

Governors' Party Affiliation and Unions*

LOUIS-PHILIPPE BELAND and BULENT UNEL

Employing a regression discontinuity (RD) approach on gubernatorial elections in the United States over the last three decades, this paper investigates the causal effects of governors' party affiliation (Democrat versus Republican) on unionization of workers, and unionized workers' working hours and earnings. Surprisingly, we find no significant impact from the party affiliation of governors on union membership and union workers' labor-market outcomes.

Introduction

Since the success of Franklin D. Roosevelt's New Deal in the 1930s, which greatly benefited labor organizations by giving workers the right to join a union, unions have shown a strong allegiance to the Democratic Party. Unions have played an important role in the Democrats' success by encouraging their members to support the party and by raising money for Democratic candidates. For instance, according to National Institute for Labor Relations Research (NILRR) estimates, unions spent about \$1.4 and \$1.7 billion in the 2010 and 2012 election cycles, respectively (NILRR 2013), and the overwhelming majority of this spending went to Democrats. In response to this strong support from unions, Democrats claim that "[F]or decades, Democrats have stood alongside labor unions in defense of fair pay and economic security."¹

In this paper, we investigate whether governors' party affiliation (Democrat versus Republican) has had any impact on unionization (and deunionization) of workers as well as their working hours and earnings. Using data on union membership in the Current Population Survey (CPS) Outgoing Rotation Group (ORG) files over 1983–2013 together with gubernatorial election results in fifty states, we address the question by exploiting random variation associated with *close* elections in a regression discontinuity (RD) design. We utilize an

JEL: J58, J31, D72.

*The authors' affiliations are, respectively, Louisiana State University, Baton Rouge, Louisiana. E-mail: lbeland@lsu.edu; and Louisiana State University, Baton Rouge, Louisiana. E-mail: bunel@lsu.edu.

¹ This is the statement on the Democratic Party's official web site (<https://www.democrats.org/>).

RD design for our analysis, because the simple ordinary least squares (OLS) approach suffers from the endogeneity problem arising from factors such as voter characteristics, party incumbency, labor-market conditions, etc. Surprisingly, we find that governors' party affiliation has had no significant effect on unionization of workers. We also find that party affiliation of governors has no impact on labor-market outcomes of unionized workers (relative to nonunionized ones).

These findings are surprising because U.S. governors have a high degree of autonomy in exercising their power in their policy choices. Governors head the executive branch, which is responsible for proposing the budget, recommending legislation, and appointing key personnel. In addition, state governments have powers to levy taxes, establish license fees, spend tax revenues, regulate businesses, manage the health-care system, and provide emergency services. By having the right to veto state bills, governors have considerable control over state policies. Several studies have documented that the party allegiance of governors has a significant impact on their actions (Alt and Lowry 2000; Beland and Oloomi 2017; Besley and Case 1995; Knight 2000, among many others). It has been shown that Democratic governors affect the labor markets of groups voting for them (target-based policies): blacks (Beland 2015) and immigrants (Beland and Unel 2017).

Party affiliation may have different effects on unionization of workers in different earning groups and we also investigate this. In the union-wage literature, several authors have found that unions compress the structure of wages in the sense that union membership increases wages in the lower end of the earning distribution and decreases wages in the upper end (see Card 1996; Frandsen 2014; and Rios-Avila and Hirsch 2014; among many others). We divide our sample into five earning groups based on predicted earning distribution, and investigate the impact of party affiliation on (de)unionization of workers and their earnings for each subgroup. We find no significant impact of the party affiliation on any earning groups.

We also investigate whether a governors' party affiliation has different effects on the unionization of skilled and unskilled workers and their corresponding labor-market outcomes. This issue is important because many economists have argued that skill-biased technical change (SBTC) is the driving factor behind the steady decline in union power in the United States.² For example, Acemoglu, Aghion, and Violante (2001) developed a model in which SBTC undermines unionization by providing better outside options for skilled

² Union power has declined considerably over the last three decades: while 25 percent of workers were union members in 1985, this fraction dropped to less than 12 percent in 2013. These statistics are calculated using the CPS data.

workers (see also Dinlersoz and Greenwood 2012). If SBTC affects skilled and unskilled workers asymmetrically, the party affiliation might then have a positive impact on unionization of unskilled workers and their labor-market outcomes. However, our analysis reveals that this is not the case.

Almost half of the states have the right-to-work (RTW) law, which prohibits agreement between employers and unions that prevent them from excluding non-union workers. It essentially gives workers the right to benefit from unions without paying for unionization, and thus the law weakens union power. Consequently, the party affiliation may matter for the unionization of workers and their labor-market outcomes in non-RTW states. We therefore restrict our sample to non-RTW states, and find that governors' party affiliation has no significant impact on unionization and related labor-market outcomes in such states, either.

One can argue that governors are more likely to make a difference if they are matched with legislatures that are from the same party. The recent passage of RTW laws in states following the election of Republican legislatures and governors lends credence to this argument. Therefore, we investigate the impact of party affiliation on unionization when both governors and legislatures are from the same party. However, our RD analysis based on this restricted sample yields qualitatively the same results.

Finally, on the methodological side, following Lee and Lemieux's (2014) checklist, we conduct an extensive set of robustness tests to evaluate the validity of our RD designs. For example, for our RD designs to be valid, the states in which Democrats barely won should be similar to the states in which they barely lost elections. In addition, party candidates should have no control over the election results. We provide evidence that supports the validity of the RD approach in the present context (see the Evaluation of the RD Design section). In sum, our results are robust to a number of different specifications, controls, and samples.

Related Studies

This paper is related to a strand of the political economy literature that explores whether partisan allegiance of policymakers matters for policy outcomes. Several studies in this literature have analyzed the impact of party affiliation of governors on taxes, minimum wages, total spending, distribution of spending, pollution, family assistance, and worker compensation in the United States (Beland and Boucher 2015; Beland and Oloomi 2017; Besley and Case 1995, 2003; Leigh 2008; Reed 2006; among many others). A growing number of studies in this literature have used RD designs to evaluate party effects in various contexts. In an influential paper, Lee, Moretti, and Butler (2004), using an RD design, found that party affiliation has a large impact on a legislator's

voting behavior.³ Beland (2015) studied whether party allegiance of governors has any differential impact on the labor-market outcomes of blacks relative to whites, and found that Democratic governors cause an increase in the annual hours worked by blacks relative to whites. Beland and Unel (2017) investigated the importance of the party affiliation of U.S. governors on immigrant workers' outcomes. They found that immigrants are more likely to be employed, work longer hours and more weeks, and have higher earnings under Democratic governors. Our paper is the first to address the impact of party affiliation on unions, using an RD design.

Our study is also related to a large empirical literature that examines effects of unions on economic outcomes. Card (1996) analyzed the effects of unions on the structure of wages, and found that unions raise wages more for workers with lower skills. Using a semiparametric approach, DiNardo, Fortin, and Lemieux (1996) found that *deunionization* along with supply and demand shocks were important factors behind the rising wage inequality in the United States from 1970 to 1980. Using establishment-level datasets in the United States during 1984–1999, DiNardo and Lee (2004) used an RD design and close union elections to estimate the impact of unionization on wages along with employment, output, and business survival, and found small-to-zero effects on the outcomes. In a recent study, Frandsen (2014) estimated the effects of unionization on establishment and worker outcomes in an RD design based on close union elections, and found that unionization significantly decreases establishment-level payroll and average worker earnings.⁴ Relatedly, Sojourner et al. (2015) examined nursing home unionization, and their RD analysis suggests that unionization increases labor productivity and quality of care per nursing hour.

Empirical Framework and Main Results

In this section, we present the empirical framework used to analyze the impact of party affiliation on unions. Next we discuss data and provide key

³ Ferreira and Gyourko (2009) exploited the random variation associated with close U.S. municipal elections between 1950 and 2000. They found that the party affiliation of mayors has no significant impact on the size of local government, the composition of local public expenditure, or crime rate. Employing an RD design on panel data from Swedish local governments, Pettersson-Lidbom (2008) found that left-wing governments spend and tax more than right-wing governments. Finally, Dell (2015) showed that drug-related violence increases substantially after *close* elections of Mexico's conservative PAN party's mayors.

⁴ Other important contributions to this literature are Card (2001), Hirsch and Schumacher (1998), Gosling and Lemieux (2001), Rios-Avila and Hirsch (2014), among many others. See Card, Lemieux, and Ridell (2004) for an early review of this literature.

summary statistics about individual characteristics and union membership. Finally, we report our results and discuss their implications.

Econometric specification. We employ a regression discontinuity (RD) design to determine the effect of party affiliation of U.S. governors on unionization of workers. Because several factors, such as labor-market conditions, voter characteristics, party incumbency, etc. can also affect election results, the results based on simple OLS will be biased. Following Lee (2008), we address the endogeneity problem by exploiting random variations associated with *close* elections.⁵

We begin our analysis by estimating the causal impact of party affiliation on union membership status. Let U denote a dummy variable such that $U_{ist} = 1$ if individual i in state s at time t is a union member, and is 0 otherwise. We estimate the following specification:

$$U_{ist} = \beta_D D_{st} + F_D(MV_{st}) + \beta_X X_{ist} + \beta_s + \beta_t + \varepsilon_{ist} \quad (1)$$

where D is the treatment variable that equals 1 if a Democratic governor is in power, 0 otherwise; $F(MV)$ is a polynomial function of the margin of victory MV ; X denotes a vector of control variables; β_s and β_t denote state and time fixed effects, respectively; and ε the error term.⁶ The coefficient of interest is β_D .

The set of control variables, X , includes each individual's gender, race, age, marital status, and education.⁷ We define MV as the percentage of votes cast for the winner minus the percentage of votes cast for the second-place candidate, and MV_{st} denotes the margin of victory in the most recent gubernatorial election in state s .⁸ We exclude all elections where a third-party candidate won, and set the election where the Democratic candidate won to be positive and negative otherwise.

The cutoff point for the MV is 0 percent, and thus a positive (negative) MV indicates that a Democratic (Republican) governor won. Following Gelman and Imbens (2014), we assume that $F_f(MV)$ is a second-order polynomial function and use a parametric regression discontinuity approach to

⁵ As discussed in the previous section, exploiting variations in *close* elections is used in several other election contexts (see, e.g., Lee, Moretti, and Butler 2004; Ferreira and Guyourko 2009, 2014; Dell 2015; and Beland 2015; among many others).

⁶ We also considered the above specification at state-year and state-term levels. Results are presented in Appendix B. In these cases, our dependent variable U_{st} denotes the fraction of workers who are union members in state s and year (term) t . Results based on these alternative specifications are qualitatively the same as those obtain from equation (1). We prefer to report results based on equation (1), because having more controls and a substantially higher number of observations will make point estimates more precise.

⁷ Our regressions include dummies for sex, marital status, three race dummies, four education dummies, and a quartic in age.

⁸ For Texas, for example, 2006 election results (the political party of the winner and the margin of victory) are used in regressions for 2007–2010 years.

estimate equation (1).⁹ To account for possible serial correlation, standard errors are clustered at the state level.¹⁰

Estimates based on specification (1) essentially measure the *net* impact of party affiliation on union membership. As a complementary analysis, we are also interested in the impact of party affiliation on individuals' entry to and exit from unions, i.e. unionization and deunionization at the individual level. We take advantage of the CPS Merged Outgoing Rotation Group (MORG) data, which allows us to match individuals in two adjacent years, and thus we can record entries to and exits from unions for each year a governor is in power.¹¹ We then define

$$U_{ist}^+ = \begin{cases} 0 & \text{if } U_{ist} = 0, U_{ist+1} = 0 \\ 1 & \text{if } U_{ist} = 0, U_{ist+1} = 1 \end{cases}, \quad U_{ist}^- = \begin{cases} 0 & \text{if } U_{ist} = 1, U_{ist+1} = 1 \\ 1 & \text{if } U_{ist} = 1, U_{ist+1} = 0 \end{cases}. \quad (2)$$

That is, U^+ is a dummy variable that identifies individuals who are not a union member in one year but become a union member in the next year. Similarly, U^- is a dummy that identifies individuals who are a union member in one year but are not a member in the next year. In sum, U^+ is dummy for entry to the union, and U^- is a dummy for exit from the union in each year. We then estimate the following specification:

$$U_{ist}^j = \beta_D D_{st} + F_D(MV_{st}) + \beta_X X_{ist} + \beta_s + \beta_t + \varepsilon_{ist}, \quad (3)$$

where $j = +, -$.

Finally, we investigate whether party affiliation has any differential effects on the labor-market outcomes of unionized workers relative to those who are not union members. We use hours worked per week, weekly income, and hourly income as labor-market outcomes. Let Y be a labor-market outcome, we then estimate the following specification:

$$Y_{ist} = \beta_D D_{st} + \beta_U U_{ist} + \beta_{DU} D_{st} * U_{ist} + F_D(MV_{st}) + \beta_X X_{ist} + \beta_s + \beta_t + \varepsilon_{ist}, \quad (4)$$

⁹ Our main specification uses parametric regression discontinuity, which assigns more weights to elections closer to the discontinuity. Following Ferreira and Gyourko (2009) and Beland (2015), our parametric regression discontinuity analysis excludes all elections in which the winning candidates won by more than 50 percent. We also explore that our results are not driven by this choice using different thresholds. Table A.7 reports results based on regressions where we exclude elections won by more than 5 percent, 15 percent, 25 percent, and 35 percent. Results are qualitatively the same.

¹⁰ We replicated Tables 1 and 2 using clustering at the state-term level. Results are qualitatively the same with no statistically significant impact. We present this in Appendix Tables A.9 and A.10.

¹¹ However, the data are not in a panel structure: an individual first interviewed in year t will be interviewed in year $t + 1$, but after that she will be dropped from the sample.

where U_{ist} equals 1 if individual i in state s at time t is a union member, 0 otherwise. The coefficient β_D measures the impact of Democratic governors on labor-market outcomes of nonunionized workers, whereas the coefficient β_{DU} measures the impact of Democratic governors on labor-market outcomes of union members (i.e., $U_{ist} = 1$) relative to that of nonunionized workers (i.e., $U_{ist} = 0$).

In our main analysis, we estimate the above equations using all data. However, we later present results using different samples based on income and skill distributions. Before presenting the results, we now turn to a discussion of the data that we use in our analysis.

Data. The source of our labor data is the monthly Current Population Survey (CPS) MORG files from Unicon Research Corporation (2015) covering 1983 to 2013.¹² Our sample consists of all wage and salary workers, ages between 16 and 64 years old. We exclude self-employed workers as well as those covered by a collective bargaining agreement who are not union members. We also exclude all workers with allocated union status, weekly hours, and weekly earnings.¹³ Earnings are converted into real values (in 2009-chained prices) using the personal consumption expenditure (PCE) index from the U.S. Bureau of Economic Analysis (2014). We multiply top-coded earnings by 1.5 and workers with (real) income below \$3.65 per hour and above \$150 per hour are dropped (following Autor, Katz, and Kearney [2008] and Hirsch and Schumacher [1998]). In all our calculations and estimates, we use CPS weights.

The data are sorted into three races (black, white, and other), marital status, and five education categories (less than high school, high school graduate, some college, college graduate, and advanced degree). We also record each individual's union-membership status (denoted by U_{ist}) as well as the industry in which she works, and worker class.¹⁴ The fraction of all wage and salary workers who are union members has been steadily decreasing in the United States from about 20 percent in 1983 to 11 percent in 2013. Despite this dramatic decline in union membership, unionization has still remained strong in certain occupations. For instance, the unionization rates among teachers and

¹² Our time period is dictated by the availability of the data on unions.

¹³ Dropping imputed earnings figures is not a straightforward exercise. In doing so, we closely follow Hirsch and Schumacher (2004), Bollinger and Hirsch (2006), and in particular, Western and Rosenfeld (2011).

¹⁴ We classify workers as private or public employees. In estimating equations (1) and (2), we don't include industry dummies due to the fact that this variable is endogenously determined. However, including industry into the models do not have any significant impact on the results. Results are presented in Appendix B.

TABLE A.1
IMPACT OF PARTY AFFILIATION ON UNIONIZATION

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0025 (0.0031)	0.0010 (0.0013)	-0.0059 (0.0090)
Obs.	1,803,391	1,050,769	206,657

construction and extraction workers in 2013 were about 49 and 19 percent, respectively.¹⁵ Table A.1 shows summary statistics for main outcomes and workers' characteristics. According to this table, union members are more likely to be male, married, older, and with higher earnings.

To estimate equation (3), in each year we need to identify new union members and those who exit from unions. As briefly mentioned in the previous section, the CPS ORG data allow us to match individuals in two adjacent years. The CPS does not have individual identifiers, but it contains a household identification number and record line numbers. Uniquely matched pairs were identified with identical household ID, record lines, survey month, sex, and race (Card 1996; Schumacher 1999). We only consider individuals with a schooling difference in two successive years less than one year and an age difference less than two.¹⁶ Once we match individuals in two successive years, we can easily identify individuals entering to or exiting from unions in each year. Using this information, we construct the dummy variables U_{ist}^+ and U_{ist}^- defined in equation (2).

The data on gubernatorial elections are from the *Atlas of U.S. Presidential Elections* (Leip 2015) and the Inter-university Consortium for Political and Social Research 7757 (1995) files. In each state and year, we record the governor's party affiliation and the year she was most recently elected. From 1983–2013, there are 1444 state \times year observations, of which Democrats governed 729 times, which is about 50 percent of the sample (see Table A.2). As discussed in the previous section, we define the margin of victory (MV) (in each

¹⁵ Our definition of teachers includes elementary and middle school teachers, secondary school teachers, and special education teachers. In the CPS sample, there are individuals who are members of some collective bargaining units that are not unions. In our analysis, we exclude these individuals. However, replicating the main analysis (Table 1) for these collective members yields similar results. Results are presented in Appendix B.

¹⁶ Our definition of teachers includes elementary and middle school teachers, secondary school teachers, and special education teachers. In the CPS sample, there are individuals who are members of some collective bargaining units that are not unions. In our analysis, we exclude these individuals. However, replicating the main analysis (Table 1) for these collective members yields similar results. Results are presented in Appendix B.

TABLE 1.B
IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0023 (0.0063)	-0.0043 (0.0059)	0.0017 (0.0027)
U[nion]	0.2000*** (0.0108)	0.1980*** (0.0113)	0.0436*** (0.0051)
D×U	0.0024 (0.0157)	0.0010 (0.0160)	0.0047 (0.0036)
Obs.	1,501,291	1,501,291	1,501,291

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; ***represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

election in each state) as the percentage of votes cast for the winner minus the percentage of votes cast for the second-place candidate; and we keep only elections in which either a Democrat or Republican won. For Louisiana, a Democratic governor was elected in 2003 with a 3.9 percent MV and held the office between 2004 and 2007; as a result, MV of 3.9 percent is used in regressions for the years 2004–2007.

Main results. We begin our analysis by providing some graphical evidence on (insignificant) effects of governors’ party affiliation on unionization and related labor-market outcomes for union workers. Figures 1.a–1.f show the implications of the discontinuity at the cutoff point where a party barely wins the election. Figures 1.a–1.c suggest that party affiliation has no significant impact on workers’ (de)unionization. Figures 1.d–1.f show the impact of governors’ party affiliation on labor-market outcomes of unionized workers. These graphs do not show any discernible changes around the cutoff point, implying that gubernatorial party affiliation has not had any impact on earnings or weekly hours worked of unionized workers.

We now turn to estimate the effect of party allegiance on these key variables using the RD designs outlined in the previous section. Table A.1. reports the impact of party affiliation on union membership, unionization, and deunionization of workers using RD designs.¹⁷ According to the RD estimates, the Democratic Party has no significant impact on union membership, unionization, and deunionization of workers.¹⁸

¹⁷ Using data on union membership at the state-year and state-term levels yields qualitatively similar results to that reported in “Union Membership” column in Table 1.A. Results are presented in Appendix B.

¹⁸ The results based on OLS estimates are qualitatively similar to those in Tables 1.A. and 1.B. Results are presented in Appendix B.

FIGURE 1

THE IMPACT OF DEMOCRATIC GOVERNORS ON LABOR MARKETS

[COLOR FIGURE CAN BE VIEWED AT WILEYONLINELIBRARY.COM]

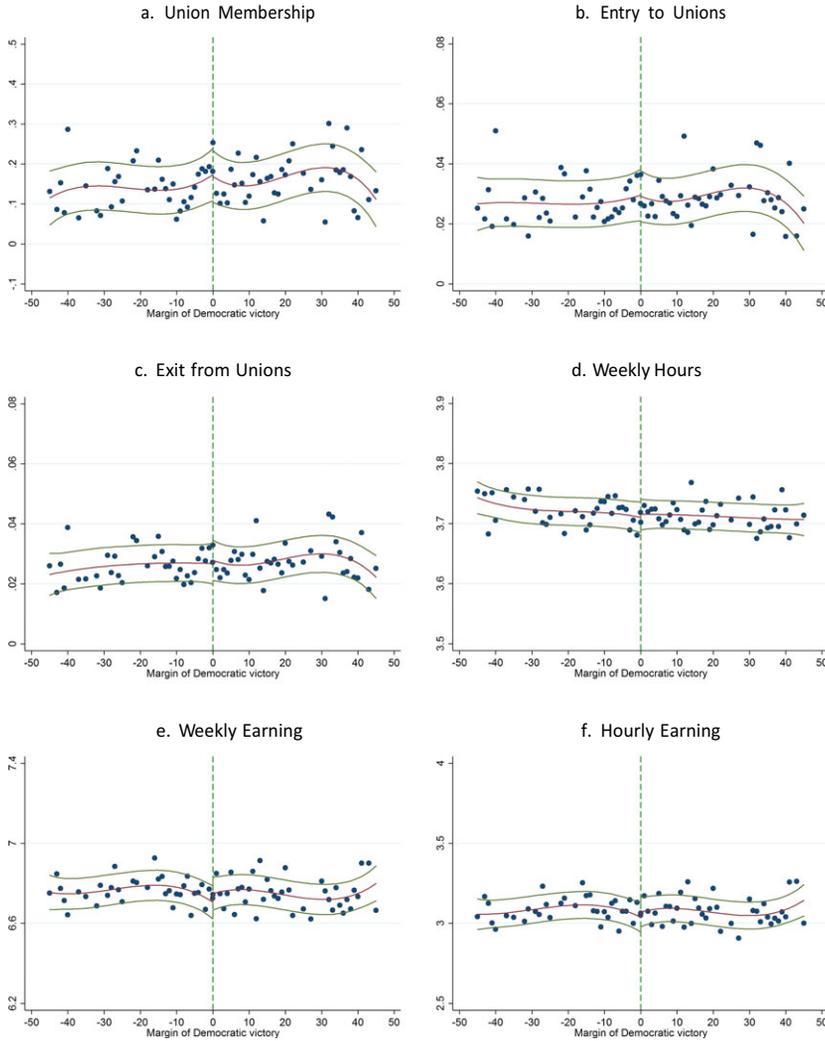


Table 1.B. presents the impact of party affiliation on labor-market outcomes of unionized workers. The estimated coefficients for U[nion] in Table 1.B imply that union members on average work longer and earn higher wages. Findings that union members earn a higher income may reflect the fact that unions bargain for wages that are above the market level. The coefficient of

interest is β_{DU} . Note that the estimated coefficient on $D \times U$ is insignificant in all specifications, suggesting that governors' party affiliation has not had any significant effect on the labor-market outcomes of unionized workers relative to those who did not unionize.

Sensitivity Analysis

This section investigates how robust our results are to a number of different specifications. We consider two types of sensitivity analyses: robustness of our results to different samples and conditioning variables, and robustness of our RD designs to different specifications.

Different samples and additional conditional variables. We begin our analysis by investigating how party affiliation affects unionization and labor-market outcomes of workers in different income groups. Such an extension is important because several studies have provided evidence that unions compress the structure of wages. For instance, Frandsen (2014) compared workers' earnings before and after close union elections, and found evidence that unionization has positive effects in the lower end and negative effects in the higher end of the earning distribution (see also Card 1996; DiNardo, Fortin, and Lemieux 1996).

Following Card (1996), income groups are determined using the predicted earning distribution, which is obtained by regressing in each year, $\log(\text{weekly earnings})$ on gender; marital status; and the dummy variables for four education categories, three race dummies, a quartic in age, industry dummies, occupation dummies, and state and time fixed effects.¹⁹ $Inw_{ist} = X_{ist} + Ind_{ist} + Occp_{ist} + \beta_s + \beta_t + \varepsilon_{ist}$ We next sort individuals based on the predicted earning distribution into the following five income groups (measured in percent): 0–20, 20–40, 40–60, 60–80, and 80–100. We then estimate equations (1), (3), and (4) for each of these income groups, and Table 2 reports the results.

Several interesting points in this table are worth noting. First, party affiliation has no impact on (de)unionization of workers. Second, except for the last column, the estimated coefficients on union in earning regressions are significant and positive for all income groups (see Panels E and F). They are negative and statistically significant for the highest income group [80–100], and these findings are in line with Dinardo, Fortin, and Lemieux (1996) and Frandsen (2014). Finally, the estimated coefficient for $D \times U$ is insignificant in all regressions, suggesting that governors' party affiliation has had no significant

¹⁹ More specifically, for each year we run the following regression

TABLE 2

IMPACT OF PARTY AFFILIATION ON UNIONIZATION, DIFFERENT INCOME GROUPS

Variable	[0–20] I	[20–40] II	[40–60] III	[60–80] IV	[80–100] V
<i>Panel A. Union Membership</i>					
D[emocrat]	0.0005 (0.0024)	0.0036 (0.0046)	0.0065 (0.0043)	0.0039 (0.0068)	0.0027 (0.0031)
Obs.	360,152	335,717	285,992	420,802	400,728
<i>Panel B. Entry to Unions (Unionization)</i>					
D[emocrat]	0.0009 (0.0025)	0.0015 (0.0018)	0.0040* (0.0021)	0.0004 (0.0027)	–0.0015 (0.0016)
Obs.	226,173	199,905	167,521	208,727	248,432
<i>Panel C. Exit from Unions (Deunionization)</i>					
D[emocrat]	–0.0016 (0.0149)	–0.0099 (0.0123)	–0.0115 (0.0128)	–0.0050 (0.0073)	0.0102 (0.0142)
Obs.	20,738	28,982	27,303	86,969	42,666
<i>Panel D. Hours per Week</i>					
D[emocrat]	–0.0004 (0.0069)	0.0044 (0.0046)	–0.0026 (0.0035)	0.0004 (0.0031)	0.0035 (0.0026)
U[nion]	0.1221*** (0.0087)	0.0927*** (0.0108)	0.0375*** (0.0057)	0.0236*** (0.0023)	–0.0109** (0.0050)
D×U	0.0091 (0.0093)	0.0029 (0.0079)	0.0089 (0.0066)	0.0009 (0.0031)	0.0004 (0.0056)
<i>Panel E. Weekly Earning</i>					
D[emocrat]	–0.0056 (0.0093)	–0.0068 (0.0089)	–0.0031** (0.0061)	–0.0067 (0.0059)	0.0033 (0.0063)
U[nion]	0.2346*** (0.0104)	0.2248*** (0.0128)	0.2161*** (0.0125)	0.2853*** (0.0138)	–0.0482*** (0.0098)
D×U	0.0007 (0.0097)	–0.0071 (0.0101)	0.0033 (0.0197)	–0.0085 (0.0102)	–0.0073 (0.0141)
<i>Panel F. Hourly Earning</i>					
D[emocrat]	–0.0057 (0.0077)	–0.0079 (0.0070)	0.0013 (0.0075)	–0.0082 (0.0062)	–0.0017 (0.0059)
U[nion]	0.2124*** (0.0091)	0.1942*** (0.0166)	0.2112*** (0.0112)	0.2740*** (0.0132)	–0.0267** (0.0106)
D×U	–0.0036 (0.0129)	–0.0112 (0.0132)	–0.0036 (0.0158)	–0.0075 (0.0090)	–0.0049 (0.0118)
Obs	502,104	497,541	476,187	501,634	512,892

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; ***, **, and * represent statistical significance at the 1-, 5-, and 10-percent level, respectively. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

impact on labor-market outcomes of unionized workers (relative to nonunionized ones).

Several authors have argued that SBTC has been the driving factor behind rapid deunionization in the United States over the past three decades (Acemoglu, Aghion, and Violante 2001; Dinlersoz and Greenwood 2012). According to these studies, SBTC undermines the coalition among skilled and unskilled workers by providing better outside options to skilled workers. With

TABLE 3.A
IMPACT OF PARTY AFFILIATION ON UNIONIZATION, DIFFERENT SKILL GROUPS

Variable	Union Membership	Entry to Union	Exit from Union
<i>Panel A. Skilled Workers</i>			
D[emocrat]	0.0080 (0.0050)	-0.0077* (0.0040)	0.0118 (0.0225)
Obs.	476,787	299,918	62,898
<i>Panel B. Unskilled Workers</i>			
D[emocrat]	0.0011 (0.0033)	-0.0069 (0.0044)	-0.0040 (0.0155)
Obs.	1,326, 602	750,851	143,759

this structural transformation stemming from directed technical change, how do our results change if we consider these two groups separately? Table 3.A shows that Democratic governors have a negative and barely significant impact on only the unionization of skilled workers (at 10 percent), and their impact on other outcomes of either group is insignificant. Table 3.B presents the impact of the party affiliation on the labor-market outcomes of skilled and unskilled workers. Note that none of the coefficients for the interaction term $D \times U$ are significant.

TABLE 3.B
IMPACT OF PARTY AFFILIATION ON LABOR MARKETS, DIFFERENT SKILL GROUPS

Variable	Weekly Earning	Hourly Earning	Hours per Week
<i>Panel A. Skilled Workers</i>			
D[emocrat]	0.0033 (0.0074)	-0.0023 (0.0070)	0.0018 (0.0029)
U[nion]	0.0037 (0.0092)	0.0052 (0.0107)	0.0258*** (0.0079)
$D \times U$	-0.0073 (0.0131)	-0.0065 (0.0128)	0.0018 (0.0048)
Obs.	369,768	369,768	369,768
<i>Panel B. Unskilled Workers</i>			
D[emocrat]	-0.0054 (0.0072)	-0.0055 (0.0070)	0.0011 (0.0031)
U[nion]	0.2757*** (0.0107)	0.2694*** (0.0114)	0.0491*** (0.0043)
$D \times U$	0.0009 (0.0128)	-0.0001 (0.0134)	0.0052 (0.0039)
Obs.	1,114,017	1,114,017	1,114,017

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** and * represent statistical significance at the 1-, and 10-percent level, respectively. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

Almost half of U.S. states have a RTW law, which essentially gives employees the right to benefit from unions without paying for it.²⁰ Because the RTW law allows employees to benefit from unions without having to join, unions are weaker in RTW states. In the present context, this further suggests that party affiliation might have a stronger impact on union membership and labor-market outcomes in non-RTW states.²¹ Tables 4.A and 4.B report the regression results (based on equations (1), (3), and (4)) for non-RTW states. According to Table 4.A, the estimated coefficients for D[emocrat] are small and statistically insignificant, i.e., Democratic governors have no impact on union membership and (de)unionization of workers in non-RTW states either. Table 4.B presents the results for the impact of Democratic governors on

TABLE 4.A
IMPACT OF PARTY AFFILIATION ON UNIONIZATION, NON-RTW STATES

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0053 (0.0036)	0.0010 (0.0013)	-0.0059 (0.0090)
Obs.	1,110,867	1,050,769	206,657

TABLE 4.B
IMPACT OF PARTY AFFILIATION ON LABOR MARKETS, NON-RTW STATES

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0007 (0.0117)	-0.0006 (0.0107)	-0.0032 (0.0037)
U[nion]	0.1914*** (0.0149)	0.1952*** (0.0151)	0.0388*** (0.0056)
D×U	-0.0051 (0.0201)	-0.0089 (0.0196)	0.0071* (0.0040)
Obs.	919,964	919,964	919,964

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** and * represent statistical significance at the 1- and 10-percent level, respectively. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

²⁰ In 2014, the states that had this law were: Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Louisiana, Michigan, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming. Indiana and Michigan passed the law in 2012, and Wisconsin in 2015. Because our time period covers 1983–2013, we do not include them into the RTW states. Idaho passed this law in 1985, so we exclude it from our sample that covers only non-RTW states.

²¹ Wages in RTW states are about 10 percent lower than those in non-RTW states, whereas the unemployment rate is lower in RTW states (Eren, Onda, and Unel 2016).

labor-market outcomes of unionized workers in non-RTW states relative to nonunionized workers. They have a very small, positive, and (barely) significant effect on weekly hours worked by unionized workers relative to nonunionized workers, but no effects on other outcome variables.

The recent passage of the RTW law in states in which governors and legislatures are of the same party suggest that the impact of Democratic governors could be more significant if they are matched with a Democratic legislatures. To see whether this is the case, we restrict our sample to the state-time observations in which governors and legislatures are from the same party. The results as shown in Tables 5.A and 5.B indicate that even when governors and legislatures are from the same party, the impact of governors' party affiliation on unionization and labor-market outcomes are insignificant.

We also estimate specifications (1), (3), and (4) considering only individuals working in the public sector. Tables 6.A and 6.B report results, and their comparisons with those in Tables 1.A and 1.B indicate that this restriction has no significant impact on the results.²² Furthermore, as a complementary

TABLE 5.A
UNIONIZATION: LEGISLATURES AND GOVERNORS FROM THE SAME PARTY

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0038 (0.0041)	-0.0001 (0.0016)	-0.01199 (0.0116)
Obs	763,412	454,544	75,688

TABLE 5.B
OUTCOMES: LEGISLATURES AND GOVERNORS FROM THE SAME PARTY

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	0.0060 (0.0062)	0.0038 (0.0059)	0.0061 (0.0043)
U[nion]	0.2085*** (0.0118)	0.2036*** (0.0123)	0.0466*** (0.0052)
D×U	-0.0049 (0.0160)	-0.0045 (0.0190)	-0.0001 (0.0043)
Obs.	644,652	644,652	644,652

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

²² Running the same regressions considering only private-sector workers yielded qualitatively the same results. Results are presented in Appendix B.

TABLE 6.A
UNIONIZATION: PUBLIC SECTOR

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0120 (0.0076)	0.0025 (0.0048)	-0.0097 (0.0087)
Obs.	304,698	135,138	95,084

TABLE 6.B
OUTCOMES: PUBLIC SECTOR

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	0.0006 (0.0112)	0.0038 (0.0127)	-0.0009 (0.0043)
U[nion]	0.1957*** (0.0087)	0.1409*** (0.0081)	0.1213*** (0.0060)
D×U	-0.0222 (0.0145)	0.0203 (0.0126)	0.0015 (0.0062)
Obs.	235,519	235,519	235,519

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). The sample contains only public-sector workers.

analysis, we restrict our sample by considering occupations with high unionization rates (e.g., teachers, construction workers, government employees, police, and firefighters). Results, presented in Appendix B, are qualitatively similar to our benchmark results.

Finally, we investigate the impact of party affiliation excluding states that consistently elect a governor from a single party. More specifically, we include only states in which both Democrats and Republicans were in office at least 30 percent of the time over the period 1983–2013. Tables A.3.A and A.3.B in Appendix A report the results, which are similar to those presented in Tables 1.A and 1.B.

Evaluation of the RD design. The validity of our regression results presented in the previous sections depends on whether our RD approach is a valid way to evaluate the impact of party affiliation on unions and their members' labor-market conditions. This section addresses this question, and to this end we follow a checklist proposed by Lee and Lemieux (2010, 2014). First, a crucial assumption in our RD designs is that states in which Democrats marginally won elections must be similar to states in which they marginally lost

elections. To test the validity of this assumption, we use key characteristics of workers in the state (race, education, gender, age, marital status) and outcomes (labor and union membership) in the previous electoral term as our dependent variables in pooled regressions to determine whether Democratic governors have any significant effects. As shown in Table A.4, the estimated coefficients on D[emocrat] are all insignificant, and the p-value of the joint hypothesis is 0.320. These findings suggest that the above identification assumption is not violated and give confidence in the validity of our RD design.

Another important assumption about the validity of our RD approach is that candidates should not have any control over the election results. One quick way to determine the validity of this assumption in our framework is to look at the histogram of the MV. If a candidate had control over the election results, we should observe unusual jumps around the cutoff point (i.e., zero) and/or distribution of the MV skewed toward one party. According to Figure 2.a, none of the aforementioned anomalies is present. A more precise way to assess the validity of this assumption is to use the McCrary (2008) test. Figure 2.b plots the density function of the MV based on the procedure in McCrary (2008), and there are no unusual jumps around the cutoff.

Third, we need to show that our results are robust to different orders of the polynomials, local- linear regressions, and different bandwidths. Tables A.5.A and A.5.B in Appendix A present the results based on the first-order and third-order polynomials, and the results presented in these tables are qualitatively the same as those in Tables 1.A and 1.B. We also investigated the robustness of our results using local-linear RD, optimal bandwidth procedures of Imbens and Kalyanaraman (2012) using a triangular kernel. Results are similar if we use the procedure of Calonico, Cattaneo, and Titiunik (2014).

FIGURE 2

DISTRIBUTION OF THE MARGIN OF VICTORY.

[COLOR FIGURE CAN BE VIEWED AT WILEYONLINELIBRARY.COM]

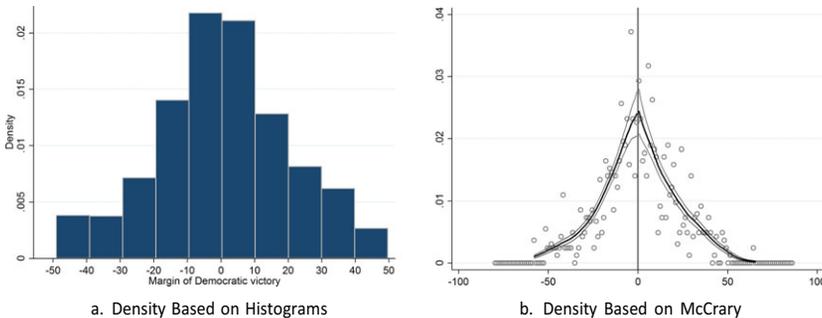


Table A.6 in Appendix A presents the results for the local-linear specifications using grouped data by state and year, and note that estimated coefficients are qualitatively similar to those in our benchmark results. Another important sensitivity check is to see how robust our results are to the exclusion of an election with a large MV (away from discontinuity). Following Ferreira and Gyourko (2009) and Beland (2015), our main specification uses parametric regression discontinuity analysis excluding all elections in which the winning candidate won by more than 50 percent. We also explore that our results are not driven by this choice using different thresholds. Table A.7 reports results based on specifications in which we exclude elections won by more than 5 percent, 15 percent, 25 percent, and 35 percent. These results are qualitatively the same as our main results. Finally, we replicated Tables 1 and 2 using clustering at the state-term level. Results are qualitatively the same with no statistically significant impact. We present these results in Tables A.8 and A.9 in Appendix A.

Conclusion

For decades, unions have been strong supporters of the Democratic Party. They have rallied their members to vote for Democrats and funneled money to Democratic candidates so that they could win elections. Intuition suggests that the steady and strong support from unions stems from the Democratic Party's positive effects on unions. But how significant have been the effects of Democrats on unions?

In this paper, we investigate the causal impact of U.S. governors' party affiliation on organized-labor markets (i.e., unions). To deal with the endogeneity of party affiliation of governors, we implement a RD design using data on gubernatorial elections in U.S. states between 1983 and 2013. Exploiting the variation in close elections, we find no significant impact of party affiliation on union status of workers. Furthermore, we find no impact of gubernatorial party affiliation on unionized workers' labor-market outcomes. Our sensitivity analysis confirms our basic conclusion: contrary to the common perception, Democratic governors have not had any significant positive impact on unions.

REFERENCES

- Acemoglu, Daron, Philippe Aghion, and Giovanni L. Violante. 2001. "Deunionization, Technical Change, and Inequality." *Carnegie-Rochester Conference Series on Public Policy* 55: 229–64.
- Alt, James E., and Robert C. Lowry. 2000. "A Dynamic Model of State Budget Outcomes under Divided Partisan Government." *The Journal of Politics* 62: 1035–69.

- Autor, David H., Lawrence F. Katz, and Melissa S. Kearney. 2008. "Trends in U.S. Wage Inequality: Revisiting the Revisionists." *Review of Economics and Statistics* 90: 300–23.
- Beland, Louis-Philippe. 2015. "Political Parties and Labor Market Outcomes: Evidence from U.S. States." *American Economic Journal: Applied Economics* 7(4): 198–220.
- , and Vincent Boucher. 2015. "Polluting Politics." *Economics Letters* 137: 176–81.
- , and Sara Oloomi. 2017. "Party Affiliation and Public Spending: Evidence from US Governors." *Economic Inquiry* 55: 982–95. <https://doi.org/10.1111/ecin.12393>.
- , and Bulent Unel. 2017. "The Impact of Party Affiliation of U.S. Governors on Immigrants' Labor-Market Outcomes." *Journal of Population Economics*. <https://doi.org/10.1007/s00148-017-0663-y>
- Besley, Timothy, and Anne Case. 1995. "Does Electoral Accountability Affect Economic Policy Choices? Evidence from Gubernatorial Term Limits." *The Quarterly Journal of Economics* 110: 769–98.
- , and ———. 2003. "Political Institutions and Policy Choices: Evidence from the United States." *Journal of Economic Literature* 41: 7–73.
- Bollinger, Christopher R., and Barry T. Hirsch. 2006. "Match Bias From Earnings Imputation in the Current Population Survey: The Case of Imperfect Matching." *Journal of Labor Economics* 24: 483–519.
- Calonico, Sebastian, Matias D. Cattaneo, and Rocio Titiunik. 2014. "Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs." *Econometrica* 82(6): 2295–326.
- Card, David. 1999. "The Effect of Unions on the Structure of Wages: A Longitudinal Analysis." *Econometrica* 64: 957–79.
- . 2001. "The Effect of Unions on Wage Inequality in the U.S. Labor Market." *Industrial and Labor Relations Review* 54: 296–315.
- , Thomas Lemieux, and W. Craig Riddell. 2004. "Unions and Wage Inequality." *Journal of Labor Research* 25: 519–59.
- Dell, Melissa. 2015. "Trafficking Networks and the Mexican Drug War." *American Economic Review* 105 (6): 1738–79.
- DiNardo, John, and David S. Lee. 2004. "Economic Impacts of New Unionization on Private Sector Employers: 1984–2001." *The Quarterly Journal of Economics* 119: 1383–441.
- , Nicole M. Fortin, and Thomas Lemieux. 1996. "Labor Market Institutions and the Distribution of Wages, 1973–1992: A Semiparametric Approach." *Econometrica* 64: 1001–44.
- Dinlersoz, Emin M., and Jeremy Greenwood. 2012. "The Rise and Fall of Unions in the U.S." NBER Working Paper 18079. Cambridge, MA: National Bureau of Economic Research.
- Eren, Ozkan, Masayuki Onda, and Bulent Unel. 2016. "Effects of FDI on Entrepreneurial Activity: Evidence from Right-to-Work and Non-Right-to-Work States." LSU Working Paper. Baton Rouge, LA: Louisiana State University.
- Ferreira, Fernando, and Joseph Gyourko. 2009. "Do Political Parties Matter? Evidence from U.S. Cities." *The Quarterly Journal of Economics* 124(1): 399–422.
- , and ———. 2014. "Does Gender Matter for Political Leadership? The Case of US Mayors." *Journal of Public Economics* 112: 24–39.
- Frandsen, Brigham R. 2014. "The Surprising Impacts of Unionization: Evidence from Matched Employer-Employee Data." BYU Working Paper. Provo, UT: Brigham Young University.
- Gelman, Andrew, and Guido Imbens. 2014. "Why High-Order Polynomials Should Not Be Used in Regression Discontinuity Designs." NBER Working Paper 20405. Cambridge, MA: National Bureau of Economic Research.
- Gosling, Amanda, and Thomas Lemieux. 2001. "Labour Market Reforms and Changes in Wage Inequality in the United Kingdom and the United States." Working Paper 8413. Cambridge, MA: National Bureau of Economic Research.
- Hirsch, Barry T., and Edward J. Schumacher. 1998. "Unions, Wages, and Skills." *The Journal of Human Resources* 33: 201–19.
- Imbens, Guido, and Karthik Kalyanaraman. 2012. "Optimal Bandwidth Choice for the Regression Discontinuity Estimator." *The Review of Economic Studies* 79: 933–59.
- Inter-university Consortium for Political and Social Research (ICPSR). 1994. *Candidate and Constituency Statistics of Elections in the United States, 1788–1990*. ICPSR07757-v5. Ann Arbor, MI: Author. <https://doi.org/10.3886/icpsr07757.v5>

- Jensen, Jennifer M., and Thad Beyle. 2003. "Of Footnotes, Missing Data, and Lessons for 50-State Data Collection: The Gubernatorial Campaign Finance Data Project, 1977–2001." *State Politics & Policy Quarterly* 3(2): 203–14.
- Knight, Brian. 2000. "Supermajority Voting Requirements for Tax Increases: Evidence from the States." *Journal of Public Economics* 76: 41–67.
- Lee, David S.. 2008. "Randomized Experiments from Non-random Selection in U.S. House Elections." *Journal of Econometrics* 142(2): 675–97.
- Lee, David, and Thomas Lemieux. 2010. "Regression Discontinuity Designs in Economics." *Journal of Economic Literature* 48(2): 281–355.
- , and ———. 2014. "Regression Discontinuity Designs in Social Sciences." In *The SAGE Handbook of Regression Analysis and Causal Inference*, edited by Henning Best and Christof Wolf, pp. 301–27. Thousand Oaks, CA: SAGE Publications.
- , Enrico Moretti, and Matthew J. Butler. 2004. "Do Voters Affect or Elect Policies? Evidence from the U. S. House." *The Quarterly Journal of Economics* 119: 807–59.
- Leigh, Andrew. 2008. "Estimating The Impact of Gubernatorial Partisanship on Policy Settings and Economic Outcomes: A Regression Discontinuity Approach." *European Journal of Political Economy* 24 (1): 256–68.
- Leip, David. 2015. "Dave Leip's Atlas of U.S. Presidential Elections. <http://uselectionatlas.org> (accessed December 30, 2017).
- McCrary, Justin. 2008. "Manipulation of the Running Variable in the Regression Discontinuity Design: A Density Test." *Journal of Econometrics* 142: 698–714.
- National Institute for Labor Relations Research (NILRR). 2013. *Big Labor Spent \$1.7 Billion on Electioneering*. Washington DC: Author.
- Pettersson-Lidbom, Per. 2008. "Do Parties Matter for Economic Outcomes? A Regression-Discontinuity Approach." *Journal of the European Economic Association* 6: 1037–56.
- Reed, W. Robert. 2006. "Democrats, Republicans, and Taxes: Evidence that Political Parties Matter." *Journal of Public Economics* 90(4–5): 725–50.
- Rios-Avila, Fernando, and Barry T. Hirsch. 2014. "Unions, Wage Gaps, and Wage Dispersion: New Evidence from the Americas." *Industrial Relations: A Journal of Economy and Society* 53: 1–27.
- Schumacher, Edward J.. 1999. "What Explains Wage Differences Between Union Members and Covered Nonmembers?" *Southern Journal of Economics* 65: 493–512.
- Sojourner, A., Brigham Frandsen, Robert J. Town, David C. Grabowski, and Min M. Chen. 2015. "Impacts of Unionization on Quality and Productivity: Regression Discontinuity Evidence from Nursing Homes." *Industrial and Labor Relations Review* 68: 771–806.
- Unicon Research Corporation. 2015. *Outgoing Rotations Monthly Earner Study Data Files (1979–2014)*. Santa Monica, CA: Author.
- U.S. Bureau of Economic Analysis. 2014. *Table 2.4.4 Price Indexes for Personal Consumption Expenditure by Type of Product*. Washington, DC: Author.
- Western, Bruce, and Jake Rosenfeld. 2011. "Unions, Norms, and the Rise in US Wage Inequality." *American Sociological Review* 76: 513–37.

APPENDIX A

TABLE A.1

DESCRIPTIVE STATISTICS

Variable	All	Union	Nonunion
Union	0.1485 (0.3558)		
Ln(Hours)	3.5796 (0.4367)	3.6644 (0.3118)	3.5640 (0.4547)
Ln(Earnings per hours)	2.7082 (0.6143)	2.9711 (0.5007)	2.6601 (0.6215)
Ln(Earnings per weeks)	6.3832 (0.6788)	6.6527 (0.5191)	6.3300 (0.6949)
Male	0.5205 (0.4996)	0.5979 (0.4903)	0.5075 (0.4999)
High school or less	0.4636 (0.4987)	0.4632 (0.4986)	0.4656 (0.4988)
College graduate or more	0.2699 (0.4439)	0.2882 (0.4529)	0.2642 (0.4409)
Minority	0.1521 (0.3592)	0.1738 (0.3789)	0.1471 (0.3542)
Married	0.5828 (0.4931)	0.6742 (0.4687)	0.5658 (0.4957)
Age	37.3499 (12.2116)	41.2266 (11.0635)	36.63 (12.28)

NOTES Table .1A. presents summary statistics on outcomes and worker characteristics. Columns present calculations based on all workers, workers in a union, and workers not in a union. All calculations are based on the CPS weights. The data draw on the CPS March samples from IPUMS for the survey years 1994–2014.

TABLE A.2

DESCRIPTIVE STATISTICS ON ELECTIONS AND MARGIN OF VICTORY (MV)

Variables	MV <5%	MV <10%	All Sample
All years and states	320	634	1444
Democrats in power	169	310	729
Republicans in power	151	324	715

NOTES Margin of victory is the difference between the percentage of vote cast for the winner and the candidate who finished second. Small values of margin of victory are representative of close elections. This table shows the balance of the number of Democratic and Republican governors at different values of margin of victory.

SOURCES: ICPSR 7757 (1995); Leip (2015).

TABLE A.3.A

UNIONIZATION: DROPPING STATES THAT CONSISTENTLY ELECT A GOVERNOR FROM A SINGLE PARTY

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0046 (0.0042)	0.0023 (0.0017)	-0.0038 (0.0105)

TABLE A.3.B

LABOR-MARKET OUTCOMES: DROPPING STATES THAT CONSISTENTLY ELECT A GOVERNOR FROM A SINGLE PARTY

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0097 (0.0064)	-0.0122*** (0.0062)	0.0026 (0.0034)
U[nion]	0.1971*** (0.0128)	0.1969*** (0.0131)	0.0415*** (0.0058)
D×U	0.0150 (0.0172)	0.0108 (0.0177)	0.0078** (0.0035)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** and ** represent statistical significance at the 1- and 5-percent level, respectively. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

TABLE A.4

COVARIATES BALANCE—POOLED REGRESSIONS

	Minority	HS or Less	College Graduate or More	Male	Age
D[emocrat]	0.0161 (0.0117)	0.0008 (0.0019)	0.0028 (0.0027)	-0.0021 (0.0015)	0.0500 (0.5611)
	Married	Lag Union	Lag Weekly Earnings	Lag Hourly Earnings	Lag Hours
D[emocrat]	0.0033 (0.0022)	0.0009 (0.0021)	-0.0063 (0.0060)	-0.0061 (0.0060)	0.0050 (0.0049)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). Table 4A. presents coefficients from pooled regressions. It presents results for key characteristics of workers in the state (race, education, gender, age and marital status) as well as lag of outcome variables (one term ago). The joint hypothesis p -value is 0.320.

TABLE A.5.A
IMPACT OF PARTY AFFILIATION ON UNIONIZATION, DIFFERENT POLYNOMIALS

Variable	Union Membership	Entry to Union	Exit from Union
Panel A—first-order			
D[emocrat]	0.0046 (0.0042)	0.0017 (0.0011)	-0.0047 (0.0082)
Panel B—third-order			
D[emocrat]	0.0046 (0.0030)	0.0014 (0.0017)	-0.0114 (0.0094)

TABLE A.5.B
IMPACT OF PARTY AFFILIATION ON OUTCOMES, DIFFERENT POLYNOMIALS

Variable	Weekly Earning	Hourly Earning	Hours per Week
Panel A—first-order			
D[emocrat]	-0.0007 (0.0043)	-0.0014 (0.0040)	0.0016 (0.0022)
U[nion]	0.1999*** (0.0109)	0.1979*** (0.0114)	0.0435*** (0.0051)
D×U	0.0026 (0.0158)	0.0012 (0.0161)	0.0048 (0.0036)
Panel B—third-order			
D[emocrat]	-0.0024 (0.0078)	-0.0035 (0.0075)	0.0029 (0.0035)
U[nion]	0.1999*** (0.0108)	0.1978*** (0.0113)	0.0435*** (0.0051)
D×U	0.0026 (0.0157)	0.0013 (0.0159)	0.0048 (0.0036)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). Panel A use first-order polynomials, Panel B use third-order polynomials.

TABLE A.6
LOCAL LINEAR ANALYSIS BASED ON IMBENS AND KALYANARAMAN (2012)

	Union Member	Entry to Union	Exit from Union	Weekly Earn	Hourly Earn	Hours per Week
D[emocrat]	0.0002 (0.0027)	0.0035 (0.0029)	-0.0171 (0.0150)	0.0255 (0.0372)	0.0376 (0.0344)	-0.0073 (0.0087)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level. The table presents estimates using local-linear analysis from Imbens and Kalyanaraman (2012) using a triangular kernel.

TABLE A.7.A
UNIONIZATION WITH VARIOUS ELECTION SAMPLES

	Variable	Union Membership	Entry to Union	Exit from Union
MV≤5%	D[emocrat]	0.0032 (0.0103)	-0.0115 (0.0071)	0.0050 (0.0292)
MV≤15%	D[emocrat]	0.0082 (0.0056)	0.0043 (0.0026)	-0.0171 (0.0150)
MV≤25%	D[emocrat]	0.0038 (0.0031)	0.0032 (0.0023)	-0.0161 (0.0126)
MV≤35%	D[emocrat]	0.0050 (0.0034)	0.0016 (0.0019)	-0.0081 (0.0122)

TABLE A.7.B
LABOR-MARKET OUTCOMES WITH VARIOUS ELECTION SAMPLES

	Variable	Weekly Earning	Hourly Earning	Hours per Week
MV≤5%	D	0.0106 (0.0217)	-0.0052 (0.0190)	0.0024 (0.0119)
	U[nion]	0.2089*** (0.0195)	0.2108*** (0.0210)	0.0372*** (0.0053)
	D×U	-0.0250 (0.0251)	-0.0335 (0.0251)	-0.0000 (0.0077)
MV≤15%	D	0.0061 (0.0093)	0.0012 (0.0084)	0.0041 (0.0040)
	U[nion]	0.2130*** (0.0121)	0.2116*** (0.0137)	0.0451*** (0.0052)
	D×U	-0.0163 (0.0170)	-0.0218 (0.0180)	0.0072 (0.0056)
MV≤25%	D	-0.0043 (0.0093)	-0.0105 (0.0084)	-0.0046 (0.0040)
	U[nion]	0.2036*** (0.0113)	0.2024*** (0.0113)	0.0428*** (0.0059)
	D×U	-0.0053 (0.0181)	-0.0084 (0.0171)	0.0070 (0.0053)
MV≤35%	D	0.0055 (0.0071)	0.0033 (0.0066)	0.0050 (0.0040)
	U[nion]	0.2011*** (0.0113)	0.2003*** (0.0115)	0.0429*** (0.0053)
	D×U	-0.0004 (0.0164)	-0.0035 (0.0163)	0.0059 (0.0039)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; ***represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations

TABLE A.8.A
IMPACT OF PARTY AFFILIATION ON UNIONIZATION—CLUSTER STATE-TERM

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0025 (0.0032)	0.0010 (0.0014)	-0.0059 (0.0091)

TABLE A.8.B
IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES—CLUSTER STATE-TERM

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0023 (0.0062)	-0.0043 (0.0061)	0.0017 (0.0026)
U[nion]	0.2000*** (0.0092)	0.1980*** (0.0088)	0.0436*** (0.0031)
D×U	0.0024 (0.0118)	0.0010 (0.0113)	0.0047 (0.0044)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state-term level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

TABLE A.9
IMPACT OF PARTY AFFILIATION ON UNIONIZATION, DIFFERENT INCOME GROUPS—CLUSTER STATE-TERM

Variable	[0–20] I	[20–40] II	[40–60] III	[60–80] IV	[80–100] V
<i>Panel A. Union Membership</i>					
D[emocrat]	0.0005 (0.0021)	0.0036 (0.0045)	0.0065 (0.0041)	0.0039 (0.0063)	0.0027 (0.0035)
<i>Panel B. Entry to Unions (Unionization)</i>					
D[emocrat]	0.0009 (0.0019)	0.0015 (0.0018)	0.0040 (0.0024)	0.0004 (0.0028)	-0.0015 (0.0018)
<i>Panel C. Exit from Unions (Deunionization)</i>					
D[emocrat]	-0.0016 (0.0154)	-0.0099 (0.0139)	-0.0115 (0.0145)	-0.0050 (0.0074)	0.0102 (0.0123)
<i>Panel D. Hours per Week</i>					
D[emocrat]	-0.0004 (0.0056)	0.0044 (0.0042)	-0.0026 (0.0037)	0.0004 (0.0035)	0.0035 (0.0027)
U[nion]	0.1221*** (0.0064)	0.0927*** (0.0057)	0.0375*** (0.0042)	0.0236*** (0.0020)	-0.0109** (0.0042)
D×U	0.0091 (0.0091)	0.0029 (0.0074)	0.0089 (0.0057)	0.0009 (0.0031)	0.0004 (0.0059)
D[emocrat]	-0.0004 (0.0056)	0.0044 (0.0042)	-0.0026 (0.0037)	0.0004 (0.0035)	0.0035 (0.0027)
U[nion]	0.1221*** (0.0064)	0.0927*** (0.0057)	0.0375*** (0.0042)	0.0236*** (0.0020)	-0.0109** (0.0042)

TABLE A.9 (cont.)

Variable	[0–20] I	[20–40] II	[40–60] III	[60–80] IV	[80–100] V
D×U	0.0091 (0.0091)	0.0029 (0.0074)	0.0089 (0.0057)	0.0009 (0.0031)	0.0004 (0.0059)
<i>Panel E. Weekly Earning</i>					
D[emocrat]	−0.0056 (0.0075)	−0.0068 (0.0072)	−0.0031 (0.0070)	−0.0067 (0.0075)	0.0033 (0.0066)
U[nion]	0.2346*** (0.0077)	0.2248*** (0.0078)	0.2161*** (0.0103)	0.2853*** (0.0072)	−0.0482*** (0.0085)
D×U	0.0007 (0.0115)	−0.0071 (0.0108)	0.0033 (0.0129)	−0.0085 (0.0095)	−0.0073 (0.0108)
<i>Panel F. Hourly Earning</i>					
D[emocrat]	−0.0057 (0.0069)	−0.0079 (0.0070)	0.0013 (0.0070)	−0.0082 (0.0073)	−0.0017 (0.0061)
U[nion]	0.2124*** (0.0082)	0.1942*** (0.0084)	0.2112*** (0.0093)	0.2740*** (0.0070)	−0.0267*** (0.0080)
D×U	−0.0036 (0.0115)	−0.0112 (0.0110)	−0.0036 (0.0116)	−0.0075 (0.0091)	−0.0049 (0.0100)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state-term level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3).

APPENDIX B

TABLE B.1.A

IMPACT OF PARTY AFFILIATION ON COLLECTIVE MEMBERSHIP

Variable	Collective Membership	Entry to Collective Membership	Exit from Collective Membership
D[emocrat]	−0.0001 (0.0010)	−0.0002 (0.0007)	−0.0242 (0.0206)

TABLE B.1.B

IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	−0.0037 (0.0051)	−0.0049 (0.0047)	0.0009 (0.0027)
Collective membership	0.0622*** (0.0073)	0.0755*** (0.0109)	0.0214*** (0.0068)
D× Collective membership	0.0140 (0.0129)	0.0149 (0.0152)	−0.0022 (0.0043)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). We focus here on collective membership.

TABLE B.2.A

IMPACT OF PARTY AFFILIATION ON UNIONIZATION WITH INDUSTRY CONTROLS

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0021 (0.0028)	0.0011 (0.0014)	-0.0059 (0.0091)

TABLE B.2.B

IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES WITH INDUSTRY CONTROLS

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0005 (0.0061)	-0.0034 (0.0057)	0.0027 (0.0024)
U[nion]	0.2085*** (0.0120)	0.1932*** (0.0121)	0.0584*** (0.0026)
D×U	-0.0042 (0.0133)	-0.0038 (0.0141)	0.0017 (0.0027)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3) and we also controls for industry.

TABLE B.3.A

IMPACT OF PARTY AFFILIATION ON UNIONIZATION—OLS

Variable	Union Membership	Entry to Union	Exit from
D[emocrat]	-0.0002 (0.0018)	0.0000 (0.0008)	-0.0087 (0.0059)

TABLE B.3.B

IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES—OLS

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0024 (0.0033)	-0.0030 (0.0033)	0.0001 (0.0017)
U[nion]	0.1998*** (0.0110)	0.1978*** (0.0114)	0.0434*** (0.0051)
D×U	0.0028 (0.0159)	0.0013 (0.0161)	0.0051 (0.0036)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in the text. This table presents results using OLS.

TABLE B.4.A

IMPACT OF PARTY AFFILIATION ON UNIONIZATION—PRIVATE SECTOR ONLY

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	-0.0012 (0.0032)	0.0009 (0.0016)	-0.0005 (0.0090)

TABLE B.4.B

IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES—PRIVATE SECTOR ONLY

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0015 (0.0057)	-0.0044 (0.0054)	0.0024 (0.0029)
U[nion]	0.2499*** (0.0140)	0.2464*** (0.0149)	0.0390*** (0.0043)
D×U	0.0070 (0.0163)	0.0084 (0.0160)	0.0030 (0.0042)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). We focus here only on workers working in private sector.

TABLE B.5.A

IMPACT OF PARTY AFFILIATION ON UNIONIZATION—DROP YEARS WITH POTENTIAL ISSUES

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0028 (0.0032)	0.0011 (0.0013)	-0.0088 (0.0078)

TABLE B.5.B

IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES—DROP YEARS WITH POTENTIAL ISSUES

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0022 (0.0055)	-0.0049 (0.0049)	0.0025 (0.0029)
U[nion]	0.1851*** (0.0096)	0.1821*** (0.0094)	0.0407*** (0.0051)
D×U	-0.0037 (0.0127)	-0.0018 (0.0125)	0.0029 (0.0030)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). There are problems with assigning household IDs in 1985 and 1995; consequently matching rates between 1984 and 1985, 1985 and 1986, 1994 and 1995, and 1995 and 1996 were less than 30 percent. In this table, we run regressions excluding these years.

TABLE B.6.A

IMPACT OF PARTY AFFILIATION ON UNIONIZATION FOR SPECIFIC OCCUPATIONS

Variable	Union Membership	Entry to Union	Exit from Union
D[emocrat]	0.0093 (0.0061)	-0.0008 (0.0021)	-0.0091 (0.0085)

TABLE B.6.B

IMPACT OF PARTY AFFILIATION ON LABOR-MARKET OUTCOMES FOR SPECIFIC OCCUPATIONS

Variable	Weekly Earning	Hourly Earning	Hours per Week
D[emocrat]	-0.0062 (0.0076)	-0.0047 (0.0082)	-0.0023 (0.0032)
U[nion]	0.2853*** (0.0121)	0.2574*** (0.0124)	0.0718*** (0.0023)
D×U	-0.0110 (0.0117)	-0.0145 (0.0120)	0.0041 (0.0028)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level; *** represents statistical significance at the 1-percent level. All regressions include state fixed effects, time effects, and all other control variables specified in equations (1)–(3). We consider occupations with high unionization rates (teachers, construction workers, government employees, police, and firefighters).

TABLE B.7

IMPACT OF PARTY AFFILIATION ON UNIONIZATION USING AGGREGATE OUTCOMES_

Variable	Union Membership Aggregate at State	Union Membership Aggregate at State-Term
D[emocrat]	0.0019 (0.0025)	0.0033 (0.0030)

NOTES The data draw on the CPS-ORG samples from Unicon Corporation for 1983–2013. Numbers in parentheses are standard errors based on clustering data at state level. All regressions include state fixed effects, time effects. We measure the impact of Democratic governors on union membership using aggregate outcomes at the state and at the state-term level.