is 0 if the individual is unemployed or out of the labor force. Estimates are generated using a linear probability model. Coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state level.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data



between blacks and whites, but not in weekly earnings and hourly wages. This suggests that the decrease in the earnings gap under Democratic governors is driven by a change in the hours of employment for black workers. Moreover, under a Democratic regime, annual earnings, weekly earnings, and hourly wages are lower on average.

## V. Validity, Robustness, and Heterogeneity

### A. Validity of the Regression Discontinuity Design

I begin my robustness checks by investigating the key assumption of the RDD approach, which is that states where a Democratic governor barely wins a gubernatorial election are similar to states where a Republican barely wins. I verify and confirm that states close to the discontinuity are similar along a number of dimensions. As in Ferreira and Gyourko (2009), I estimate regression discontinuity specifications using variables for state characteristics as dependent variables. I use aggregate data and an aggregate version of specification (1) without individual characteristics. I find that the coefficient associated with a Democratic governor is never significant for these outcome variables, which indicates that states are not statistically significantly different near the discontinuity.<sup>11</sup>

To address the issues raised in Caughey and Sekhon (2011) about using RDD to analyze election results, I also verify that situations where Democrats barely win and situations where Democrats barely lose do not differ significantly in their pretreatment covariates. I create a variable that is equal to 1 if the governor at time  $T - 1$  was from a different party, and 0 otherwise, and I check for the balance of this covariate. I find no discontinuity in that variable, which is evidence that close elections are not predictable and can be interpreted as random. I also use data on campaign spending from Jensen and Beyle (2003) to check whether this covariate is balanced.<sup>12</sup> This is indeed the case. If close gubernatorial elections can be regarded as random, close elections won by Democratic governors should not be more likely to also come with a Democratic house or senate. As such, I check and confirm that the variables indicating which party controls the house and which controls the senate are balanced. I also check whether there is a discontinuity in the density of the forcing variable at the threshold. It is important to verify that the number of Democratic governors and Republican governors is similar around the threshold, which is the case here. These results are reported in Section B of the Appendix.

<sup>11</sup> The RDD coefficients (with standard errors in parentheses) for a Democratic governor are: proportion of the population that is black [0.032 (0.078)]; proportion of the population for whom the highest level of education is elementary school [−0.659 (0.703)]; proportion of the population for whom the highest level of education is some high school, a high school diploma, or some college [0.442 (0.579)]; proportion of the population with a college degree or more [1.101 (0.787)]; proportion of the population less than 15 years old [−0.013 (0.442)]; proportion of the population over 65 [−0.344 (0.309)]; proportion of the population between 20 and 55 [0.185 (0.395)]; and the logarithm of state population [0.677 (1.66)]. The coefficients and standard errors are multiplied by 100.

<sup>12</sup> The codebook explaining how Jensen and Beyle (2003) created the variables is available at <http://www.unc.edu/~beyle/guber.html>. Since the information available differs from state to state and year to year, I use the share of Democratic spending as the outcome variable.

A second identification issue concerns the persistence of the outcome variables. It could be that Democratic governors are more likely to be elected (even in close elections) in state-years with relatively lower earnings or employment. Even with fixed effects, labor-market trends could be state-specific. To address this concern, I perform a “placebo” test by checking whether there is a discontinuity in the outcome variables observed prior to the elections. I find that there is no such discontinuity in outcomes in the year prior to the election (year  $T - 1$ ). Tables in Section B of the Appendix present different specifications for several outcomes at  $T - 1$ . Results presented in Section B of the Appendix show that the coefficients are never significant, which suggests that there is no pre-discontinuity at  $T - 1$ .<sup>13</sup> I also present graphs at  $T - 1$ ,  $T + 1$ , and  $T + 1$  and  $T + 2$  together for employment rates of white and black workers separately. These results are reported in Section C of the Appendix. As can be seen from the figures, there is no discontinuity at  $T - 1$  in employment for blacks and whites, and the impact of political parties is mostly felt after one year for blacks.

### *B. Heterogeneity of Party Allegiance and Possible Confounding Factors*

In Section D of the Appendix, I explore how results are robust to different specifications for one of the outcome variables: total hours worked last year. Results and conclusions are robust to using a first-, second-, or fourth-order polynomial. Results for the local-linear specifications using grouped data by state and year are available in Section D of the Appendix for different bandwidths, including the optimal bandwidth procedures of Calonico, Cattaneo, and Titiunik (2013) and Imbens and Kalyanaraman (2012). I also present weighted and unweighted estimates from the grouped data regression to explore how sensitive the results are to weighting. Overall, the results are robust across different specifications.

I also estimate the main specification (using the number of total hours worked as the outcome variable) for different samples of years and states, and find that while the coefficients vary slightly depending on the particular years and states used, the main effects, their significance, and the conclusions remain valid. One interesting subsample is non-southern states.<sup>14</sup> Democrats in the south are arguably more conservative and therefore more similar to Republicans (Alt and Lowry 2000). Therefore, one might expect that the effect of a Democratic governor relative to a Republican would be more marked in non-southern states. I find that for non-southern states, the positive impact of a Democratic governor on total hours for black workers is more pronounced. As another robustness check, I restrict the sample to states that frequently elect both Democrats and Republicans (as opposed

<sup>13</sup> Some of the coefficients are different than zero. Due to a small sample size (a limited number of state-years with elections for governor), it might be difficult to get precise estimates. Detailed results in section B of the Appendix allow readers to judge for themselves the extent to which the results are a clear quasi-experiment, as opposed to believing that the point estimates would be statistically significant with more data.

<sup>14</sup> The Census classified states as either northeastern, midwestern, southern or western. The southern states are Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

to states that consistently elect a governor from a single party).<sup>15</sup> The results and conclusions are robust to focusing exclusively on these states.

I also replicate the results using a new database. Using the CPS Merged Outgoing Rotation Groups, I replicate the results for the employment and hours outcomes in the reference weeks using specification (1). Results for those replications are available in Section E of the Appendix and are quite similar to the March CPS results.

Another test is to include more state- and time-varying characteristics to better isolate the impact of the gubernatorial election. The objective is to control for possible confounding factors that might influence the results. The results are robust to the addition of controls for the population, the proportion of the population that is black, the proportion of population with a college diploma, the proportion of the population with a graduate degree, and the proportion of the population that did not complete high school. The results are also robust to the inclusion of dummies for the governor being a woman or from a minority ethnic group. The results are robust to the inclusion of dummy variables for having Democrats control the state senate, for Democrats controlling the state house, and for the governor being a Democrat during the last term. The results are also robust to including region  $\times$  time dummies for the following regions (as defined by the Census Bureau): Northeast, Midwest, South, and West. Finally, the results are qualitatively the same if I exclude the first year that a governor is in power, to remove potential lags in policy.

Section G of the Appendix presents figures and a table for differential impacts based on standard covariates: gender, education, and age. It shows that not all groups are affected in the same way. In particular, less educated workers work more under democratic governors.

Overall, results are robust to alternative specifications and a rich set of time-varying state characteristics. These numerous robustness checks provide confidence that party allegiance at the gubernatorial level does indeed play a role in affecting labor-market outcomes.

## VI. Conclusion

This paper is a broad study of the causal impact of party allegiance of US governors on labor-market outcomes using a regression discontinuity approach to address the issue of the potential endogeneity of election results. The results indicate that under Democratic governors, blacks are more likely to work, participate in the labor market, and work more intensively. This compositional change, which leads to an increase in the annual hours worked by blacks relative to whites, decreases the earnings gap between blacks and whites. The results are robust to alternative specifications and a rich set of time-varying state characteristics.

Although this paper improves the understanding of the importance of party allegiance at the state level, more work is needed in this area to understand the full extent of the role of political parties. Subsequent work should examine the channel through which political parties affect labor-market outcomes. I have provided evidence of

<sup>15</sup> This subsample includes the states where Democrats and Republicans were each in office at least 30 percent of the time during my sample period.

a short-term increase in labor-market participation by low- and medium-earnings workers under Democratic governors. Subsequent research should also investigate if this increase in participation has long-term benefits for these groups.

## APPENDIX

### A. RD Estimates without Covariates

TABLE A1—RD ESTIMATES FOR MAIN OUTCOMES WITHOUT COVARIATES

	Total hours worked	Weeks worked	Usual hours	In labor force	Employed
Extensive					
Democrat	−0.87 (0.57)	−0.33 (0.38)	−0.55** (0.27)	−0.74** (0.31)	−0.85* (0.46)
Democrat × Black	3.47* (1.79)	2.64* (1.36)	0.83 (0.64)	2.48** (1.15)	2.48* (1.47)
Black	−10.44*** (1.13)	−8.06*** (0.85)	−2.37** (0.54)	−6.30*** (1.12)	−11.27*** (1.23)

*Notes:* Outcome variables, other than in labor force and employed, are expressed in log form. Coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state level.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A2—RD ESTIMATES EFFECTS FOR EARNINGS

Earnings	Variables	All	Men	Women
Annual	Democrat	−2.42** (1.12)	−3.00** (1.22)	−1.44 (1.55)
	Democrat × Black	5.03* (2.53)	5.88* (3.38)	2.56 (3.05)
	Black	−16.37*** (1.58)	−29.62*** (1.82)	−6.18*** (2.20)
Weekly	Democrat	−2.24** (0.93)	−2.49** (0.97)	−1.78 (1.19)
	Democrat × Black	2.11 (1.99)	3.28 (2.37)	−0.19 (2.70)
	Black	−10.35*** (1.42)	−20.92*** (1.29)	−1.99 (2.14)
Hourly	Democrat	−1.76** (0.83)	−1.87** (0.90)	−1.51 (1.02)
	Democrat × Black	1.23 (1.91)	1.52 (2.07)	0.16 (2.23)
	Black	−9.86*** (1.30)	−15.73*** (1.29)	−5.21*** (1.62)

*Notes:* The controls are the same as in Table 2. Outcome variables are expressed in log form and coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state level.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

## B. Validity of the RD Design

TABLE A3—TESTING FOR A DISCONTINUITY IN BASELINE COVARIATES

Variables	Different party at $T - 1$	Fraction campaign spending by Democrat	House Democrat	Senate Democrat
Democrat	−8.24 (8.91)	3.35 (3.58)	−8.78 (7.19)	0.95 (7.68)

*Notes:* Table A3 investigates the validity of the RD design. Outcome variables are different party at  $T - 1$ , fraction of campaign spending by the Democratic candidate, whether the state house has a Democratic majority, and whether the state senate has a Democratic majority. Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* Jenson and Beyle (2003) data and UKCPR data

TABLE A4—PLACEBO TEST: RD ESTIMATES FOR OUTCOMES AT  $T - 1$ -STATE LEVEL

	Variables	Annual earnings at $T - 1$	Total hours at $T - 1$	Total weeks at $T - 1$	Employed at $T - 1$	In labor force at $T - 1$
All	Democrat	1.69 (1.63)	1.24 (1.46)	1.16 (1.01)	0.78 (0.79)	0.15 (0.65)
Black only	Democrat	8.36 (11.54)	8.08 (8.10)	3.06 (6.03)	−1.80 (5.12)	−0.12 (4.20)
White only	Democrat	0.42 (1.73)	0.58 (1.46)	0.86 (1.05)	0.74 (0.82)	0.33 (0.68)

*Notes:* Table A4 investigates discontinuities in key outcome variables using outcomes at time  $T - 1$  with outcome grouped at state level. Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A5—RD ESTIMATES AT  $T - 1$ : PLACEBO TEST, DIFFERENT

	Variables	First order	Second order	Third order	Fourth order
Total hours	Democrat	−0.42 (0.55)	−0.17 (0.37)	−0.29 (0.47)	−0.51 (0.61)
	Democrat $\times$ Black	1.04 (1.53)	0.70 (1.30)	1.36 (1.50)	1.51 (1.81)
	Black	−4.27*** (1.25)	−0.79 (1.31)	−1.30 (1.54)	−1.31 (1.53)
Employed	Democrat	−0.18 (0.43)	−0.52 (0.33)	−0.61 (0.45)	−0.51 (0.71)
	Democrat $\times$ Black	0.84 (1.05)	0.69 (0.82)	0.54 (0.85)	0.72 (0.83)
	Black	−0.71 (0.98)	−2.87*** (0.76)	−3.23*** (0.69)	−3.23*** (0.69)

*Notes:* Table A5 investigates further potential discontinuities in key outcome variables using outcomes at time  $T - 1$ . Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A6—RD ESTIMATES AT  $T - 1$ : PLACEBO TEST, SEVERAL BANDWIDTHS FOR BLACKS

	Variables	IK	CCT	$H = 3$	$H = 8$	$H = 15$
Total hours	Democrat	-0.87 (1.63)	-1.21 (2.07)	0.85 (4.23)	-1.31 (2.90)	-1.22 (2.05)
Employed	Democrat	-5.52 (4.55)	-5.56 (4.47)	5.12 (8.66)	-4.33 (5.47)	-5.59 (4.23)

*Notes:* Table A6 investigates discontinuities in key outcome variables using outcomes at time  $T - 1$ , grouped at the state level for blacks and local linear regressions for several bandwidths, including Calonico, Cattaneo, and Titiunik—henceforth, CCT—(2013); and Imbens and Kalyanaraman—henceforth, IK—(2012). Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A7—RD ESTIMATES AT  $T - 1$ : PLACEBO TEST, SEVERAL BANDWIDTHS FOR WHITES

	Variables	IK	CCT	$H = 3$	$H = 8$	$H = 15$
Total hours	Democrat	-1.33 (1.86)	-1.33 (1.82)	0.84 (4.23)	-1.37 (2.87)	-1.31 (2.00)
Employed	Democrat	-2.07 (1.80)	-2.07 (1.57)	3.94 (3.43)	-0.26 (2.18)	-2.25 (1.71)

*Notes:* Table A7 investigates discontinuities in key outcome variables using outcomes at time  $T - 1$ , grouped at the state level for whites and local linear regressions for several bandwidths, including CCT (2013); and IK (2012). Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A8—RD ESTIMATES AT  $T - 1$ : DIFFERENT SPECIFICATIONS STATE-LEVEL REGRESSION

	IK	CCT	$H = 3$	$H = 8$	$H = 15$	First	Second	Third
Total hours	0.34 (1.05)	0.31 (1.23)	2.58 (2.26)	0.41 (1.58)	0.32 (1.25)	0.36 (0.46)	0.42 (0.74)	0.38 (0.90)
Employed	-2.24 (1.85)	-2.25 (1.60)	3.23 (3.53)	-0.49 (2.30)	-2.37 (1.76)	0.23 (0.42)	0.31 (0.61)	0.70 (0.79)
Democrat last term	-4.06 (10.22)	2.38 (13.36)	-5.78 (29.74)	-2.18 (17.87)	2.48 (13.43)	-1.00 (9.13)	-3.29 (13.93)	1.71 (16.26)
Democratic House	-3.16 (13.18)	-2.86 (13.11)	-16.89 (28.14)	-5.74 (17.25)	-2.17 (12.94)	6.39 (5.74)	-2.33 (8.32)	-3.08 (11.22)
Democratic Senate	0.55 (14.01)	4.76 (12.88)	-9.82 (29.89)	2.66 (17.46)	2.62 (13.35)	5.51 (7.53)	3.22 (8.28)	-2.72 (8.63)

*Notes:* Table A8 investigates discontinuities in key outcome variables using outcomes at time  $T - 1$ , grouped at the state level for whites and blacks and local linear regressions for several bandwidths, including CCT (2013); and IK (2012) optimal bandwidth procedure and several polynomials (first, second, and third). Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data and UKCPR data



*C. Investigation of Discontinuity in Employment Before ( $T - 1$ ) and After ( $T + 1$  & ( $T + 1$  &  $T + 2$ )) the Election*

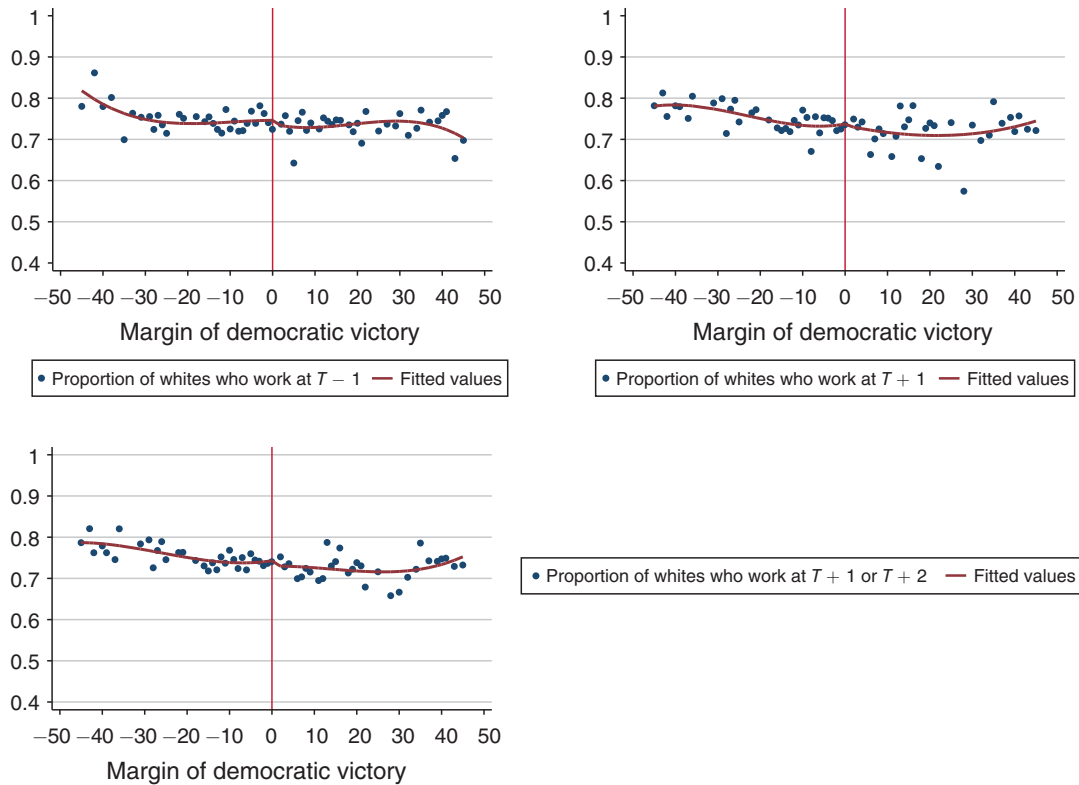


FIGURE A1. WHITES

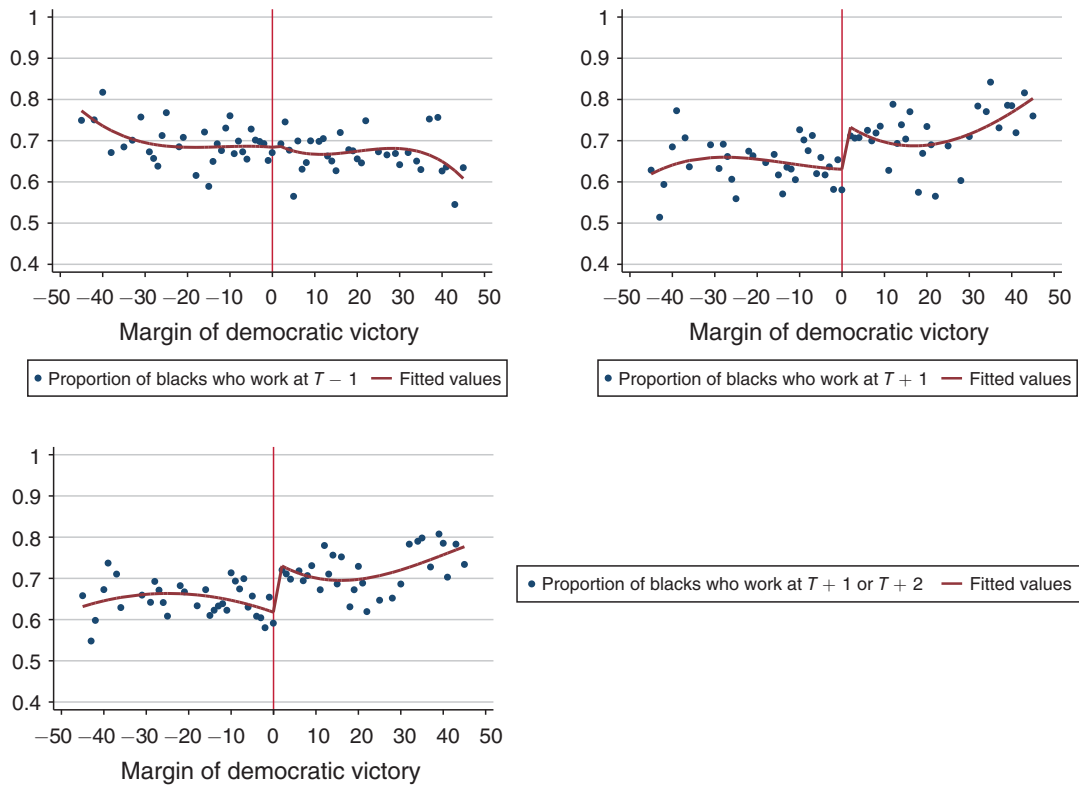


FIGURE A2. BLACKS

## D. Different Specifications

TABLE A9—RD ESTIMATES FOR TOTAL HOURS FOR DIFFERENT POLYNOMIALS

	First order	Second order	Third order	Fourth order
Democrat	0.18 (0.33)	0.15 (0.44)	−0.63 (0.60)	−0.61 (0.77)
Democrat × Black	1.89** (1.07)	2.91*** (1.27)	3.79*** (1.81)	2.44 (1.91)
Black	−5.04*** (0.69)	−6.09*** (0.96)	−6.49*** (1.16)	−6.59*** (1.16)

*Notes:* Table A9 presents RD estimates for total hours for different polynomials. The controls are the same as in Table 2. Results are presented for different polynomials (first, second, third, and fourth). Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A10—RD ESTIMATES FOR WEIGHTED AND UNWEIGHTED GROUPED DATA AT THE STATE-YEAR LEVEL

		Variables	White	Black
Weighted	Nonparametric CCT	Democrat	1.28 (0.95)	10.04** (4.13)
	Parametric	Democrat	1.71 (1.66)	8.10** (3.97)
Unweighted	Nonparametric CCT	Democrat	1.29 (0.98)	9.51** (4.11)
	Parametric	Democrat	1.92 (1.75)	7.52* (3.84)

*Notes:* Table A10 presents regressions without controls for weighted and unweighted grouped data at the state-year level for both parametric and nonparametric estimation. The nonparametric estimation uses Calonico, Cattaneo, and Titiunik (CCT) (2013). Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A11—LOCAL-LINEAR REGRESSIONS FOR TOTAL HOURS

Model		White	Black
Optimal bandwidth, CCT $h = 12.19$ (W) & $h = 11.05$ (B)	Democrat	1.62* (0.09)	10.04** (4.13)
	Observations	779	722
Optimal bandwidth, IK $h = 8.01$ (W) & $h = 12.34$ (B)	Democrat	1.44 (1.11)	10.42** (4.10)
	Observations	552	770
Different bandwidth $h = 1$	Democrat	4.02 (3.71)	21.27** (9.47)
	Observations	86	86
$h = 2$	Democrat	3.22 (2.56)	19.62** (7.07)
	Observations	141	141
$h = 3$	Democrat	1.82 (1.84)	11.36* (5.82)
	Observations	209	208
$h = 4$	Democrat	1.90 (1.53)	10.37** (4.60)
	Observations	291	290
$h = 5$	Democrat	2.06 (1.39)	11.83*** (4.14)
	Observations	342	341
$h = 8$	Democrat	1.44 (1.11)	10.00** (4.10)
	Observations	552	547
$h = 15$	Democrat	1.17 (0.08)	9.71** (3.94)
	Observations	897	882

*Notes:* Table A11 presents results for total hours for different bandwidths, including the optimal bandwidth procedure set out in CCT (2013); and IK (2012). Coefficients and standard errors (in parentheses in the table) are multiplied by 100.

\*\*\* Significant at the 1 percent level.

\*\* Significant at the 5 percent level.

\* Significant at the 10 percent level.

*Source:* March CPS data

## E. Replication Using MORG Data for Employment and Hours in Reference Week

TABLE A12—RD ESTIMATES FOR HOURS LAST WEEK AND BEING EMPLOYED (*MORG data*)

Outcomes	Variables	All	Men	Women
Hours last week	Democrat	0.39 (0.27)	0.28 (0.23)	0.55 (0.42)
	Democrat × Black	0.28 (0.76)	0.30 (0.45)	−0.31 (1.23)
	Black	0.17 (0.71)	−3.96*** (0.35)	3.49*** (1.06)
Employed	Democrat	0.05 (0.33)	0.25 (0.37)	−0.14 (0.39)
	Democrat × Black	2.44** (1.19)	1.01 (1.26)	3.34*** (1.25)
	Black	−7.52*** (1.06)	−10.65*** (1.02)	−5.67*** (1.22)

*Notes:* Table A12 presents RD estimates for hours last week and being employed using MORG data. The controls are the same as in Table 2 using MORG data. The employed variable is one if an individual is employed, and is zero if the individual is unemployed or out of the labor force. Coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state level.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* MORG data

## F. Robust to Different Clustering Levels

TABLE A13—RD FOR HOURS WORKED, WEEKS WORKED, AND USUAL HOURS

Intensive	Variables	All	Men	Women
Total hours worked	Democrat	−0.63 (0.68)	−1.13 (0.81)	0.08 (0.77)
	Democrat × Black	3.79** (1.61)	4.47** (2.00)	2.33 (2.04)
	Black	−6.49*** (1.02)	−14.00*** (1.24)	−0.91 (1.25)
Weeks worked	Democrat	−0.15 (0.45)	−0.51 (0.57)	0.35 (0.54)
	Democrat × Black	2.91** (1.18)	2.71* (1.58)	2.68* (1.42)
	Black	−6.00*** (0.82)	−8.81*** (1.08)	−4.13*** (1.05)
Usual hours	Democrat	−0.48 (0.32)	−0.62* (0.32)	−0.27 (0.45)
	Democrat × Black	0.87 (0.69)	1.76** (0.73)	−0.35 (1.27)
	Black	−0.49 (0.41)	−5.19*** (0.49)	3.22*** (0.84)

*Notes:* Table A13 presents RD estimates using RD estimates clustered at the state-term level. The controls are the same as in Table 2. Outcome variables are expressed in log form and coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state-term level.

\*\*\*Significant at the 1 percent level. \*\*Significant at the 5 percent level. \*Significant at the 10 percent level.

*Source:* March CPS data

TABLE A14—RD FOR BEING IN LABOR FORCE AND EMPLOYED

Extensive	Variables	All	Men	Women
In labor force	Democrat	−0.69* (0.38)	−0.26 (0.35)	−1.08* (0.61)
	Democrat × Black	2.48** (1.21)	1.37 (1.53)	3.65** (1.48)
	Black	−4.71*** (0.89)	−8.75*** (0.93)	−2.61** (1.24)
Employed	Democrat	−0.77 (0.54)	−0.40 (0.58)	−1.11 (0.69)
	Democrat × Black	2.59* (1.34)	1.50 (1.70)	3.82** (1.59)
	Black	−8.65*** (1.00)	−13.15*** (1.04)	−6.23*** (1.33)

*Notes:* Table A14 presents RD estimates using RD estimates clustered at the state-term level. The controls are the same as in Table 2. The in-labor-force variable is one if an individual is in the labor force and is zero otherwise. The employed variable is one if an individual is employed, and is zero if the individual is unemployed or out of the labor force. Estimates are generated using a linear probability model. Coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state-term level.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

Source: March CPS data

### G. Margin of Victory, Total Hours of Work and Employment for Different Subgroups

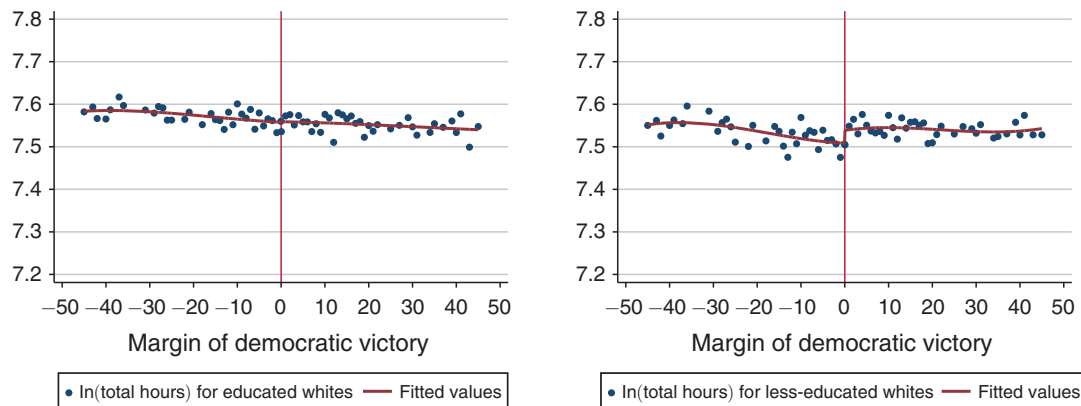


FIGURE A3. WHITES: EDUCATED VERSUS LESS-EDUCATED FOR TOTAL HOURS

*Note:* In Figure A3, educated workers are defined as having some college, a college diploma, or more.

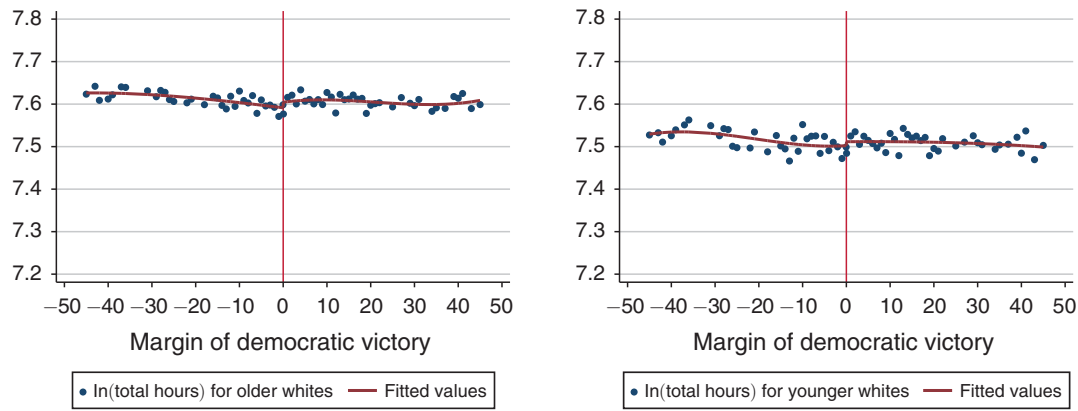


FIGURE A4. WHITES: OLDER VERSUS YOUNGER FOR TOTAL HOURS

Note: In Figure A4, older workers are defined as being 40 or older.

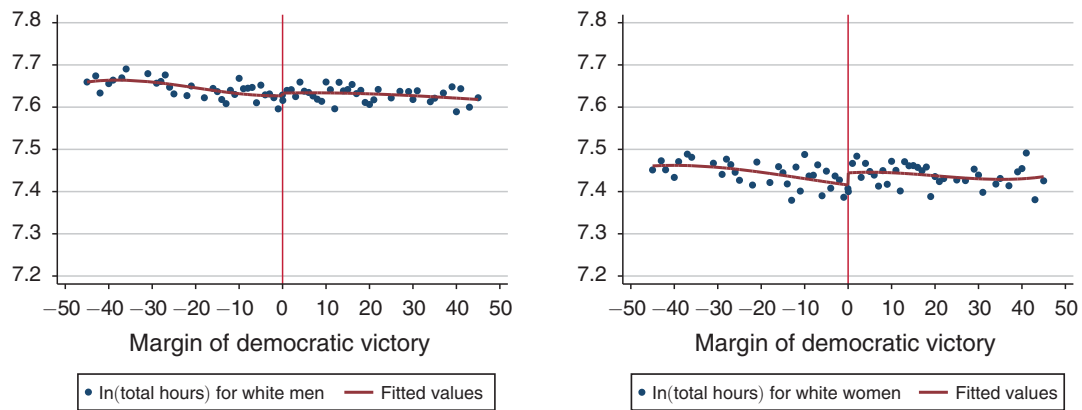


FIGURE A5. WHITES: MEN VERSUS WOMEN FOR TOTAL HOURS

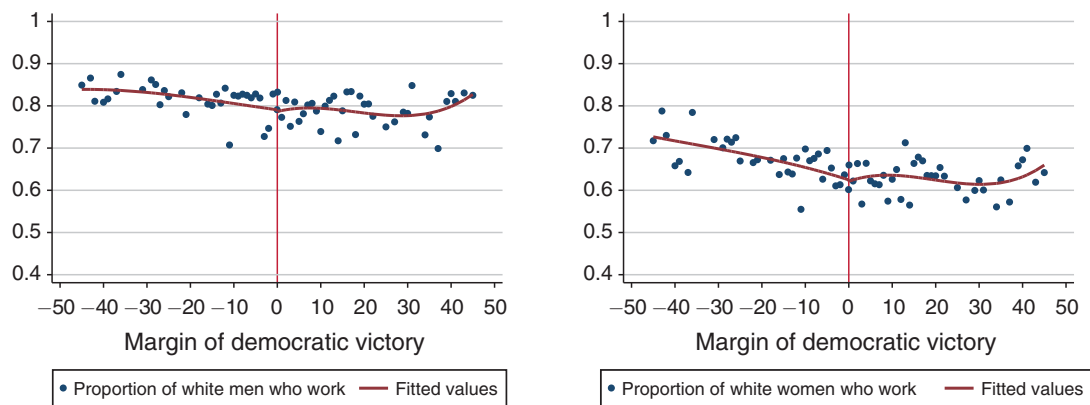


FIGURE A6. WHITES: MEN VERSUS WOMEN FOR EMPLOYMENT



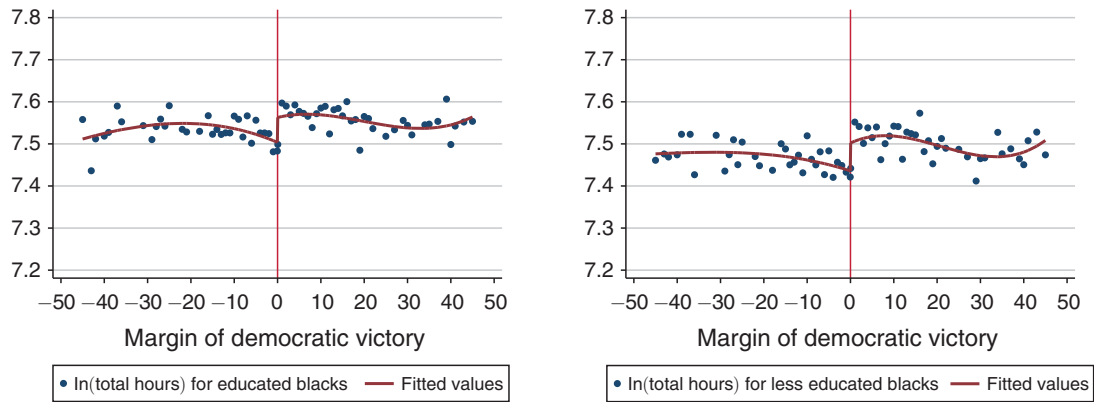


FIGURE A7. BLACKS: EDUCATED VERSUS LESS EDUCATED FOR TOTAL HOURS

*Note:* In Figure A7, educated workers are defined as having some college, a college diploma, or more.

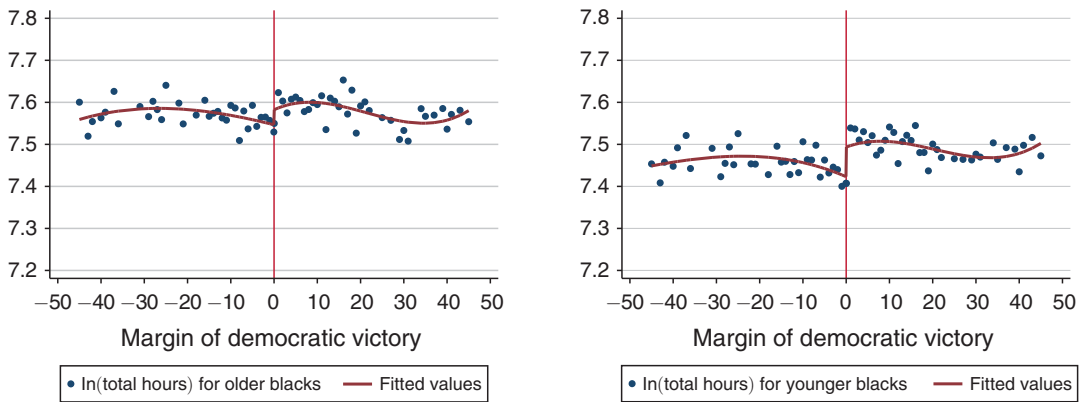


FIGURE A8. BLACKS: OLDER VERSUS YOUNGER FOR TOTAL HOURS

*Note:* In Figure A8, older workers are defined as being 40 or older.

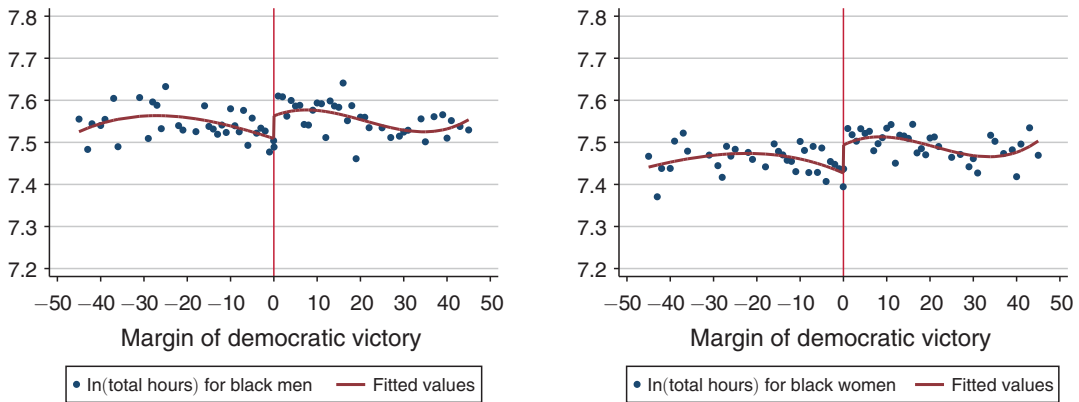


FIGURE A9. BLACKS: MEN VERSUS WOMEN FOR TOTAL HOURS

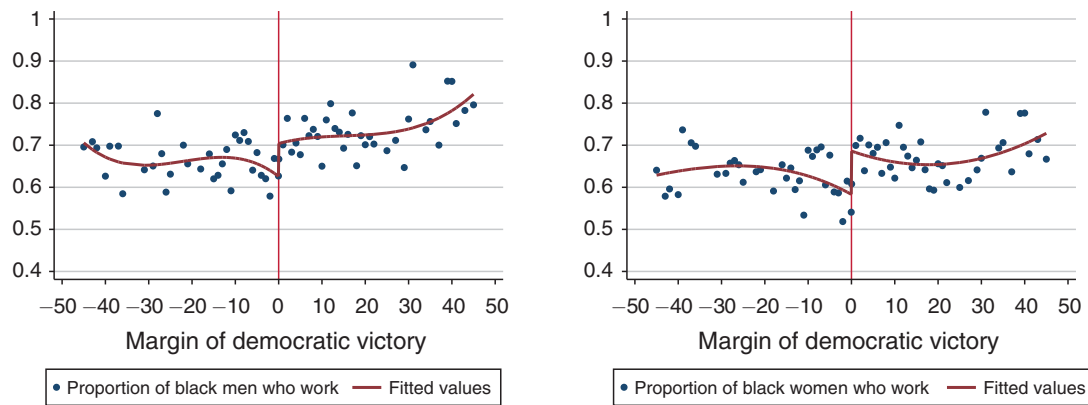


FIGURE A10. BLACKS: MEN VERSUS WOMEN FOR EMPLOYMENT

TABLE A15—RD ESTIMATES FOR TOTAL HOURS BY SUBGROUP (*education and age*)

		All	Male	Female
White	Educated	1.85 (1.36)	1.00 (1.11)	4.52* (2.49)
	Less educated	4.37** (1.97)	3.16 (1.97)	5.41* (2.95)
Black	Educated	8.51*** (2.41)	7.69** (3.00)	9.67*** (2.90)
	Less educated	10.81*** (2.99)	8.95*** (2.33)	12.40*** (3.01)
White	Younger	2.09 (1.71)	1.04 (1.67)	3.73 (2.88)
	Older	3.59** (1.44)	2.05* (1.14)	5.72** (2.63)
Black	Younger	12.06*** (2.94)	10.22** (3.87)	13.55*** (2.92)
	Older	4.63* (2.69)	3.26 (3.06)	6.08* (3.63)

*Notes:* Table A15 presents RD estimates for differential impacts based on standard covariates: gender, education, and age. The outcome variable (total hours) is expressed in log form and coefficients and standard errors (in parentheses in the table) are multiplied by 100. Results are clustered at the state level. Older workers are defined as being 40 or older. Educated workers are defined as having some college, a college diploma or more.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* March CPS data

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