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# Does Policy Advocacy Generate Good PR? Evidence from Labor Unions and Minimum Wages

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# ABSTRACT

# Does Policy Advocacy Generate Good PR? Evidence from Labor Unions and Minimum Wages*

We develop new facts relating news coverage, interest groups, and events in the legislative histories of minimum wage increases. First, we create and validate a database of news articles that includes coverage of minimum wages and organized labor. Second, we show that policy changes predict increases in news coverage that connects organized labor and minimum wages, in particular when those articles reference high-profile interest groups and research output. Third, these policy events lead coverage of organized labor to shift towards articles about minimum wages. We observe that the minimum wage's popularity with the public makes this shift qualify as "good PR," an assessment that is supported by sentiment analysis of articles about organized labor. This public relations channel can thus help rationalize why interest groups engage in policy advocacy.

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## Section I: Introduction

Over the past decade, labor unions have emerged as advocates for historically high minimum wages.[1] 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.[2]

Why is this, given that a higher minimum wage may act as a substitute for a labor union's bargaining clout? Consistent with this consideration, a complementary analysis in Clemens and Strain (2023) finds that minimum wage increases are associated with declines in union membership among the wage floor's most direct beneficiaries. On the other hand, advocacy for a policy as popular as the minimum wage may benefit unions by generating "good PR," or otherwise altering the way unions are covered in newspapers and other media. By generating positive media coverage, advocacy for popular policies perceived to help workers might aid unions in rallying the support of potential members or in rallying support for their members' more direct material interests.

In this paper, we analyze the "good PR" motivation for policy advocacy through an analysis of news coverage of the minimum wage and of organized labor. Using a dataset we create, we establish that the quantity of articles about the minimum wage exhibits short-lived

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[1] Notably, a realignment of labor unions in greater support of minimum wages has emerged in a number of industrialized economies, as observed by Ress and Spohr (2022) and described in far greater detail by Müller and Schulten (2020).

[2] 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.)

spikes at key legislative and political moments, like when states including New York and Washington legislated substantial, phased-in increases in their minimum wage floors. The amount of minimum wage coverage also tracks certain political events, including Seattle's election of Ed Murray, one of the first politicians to campaign actively on behalf of the "Fight for $15."

While we find no evidence that minimum wage increases impact the total number of articles about organized labor, we document strong evidence of increases in the number of articles referencing *both* the minimum wage and organized labor. That is, minimum wage increases predict a shift in the news's coverage of organized labor towards articles that are also about the minimum wage. We find, for example, that in the month minimum wage legislation is passed, articles that reference organized labor became, on average, 11 percentage points more likely (a doubling relative to the sample mean) to be articles that reference the minimum wage.

In addition, we find that the coverage of unions becomes more positive when it is associated with minimum wage increases. Specifically, in an analysis of articles from the New York Times, we find that articles that reference both organized labor and minimum wages generate more positive sentiment scores than other articles about organized labor, in particular those that reference strikes. The more positive sentiment scores associated with articles about minimum wages should perhaps be expected in light of the minimum wage's popularity with the public. Taken together, we interpret these facts as supporting the interpretation that the shifts in coverage we observe are indeed evidence of "good PR."

Additionally, we investigate whether changes in minimum wage policy alter the extent of news coverage referencing specific groups that have contributed in high profile ways to the formation of public opinion and public policy. We find an interesting divergence across groups.

First, we find that minimum wage increases have a significant effect on the news coverage of groups including the Economic Policy Institute (EPI) and the National Employment Law Project (NELP), which have contributed substantively to research analyses of minimum wages. In contrast, we present evidence that minimum wage increases predict relatively fewer articles that connect the minimum wage with the Service Employees International Union (SEIU), which has played a more central role in the operational effort to organize minimum wage workers. We hypothesize two complementary explanations for this divergence. First, the workers SEIU has been trying to organize are workers for whom a high minimum wage most plausibly substitutes for the value of a union's services, while the EPI and NELP are associated with a broad set of interests within the labor movement. Second, we observe that it is a combination of research and commentaries by researchers and analysts affiliated with EPI and NELP that sometimes inform news coverage of minimum wages and place these groups' names in the associated news articles. In our data, we find that events in the histories of minimum wage increases bring disproportionately large spikes in the amount of coverage that reference minimum wages, EPI or NELP, and output from research analyses.

Our findings relate to multiple research literatures. First, our findings shed light on the channels through which interest groups like unions might accumulate members and influence. Our findings point to the importance of forces beyond the direct material well-being of an interest group's members. While the importance of material incentives is indisputable, they do not tell the entire story. Our findings are consistent with a role for what Wilson (1973) and Clark and Wilson (1961) call "purposive incentives." That is, by establishing a reputation for effective, public-spirited advocacy, an interest group can improve its news coverage and, by doing so, may enhance its future influence and membership prospects. This reputational incentive has been

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captured in models of both trade union membership (Booth, 1985) and strike activity (Naylor, 1989), which draw in turn on Akerlof's (1980) model of social customs.[3] Our empirical analysis develops evidence of a key mechanism, namely impacts on news coverage, through which the reputational effects on which these models rely can plausibly be propagated.[4]

In addition to being useful for understanding the behavior of interest groups, the pursuit of "good PR" may be useful for understanding certain corporate activities that fall under the umbrellas of Environment, Social and Governance (ESG) or Corporate Social Responsibility (CSR). The "purposive" incentive for joining or contributing to groups relates to the straightforward notion that people value affiliating with organizations that they find reputable. A logic similar to that applied to the decision to join an interest group can also be applied to customers—customers may want to shop at stores that they think share their values. In this sense, a company's involvement in ESG/CSR public advocacy can be thought of as a form of brand management, which can impact both the loyalty and willingness to pay of prospective customers (Benabou and Tirole, 2010).[5] The effectiveness of such strategies requires that advocacy influences how an organization is portrayed to the public, whether through direct advertising, news coverage, or some other channel. Our analysis of news coverage provides direct evidence that advocacy can indeed alter how organizations are covered in the news.

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[3] Corneo (1997) develops a complementary "game-theoretic foundation of the social custom approach to trade union membership."

[4] Ban et al. (2019) present evidence that supports the practical relevance of news coverage. Specifically, through an analysis spanning a century of news coverage, Ban et al. (2019) find that variations in the emphasis of news coverage can be a useful proxy for variations in political power.

[5] Benabou and Tirole (2010) lay out a number of plausible theories and practical implications of prosocial behavior by both individuals and corporations. Their discussion draws on theoretical analyses of prosocial behavior including the authors' 2006 classic (Benabou and Tirole, 2006) and work by Glazer and Konrad (1996) on the signaling motivation for charitable giving. Dube et al (2017) find experimental evidence that the bundling of a good with a charitable donation can increase demand, but that the effect of the donation on demand can be crowded out when coupled with discounts on the price of the good, which can in turn be interpreted as dampening the signal's value.

Second, research in political science and political economy has long analyzed the interplay between interest groups and policy. Within this broad area of inquiry, a relatively small set of papers has focused on the impacts of policy on subsequent politics.[6] Research in this vein has focused primarily on cases in which policies created constituencies out of their direct beneficiaries.[7] Anzia and Moe (2016), for example, analyze a case in which policy directly shaped the potential influence of an already organized group — namely, public-sector unions. They show that changes in public-sector labor law nontrivially shaped future politics and that legislators' votes on these laws suggest a sophisticated understanding of their long-run effects. In our analysis, we find that minimum wage policy shapes subsequent media coverage, which could elevate the status of unions in public opinion. Indeed, over the decade we analyze, public approval of labor unions rose by more than 10 percentage points.[8] Our analysis thus connects to a broad line of research on how the efforts of organized groups can shape policy and, in so doing, influence their own future prospects.[9]

Our paper proceeds as follows. Section II discusses theories that can shed light on why interest groups engage in policy advocacy. Section III describes the novel data we created for our

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[6] Research on the activities of interest groups and other political factions has tended to focus on characterizing their effects on the political process rather than on the drivers of their membership prospects. Relevant studies include work by Baron (1994), Grossman and Helpman (1996), Persson (1998), Besley and Case (2003), and Dewan and Shepsle (2011). Empirical evidence on the effects of interest groups is sparse. Anzia (2019) argues that this may reflect the literature's lack of focus on subnational politics, which can yield more opportunities to execute credible empirical strategies than can research focused exclusively on federal politics.

[7] Perhaps the most famous example involves the enduring constituency created by the Social Security system (Campbell, 2003). Schattschneider (1935) similarly emphasizes the interest groups created by the Smoot-Hawley Tariff of 1929. More recently, Clinton and Sances (2018) and Baicker and Finkelstein (2019) have analyzed the effects of access to Medicaid on political participation. The latter analyses find nontrivial but transitory effects.

[8] See Gallup: https://news.gallup.com/poll/398303/approval-labor-unions-highest-point-1965.aspx.

[9] A long-running literature on the influence of organized groups is regularly associated with Schattschneider (1960), including his early analysis of the interest groups created by the Smoot-Hawley Tariff of 1929 (Schattschneider, 1935). As recently described by Hacker and Pierson (2014), this line of research emphasizes the centrality of organized groups that seek to advance policy agendas, frame debates, and shape public opinion.

analysis of news coverage. Section IV presents our empirical methodology and section V presents our analyses. Section VI concludes.

## Section II: Why Do Interest Groups Engage in Policy Advocacy?

Why do interest groups engage in policy advocacy? Speaking generally, thriving groups are those that accumulate members and influence, and that deliver positive outcomes to members. A group's success can be analyzed using theories of preference aggregation and by modeling the objective functions of current group members, prospective group members, and a group's leaders. Research in economics and political science has developed a number of insights into these issues.

One approach for interest groups to accumulate influence and membership is to improve their members' material well-being. This will typically come through the services the group provides to its members (Buchanan, 1965; Olsen, 1965; Berman, 2000). In the case of unions, these tend to include higher wages, better benefits, and greater voice in the workplace (Freeman and Medoff, 1984). Non-monetary motivations may also be at work. Frymer and Grumbach (2021), for example, discuss how both the actions of unions and the views of their members can be shaped by broader, coalitional demands of the political process.

These efforts and outcomes have been well studied. Our focus in this paper is different. We study whether interest groups might also accumulate influence and advance their objectives by advocating for policies that might enhance their image among existing and prospective members (Clark and Wilson, 1961; Wilson, 1973). Through successful advocacy, for example, an interest group might enhance its reputation for effectiveness and public spiritedness among its

potential members. This may, in turn, provide a foundation for the reputational effects that are central to "social custom" models of union membership (Booth, 1985; Naylor, 1989; Corneo, 1997). Advocacy for popular policies, in particular when successful, might provide an interest group with "good PR," which can be valuable to recruiting efforts and in advancing the objectives of a group's leadership and members.

We analyze the "good PR" motivation for policy advocacy through an analysis of novel data on news coverage, which links events in the legislative histories of minimum wage increases, news coverage of the minimum wage, and news coverage of organized labor. For the public image channel to be relevant, it is necessary that unions' advocacy for minimum wages receive some form of public attention. Our analysis of news coverage speaks to this question.

## Section III: Data

In this section, we discuss the data sources used in our analysis. The policy variation of interest involves minimum wage changes. The primary outcome of interest is novel data on news coverage of key events in the political and legislative histories of minimum wage increases. Control variables in our analysis include proxies for variations in macroeconomic conditions.

*LexisNexis Data on Newspaper Mentions of Minimum Wages and the Labor Movement*

We examine the impact of minimum wage increases and new minimum wage legislation on newspaper coverage. Using LexisNexis, we construct a dataset measuring mentions of "minimum wage," and of labor advocacy organizations, including the Economic Policy Institute

(EPI), National Employment Law Project (NELP), and the Service Employees International Union (SEIU), in state newspapers. We also document references in these articles to research outputs.

For all queries, we restrict our searches to English language newspaper articles from the 50 US states and Washington, DC, published between January 1, 2010, and December 31, 2019. We exclude articles LexisNexis flags as "highly similar" (same publication name, location, and date; same author; and very similar content) to avoid counting duplicate copies. From each article in a given query, we extract the publication name, date, and state from the article metadata. We process the LexisNexis data to construct counts at the state-by-month-by-year level. More details on the LexisNexis data are available in Appendix B. In a complementary data set, we focus more narrowly on articles from the New York Times, for which we have constructed measures of positive and negative sentiment.

*Effective Minimum Wage Rates and Legislative Events*

Our data on states' effective minimum wage rates and on key dates in the legislative process draw on many sources. Our primary source for key dates in the legislative process is the National Conference of State Legislatures. These dates have been cross-checked against myriad news articles, reports from state labor departments, and legislative texts. For state-by-month minimum wage rates, we use data compiled by Clemens, Hobbs, and Strain (2018), which have supported a complementary set of analyses of the effects of these minimum wage increases on employment. These minimum wage rates have been checked against the complementary database of Vaghul and Zipperer (2021). The map in Figure A1 illustrates which states enacted

minimum wage increases during our sample period, while Table A1 presents information on implementation dates.

*Additional Control Variables*

Our analysis incorporates data on macroeconomic covariates that may be relevant as control variables. As in our past work (Clemens and Strain 2017, 2018, 2021), we proxy for variations in housing markets using a statewide median house price index from the Federal Housing Finance Agency (FHFA, 2020). We proxy for aggregate economic performance using data on state income per capita from the Bureau of Economic Analysis (BEA, 2020).

## Section IV: Estimation Frameworks

To investigate the relationship between minimum wage legislation and news coverage, we estimate variants of the following specification using a Poisson regression model:

$$\text{E}(News_{s,t}|Z_{s,t}) = \exp(\beta_1 LMW_{s,t} + \beta_2 FMW_{s,t} + \beta_3 stateintroduced_{s,t} + \beta_3 statepassed_{s,t}$$
$$+ \beta_4 substatepassed_{s,t} + \alpha_{1s} State_s + \alpha_{2t} Time_t + X_{s,t}\gamma). \qquad (1)$$

Here, $News_{s,t}$ is a count of articles from newspapers in state *s* published in month *t*. The outcomes we analyze include counts of articles that reference the minimum wage and counts of articles that reference both the minimum wage and a key player from the labor movement. The vector $Z_{s,t}$ includes the full set of covariates on the right-hand side of the expression.

The primary covariates of interest involve key dates associated with minimum wage legislation. $LMW_{s,t}$ is an indicator for whether a state changed its minimum wage between

month $t$ and the previous month. $FMW_{s,t}$ is an indicator for whether a state is scheduled to change its minimum wage between month $t$ and month, $t+1$. The variable $stateintroduced_{s,t}$ is an indicator for the month in which a state's legislature first introduced an ultimately successful bill to increase minimum wage. The variable $statepassed_{s,t}$ is an indicator for the month a legislature first passed a minimum wage increase.

The vector $X_{s,t}$ includes two sets of additional covariates. First, it includes time and state varying indicators for worker strikes related to the Fight for \$15 movement, the tenure of Ed Murray as Mayor of Seattle, and the Occupy Wall Street protests. These events are associated with increased news coverage of minimum wages, but they do not directly involve changes in minimum wages due to new legislation. Second, in some specifications we include the macroeconomic covariates discussed in the previous section. Equation (1) also includes state and time fixed effects.

We also estimate the relationship between events in the legislative histories of minimum wage increases and articles shares (e.g., the share of newspaper articles about organized labor that also make reference to the minimum wage). For these outcome variables, we estimate ordinary least squares (OLS) regressions rather than Poisson models. Specifically, we estimate the equation below:

$$S_{i,s,t} = \beta_0 + \beta_1 LMW_{s,t} + \beta_2 FMW_{s,t} + \beta_3 stateintroduced_{s,t} + \beta_3 statepassed_{s,t}$$
$$+ \beta_4 substatepassed_{s,t} + \alpha_{1s} State_s + \alpha_{2t} Time_t + X_{s,t}\gamma + \varepsilon_{s,t}. \qquad (2)$$

Aside from taking the form of an OLS regression model rather than a Poisson regression model, the specification is otherwise the same.

Note that in estimating equations (1) and (2), we have both descriptive and causal goals in mind. That is, we are interested in the descriptive question of whether news coverage does, in fact, differ during the months associated with important events in the legislative histories of minimum wage increases. For answering this descriptive question, causality is not a concern. We are also interested in the causal question of whether the advance of minimum wage legislation is responsible for shaping the news. Here it is useful to emphasize a key difference between our empirical setting and typical efforts to estimate the causal effects of policy changes. In our setting, the policy variables of interest are primarily tracking short-lived changes, or spikes, in news coverage during individual months. Consequently, our estimates of coefficients on, for example, an indicator that is equal to one in the month the first piece of minimum wage legislation is passed, is not subject to first order biases from slow-moving trends. Slow-moving trends are more relevant when analyzing outcomes like employment, for which gradual dynamics can be important. In our setting, sources of bias would have to be specific to the month of the events we analyze. While we are open to suggestions, it is not obvious to us what form such confounders would take. This bolsters our confidence in the likely validity of a causal interpretation of our estimates.

## Section V: Analysis of the Relationship between News Coverage and Events in the Legislative Histories of Minimum Wage Increases

In this section, we present our analysis of the relationship between news coverage and events in the legislative histories of minimum wage increases. We begin by presenting several illustrations of the sorts of events that are tracked by our news coverage data base. We then

present our estimates of equations (1) and (2), which demonstrate that news coverage of minimum wages tracks key moments in state-level legislative histories, and that minimum wage policy changes predict changes in coverage of organized labor. Finally, we show that these state-level shifts are consistent with national time series on news coverage and minimum wage policy making: at a national level, coverage of minimum wages increased substantially during the mid-2010s burst of minimum wage legislation, and this increase corresponded with a shift in coverage of organized labor.

*Newspaper Mentions of Key Moments in the Fight for $15 Movement*

Figure 1 provides a descriptive look at our time series for counts of newspaper articles that reference the minimum wage. Panels A, B, and C present time series for New York, California, and Washington. For ease of visual comparison, we normalize by the population associated with the states in question. Panel D presents a complementary time series for monthly counts of articles about minimum wages in the New York Times.

The series in Figure 1 track important events in states' minimum wage histories. The series for New York (Panel A) exhibits a substantial increase from January through April 2016. This period corresponds with coverage of the introduction and passage of New York's legislation to increase the minimum wage to $15. There is also a sustained elevation in New York's coverage of the minimum wage beginning early in 2012, which follows the disbandment of the Occupy Wall Street encampment. Turning to California (Panel B), the most dramatic spike in coverage corresponds with the signing of SB 3, which is California's legislation for raising the minimum wage to $15. In Washington, coverage of the minimum wage escalated substantially

with the election of Seattle mayor Ed Murray, who made the $15 minimum wage one of his signature issues. Washington's most noticeable spike in coverage corresponds with the months surrounding the November 2016 passage of Ballot Initiative 1433, which called for the statewide minimum wage to rise to $13.50 in 2020. Finally, Panel D shows that coverage of minimum wages in the New York Times has been substantially elevated since late 2013, which corresponds with the arrival of a wave of minimum wage legislation in New York and elsewhere around the country.

We draw three conclusions from our inspection of data on news coverage of the minimum wage. First, we are reassured by the fact that the series exhibits spikes at key moments in the legislative and political histories of states' minimum wages. Second, the figures provide evidence on the appropriate functional form for tracking the relationship between news coverage and various events. While some events generate sustained increases in news coverage, most key events generate short-lived spikes in coverage. Third, the figures provide evidence that news coverage tracks a diverse set of events, including moments in legislative histories, moments in protest movements, and electoral moments like the victory of Seattle mayor Ed Murray. These facts guide the empirical specification we use to track the relationship between minimum wage coverage and key legislative and political events.

*Analysis of Newspaper Mentions of Minimum Wages and the Labor Movement*

Table 1 presents our analysis of the relationship between newspaper coverage and key legislative and political events. That is, the table presents estimates of equation (1). The table entries can thus be interpreted as changes in the relative frequency of news articles. An estimate

of 1.2, for example, implies that newspapers published 1.2 times more minimum wage articles in months associated with a particular class of events relative to other months. In Panel A, the dependent variables are counts of newspaper articles at the state-by-month level that mention minimum wages (columns 1 and 2), labor unions, organized labor, or the labor movement (columns 3 and 4) and both minimum wages and organized labor in the same article (columns 5 and 6). In Panel B, the dependent variables are counts of newspaper articles at the that mention minimum wages and either the Economic Policies Institute (EPI) or the National Employment Law Project (NELP) (columns 1 and 2), minimum wages and output from research activity (columns 3 and 4) and the union of the outcomes analyzed in columns 1 through 4 (columns 5 and 6). For these and additional, supplemental outcomes, a more expansive set of robustness checks, as well as point estimates on ancillary covariates, are reported in Appendix Tables A2 through A8.

Our estimates of the effects of minimum wage increases on minimum wage coverage are consistent with the examples presented in Figure 1. In columns 1 and 2 of Panel A, we observe substantial increases in news coverage of the minimum wage following both the passage and implementation of minimum wage increases.[10] Appendix Table A2 reveals further that New York City's Occupy Wall Street protests and the election of Seattle mayor Ed Murray predict sustained increases in the intensity of minimum wage coverage. These estimates reveal that key moments in the Fight for $15's history predict appreciable increases in news coverage of

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[10] The point estimate of 1.15 from Column 2 implies that newspapers publish roughly 1.15 times more articles on the minimum wage in months with a minimum wage increase. Coverage also increases in months when state or local minimum wage legislation is passed, with about 2.52 times more articles published in months when new statewide legislation is passed and about 1.28 times more articles written in months when new local legislation is passed.

minimum wages.[11]

In columns 3 and 4, we find no evidence that events in the history of minimum wage increases predict increases in the overall flows of articles about organized labor. Most coefficients (including those reported solely in Appendix Table A3) are statistically indistinguishable from null effects. The months in which a piece of minimum wage legislation is introduced appear, if anything, to be associated with a reduction in the flow of articles that reference organized labor.[12]

In columns 5 and 6, we observe strong increases in the number of articles referencing both the minimum wage and the labor movement. These increases occur both when states pass new minimum wage legislation and in the months surrounding the implementation of minimum wage changes. We do not see increases, however, when municipalities pass minimum wage legislation.

The estimates in Panel B of Table 1 provide a more tangible look at content of news articles that reference both organized labor and the minimum wage. In columns 1 and 2, the dependent variable is the count of articles that jointly reference the minimum wage and either the Economic Policy Institute (EPI) or the National Employment Law Project (NELP). Both of these organizations have close connections to the labor movement and advocate regularly for progressive policies. The governing boards of both organizations, for example, include officers of major union groups.[13]

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[11] Examining additional specifications in Appendix Table A2 we similarly find strong relationships between minimum wage increases and mentions of minimum wages in state newspapers.

[12] Examining additional specifications in Appendix Table A3 we similarly find no significant relationships between minimum wage increases and mentions of organized labor in state newspapers.

[13] As of September 2020, for example, NELP's governing board included the director of policy and legislation for the SEIU chapter 32BJ, which has 145,000 members, and the secretary-treasurer of the American Federation of

In the months surrounding the enactment of minimum wage increases, we observe increases in the prevalence of news articles that link minimum wages and key players in the labor movement. Our estimates of these increases in news coverage are statistically strongest in the month when a new state minimum wage increase goes into effect, as well as the month just before it goes into effect. These articles sometimes include announcements that an upcoming minimum wage increase will raise wages for some precisely specified number of workers. There is also evidence, though estimated less precisely, of substantial increases in coverage during the months in which state bills mandating new minimum wage increases are passed. Our reading of a sample of the underlying article suggests that journalists may solicit quotes from labor policy advocates as they write articles about impending or recently enacted minimum wage increases. Conversely, policy advocates may approach journalists with analyses and commentary to support their journalistic writing. Appendix Figure B1 presents an example news article fitting this general profile.

While minimum wage increases predict substantial increases in articles that connect the minimum wage with NELP and EPI, we find much smaller effects for the SEIU, as reported in Appendix Table A6. The absence of increases in news coverage of the SEIU at the time of minimum wage increases is quite interesting. Over the decade preceding the COVID-19 pandemic, SEIU appears to have made relatively modest progress in its effort to organize food-service workers. This is reflected in SEIU's aggregate membership figures, as well as in analysis reported in Clemens and Strain (forthcoming), which finds that minimum wage increases have

State, County, and Municipal Employees (AFSCME): https://www.nelp.org/about-us/board-of-directors/. EPI has a more direct link to organized labor, as the organization was funded by a set of labor unions at its inception. As of March 2020, EPI's board of directors was chaired by the chairman of the AFL-CIO, with other board members having leadership roles in AFSCME, the Communication Workers of America, and the International Association of Machinists and Aerospace Workers: https://www.epi.org/about/board/.

had no net effect on unionization among food-service and retail workers. As emphasized above, this may reflect the fact that the minimum wage is a substitute for a union's bargaining clout among the very low-wage workers SEIU is attempting to organize.

In the remaining columns we provide additional insight into the content of the increases in news coverage of minimum wages that occur surrounding key events. First, we show in columns 3 and 4 that there are substantial increases in articles about minimum wages that reference some sort of research output (e.g., an academic paper) or data-driven calculation. Averaged across the major classes of events, the implied increase in counts of articles that references minimum wages and research output is roughly proportional to the overall increase in articles that reference minimum wages. In columns 5 and 6, we show that there is a disproportionately large increase in articles that jointly reference the minimum wage, research output, and either the EPI or NELP. That is, the passage and enactment of minimum wage increases predict particularly large surges in newspaper coverage that features either analyses or comments on analyses by affiliates of EPI and NELP. The magnitudes are substantial, as the estimates imply increases in the counts of such articles that exceed 100 percent during the months preceding and including the enactment of a minimum wage increase as well as during the months in which statehouses pass minimum wage legislation.

Table 2 ties some of our previous analyses together by analyzing changes in the composition of newspaper articles about organized labor and minimum wages. First, in columns 1 and 2 of Panel A, we analyze the minimum wage's prevalence in articles that reference organized labor. That is, the estimates describe the relationship between events in the history of minimum wage legislation and the fraction of articles about organized labor that also make reference to the minimum wage. In this analysis, our paper joins past work like that by Schmidt

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(1993) and Panagopoulos and Francia (2009) in using "content analysis" of the news to study unions.[14]

The results presented in Table 1 suggest that this relationship will tend to be positive, and indeed it is. That is, in Table 1 we found that minimum wage events predict no change in the prevalence of articles about organized labor, but increases in counts of articles that reference both organized labor and the minimum wage. Note that for Table 2 we estimate equation (2), which is the ordinary least squares counterpart of equation (1). Since the dependent variable is a share, it does not exhibit the skewness that led us to estimate Poisson models for our analyses of article counts.

The results in Table 2 reveal that a diverse set of events in the minimum wage's history predict increases in the tendency for news coverage of organized labor to reference the minimum wage. As in columns 5 and 6 of Table 1, the economically largest coefficients are associated with the month in which minimum wage legislation was passed. The point estimates imply that in the month minimum wage legislation is passed, articles that reference organized labor became, on average, 11 percentage points more likely to be articles that reference the minimum wage. The months in which minimum wage increases are implemented, as well as the month prior to implementation, are associated with more modest increases in the tendency for articles about organized labor to reference the minimum wage. The same is true of key political events in the minimum wage's recent history. Over the last decade, the forward movement of minimum wage legislation has thus had tangible impacts on the content of newspaper coverage of organized

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[14] Schmidt (1993) examines media coverage and public perceptions of unions during the 1980s and finds that coverage centered on strikes negatively affects perceptions of unions, particularly among people who have no group attachment to unions. Analyzing Gallup and ANES survey data, Panagopoulos and Francia (2009) find that union approval was high from the 1940s to 1970s, decreased during the 1970s and 1980s, and has risen since then, even as union membership has simultaneously declined.

labor.

The estimates in Panel B of Table 2 provide evidence on the composition of articles about minimum wages. Consistent with what one would expect based on the results in Table 1, we find that the enactment of minimum wage increases predict shifts in articles about minimum wages towards being articles that reference EPI and NELP (columns 1 and 2). Averaging across the month preceding and the month of the minimum wage increase, the fraction of minimum wage articles that reference EPI or NELP rises by roughly 76 percent relative to the sample mean of 0.0269. For articles that reference EPI or NELP and some form of research output, the increase relative to the sample mean is roughly 104 percent, again averaged across the month preceding and the month of the minimum wage increase (columns 5 and 6). These findings are robust across a range of alternative specifications, as shown in Appendix Tables A9 through A15.

*Connection to National Trends*

Figure 2 shows that the relationship between state minimum wage legislation and news coverage of organized labor can be seen in national trends. Panel A of Figure 2 displays several facts involving yearly, national counts of news articles. First, it shows that the total number of articles in our data set that mention the labor movement was quite stable from 2010 to 2019. Second, it shows that the number of articles that mention either the minimum wage or both the minimum wage and organized labor rose substantially between 2012 and 2014. These counts then plateaued and declined moderately after 2016. Panel B shows that the share of articles about organized labor that also mention the minimum wage follows a similar trend. That is, between

2012 and 2014, the composition of news articles about organized labor exhibit a sustained shift towards articles that also discuss the minimum wage. As also illustrated in Panel B, this change in the composition of coverage of organized labor coincides with the first wave of minimum wage legislation to be introduced and subsequently passed between 2011 and 2019.

Figure 3 presents additional evidence focusing on coverage of labor issues in the New York Times. Figure 3's Panel A shows, like the national time series, that the New York Times's coverage of minimum wages rose dramatically during the mid-2010s. As with newspaper coverage nationwide, the increase corresponds with the wave of state-level minimum wage legislation; from 2012 to 2014, the number of New York Times articles referencing minimum wages rose from just under 200 to over 600 per year. A longer time series, which is available upon request, reveals that 200 articles per year had been the historical norm since the 1980s. The 5-year span from 2014 to 2019 in which more than 600 minimum wage articles have appeared per year is historically unusual. Panel B shows that the number of articles about organized labor was relatively stable from 2010 through 2017, but increased, from an average of just under 500 per year to an average of just over 700 per year in 2018 and 2019. Panel C shows that the fraction of articles about organized labor that also reference the minimum wage correspondingly rose three-fold, from just under 5 percent, which aligned with the historical norm from 1980 through 2010, to an average of just over 15 percent during the mid-to-late 2010s.

Figure 3's Panel D presents the output from an analysis of the sentiment of the New York Times's coverage of organized labor. The time series reveals a substantial rise in the net positive sentiment of this coverage in 2014 and 2015, corresponding with the rise in the prevalence of articles that reference both organized labor and minimum wages. The data further reveal that this change in sentiment is consistent with a direct role for the rise of minimum wage coverage. To

see this, we regress sentiment scores on whether an article about organized labor references the minimum wage or strike activity. We find that the sentiment scores of these groups of articles are strongly statistically differentiable from one another. As presented in Figure 4, articles that reference both organized labor and minimum wages have higher sentiment scores, on average, than do other articles about organized labor, in particular those that reference labor stoppages. These findings hold directionally whether we use the Bing sentiment lexicon (Hu aand Liu, 2004), the AFINN sentiment lexicon (Nielsen, 2011), or the Canada National Research Council word-emotion association (NRC) lexicon (Mohammad and Turney, 2013).[15] The sentiment scores of articles that reference organized labor and minimum wages relative to articles that reference strikes are statistically very strongly distinguishable from one another using all three dictionaries, while the difference between minimum wage articles and the residual "other" category are strongly statistically distinguishable from one another using the Bing and AFINN sentiment dictionaries, but only weakly differentiable from one another using the NRC sentiment lexicon.

## Section VI: Discussion and Conclusion

Our analysis has investigated the interplay between public policy, interest groups, and news coverage. Unions have advocated extensively for recent minimum wage increases. In the wake of recent minimum wage legislation, we find that news coverage of organized labor becomes more likely to correspond with news coverage of minimum wage increases.

Our findings provide evidence on an underexplored rationale for the involvement of

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[15] Additional detail regarding the sentiment dictionaries can be found towards the end of Appendix B.

interest groups in policy advocacy. We find that the passage and enactment of minimum wage increases predict increases in newspaper coverage that discusses both the minimum wage and key players in the labor movement. Inspection of the underlying articles suggests that analysts associated with labor groups help shape news coverage through both the analyses they disseminate and the commentary they provide to journalists writing stories about the enactment of minimum wage increases. By making their analyses and commentary accessible, analysts can increase the likelihood that news coverage conveys their point of view.

An understanding of the relationships among interest groups, news coverage, and public policy is important for understanding the political process. Our analysis illustrates how successful policy advocacy can alter news coverage. In doing so, it has the potential to alter the events and ideas with which an interest group is associated. This may help to explain how policy advocacy fits in to interest groups' competition over voters' loyalties. That is, one channel through which policy advocacy can improve an interest group's standing with voters is as a part of the quest for "good PR." More research is needed, however, to understand the mechanisms through which such strategies might work and to explore their generality.

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Tables and Figures

**Table 1. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages and Other Terms in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Panel A. Dependent Variable Count of Articles Mentioning: | Minimum Wage | | Organized Labor | | Minimum Wage and Organized Labor | |
| Change in Minimum Wage from Previous Month | 1.1723*** | 1.1535*** | 1.0157 | 0.9875 | 1.2956*** | 1.2503** |
| | (0.0522) | (0.0394) | (0.0578) | (0.0591) | (0.1222) | (0.1202) |
| Change in Minimum Wage in Following Month | 1.1120* | 1.0954* | 1.0864 | 1.0641 | 1.3333** | 1.3049** |
| | (0.0656) | (0.0583) | (0.0592) | (0.0619) | (0.1523) | (0.1365) |
| Month First State Minimum Wage Legislation Passed | 2.4490*** | 2.5156*** | 0.9270 | 0.9675 | 1.7806** | 1.9606** |
| | (0.4224) | (0.4511) | (0.1204) | (0.1236) | (0.5051) | (0.5351) |
| Month First Local Minimum Wage Legislation Passed | 1.2725** | 1.2845** | 0.9830 | 0.9776 | 0.8131 | 0.8267 |
| | (0.1414) | (0.1413) | (0.0768) | (0.0718) | (0.1447) | (0.1404) |
| | | | | | | |
| Pseudo R-squared | 0.8028 | 0.8054 | 0.8377 | 0.8405 | 0.5930 | 0.5973 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |
| Panel B. Dependent Variable Count of Articles Mentioning: | Minimum Wage and EPI or NELP | | Minimum Wage and Research | | Minimum Wage and Research and EPI or NELP | |
| Change in Minimum Wage from Previous Month | 1.7219*** | 1.6395*** | 1.1306** | 1.1136* | 2.0073*** | 1.9485*** |
| | (0.3488) | (0.2899) | (0.0633) | (0.0669) | (0.4814) | (0.4125) |
| Change in Minimum Wage in Following Month | 1.9946*** | 1.9076*** | 1.3926*** | 1.3809*** | 2.6112*** | 2.6057*** |
| | (0.3415) | (0.2939) | (0.1377) | (0.1242) | (0.8083) | (0.7292) |
| Month First State Minimum Wage Legislation Passed | 2.4423* | 2.7304** | 1.8651*** | 1.9616*** | 2.2802 | 2.8335** |
| | (1.2509) | (1.3250) | (0.2457) | (0.2687) | (1.2677) | (1.3861) |
| Month First Local Minimum Wage Legislation Passed | 1.2516 | 1.2548 | 1.0448 | 1.0614 | 0.5391 | 0.5670 |
| | (0.3175) | (0.3039) | (0.1104) | (0.1142) | (0.2137) | (0.2188) |
| | | | | | | |
| Pseudo R-squared | 0.3889 | 0.3940 | 0.5697 | 0.5717 | 0.3054 | 0.3136 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,406 | 5,406 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how frequently state newspaper articles mention minimum wages (panel A columns 1 and 2), organized labor (panel A columns 3 and 4), both minimum wages organized labor in the same article (panel A columns 5 and 6), both minimum wages and EPI or NELP (panel B columns 1 and 2) and both minimum wages and SEIU (panel B columns 3 and 4). State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites Variable definitions and sources are discussed in Appendix A. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table 2. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Organized Labor or Minimum Wages Also Mentioning Other Terms, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Panel A. Dependent Variable: Share of Articles Mentioning Organized Labor Also Mentioning: | Minimum Wage | | Research Output | | Minimum Wage and Research Output | |
| Change in Minimum Wage from Previous Month | 0.0226** | 0.0220** | 0.0079 | 0.0087 | 0.0054 | 0.0094 |
| | (0.0096) | (0.0097) | (0.0132) | (0.0133) | (0.0081) | (0.0077) |
| Change in Minimum Wage in Following Month | 0.0268** | 0.0261** | 0.0235 | 0.0245 | 0.0176 | 0.0222** |
| | (0.0117) | (0.0116) | (0.0166) | (0.0165) | (0.0107) | (0.0094) |
| Month First State Minimum Wage Legislation Passed | 0.1145*** | 0.1156*** | 0.0022 | 0.0007 | 0.0616** | 0.0543* |
| | (0.0351) | (0.0342) | (0.0143) | (0.0141) | (0.0266) | (0.0274) |
| Month First Local Minimum Wage Legislation Passed | 0.0290 | 0.0286 | -0.0603*** | -0.0598*** | 0.0145 | 0.0168 |
| | (0.0240) | (0.0240) | (0.0110) | (0.0110) | (0.0159) | (0.0156) |
| | | | | | | |
| Dependent variable mean | 0.1093 | 0.1093 | 0.1065 | 0.1065 | 0.0414 | 0.0414 |
| Adjusted R-squared | 0.2686 | 0.2691 | 0.0834 | 0.0844 | 0.1765 | 0.1974 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |
| Panel B. Dependent Variable: Share of Articles Mentioning Minimum Wages Also Mentioning: | EPI or NELP | | Research Output | | Research Output and EPI or NELP | |
| Change in Minimum Wage from Previous Month | 0.0177*** | 0.0175*** | -0.0024 | -0.0026 | 0.0068** | 0.0067** |
| | (0.0052) | (0.0052) | (0.0075) | (0.0076) | (0.0030) | (0.0030) |
| Change in Minimum Wage in Following Month | 0.0233** | 0.0231** | 0.0174* | 0.0172* | 0.0135** | 0.0135** |
| | (0.0112) | (0.0111) | (0.0095) | (0.0095) | (0.0052) | (0.0051) |
| Month First State Minimum Wage Legislation Passed | -0.0068 | -0.0064 | 0.0041 | 0.0043 | 0.0044 | 0.0045 |
| | (0.0083) | (0.0080) | (0.0157) | (0.0156) | (0.0059) | (0.0058) |
| Month First Local Minimum Wage Legislation Passed | -0.0004 | -0.0006 | -0.0167 | -0.0167 | -0.0018 | -0.0018 |
| | (0.0041) | (0.0042) | (0.0122) | (0.0122) | (0.0024) | (0.0024) |
| | | | | | | |
| Dependent variable mean | 0.0269 | 0.0269 | 0.1105 | 0.1105 | 0.0097 | 0.0097 |
| Adjusted R-squared | 0.1327 | 0.1331 | 0.1553 | 0.1551 | 0.0653 | 0.0650 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of articles mentioning organized labor that also mention minimum wages (panel A columns 1 and 2), research output (panel A columns 3 and 4) and both minimum wages and research output (Panel A columns 5 and 6). We also present results on the share of articles mentioning minimum wages that also mention EPI or NELP (panel B columns 1 and 2), research output, (panel B columns 3 and 4), and both research output and EPI or NELP (panel B columns 5 and 6). State newspaper articles come from LexisNexis. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites Variable definitions and sources are discussed in Appendix A. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

## Newspaper coverage of minimum wages

**Panel A: New York**

occupy     st inc     st inc   st inc

*y-axis: Articles per million residents (0, 10, 20, 30, 40)*

*x-axis: 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020*

**Panel B: California**

st inc     st inc   st inc

*y-axis: Articles per million residents (0, 10, 20, 30, 40)*

*x-axis: 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020*

**Panel C: Washington**

Murray elected     st ballot

*y-axis: Articles per million residents (0, 10, 20, 30, 40)*

*x-axis: 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020*

**Panel D: New York Times**

occupy     st inc     st inc   st inc

*y-axis: Articles (0, 25, 50, 75, 100)*

*x-axis: 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020*

**Figure 1. News Coverage of the Minimum Wage Over Time.** This figure displays the number of minimum wage articles per million residents in state newspapers per month, as constructed using counts of articles from LexisNexis from January 1, 2010 – December 31, 2019. Panels A–C display results for New York, California, and Washington. Panel D displays article counts by month for the New York Times. Labeled events include months in which state or local minimum wage increases were voted on or enacted, months associated with events including the election of Seattle mayor Ed Murray (Washington only) and the disbandment of the original Occupy Wall Street encampment (New York only), and months associated with local or national strikes by food-service workers.

## Panel A: Counts of Lexis Nexis Newspaper Articles Over Time: 2010-2019



Min wage (left) — Org labor (left) ···· Min wage and org labor (right)
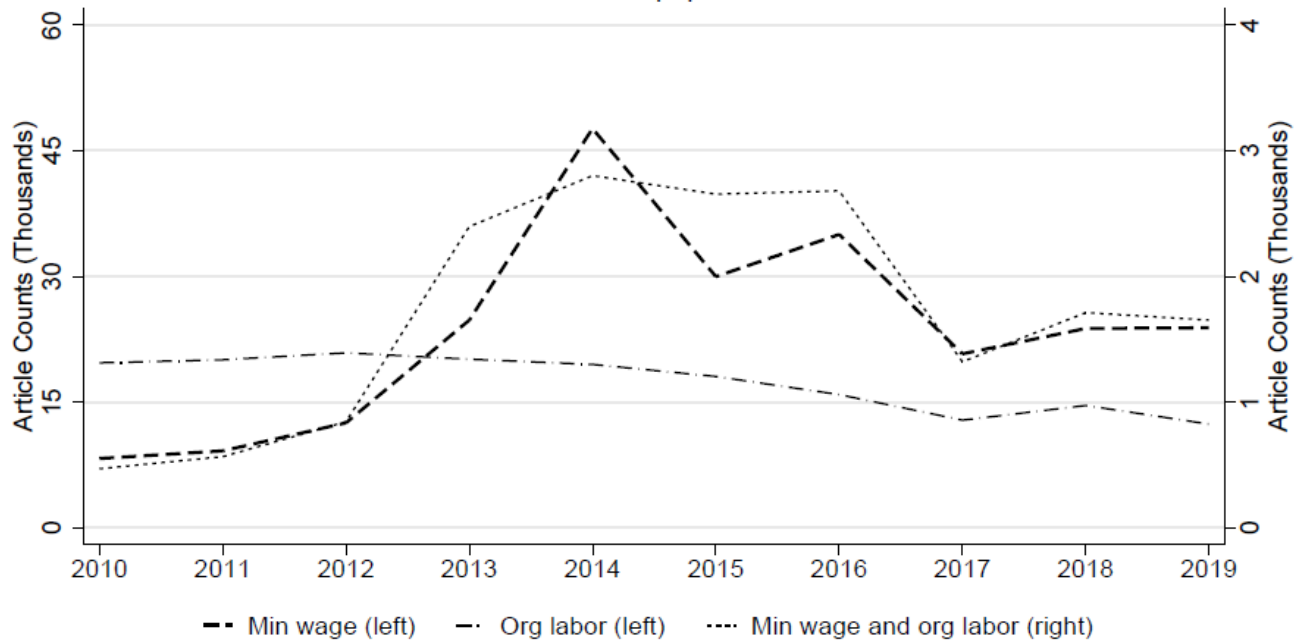
## Panel B: Share of Organized Labor Articles that Mention Minimum Wages and States Passing Minimum Wage Increases: 2010-2019



Article Share — Introduced New Increase — Passed New Increase — Enacted New Increase
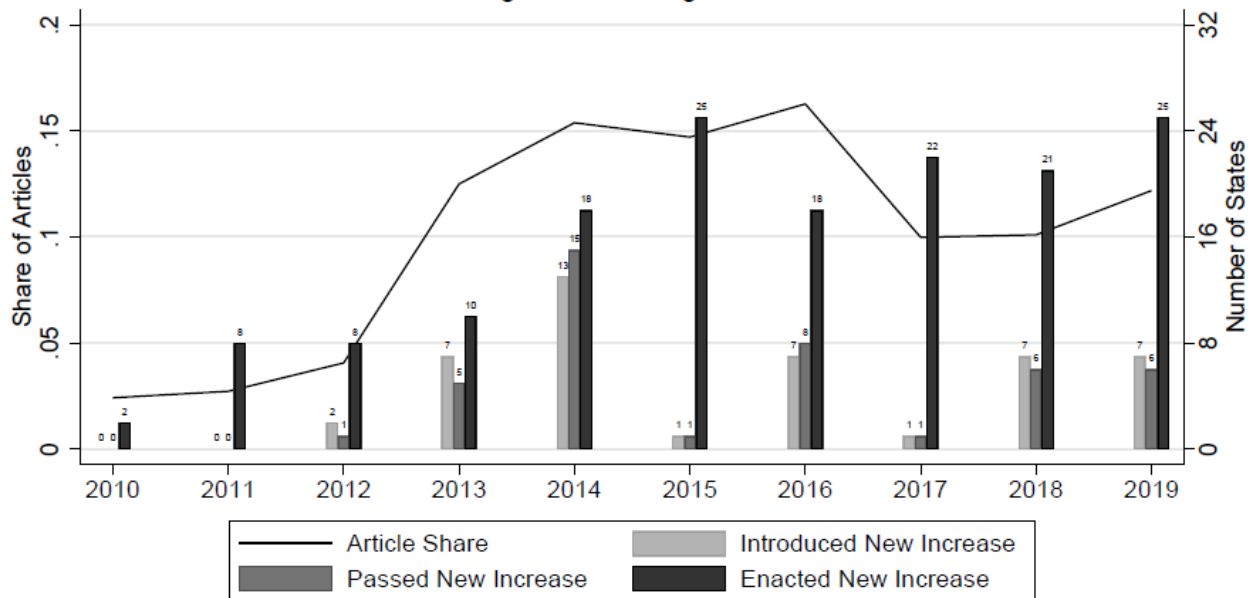
**Figure 2. Minimum Wage and Organized Labor Articles Over Time.** These figures plot the evolution of media coverage of minimum wages and organized labor over time. Panel A plots the annual counts of US newspaper articles that mention the minimum wage or organized labor (left axis) and the number of US newspaper articles that mention both the minimum wage and organized labor in the same article (right axis). Panel B plots the share of articles mentioning organized labor that also mention minimum wages (left axis). Panel B also illustrates the number of states in which new and ultimately successful minimum wage legislation was introduced, the number of states in which such legislation passed, and the number of states enacting a minimum wage increase in a given year (right axis). The count of the number of states enacting a minimum wage increase includes increases enacted due to inflation-indexing provisions. The newspaper articles come from LexisNexis and the searches used are described in more detail in Appendix B
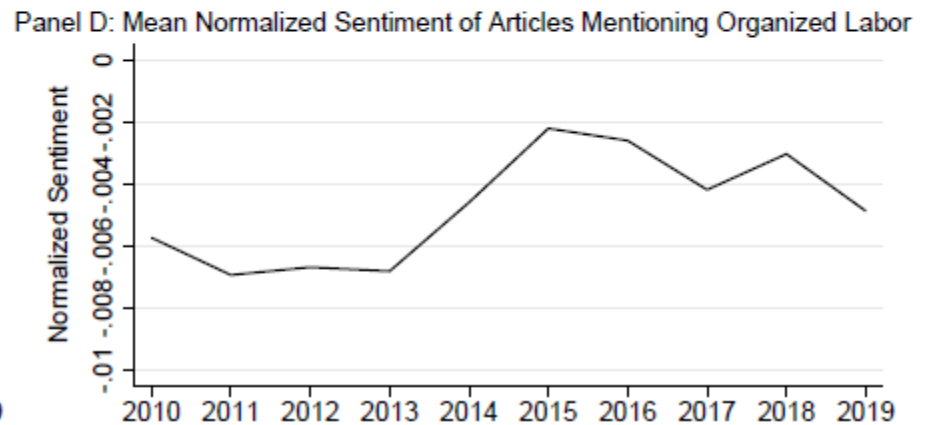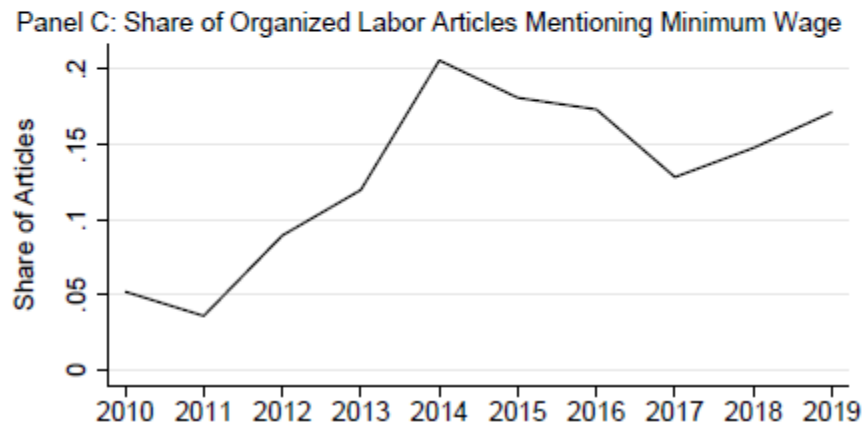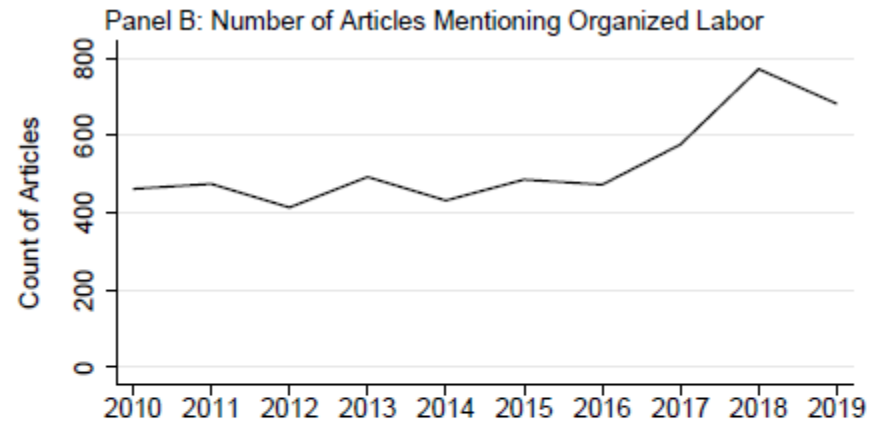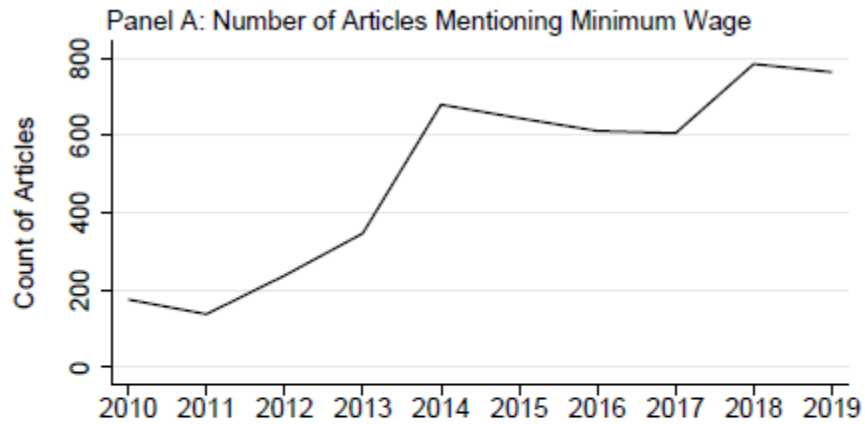
**Figure 3. Trends in Articles mentioning Organized Labor or Minimum Wages in the New York Times: 2010-2019.** This figure displays counts and shares of minimum. Panel A plots the number of articles published each year mentioning minimum wages and panel B plots the number of articles published each year mentioning organized labor. Panel C plots the share of articles referencing organized labor that also mention the minimum wage. Panel D plots the mean sentiment calculated using the Bing sentiment lexicon normalized by article length of articles referencing organized labor.
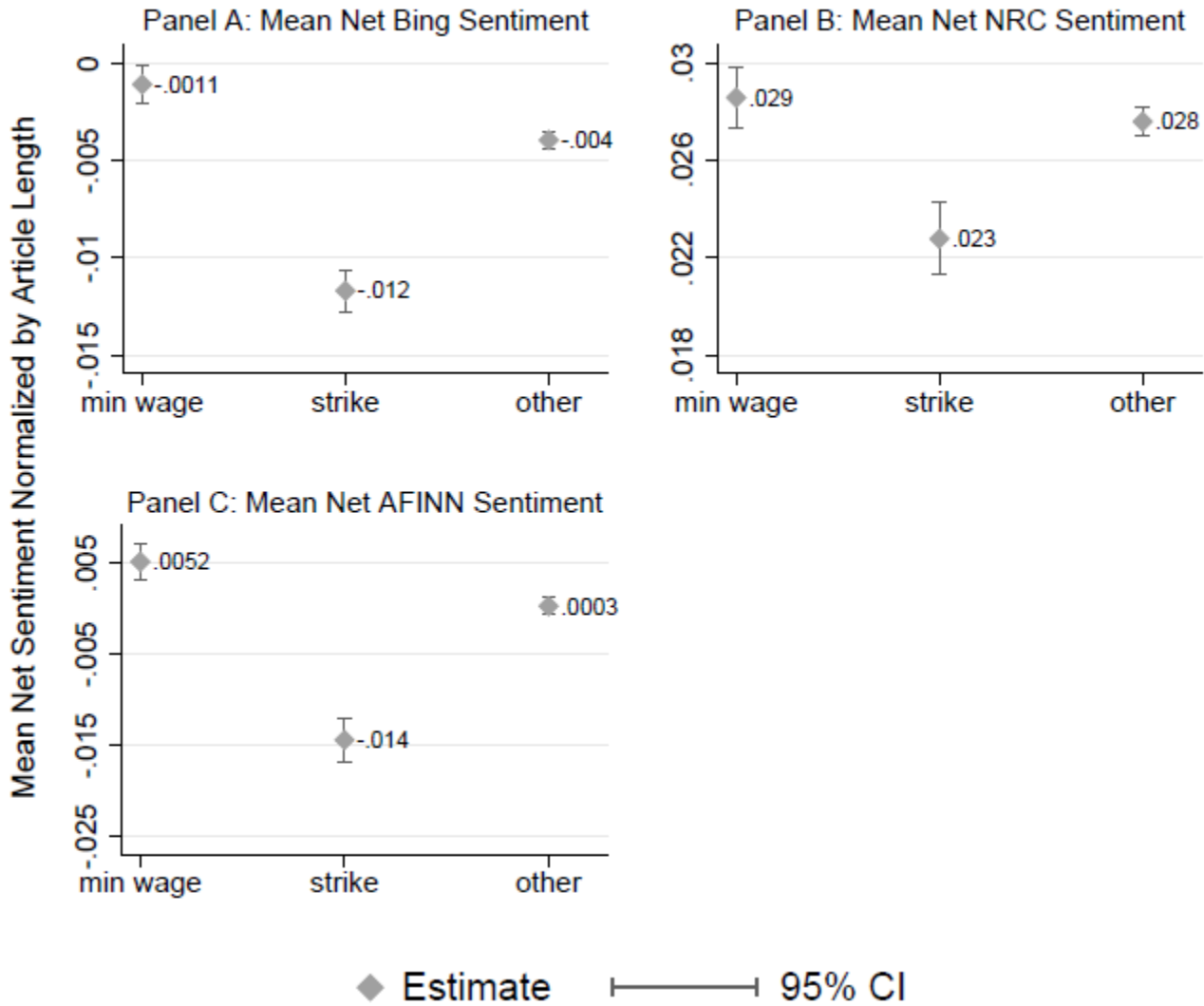
**Figure 4. Mean Net Sentiment of New York Times Articles Mentioning Organized Labor and Minimum Wages, Strikes or Other Topics: 2011-2019.** This figure plots the estimates of the net sentiment (normalized by article length) of articles in the New York Times that mention organized labor. We investigate variations in sentiment across groups of articles by estimating the following regression equation:

$$netsentnorm_{it} = \alpha + \beta_1 minwage_{it} + \beta_2 strike_{it} + e_{it}$$

where $netsentnorm_{it}$ is the net positive sentiment of article $i$ published in year $t$,, where $minwage_{it}$ and $strike_{it}$ are indicators for whether the article refers to minimum wages or strikes in addition to organized labor. and $e_{it}$ is the error term. The standard errors we estimate allow for heteroskedasticity. The estimated means for each article group are then calculated as linear combinations of the regression coefficients as follows:

$$\overline{minwage} = \alpha + \beta_1$$
$$\overline{strike} = \alpha + \beta_2$$
$$\overline{other} = \alpha$$

Panel A plots sentiment for each of the three article groups calculated using the Bing sentiment lexicon. Panel B plots sentiment calculated using the NRC sentiment lexicon. Panel C plots sentiment using the AFINN sentiment lexicon. The gray diamonds are the resulting point estimates and the surrounding bands represent 95 percent confidence intervals for the estimated means.

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# Appendix A. Additional Tables and Figures

**Table A1. List of States with Minimum Wage Changes from 2011 to 2019, Year of First Statutory Increase, and Year of First Indexed Increase**

| State | Year of First Statutory Increase | Year of First Indexed Increase |
|---|---|---|
| Alaska | 2016 | |
| Arizona | 2017 | 2012 |
| Arkansas | 2015 | |
| California | 2014 | |
| Colorado | 2017 | 2012 |
| Connecticut | 2014 | |
| Delaware | 2014 | |
| District of Columbia | 2014 | |
| Florida | | 2011 |
| Hawaii | 2015 | |
| Maine | 2017 | |
| Maryland | 2015 | |
| Massachusetts | 2015 | |
| Michigan | 2014 | |
| Minnesota | 2014 | |
| Missouri | 2019 | 2013 |
| Montana | | 2012 |
| Nebraska | 2015 | |
| New Jersey | 2014 | |
| New York | 2014 | |
| Ohio | | 2012 |
| Oregon | 2016 | 2012 |
| Rhode Island | 2013 | |
| South Dakota | 2015 | |
| Vermont | 2015 | 2012 |
| Washington | 2017 | 2012 |
| West Virginia | 2015 | |

Note: Data on minimum wage changes come from Clemens, Hobbs, and Strain (2018), Vaghul and Zipperer (2021), and a number of complementary sources. The table lists states that enacted minimum wage changes over the course of our primary analysis sample. Unlisted states are those for which the minimum wage did not change between January 1, 2011, and December 31, 2019. Note that this excludes New Mexico, Nevada, and Illinois, which passed minimum wage legislation in 2019, but which did not enact a minimum wage increase until 2020, which is outside of our analysis sample.

**Table A2. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | | | | | | |
| **Dependent Variable: Count of Articles Mentioning "minimum wage"** | | | | | | |
| Change in Minimum Wage from Previous Month | 1.1428*** | 1.1462*** | 1.1797*** | 1.1723*** | 1.1606*** | 1.1535*** |
| | (0.0558) | (0.0567) | (0.0503) | (0.0522) | (0.0400) | (0.0394) |
| Change in Minimum Wage in Following Month | | 1.0836 | 1.1152** | 1.1120* | 1.0988* | 1.0954* |
| | | (0.0567) | (0.0620) | (0.0656) | (0.0553) | (0.0583) |
| Month First State Minimum Wage Legislation Introduced | | | 1.4358*** | 1.4274*** | 1.4560*** | 1.4405*** |
| | | | (0.1933) | (0.1903) | (0.1955) | (0.1887) |
| Month First State Minimum Wage Legislation Passed | | | 2.4646*** | 2.4490*** | 2.5395*** | 2.5156*** |
| | | | (0.4230) | (0.4224) | (0.4475) | (0.4511) |
| Month First Local Minimum Wage Legislation Passed | | | 1.2834** | 1.2725** | 1.2946** | 1.2845** |
| | | | (0.1462) | (0.1414) | (0.1448) | (0.1413) |
| Post Occupy Wall Street Protests | | | | 2.8986*** | | 3.0840*** |
| | | | | (0.2640) | | (0.3430) |
| Ed Murray Mayor of Seattle | | | | 1.4066*** | | 1.4842*** |
| | | | | (0.0602) | | (0.0911) |
| House Price Index Divided by 1000 | | | | | 1.0014 | 1.0019* |
| | | | | | (0.0010) | (0.0011) |
| Income per Capita | | | | | 1.0000 | 1.0000 |
| | | | | | (0.0000) | (0.0000) |
| | | | | | | |
| Pseudo R-squared | 0.7892 | 0.7893 | 0.8000 | 0.8028 | 0.8022 | 0.8054 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A3. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Organized Labor in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Count of Articles Mentioning "organized labor" | | | | | | |
| Change in Minimum Wage from Previous Month | 1.0272 | 1.0300 | 1.0229 | 1.0157 | 0.9917 | 0.9875 |
| | (0.0515) | (0.0523) | (0.0539) | (0.0578) | (0.0575) | (0.0591) |
| Change in Minimum Wage in Following Month | | 1.1018* | 1.0918 | 1.0864 | 1.0676 | 1.0641 |
| | | (0.0607) | (0.0589) | (0.0592) | (0.0622) | (0.0619) |
| Month First State Minimum Wage Legislation Introduced | | | 0.8323* | 0.8302* | 0.8297 | 0.8318 |
| | | | (0.0829) | (0.0816) | (0.0978) | (0.0945) |
| Month First State Minimum Wage Legislation Passed | | | 0.9294 | 0.9270 | 0.9717 | 0.9675 |
| | | | (0.1206) | (0.1204) | (0.1219) | (0.1236) |
| Month First Local Minimum Wage Legislation Passed | | | 0.9878 | 0.9830 | 0.9803 | 0.9776 |
| | | | (0.0801) | (0.0768) | (0.0730) | (0.0718) |
| Post Occupy Wall Street Protests | | | | 1.5656*** | | 1.3918*** |
| | | | | (0.1054) | | (0.1630) |
| Ed Murray Mayor of Seattle | | | | 1.0624** | | 1.0106 |
| | | | | (0.0327) | | (0.0479) |
| House Price Index Divided by 1000 | | | | | 0.9983 | 0.9986 |
| | | | | | (0.0012) | (0.0013) |
| Ln(Income per Capita) | | | | | 1.0001** | 1.0001** |
| | | | | | (0.0000) | (0.0000) |
| | | | | | | |
| Pseudo R-squared | 0.8360 | 0.8361 | 0.8364 | 0.8377 | 0.8398 | 0.8405 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention organized labor. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

**Table A3. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages and Organized Labor in Newspaper Articles By State, 2011-2019**

|  | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Count of Articles Mentioning Both "minimum wage" AND "organized labor" | | | | | | |
| Change in Minimum Wage from Previous Month | 1.2827*** | 1.2941*** | 1.2957*** | 1.2956*** | 1.2501** | 1.2503** |
|  | (0.1221) | (0.1250) | (0.1213) | (0.1222) | (0.1198) | (0.1202) |
| Change in Minimum Wage in Following Month |  | 1.3214** | 1.3329** | 1.3333** | 1.3048** | 1.3049** |
|  |  | (0.1495) | (0.1509) | (0.1523) | (0.1349) | (0.1365) |
| Month First State Minimum Wage Legislation Introduced |  |  | 1.0981 | 1.0916 | 1.1733 | 1.1666 |
|  |  |  | (0.1708) | (0.1726) | (0.1846) | (0.1884) |
| Month First State Minimum Wage Legislation Passed |  |  | 1.7900** | 1.7806** | 1.9723** | 1.9606** |
|  |  |  | (0.5073) | (0.5051) | (0.5349) | (0.5351) |
| Month First Local Minimum Wage Legislation Passed |  |  | 0.8163 | 0.8131 | 0.8287 | 0.8267 |
|  |  |  | (0.1460) | (0.1447) | (0.1411) | (0.1404) |
| Post Occupy Wall Street Protests |  |  |  | 1.7987*** |  | 1.6287** |
|  |  |  |  | (0.3909) |  | (0.3487) |
| Ed Murray Mayor of Seattle |  |  |  | 1.2681*** |  | 1.2554** |
|  |  |  |  | (0.1056) |  | (0.1223) |
| House Price Index Divided by 1000 |  |  |  |  | 0.9998 | 1.0000 |
|  |  |  |  |  | (0.0012) | (0.0013) |
| Income per Capita |  |  |  |  | 1.0001*** | 1.0001*** |
|  |  |  |  |  | (0.0000) | (0.0000) |
| Pseudo R-squared | 0.5900 | 0.5907 | 0.5926 | 0.5930 | 0.5970 | 0.5973 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages and organized labor in the same article. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix A. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

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**Table A4. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages and EPI or NELP in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Count of Articles Mentioning "minimum wage" AND ("Economic Policy Institute" OR "National Employment Law Project") | | | | | | |
| Change in Minimum Wage from Previous Month | 1.6613** | 1.7263*** | 1.7237*** | 1.7219*** | 1.6390*** | 1.6395*** |
| | (0.3391) | (0.3546) | (0.3481) | (0.3488) | (0.2889) | (0.2899) |
| Change in Minimum Wage in Following Month | | 1.9830*** | 1.9933*** | 1.9946*** | 1.9048*** | 1.9076*** |
| | | (0.3560) | (0.3446) | (0.3415) | (0.2948) | (0.2939) |
| Month First State Minimum Wage Legislation Introduced | | | 0.8509 | 0.8452 | 0.9194 | 0.9143 |
| | | | (0.2628) | (0.2610) | (0.2866) | (0.2850) |
| Month First State Minimum Wage Legislation Passed | | | 2.4521* | 2.4423* | 2.7398** | 2.7304** |
| | | | (1.2547) | (1.2509) | (1.3253) | (1.3250) |
| Month First Local Minimum Wage Legislation Passed | | | 1.2574 | 1.2516 | 1.2575 | 1.2548 |
| | | | (0.3241) | (0.3175) | (0.3073) | (0.3039) |
| Post Occupy Wall Street Protests | | | | 1.3119 | | 1.0703 |
| | | | | (0.3733) | | (0.2748) |
| Ed Murray Mayor of Seattle | | | | 1.3255*** | | 1.2693*** |
| | | | | (0.0736) | | (0.0844) |
| House Price Index Divided by 1000 | | | | | 0.9993 | 0.9994 |
| | | | | | (0.0024) | (0.0025) |
| Income per Capita | | | | | 1.0001** | 1.0001** |
| | | | | | (0.0000) | (0.0000) |
| Pseudo R-squared | 0.3807 | 0.3850 | 0.3888 | 0.3889 | 0.3939 | 0.3940 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes:  This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages and either the Economic Policy Institute or National Employment Law Project in the same article. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A5. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages and SEIU in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|

Dependent Variable: Count of Articles Mentioning "minimum wage" AND "Service Employees International Union"

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Change in Minimum Wage from Previous Month | 0.9441 | 0.9498 | 0.9416 | 0.9413 | 0.9308 | 0.9302 |
| | (0.2076) | (0.2077) | (0.1998) | (0.1998) | (0.2011) | (0.2011) |
| Change in Minimum Wage in Following Month | | 1.2519* | 1.2545* | 1.2540* | 1.2517* | 1.2503* |
| | | (0.1480) | (0.1528) | (0.1523) | (0.1549) | (0.1540) |
| Month First State Minimum Wage Legislation Introduced | | | 1.4109 | 1.4109 | 1.4313 | 1.4317 |
| | | | (0.5748) | (0.5757) | (0.6005) | (0.6014) |
| Month First State Minimum Wage Legislation Passed | | | 1.2395 | 1.2396 | 1.3393 | 1.3410 |
| | | | (0.4808) | (0.4817) | (0.4999) | (0.5023) |
| Month First Substate Minimum Wage Legislation Passed | | | 0.5665*** | 0.5656*** | 0.5727*** | 0.5721*** |
| | | | (0.1021) | (0.1019) | (0.0969) | (0.0968) |
| Post Occupy Wall Street Protests | | | | 1.9928*** | | 1.6802** |
| | | | | (0.3516) | | (0.3752) |
| Ed Murray Mayor of Seattle | | | | 1.0074 | | 0.9719 |
| | | | | (0.0770) | | (0.0813) |
| House Price Index Divided by 1000 | | | | | 0.9983 | 0.9984 |
| | | | | | (0.0016) | (0.0017) |
| Income per Capita | | | | | 1.0001*** | 1.0001*** |
| | | | | | (0.0000) | (0.0000) |
| | | | | | | |
| Pseudo R-squared | 0.5398 | 0.5401 | 0.5410 | 0.5410 | 0.5429 | 0.5430 |
| Observations | 5,300 | 5,300 | 5,300 | 5,300 | 5,300 | 5,300 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages and the Service Employees International Union in the same article. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A6. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages and Research in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Count of Articles Mentioning "minimum wage" AND ("peer reviewed" OR "working paper" OR "research paper" OR "research report" OR "journal article" OR "calculated" OR "analysis" OR "calculations" OR "estimates") | | | | | | |
| Change in Minimum Wage from Previous Month | 1.1105* | 1.1252** | 1.1347** | 1.1306** | 1.1178* | 1.1136* |
| | (0.0682) | (0.0675) | (0.0649) | (0.0633) | (0.0690) | (0.0669) |
| Change in Minimum Wage in Following Month | | 1.3754*** | 1.3927*** | 1.3926*** | 1.3809*** | 1.3809*** |
| | | (0.1304) | (0.1356) | (0.1377) | (0.1234) | (0.1242) |
| Month First State Minimum Wage Legislation Introduced | | | 1.1498 | 1.1442 | 1.1766 | 1.1646 |
| | | | (0.1611) | (0.1593) | (0.1545) | (0.1515) |
| Month First State Minimum Wage Legislation Passed | | | 1.8774*** | 1.8651*** | 1.9764*** | 1.9616*** |
| | | | (0.2443) | (0.2457) | (0.2646) | (0.2687) |
| Month First Substate Minimum Wage Legislation Passed | | | 1.0493 | 1.0448 | 1.0656 | 1.0614 |
| | | | (0.1113) | (0.1104) | (0.1150) | (0.1142) |
| Post Occupy Wall Street Protests | | | | 1.9347*** | | 2.0248*** |
| | | | | (0.2854) | | (0.3359) |
| Ed Murray Mayor of Seattle | | | | 1.4447*** | | 1.5493*** |
| | | | | (0.0988) | | (0.1588) |
| House Price Index Divided by 1000 | | | | | 1.0015 | 1.0018 |
| | | | | | (0.0012) | (0.0012) |
| Income per Capita | | | | | 1.0000 | 1.0000 |
| | | | | | (0.0000) | (0.0000) |
| Pseudo R-squared | 0.5654 | 0.5667 | 0.5689 | 0.5697 | 0.5707 | 0.5717 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages and research in the same article. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A7. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages, Organized Labor, and Research in Newspaper Articles By State, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Count of Articles Mentioning "minimum wage" AND organized labor AND research output | | | | | | |
| Change in Minimum Wage from Previous Month | 1.2410 | 1.2720* | 1.2731* | 1.2677* | 1.2585 | 1.2473 |
| | (0.1677) | (0.1796) | (0.1769) | (0.1752) | (0.1998) | (0.2012) |
| Change in Minimum Wage in Following Month | | 1.8698** | 1.8789** | 1.8846*** | 1.8703** | 1.8716** |
| | | (0.4674) | (0.4648) | (0.4617) | (0.5081) | (0.5100) |
| Month First State Minimum Wage Legislation Introduced | | | 0.9950 | 0.9878 | 0.9078 | 0.8912 |
| | | | (0.3150) | (0.3093) | (0.2628) | (0.2548) |
| Month First State Minimum Wage Legislation Passed | | | 2.2004** | 2.1843** | 2.1213* | 2.1106* |
| | | | (0.8738) | (0.8667) | (0.8682) | (0.8702) |
| Month First Substate Minimum Wage Legislation Passed | | | 0.9087 | 0.9032 | 0.9072 | 0.8985 |
| | | | (0.2624) | (0.2584) | (0.2612) | (0.2543) |
| Post Occupy Wall Street Protests | | | | 1.8400** | | 2.8538*** |
| | | | | (0.5273) | | (0.8850) |
| Ed Murray Mayor of Seattle | | | | 1.9229*** | | 2.2076*** |
| | | | | (0.2343) | | (0.2770) |
| House Price Index Divided by 1000 | | | | | 1.0046 | 1.0052 |
| | | | | | (0.0034) | (0.0034) |
| Income per Capita | | | | | 0.9999 | 0.9999 |
| | | | | | (0.0001) | (0.0001) |
| Pseudo R-squared | 0.3870 | 0.3893 | 0.3907 | 0.3913 | 0.3949 | 0.3962 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages, organized labor, and research in the same article. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A8. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and Mentions of Minimum Wages, and EPI or NELP and Research in Newspaper Articles By State, 2011-2019**

|  | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Count of Articles Mentioning "minimum wage" AND (EPI OR NELP) AND "research output" | | | | | | |
| Change in Minimum Wage from Previous Month | 1.9350*** | 2.0437*** | 2.0230*** | 2.0073*** | 1.9583*** | 1.9485*** |
|  | (0.4528) | (0.4892) | (0.4796) | (0.4814) | (0.4092) | (0.4125) |
| Change in Minimum Wage in Following Month |  | 2.6396*** | 2.6290*** | 2.6112*** | 2.6145*** | 2.6057*** |
|  |  | (0.8221) | (0.8168) | (0.8083) | (0.7320) | (0.7292) |
| Month First State Minimum Wage Legislation Introduced |  |  | 0.9454 | 0.9437 | 1.0131 | 1.0082 |
|  |  |  | (0.3059) | (0.3065) | (0.3595) | (0.3578) |
| Month First State Minimum Wage Legislation Passed |  |  | 2.2794 | 2.2802 | 2.8357** | 2.8335** |
|  |  |  | (1.2655) | (1.2677) | (1.3811) | (1.3861) |
| Month First Substate Minimum Wage Legislation Passed |  |  | 0.5438 | 0.5391 | 0.5705 | 0.5670 |
|  |  |  | (0.2159) | (0.2137) | (0.2194) | (0.2188) |
| Post Occupy Wall Street Protests |  |  |  | 2.3442*** |  | 1.8397** |
|  |  |  |  | (0.6715) |  | (0.5535) |
| Ed Murray Mayor of Seattle |  |  |  | 0.9850 |  | 1.0606 |
|  |  |  |  | (0.0984) |  | (0.0970) |
| House Price Index Divided by 1000 |  |  |  |  | 1.0020 | 1.0022 |
|  |  |  |  |  | (0.0032) | (0.0033) |
| Income per Capita |  |  |  |  | 1.0001** | 1.0001** |
|  |  |  |  |  | (0.0000) | (0.0001) |
| Pseudo R-squared | 0.2971 | 0.3029 | 0.3051 | 0.3054 | 0.3134 | 0.3136 |
| Observations | 5,406 | 5,406 | 5,406 | 5,406 | 5,406 | 5,406 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on how often state newspapers mention minimum wages, EPI or NELP, and research output in the same article. State newspaper articles come from LexisNexis. The dependent variable is the number of articles published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A9. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Minimum Wages also Mentioning Research Output, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|

Dependent Variable: Share of Articles Mentioning "minimum wage" that also Mention "research output"

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Change in Minimum Wage from Previous Month | -0.0025 | -0.0017 | -0.0028 | -0.0024 | -0.0029 | -0.0026 |
| | (0.0074) | (0.0075) | (0.0075) | (0.0075) | (0.0076) | (0.0076) |
| Change in Minimum Wage in Following Month | | 0.0179* | 0.0171* | 0.0174* | 0.0170* | 0.0172* |
| | | (0.0095) | (0.0095) | (0.0095) | (0.0095) | (0.0095) |
| Month First State Minimum Wage Legislation Introduced | | | -0.0318** | -0.0315** | -0.0314** | -0.0312** |
| | | | (0.0127) | (0.0126) | (0.0121) | (0.0121) |
| Month First State Minimum Wage Legislation Passed | | | 0.0038 | 0.0041 | 0.0040 | 0.0043 |
| | | | (0.0157) | (0.0157) | (0.0156) | (0.0156) |
| Month First Local Minimum Wage Legislation Passed | | | -0.0170 | -0.0167 | -0.0170 | -0.0167 |
| | | | (0.0123) | (0.0122) | (0.0123) | (0.0122) |
| Post Occupy Wall Street Protests | | | | -0.0317*** | | -0.0308*** |
| | | | | (0.0062) | | (0.0062) |
| Ed Murray Mayor of Seattle | | | | -0.0046* | | -0.0039 |
| | | | | (0.0028) | | (0.0032) |
| House Price Index Divided by 1000 | | | | | 0.0001 | 0.0000 |
| | | | | | (0.0001) | (0.0001) |
| Ln(Income per Capita) | | | | | -0.0343 | -0.0198 |
| | | | | | (0.0771) | (0.0833) |
| | | | | | | |
| Dependent variable mean | 0.1105 | 0.1105 | 0.1105 | 0.1105 | 0.1105 | 0.1105 |
| Adjusted R-squared | 0.1548 | 0.1552 | 0.1552 | 0.1553 | 0.1551 | 0.1551 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning minimum wages that also mention research output. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning minimum wages that also mention research output published in state newspapers per month. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

**Table A10. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Minimum Wages also Mentioning EPI or NELP, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Share of Articles Mentioning "minimum wage" that also Mention "Economic Policy Institute" or "National Employment Law Project" | | | | | | |
| Change in Minimum Wage from Previous Month | 0.0170*** | 0.0181*** | 0.0174*** | 0.0177*** | 0.0173*** | 0.0175*** |
| | (0.0050) | (0.0053) | (0.0053) | (0.0052) | (0.0053) | (0.0052) |
| Change in Minimum Wage in Following Month | | 0.0236** | 0.0231** | 0.0233** | 0.0229** | 0.0231** |
| | | (0.0112) | (0.0112) | (0.0112) | (0.0111) | (0.0111) |
| Month First State Minimum Wage Legislation Introduced | | | -0.0228*** | -0.0227*** | -0.0228*** | -0.0226*** |
| | | | (0.0063) | (0.0062) | (0.0062) | (0.0062) |
| Month First State Minimum Wage Legislation Passed | | | -0.0069 | -0.0068 | -0.0066 | -0.0064 |
| | | | (0.0083) | (0.0083) | (0.0079) | (0.0080) |
| Month First Local Minimum Wage Legislation Passed | | | -0.0006 | -0.0004 | -0.0008 | -0.0006 |
| | | | (0.0042) | (0.0041) | (0.0042) | (0.0042) |
| Post Occupy Wall Street Protests | | | | -0.0218*** | | -0.0238*** |
| | | | | (0.0030) | | (0.0023) |
| Ed Murray Mayor of Seattle | | | | -0.0007 | | -0.0022 |
| | | | | (0.0019) | | (0.0016) |
| House Price Index Divided by 1000 | | | | | -0.0000 | -0.0000 |
| | | | | | (0.0001) | (0.0001) |
| Ln(Income per Capita) | | | | | 0.0681 | 0.0790 |
| | | | | | (0.0790) | (0.0788) |
| | | | | | | |
| Dependent variable mean | 0.0269 | 0.0269 | 0.0269 | 0.0269 | 0.0269 | 0.0269 |
| Adjusted R-squared | 0.1259 | 0.1311 | 0.1321 | 0.1327 | 0.1323 | 0.1331 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning minimum wages that also mention EPI or NELP. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning organized labor that also mention minimum wages published in state newspapers per month. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A11. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Minimum Wages also Mentioning both EPI or NELP and Research, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Share of Articles Mentioning "minimum wage" that also Mention "Economic Policy Institute" or "National Employment Law Project" and "research output" | | | | | | |
| Change in Minimum Wage from Previous Month | 0.0063** | 0.0069** | 0.0068** | 0.0068** | 0.0067** | 0.0067** |
| | (0.0029) | (0.0030) | (0.0030) | (0.0030) | (0.0030) | (0.0030) |
| Change in Minimum Wage in Following Month | | 0.0136** | 0.0135** | 0.0135** | 0.0134** | 0.0135** |
| | | (0.0051) | (0.0052) | (0.0052) | (0.0051) | (0.0051) |
| Month First State Minimum Wage Legislation Introduced | | | -0.0064*** | -0.0064*** | -0.0064*** | -0.0063*** |
| | | | (0.0021) | (0.0021) | (0.0021) | (0.0021) |
| Month First State Minimum Wage Legislation Passed | | | 0.0044 | 0.0044 | 0.0044 | 0.0045 |
| | | | (0.0059) | (0.0059) | (0.0058) | (0.0058) |
| Month First Local Minimum Wage Legislation Passed | | | -0.0018 | -0.0018 | -0.0019 | -0.0018 |
| | | | (0.0024) | (0.0024) | (0.0024) | (0.0024) |
| Post Occupy Wall Street Protests | | | | -0.0044** | | -0.0047*** |
| | | | | (0.0017) | | (0.0013) |
| Ed Murray Mayor of Seattle | | | | -0.0008 | | -0.0011 |
| | | | | (0.0009) | | (0.0008) |
| House Price Index Divided by 1000 | | | | | -0.0000 | -0.0000 |
| | | | | | (0.0000) | (0.0000) |
| Ln(Income per Capita) | | | | | 0.0139 | 0.0163 |
| | | | | | (0.0321) | (0.0320) |
| Dependent variable mean | 0.0097 | 0.0097 | 0.0097 | 0.0097 | 0.0097 | 0.0097 |
| Adjusted R-squared | 0.0618 | 0.0658 | 0.0656 | 0.0653 | 0.0653 | 0.0650 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning minimum wages that also mention EPI or NELP and research output. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning minimum wages that also mention EPI or NELP and research output published in state newspapers per month. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A12. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Organized Labor that also Mention Minimum Wages, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Share of Articles Mentioning "organized labor" that also Mention "minimum wage" | | | | | | |
| Change in Minimum Wage from Previous Month | 0.0198** | 0.0209** | 0.0225** | 0.0226** | 0.0219** | 0.0220** |
| | (0.0096) | (0.0096) | (0.0096) | (0.0096) | (0.0097) | (0.0097) |
| Change in Minimum Wage in Following Month | | 0.0253** | 0.0266** | 0.0268** | 0.0259** | 0.0261** |
| | | (0.0117) | (0.0117) | (0.0117) | (0.0116) | (0.0116) |
| Month First State Minimum Wage Legislation Introduced | | | 0.0244 | 0.0236 | 0.0244 | 0.0237 |
| | | | (0.0161) | (0.0163) | (0.0158) | (0.0160) |
| Month First State Minimum Wage Legislation Passed | | | 0.1153*** | 0.1145*** | 0.1163*** | 0.1156*** |
| | | | (0.0351) | (0.0351) | (0.0342) | (0.0342) |
| Month First Local Minimum Wage Legislation Passed | | | 0.0296 | 0.0290 | 0.0292 | 0.0286 |
| | | | (0.0239) | (0.0240) | (0.0239) | (0.0240) |
| Post Occupy Wall Street Protests | | | | 0.0134*** | | 0.0079 |
| | | | | (0.0032) | | (0.0049) |
| Ed Murray Mayor of Seattle | | | | 0.0304*** | | 0.0265*** |
| | | | | (0.0051) | | (0.0057) |
| House Price Index Divided by 1000 | | | | | -0.0001* | -0.0001* |
| | | | | | (0.0001) | (0.0001) |
| Ln(Income per Capita) | | | | | 0.2302 | 0.2166 |
| | | | | | (0.1421) | (0.1461) |
| Dependent variable mean | 0.1093 | 0.1093 | 0.1093 | 0.1093 | 0.1093 | 0.1093 |
| Adjusted R-squared | 0.2629 | 0.2637 | 0.2684 | 0.2686 | 0.2691 | 0.2691 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning organized labor that also mention minimum wages. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning organized labor that also mention minimum wages published in state newspapers per month. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

**Table A13. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Organized Labor that also Mention Research Output 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | | | Dependent Variable: Share of Articles Mentioning "organized labor" that also Mention "research output" | | | |
| Change in Minimum Wage from Previous Month | 0.0075 | 0.0086 | 0.0079 | 0.0079 | 0.0088 | 0.0087 |
| | (0.0130) | (0.0130) | (0.0132) | (0.0132) | (0.0133) | (0.0133) |
| Change in Minimum Wage in Following Month | | 0.0239 | 0.0236 | 0.0235 | 0.0245 | 0.0245 |
| | | (0.0165) | (0.0165) | (0.0166) | (0.0164) | (0.0165) |
| Month First State Minimum Wage Legislation Introduced | | | 0.0055 | 0.0053 | 0.0050 | 0.0047 |
| | | | (0.0138) | (0.0139) | (0.0139) | (0.0139) |
| Month First State Minimum Wage Legislation Passed | | | 0.0024 | 0.0022 | 0.0010 | 0.0007 |
| | | | (0.0143) | (0.0143) | (0.0141) | (0.0141) |
| Month First Local Minimum Wage Legislation Passed | | | -0.0601*** | -0.0603*** | -0.0596*** | -0.0598*** |
| | | | (0.0110) | (0.0110) | (0.0109) | (0.0110) |
| Post Occupy Wall Street Protests | | | | 0.0099* | | 0.0154** |
| | | | | (0.0050) | | (0.0058) |
| Ed Murray Mayor of Seattle | | | | 0.0056 | | 0.0095 |
| | | | | (0.0040) | | (0.0061) |
| House Price Index Divided by 1000 | | | | | 0.0001 | 0.0001 |
| | | | | | (0.0001) | (0.0001) |
| Ln(Income per Capita) | | | | | -0.2320 | -0.2422 |
| | | | | | (0.1582) | (0.1581) |
| | | | | | | |
| Dependent variable mean | 0.1065 | 0.1065 | 0.1065 | 0.1065 | 0.1065 | 0.1065 |
| Adjusted R-squared | 0.0819 | 0.0828 | 0.0837 | 0.0834 | 0.0846 | 0.0844 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning organized labor that also mention research output. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning organized labor that also mention research output published in state newspapers per month. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A14. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Organized Labor that also Mention Minimum Wages and Research Output 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Share of Articles Mentioning "organized labor" that also Mention "minimum wage" and "research output" | | | | | | |
| Change in Minimum Wage from Previous Month | 0.0034 | 0.0041 | 0.0051 | 0.0054 | 0.0092 | 0.0094 |
| | (0.0080) | (0.0081) | (0.0081) | (0.0081) | (0.0077) | (0.0077) |
| Change in Minimum Wage in Following Month | | 0.0165 | 0.0173 | 0.0176 | 0.0219** | 0.0222** |
| | | (0.0109) | (0.0108) | (0.0107) | (0.0095) | (0.0094) |
| Month First State Minimum Wage Legislation Introduced | | | 0.0178 | 0.0174 | 0.0157 | 0.0147 |
| | | | (0.0142) | (0.0142) | (0.0132) | (0.0131) |
| Month First State Minimum Wage Legislation Passed | | | 0.0621** | 0.0616** | 0.0554** | 0.0543* |
| | | | (0.0266) | (0.0266) | (0.0274) | (0.0274) |
| Month First Local Minimum Wage Legislation Passed | | | 0.0148 | 0.0145 | 0.0176 | 0.0168 |
| | | | (0.0158) | (0.0159) | (0.0156) | (0.0156) |
| Post Occupy Wall Street Protests | | | | -0.0101 | | 0.0173* |
| | | | | (0.0124) | | (0.0099) |
| Ed Murray Mayor of Seattle | | | | 0.0204*** | | 0.0398** |
| | | | | (0.0033) | | (0.0172) |
| House Price Index Divided by 1000 | | | | | 0.0005 | 0.0005 |
| | | | | | (0.0004) | (0.0004) |
| Ln(Income per Capita) | | | | | -1.1575 | -1.1803 |
| | | | | | (0.8176) | (0.8248) |
| Dependent variable mean | 0.0414 | 0.0414 | 0.0414 | 0.0414 | 0.0414 | 0.0414 |
| Adjusted R-squared | 0.1755 | 0.1757 | 0.1766 | 0.1765 | 0.1971 | 0.1974 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning organized labor that also mention both minimum wages research output. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning organized labor that also mention minimum wages and research output published in state newspapers per month. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1

**Table A15. Relationship Between Minimum Wage Changes, New Minimum Wage Legislation, and the Share of Newspaper Articles Mentioning Minimum Wages also Mentioning both EPI or NELP and Research, 2011-2019**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Dependent Variable: Share of Articles Mentioning "minimum wage" that also Mention "Economic Policy Institute" or "National Employment Law Project" and "research output" | | | | | | |
| Change in Minimum Wage from Previous Month | 0.0056** | 0.0062** | 0.0060** | 0.0061** | 0.0059** | 0.0060** |
| | (0.0025) | (0.0026) | (0.0026) | (0.0026) | (0.0026) | (0.0026) |
| Change in Minimum Wage in Following Month | | 0.0142*** | 0.0141*** | 0.0141*** | 0.0140*** | 0.0140*** |
| | | (0.0047) | (0.0047) | (0.0047) | (0.0047) | (0.0047) |
| Month First State Minimum Wage Legislation Introduced | | | -0.0056*** | -0.0055*** | -0.0055*** | -0.0055*** |
| | | | (0.0019) | (0.0019) | (0.0018) | (0.0019) |
| Month First State Minimum Wage Legislation Passed | | | 0.0024 | 0.0025 | 0.0026 | 0.0026 |
| | | | (0.0045) | (0.0045) | (0.0043) | (0.0043) |
| Month First Local Minimum Wage Legislation Passed | | | -0.0019 | -0.0018 | -0.0019 | -0.0019 |
| | | | (0.0024) | (0.0024) | (0.0024) | (0.0024) |
| Post Occupy Wall Street Protests | | | | -0.0041** | | -0.0047*** |
| | | | | (0.0015) | | (0.0012) |
| Ed Murray Mayor of Seattle | | | | -0.0014* | | -0.0019*** |
| | | | | (0.0007) | | (0.0007) |
| House Price Index Divided by 1000 | | | | | -0.0000 | -0.0000 |
| | | | | | (0.0000) | (0.0000) |
| Ln(Income per Capita) | | | | | 0.0252 | 0.0279 |
| | | | | | (0.0283) | (0.0281) |
| | | | | | | |
| Dependent variable mean | 0.0086 | 0.0086 | 0.0086 | 0.0086 | 0.0086 | 0.0086 |
| Adjusted R-squared | 0.0767 | 0.0835 | 0.0833 | 0.0831 | 0.0833 | 0.0831 |
| Observations | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 | 5,508 |

Notes: This table reports regression results examining the effect of minimum wage changes and minimum wage legislation on the share of newspaper articles mentioning minimum wages that also mention EPI or NELP and research output. State newspaper articles come from LexisNexis. The dependent variable is the share of articles mentioning organized labor that also mention minimum wages published in state newspapers per month. Coefficients reported are incidence rate ratios. Data on state minimum wage legislation comes from the National Council of State Legislatures. Data on local minimum wage ordinances comes from the Inventory of City and County Wage Ordinances at the UC Berkeley Labor Center and city websites. Variable definitions and sources are discussed in Appendix B. All specifications include month, year, month-year, and state fixed effects. Standard errors are clustered at the state level. *** p<0.01, ** p<0.05, * p<0.1
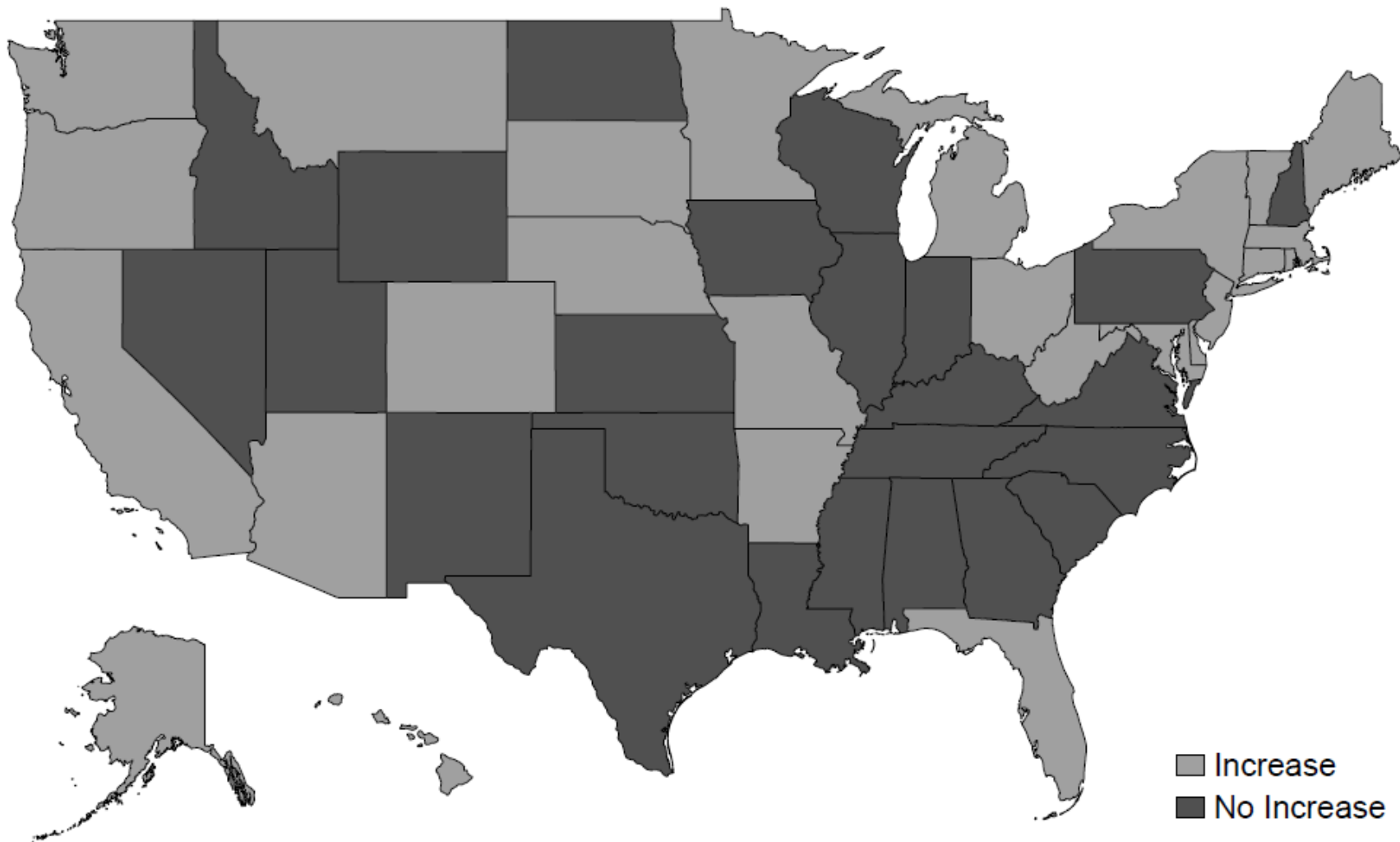
**Figure A1. States Enacting Minimum Wage Increases 2011–19**: This map shows states that did and did not have minimum wage increases between January 1, 2011, and December 31, 2019. Data on minimum wage changes come from Clemens, Hobbs, and Strain (2018), Vaghul and Zipperer (2021), and a number of complementary sources.

## Appendix B. Additional Details on LexisNexis Data

LexisNexis includes full text articles from 787 US state newspapers.[16] Previous research has utilized LexisNexis searches to analyze issues including media coverage intensity and sentiment regarding economic issues. Berge and Jordà (2011) use counts of news articles from LexisNexis mentioning "recession" to track the business cycle. Birz and Lott (2011) use newspaper articles from LexisNexis to examine how news coverage of the economy affects stock returns. Lamla and Lein (2014) use articles from LexisNexis to examine the effect of media reporting on consumer inflation expectations in Germany. Many papers have also used data from LexisNexis searches to estimate political bias in media reporting (Groseclose and Milyo, 2005; Ho and Quinn, 2008; Lott and Hassett, 2014).

We query the database to construct measures capturing how frequently minimum wages are mentioned in state newspapers over time, using the following searches:

- "minimum wage*"[17]

- "minimum wage*" AND ("Economic Policy Institute" OR "National Employment Law Project"[18])

- "minimum wage*" AND "Service Employees International Union"[19]

- "minimum wage*" AND ("organized labor" OR "labor group*" OR "labor union**" OR "National Employment Law Project" OR "Economic Policy Institute" OR "Service Employees International Union")[20]

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[16] As of October 30-31, 2020. The newspapers LexisNexis provides access to change frequently over time. A full list of newspapers available by state is available on request.
[17] Search performed February 20, 2020.
[18] Search performed February 10, 2020.
[19] Search performed February 11, 2020.
[20] Search performed September 17, 2020.

- "minimum wage*" AND ("peer reviewed" OR "working paper" OR "research paper" OR "research report" OR "journal article" OR "calculated" OR "analysis" OR "calculations" OR "estimates")[21]

- "minimum wage*" AND ("peer reviewed" OR "working paper" OR "research paper" OR "research report" OR "journal article")[22]

- "minimum wage*" AND ("peer reviewed" OR "working paper" OR "research paper" OR "research report" OR "journal article" OR "calculated" OR "analysis" OR "calculations" OR "estimates") AND ("National Employment Law Project" OR "Economic Policy Institute")[23]

- "minimum wage*" AND ("peer reviewed" OR "working paper" OR "research paper" OR "research report" OR "journal article" OR "calculated" OR "analysis" OR "calculations" OR "estimates") AND ("organized labor" OR "labor group*" OR "labor union**" OR "National Employment Law Project" OR "Economic Policy Institute" OR "Service Employees International Union")[24]

We also query the database to see how often organized labor or labor advocacy groups are mentioned (whether or not the article mentions the minimum wage) using the following search:

- "organized labor" OR "labor group*" OR "labor union**" OR "National Employment Law Project" OR "Economic Policy Institute" OR "Service Employees International Union"[25]

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[21] Search performed December 17, 2022.
[22] Search performed December 18, 2022.
[23] Search performed January 4, 2023.
[24] Search performed January 4, 2023.
[25] Search performed September 2, 2020.

In our analysis, we also include indicator variables for a set of political events that were associated with increases in the counts of news articles that reference the minimum wage. The first is for New York on all dates following the beginning of the Occupy Wall Street protests. The second is for the tenure of Ed Murray as mayor of Seattle. Finally, we include indicator variables for dates of local and national strikes related to the Fight for $15.

Local strike dates:

- New York: November 2012 and April 2013

- Illinois: April 2013

- Michigan: May 2013

- Missouri: May 2013

- Washington: May 2013

- Wisconsin: May 2013

National strike dates:

- July 2013

- August 2013

- December 2013

- December 2014

- April 2015

- November 2015

Table B1 displays the number of articles mentioning "minimum wage" and related terms by state. From these results, we observe more populous states tend to have more articles written

about the minimum wage over this period. Additionally, states with more articles referencing the minimum wage do not necessarily also have more articles referencing unions, organized labor, or pro-union organizations. There is considerable regional variation in how often these terms are mentioned in conjunction with the minimum wage.

Table B2 displays the number of unique newspapers mentioning the minimum wage and related terms by state, as well as the total number of newspapers queried by state. We observe most states have articles from a large number of newspapers published in that state, except for low-population states with relatively few articles about the minimum wage or organized labor. This finding suggests our results are not driven by reporting preferences in a small number of publications, but are broad trends across the majority of newspapers available.

Finally, to perform the sentiment analysis of New York Times articles displayed in Figure 3 Panel D, we extract the full text of New York Times articles mentioning any of the terms from our organized labor search. We tokenize the text from each article into individual words, and removed English stopwords using the R package tidytext (Silge and Robinson (2016). To calculate sentiment scores, we subtract the total number of negative sentiment words from the number of positive sentiment words in each article using three sentiment lexicons. These are the Bing sentiment lexicon (Hu and Liu, 2004), the National Research Council word-emotion-association lexicon (NRC) (Mohammad and Turney,2013), and the AFINN sentiment lexicon (Neilsen, 2011). To adjust the sentiment scores for article length, we divide the raw sentiment score by the total length of each article to obtain a length-normalized sentiment score for each article.

**Figure B1. Sample Article from LexisNexis**

## Ohio's minimum wage increasing on New Year's Day

Dayton Daily News (Ohio)

December 31, 2019 Tuesday

**Section:** BUSINESS

**Length:** 402 words

**Byline:** Staff and wire reports

## Body

Ohio's *minimum wage* increases Wednesday to $8.70 an hour for non-tipped employees and $4.35 an hour for tipped employees.

The new minimum will apply to employees of businesses with annual gross receipts of more than $319,000 per year.

The increase is mandated by a state constitutional amendment, approved by voters in 2006, which adjusts the state *minimum wage* based on the previous year's inflation rate.

MORE: JobsOhio plans to double grants to $300M to bring new business to state

The change will benefit 84,000 of Ohio's lowest paid working people, two-thirds of whom are adults, according to progressive policy group Ohio Policy Matters.

Nationwide, minimum wages will go up in 22 states in the new year, increasing pay for 6.8 million workers across the country, according to the *Economic Policy Institute*.

Ohio is among seven states where *minimum wage* earners will see their pay grow because of automatic annual inflation adjustments, the institute said.

Businesses have often said that increases in minimum wages could lead to layoffs or increase the cost of their products and services.

Supporters of increasing minimum wages, such as Policy Matters Ohio, have said the raises lead to economic growth, via increased consumer spending.

MORE: JobsOhio plans to double grants to $300M to bring new business to state

Ohio Policy Matters said the voter-approved change in 2006 — tying adjustments in the wage to inflation — safeguards the state's poorest workers against further losses in the *minimum wage* due to inflation.

"But the 2006 raise was not high enough to recover ground already lost in the decades before that change," Michael Shields, a researcher with Ohio Policy Matters, said in a news release.

"The *minimum wage* in Ohio and nationally peaked in 1968 at just over $14 an hour in today's dollars," he said.

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**Table B1. Newspaper Articles Mentioning Minimum Wages and Related Terms by State, January 1, 2011 - December 31, 2019**

| State | "minimum wage" | "org labor" | "min wage" AND "org labor" | AND "EPI" | AND "NELP" | AND "SEIU" |
|---|---|---|---|---|---|---|
| Alabama | 2,022 | 1,103 | 120 | 32 | 30 | 17 |
| Alaska | 636 | 512 | 37 | 8 | 5 | 1 |
| Arizona | 3,592 | 1,263 | 127 | 14 | 23 | 24 |
| Arkansas | 1,440 | 342 | 49 | 10 | 12 | 6 |
| California | 19,246 | 20,650 | 1,919 | 231 | 182 | 549 |
| Colorado | 2,351 | 1,089 | 124 | 39 | 25 | 22 |
| Connecticut | 3,662 | 2,128 | 240 | 63 | 19 | 60 |
| Delaware | 1,150 | 470 | 91 | 23 | 22 | 22 |
| District of Columbia | 6,482 | 6,480 | 750 | 183 | 82 | 193 |
| Florida | 11,229 | 5,990 | 733 | 209 | 163 | 150 |
| Georgia | 1,603 | 780 | 84 | 19 | 11 | 13 |
| Hawaii | 1,410 | 961 | 71 | 16 | 13 | 9 |
| Idaho | 2,847 | 1,037 | 110 | 22 | 12 | 28 |
| Illinois | 12,428 | 9,486 | 1,056 | 248 | 126 | 217 |
| Indiana | 3,729 | 3,270 | 261 | 80 | 49 | 34 |
| Iowa | 7,923 | 3,916 | 551 | 136 | 47 | 111 |
| Kansas | 2,361 | 1,333 | 164 | 40 | 33 | 29 |
| Kentucky | 3,564 | 1,577 | 228 | 77 | 38 | 15 |
| Louisiana | 2,431 | 996 | 126 | 32 | 18 | 20 |
| Maine | 3,447 | 1,965 | 243 | 39 | 25 | 12 |
| Maryland | 3,799 | 2,250 | 267 | 115 | 40 | 41 |
| Massachusetts | 12,993 | 6,802 | 899 | 200 | 119 | 182 |
| Michigan | 6,689 | 7,038 | 409 | 68 | 38 | 101 |
| Minnesota | 4,040 | 2,124 | 259 | 46 | 33 | 62 |
| Mississippi | 1,308 | 684 | 65 | 24 | 12 | 6 |
| Missouri | 4,156 | 2,482 | 300 | 64 | 61 | 66 |
| Montana | 843 | 432 | 30 | 3 | 6 | 4 |
| Nebraska | 1,773 | 871 | 85 | 15 | 15 | 5 |
| Nevada | 792 | 641 | 70 | 24 | 14 | 15 |
| New Hampshire | 2,850 | 2,474 | 270 | 60 | 26 | 62 |
| New Jersey | 7,545 | 5,259 | 611 | 127 | 70 | 148 |
| New Mexico | 3,546 | 1,369 | 136 | 39 | 15 | 8 |
| New York | 23,595 | 14,296 | 1,757 | 337 | 281 | 326 |
| North Carolina | 6,296 | 2,580 | 248 | 81 | 33 | 39 |
| North Dakota | 1,085 | 725 | 91 | 23 | 20 | 7 |
| Ohio | 7,072 | 5,404 | 588 | 141 | 131 | 177 |
| Oklahoma | 1,007 | 576 | 46 | 16 | 3 | 3 |
| Oregon | 1,901 | 1,524 | 141 | 21 | 22 | 45 |
| Pennsylvania | 7,744 | 7,128 | 696 | 159 | 74 | 151 |
| Rhode Island | 2,788 | 2,947 | 262 | 54 | 28 | 66 |
| South Carolina | 2,526 | 1,393 | 145 | 37 | 30 | 22 |
| South Dakota | 396 | 199 | 44 | 13 | 14 | 6 |
| Tennessee | 2,378 | 1,893 | 156 | 47 | 22 | 22 |
| Texas | 5,620 | 3,237 | 375 | 94 | 54 | 81 |
| Utah | 1,361 | 974 | 77 | 36 | 10 | 6 |
| Vermont | 3,070 | 2,248 | 277 | 71 | 51 | 70 |
| Virginia | 4,598 | 2,665 | 277 | 72 | 33 | 68 |
| Washington | 6,795 | 4,157 | 526 | 87 | 49 | 157 |
| West Virginia | 2,072 | 1,804 | 173 | 52 | 24 | 35 |
| Wisconsin | 3,250 | 2,765 | 262 | 64 | 31 | 50 |
| Wyoming | 122 | 39 | 5 | 5 | 0 | 0 |
| Total | 227,441 | 154,289 | 16,626 | 3,711 | 2,294 | 3,563 |

Notes: Data on newspaper articles containing search terms come from LexisNexis. Searches were restricted to English news articles from newspapers located in the 50 US states and Washington DC. Articles were assigned to states using the publication location metadata provided by LexisNexis. Articles were assigned to all states included in the publication location data in cases where more than one state was included. Because of this, the totals indicated in this table are slightly larger than the number of newspapers articles on LexisNexis.

**Table B2. Unique Newspapers Mentioning Minimum Wages and Related Terms by State, January 1, 2011 - December 31, 2019**

| State | "minimum wage" | "org labor" | "min wage" AND "org labor" | AND "EPI" | AND "NELP" | AND "SEIU" | Total Newspapers |
|---|---|---|---|---|---|---|---|
| Alabama | 6 | 6 | 6 | 5 | 6 | 5 | 7 |
| Alaska | 3 | 3 | 3 | 1 | 2 | 1 | 4 |
| Arizona | 8 | 8 | 8 | 4 | 4 | 5 | 11 |
| Arkansas | 4 | 4 | 3 | 3 | 3 | 2 | 8 |
| California | 47 | 48 | 45 | 34 | 33 | 40 | 82 |
| Colorado | 8 | 8 | 7 | 6 | 5 | 6 | 9 |
| Connecticut | 4 | 4 | 3 | 3 | 3 | 3 | 5 |
| Delaware | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| District of Columbia | 12 | 12 | 11 | 11 | 8 | 8 | 35 |
| Florida | 32 | 31 | 28 | 25 | 20 | 24 | 52 |
| Georgia | 8 | 8 | 7 | 4 | 3 | 5 | 18 |
| Hawaii | 5 | 4 | 3 | 3 | 3 | 1 | 7 |
| Idaho | 7 | 7 | 7 | 6 | 2 | 3 | 7 |
| Illinois | 15 | 15 | 14 | 12 | 11 | 13 | 27 |
| Indiana | 10 | 10 | 10 | 8 | 8 | 7 | 18 |
| Iowa | 6 | 6 | 6 | 6 | 5 | 6 | 8 |
| Kansas | 6 | 6 | 5 | 5 | 4 | 2 | 8 |
| Kentucky | 5 | 5 | 4 | 4 | 4 | 4 | 7 |
| Louisiana | 11 | 10 | 9 | 8 | 5 | 5 | 17 |
| Maine | 7 | 7 | 5 | 5 | 5 | 3 | 7 |
| Maryland | 8 | 8 | 7 | 8 | 6 | 7 | 11 |
| Massachusetts | 15 | 15 | 14 | 14 | 10 | 13 | 20 |
| Michigan | 20 | 20 | 18 | 13 | 8 | 16 | 24 |
| Minnesota | 6 | 6 | 6 | 5 | 6 | 5 | 11 |
| Mississippi | 6 | 6 | 4 | 4 | 3 | 2 | 8 |
| Missouri | 6 | 6 | 6 | 5 | 6 | 6 | 10 |
| Montana | 5 | 5 | 5 | 2 | 2 | 2 | 6 |
| Nebraska | 3 | 3 | 3 | 2 | 2 | 2 | 4 |
| Nevada | 4 | 4 | 4 | 4 | 2 | 3 | 10 |
| New Hampshire | 4 | 4 | 4 | 3 | 4 | 3 | 5 |
| New Jersey | 18 | 17 | 17 | 15 | 12 | 15 | 24 |
| New Mexico | 12 | 13 | 12 | 10 | 5 | 5 | 13 |
| New York | 35 | 34 | 30 | 22 | 24 | 27 | 56 |
| North Carolina | 16 | 16 | 12 | 10 | 8 | 8 | 22 |
| North Dakota | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Ohio | 26 | 26 | 24 | 16 | 20 | 20 | 39 |
| Oklahoma | 4 | 5 | 3 | 3 | 2 | 1 | 6 |
| Oregon | 7 | 6 | 6 | 4 | 4 | 5 | 12 |
| Pennsylvania | 25 | 25 | 25 | 19 | 14 | 17 | 33 |
| Rhode Island | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| South Carolina | 9 | 8 | 7 | 5 | 7 | 5 | 13 |
| South Dakota | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| Tennessee | 12 | 11 | 11 | 10 | 6 | 5 | 15 |
| Texas | 17 | 16 | 16 | 11 | 10 | 12 | 32 |
| Utah | 5 | 4 | 3 | 3 | 2 | 3 | 6 |
| Vermont | 6 | 5 | 6 | 5 | 5 | 5 | 5 |
| Virginia | 9 | 9 | 9 | 7 | 7 | 6 | 10 |
| Washington | 13 | 13 | 12 | 12 | 12 | 11 | 19 |
| West Virginia | 3 | 3 | 3 | 3 | 2 | 2 | 3 |
| Wisconsin | 18 | 18 | 17 | 15 | 9 | 14 | 21 |
| Wyoming | 2 | 2 | 1 | 1 | 0 | 0 | 3 |
| Total Number of Newspapers | 526 | 518 | 477 | 392 | 340 | 371 | 787 |

Notes: Data on newspapers publishing articles containing search terms come from LexisNexis. Searches were restricted to English news articles from newspapers located in the 50 US states and Washington DC. Newspapers were counted based on their unique publication name, and were assigned to states using the publication location metadata provided by LexisNexis. Newspapers were assigned to all states included in the publication location data in cases where more than one state was included.

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