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ISSN: 2365-9793

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## ABSTRACT

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# The Minimum Wage and Union Membership among Minimum Wage Workers: Why Do Unions Advocate for Minimum Wage Increases?\*

Over the past decade, organized labor has played a significant role in advocating for minimum wage increases. In this paper, we investigate the effects of minimum wage increases on union membership among individuals in minimum wage intensive industries. Consistent with a “freeriding” hypothesis, we find that minimum wage increases predict declines in union membership among low-skilled workers in these industries. These workers are the minimum wage’s most direct beneficiaries. We find no evidence of a change in union membership among high-skilled workers in these industries.

**JEL Classification:** D71, D78, P16

**Keywords:** political economy, social choice, minimum wage, unionization

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\* We thank Duncan Hobbs for excellent research assistance.

## Section I: Introduction

Over the past decade, labor unions have emerged as important advocates for historically high minimum wages. For example, since its inception in 2012, the “Fight for \$15” movement has received substantial union support, ranging in intensity from simple expressions of solidarity to financial and organizational aid.<sup>†</sup> On the one hand, this advocacy may appear puzzling because a higher minimum wage may be a substitute for a labor union’s bargaining power. On the other hand, advocating for minimum-wage workers may increase those workers’ interest in joining a union.

In this paper, we investigate and quantify the effect of minimum wage increases on union membership among minimum wage workers. Consistent with a free-riding hypothesis, we find that low-skilled workers in food service and retail appear to treat the minimum wage as a substitute for the services of unions. Minimum wage increases reduce union membership among the minimum wage’s most direct beneficiaries. In addition, we consistently document the absence of a positive relationship between minimum wage increases and union membership for any group of workers employed in minimum-wage-intensive industries.

These findings contribute to a literature in economics and industrial relations on the role and activities of labor unions (Freeman and Medoff, 1985), further our understanding of the

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<sup>†</sup> The AFL-CIO’s website, for example, includes “restoring the minimum wage to a living wage” in its statement of policy priorities for improving pay and benefits. (Accessed at the following link on May 5, 2020: <https://aflcio.org/issues/better-pay-and-benefits>). The Service Employees International Union (SEIU) has been relatively public regarding its operational and financial support for the Fight for \$15. In a representative statement linking the fortunes of unions and the Fight for \$15, SEIU President Mary Kay Henry wrote in 2019, “This movement will not stop until workers across the country win the \$15 an hour and union rights they’ve demanded since Day One.” (Accessed at the following link on April 10, 2020: <http://www.seiu.org/2019/01/seius-henry-fight-for-15-and-a-union-is-winning-for-americas-working-people-changing-whats-possible>.)

economic effects of the minimum wage, and connect to a broader literature on the interplay between interest groups, policy making, and the political process (Anzia, 2019).

## **Section II: Data and Empirical Methods**

The dependent variable in our analysis is an indicator for an individual's union membership status, which is tracked by the Current Population Survey (CPS). Participants are asked about their union membership twice, as part of the expanded interviews known as the Outgoing Rotation Group (ORG).

Our analysis uses several additional pieces of information from the CPS. These include age and education, which are correlated with individuals' skills as well as their union membership likelihood, and the industry in which individuals work. We analyze samples of individuals who work in minimum wage intensive industries, namely food-service and retail. Our data on state-by-month minimum wage rates come from Clemens, Hobbs, and Strain (2018), while the National Conference of State Legislatures is our primary source for key dates in the legislative process.

Finally, our analysis incorporates data on macroeconomic covariates that may be relevant as control variables. As in our contemporaneous analyses of the minimum wage's employment effects (Clemens and Strain, 2021), we proxy for variations in housing market performance using a statewide median house price index from the Federal Housing Finance Agency (FHFA). We proxy for aggregate economic performance using data on state income per capita from the Bureau of Economic Analysis (BEA).

The regressions we estimate take the form of equation (1) below:

$$U_{i,s,t} = \beta_1 MW_{s,t} + \alpha_{1s} State_s + \alpha_{2t} Time_t + X_{i,s,t} \gamma + \varepsilon_{i,s,t}. \quad (1)$$

$U_{i,s,t}$  is an indicator for whether individual  $i$  residing in state  $s$  in time period  $t$  reports being a union member, and  $MW_{s,t}$  is the effective minimum wage in state  $s$  in period  $t$ . All estimates of equation (1) include state and time fixed effects, so that  $\beta_1$  can be interpreted as a difference-in-differences-style estimate of the relationship between changes in minimum wage rates and changes in the likelihood that an individual is a union member. The vector  $X$  contains sets of control variables that vary across the specifications we estimate.

Causal estimation of the effect of minimum wage increases on union membership faces nontrivial challenges. Overall economic activity may be correlated with a state's tendency to raise the minimum wage as well as with both the overall number of jobs and perhaps with the fraction of jobs that are likely to be union jobs. Our analysis also faces a threat of reverse causality. That is, a union movement that is growing in strength may be a movement that is simultaneously gaining new members and succeeding in its advocacy for minimum wage increases.

One method for addressing these concerns is to estimate “standard event study” and “stacked event study” models. The standard event study model takes the form of equation (2) below, in which the  $\beta_{p(s,t)}$  coefficients estimate the dynamic effect of minimum wage increases on union membership:

$$U_{i,s,t} = \sum_{p(s,t) \neq -1} \beta_{p(s,t)} Increased_s \times Event Year_{p(s,t)} + \alpha_{1s} State_s + \alpha_{2t} Time_t + X_{i,s,t} \gamma + \varepsilon_{i,s,t}. \quad (2)$$

Specifically, the  $\beta_{p(s,t)}$  coefficients trace out differential changes in union membership in states

that enacted minimum wage changes relative to states that did not enact minimum wage changes. Year 0 is defined as the 12 months leading up to the enactment of a state’s first minimum wage during our sample period, and the dynamic treatment effects are estimated relative to period -1.<sup>‡</sup>

Event study estimates allow us to check for the possibility that changes in union membership were spuriously correlated with changes in minimum wages, as might be the case if those change emerged well prior to a state’s first change in the minimum wage. We estimate both “stacked” and “standard” event study models because — as discussed, for example, by Baker, Larcker, and Wang (2022) — the “stacked” event study is not prone to potential biases that can afflict the “standard” event study model when treatment events are staggered over time and treatment effects are heterogeneous.

## **Section IV: Empirical Analysis**

The estimates in columns 1 and 2 of Table 1 focus on individuals ages 16 to 21 employed in food-service and retail industries. These estimates suggest that young individuals in low-wage industries are less likely to belong to unions following minimum wage increases.

This sample consists of employed individuals who experience some of the largest wage gains following minimum wage increases. Our negative estimates are thus consistent with the “free riding” hypothesis where the legislated minimum wage acts as a substitute for the union’s bargaining clout. For these young food-service and retail workers, minimum wage increases reduce the direct material benefit these individuals might obtain from joining a union. In

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<sup>‡</sup> As shown in Clemens, Hobbs, and Strain (2018), the legislation underlying newly legislated increases was typically passed early in year 0 and introduced earlier still.

columns 3 and 4, we report negative though more modest and statistically insignificant effects for food-service and retail workers ages 22 to 29.

Among more experienced individuals in minimum-wage-intensive industries — in particular those ages 30 to 50 as analyzed in columns 5 through 8 — we find no evidence of changes in union membership.

We now turn to event study analyses. For food-service and retail workers below age 30, panels A and B of Figure 1 show a decline in union membership beginning over the 12 months immediately preceding the enactment of statutory minimum wage increases. For older food-service and retail workers (panels C and D), we find no effect. The results are similar whether the specifications incorporate demographic and macroeconomic covariates and whether we use the “standard” or “stacked” event study model. The event study coefficients for periods -2 and -3 in each of the four panels are centered around zero and statistically insignificant, which suggests that the treatment and control groups in each sample were on parallel trends prior to the passage of recent minimum wage legislation. This increases our confidence that the decline in union membership we document is being driven by those increases.

## **Section VI: Discussion and Conclusion**

The most striking and consistent finding across our estimates is the absence of a positive relationship between minimum wage increases and union membership for any skill groups employed in minimum-wage-intensive industries. Moreover, our analysis finds that the direct beneficiaries of minimum wage increases become less likely to join labor unions following minimum wage increases. The latter finding suggests that minimum wage workers might “free-



ride" by treating a legislated minimum wage as a substitute for a union's bargaining clout.

Why, then, do labor unions so actively and publicly support minimum wage increases? In this paper, we present evidence against the most intuitive hypothesis, namely that they might increase union membership among the direct beneficiaries of higher minimum wages. In complementary ongoing work, we consider an alternative answer. We find that events in the legislative histories of minimum wage changes shift news coverage of organized labor, making it more likely to connect organized labor with the minimum wage, which is broadly popular with the public. In simple terms, advocating for higher minimum wages may give unions "good PR." Taken together, these findings are consistent with models in which interest groups can increase their visibility and popularity by engaging in "effective advocacy" for policies supported by their potential members.

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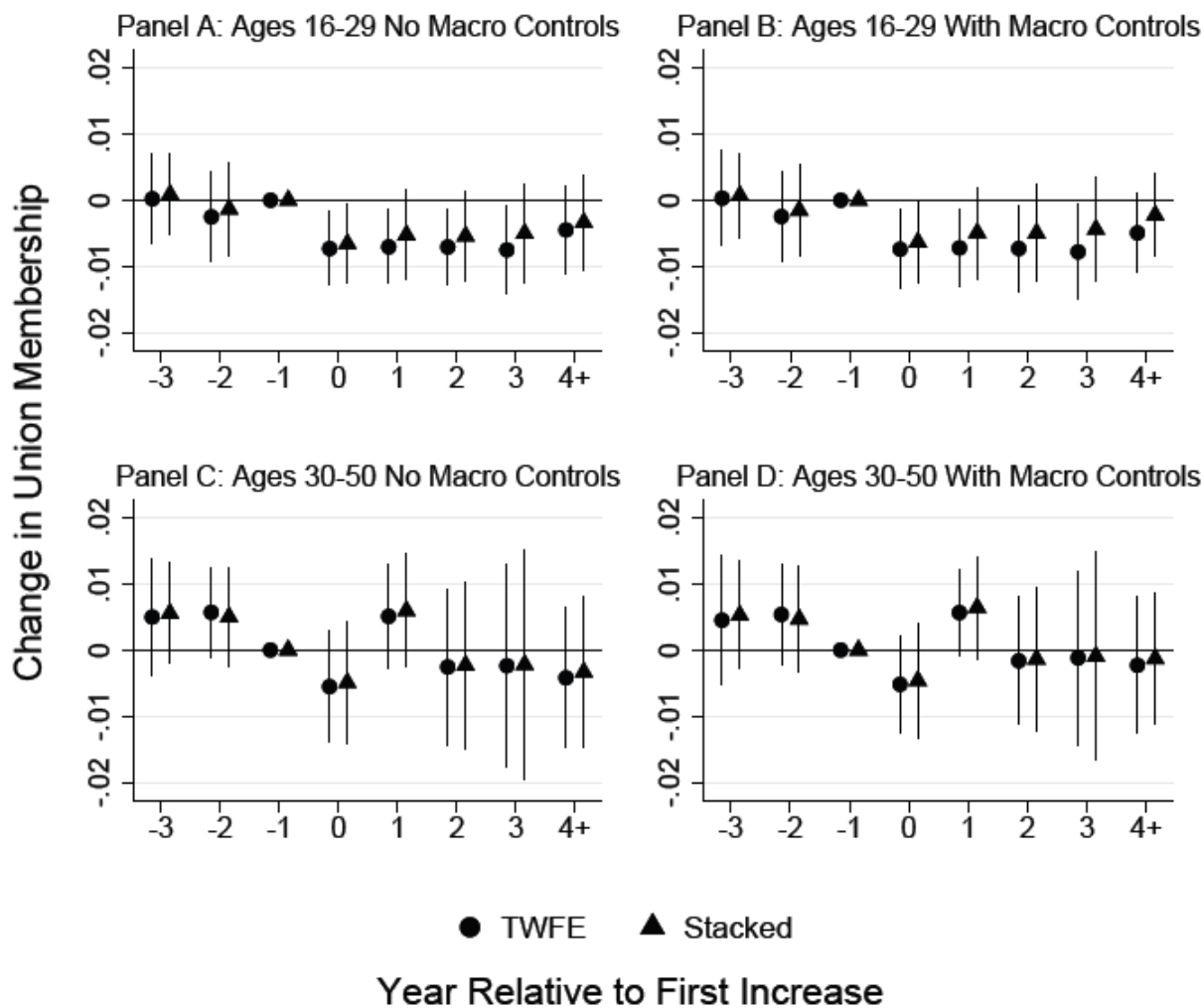
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Tables and Figures

**Table 1. Relationship Between Minimum Wage Increases and Union Membership Among Individuals Working in the Food-Service or Retail Industries, 2011-2019**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sample	Ages 16–21		Ages 22–29		Ages 30–50 & High School or Less		Ages 30–50 & Greater than High School	
Effective Minimum Wage	-0.0021* (0.0012)	-0.0042*** (0.0015)	-0.0009 (0.0016)	-0.0005 (0.0015)	0.0007 (0.0016)	0.0008 (0.0018)	-0.0008 (0.0023)	0.0027 (0.0018)
House Price Index Divided by 1000		0.0829 (0.0539)		-0.0403 (0.0423)		0.0336 (0.0506)		-0.0801 (0.0709)
Ln(Income per Capita)		-0.0144 (0.0430)		0.0407 (0.0477)		-0.0534 (0.0553)		-0.0598 (0.0536)
Adjusted R-squared	0.0134	0.0134	0.0136	0.0136	0.0201	0.0201	0.0154	0.0156
Observations	49,598	49,598	59,056	59,056	47,310	47,310	53,818	53,818

Notes: This table reports regression results examining the effect of minimum wage changes on union membership. The samples are from the CPS ORG and consist of all individuals working in the food service or retail industries. All specifications include month, year, month–year, state, age, and education fixed effects. Standard errors are clustered at the state level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Figure 1. Standard Event Studies Estimated Using Two Way Fixed Effects and Stacked Event Studies of Minimum Wage Increases on Union Membership Among Workers Ages 16-29 and 30-50 in Food Service and Retail. Relative to Period -1.** This figure plots coefficients and 95 percent confidence intervals from event study regressions of union membership on state minimum wage increases using the model described in equation (2). The sample for all panels consists of CPS ORG respondents working in the food service or retail industries. The macroeconomic controls included in Panels B and D include quarterly, state-level controls for a housing price index and personal income per capita. Standard errors are clustered at the state level.