

Bread and Butter or Bread and Roses?

Experimental Evidence on Why Public Sector Employees Support Unions *

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Abstract

Despite their decline, unions, and especially public unions, remain important associations. Yet we do not have a good understanding of why workers voluntarily support and join unions. We report on a field experiment conducted during a 2017 Iowa teachers union recertification election. We randomly assigned union members voting in the election to receive emails describing union benefits and measured effects on turnout effort ($N=10,461$). Union members were more likely to try to vote when reminded of the professional benefits—but not legal protections or political representation—their union offered. A follow-up survey identified the specific benefits that members most valued and why. In a context where union membership and support is voluntary, our findings emphasize the importance of selective professional benefits. Our results have broader implications for understanding the American labor movement and civic participation. They suggest that public-sector unions may face a tension between political activities and offering excludable workplace benefits.

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Though never as extensive as their counterparts in Western Europe, American unions have long been an important force in the U.S. political economy. As economic institutions, unions bargain with employers for higher wages and benefits and better working conditions, compressing the distribution of wages within companies and across industries (e.g. Card 2001; Farber et al. 2018; Freeman and Medoff 1984; Western and Rosenfeld 2011). Unions also have significant political effects as well, encouraging their workers to participate in politics, equipping their members with civic skills, mobilizing support for political candidates, donating to civic campaigns, and lobbying on public policy (e.g. Ahlquist 2017; Ahlquist and Levi 2013; Dark 1999; Dean 2016; Greenstone 1969; Feigenbaum, Hertel-Fernandez, and Williamson 2018; Flavin and Hartney 2015; Kim and Margalit 2017; Leighley and Nagler 2007; Rosenfeld 2014). Since the New Deal, unions have also anchored an important part of the Democratic party coalition (Dark 1999; Schickler 2016; Schlozman 2015).

Why would individual workers join and support a union? Despite the importance of unions as economic, political, and civic organizations, we lack a clear answer to this question, especially in contexts where union support is completely voluntary on the part of workers. What little past research exists generally uses self-reported survey evidence and focuses on union membership in the private sector from an earlier era when many unions could still require workers to contribute dues even if those workers were not members (e.g. Freeman and Rogers 2006; Heneman and Sandver 1983; Montgomery 1989 but see

Moe 2011; Fowles and Cowen 2015; see also the review in Riccucci 2011).¹ The fact that nearly half of U.S. employees now work in states where union dues are voluntary calls for a renewed focus on this question—especially with states increasingly curbing public sector collective bargaining rights and with the Supreme Court having just applied right-to-work rules to all public-sector workers. Public unions are thus entering a world where they must convince workers to voluntarily support and join their organizations even as they can provide fewer benefits to members.

In this paper, we consider workers’ motivations for supporting unions using a field experiment conducted during recertification elections for Iowa’s largest teachers association. Unlike past work, our experimental approach allows us to make credible causal claims about workers’ motivations for voluntarily turning out to vote and thus supporting their union. Moreover, for at least three reasons, the context for our field experiment is especially relevant in the contemporary American political and economic landscape.

First, Iowa is a right-to-work state, which means that Iowan workers at unionized workplaces do not need to pay dues to a union to benefit from the union’s collective bargaining and job protection benefits. A growing number of states—28 as of early 2017—are now right-to-work, and the Supreme Court has recently applied right-to-work rules to public-sector workers in all states in its recent *Janus v. AFSCME* decision.²

In addition, the Iowan recertification elections were held in the wake of major cutbacks

¹See also the work in Freeman and Ichniowski, 1988 for evidence of the importance of state-level bargaining laws for the growth of public sector union density (but see also Paglayan, Forthcoming for the importance of strike rights as well). That suggests that collective bargaining is a function that public sector employees value, though this research does not pit the value of collective bargaining against other competing reasons that employees might want and support a union (as we do in this project).

²585 U. S. ____ (2018).

to public employee union rights, greatly curtailing the scope of government employee collective bargaining and creating a recertification requirement for public employee unions (Petroski and Pfannenstiel, 2017). Iowa’s reforms are part of an increasingly common conservative agenda enacted in states under full GOP control, providing insights into the future of unionism in “red” states (Hertel-Fernandez, 2018).

Lastly, the main outcome that we use in our study—support for the union during a recertification election—offers a strong behavioral indication of members’ overall support for the union. Rather than using an abstract measure of attitudes toward the union on an observational survey, we examine whether a union member took action to cast a ballot in an election that determined whether or not the union would continue as a recognized bargaining agent. (We do not observe how individual workers—union members or not—voted, though as we discuss below, the election results and a follow-up survey indicate that nearly all union members who voted in the election voted to recertify their union. Iowa law explicitly prohibits state agencies from releasing lists of public employees voting in the election as in state or federal governmental elections.)

Working in partnership with the Iowa State Education Association (ISEA), the state’s union representing public school educators, we designed a series of email messages for the union to distribute to its members voting in recertification elections held during October 2017. As a result of the public employee union reform law passed earlier that year, ISEA affiliates needed to win a majority of all workers’ support—not just a majority of workers casting ballots in the election—to remain the recognized bargaining agent across each local affiliate. (Technically, the recertification election was for each individual local union affiliate, not for the state-wide union, of which each affiliate is a member.)

In all, we successfully contacted 10,461 voting-eligible union members across 210 union locals. We block-randomized these ISEA members to receive one of ten email messages encouraging them to vote in the recertification elections, described in more de-

tail below. Broadly, these messages emphasized one of three different union benefits—professional benefits, like job training and teaching resources; job protections and legal assistance; or collective voice in politics—as well as whether those benefits were described using the union leadership’s official language or through verbatim quotes given by union members themselves. Because workers could vote for recertification online, we embedded a link to the election website within each of our email appeals. Whether or not a worker clicked on this link forms our outcome, which we interpret as turnout in support of the union.

In the remainder of this paper, we describe this alternatively as supporting the union or turning out to support the union, which we believe is a plausible assumption given that it is unlikely that union members in a right-to-work state (workers who voluntarily signed up as members and pay dues to the union) would vote to decertify their union. This assumption receives strong support from the fact that 97% of the votes cast across all recertification elections were in support of unions.

Looking across all ten messages, we found strong evidence that the description of ISEA’s professional benefits, as described by the union’s leadership, markedly increased the likelihood that members would vote in a recertification election. Members who received the professional benefits message described by the unions’ leadership were two percentage points more likely than those in the generic condition to click to vote in the election ($p < 0.05$, two-tailed test), representing an increase of nearly 40% over the generic condition. Compared to the control condition, only the message emphasizing professional benefits—not messages describing job protections and legal assistance nor union participation in politics—had an effect on whether members clicked the link to vote in the election. A follow-up survey of ISEA members fielded in May 2018 revealed the reasons why professional benefits may have been so motivating in encouraging support for the union. Well over half of union members reported using ISEA’s various professional benefits and

rated them highly on feeling thermometer scales. In addition, workers indicated that they felt the benefits offered them a fair value for their dues, supported them as educators, and helped to foster a broader community of educational professionals across the states.

Our results underscore the importance of valuable selective benefits in attracting membership into voluntary organizations (Olson 1965 but see Walker 1991; Moe 1988; Clark and Wilson 1961). It was excludable professional benefits like training, classroom resources, and credentialing that were most likely to inspire support for ISEA among Iowan educators—not job protections or legal assistance, nor the expressive or solidaristic political benefits the union offered. Our findings thus suggest an interesting paradox about public-sector unions. Even more than private-sector unions, government employee labor associations—and especially teachers unions—are highly active in state and national Democratic politics and generally strongly supportive of liberal policies through broad lobbying efforts (e.g. Anzia 2013; Anzia and Moe 2016; DiSalvo 2015; Flavin and Hartney 2015; Hartney 2014; Moe 2011).

Yet despite their heavy political involvement, it is the narrower, less explicitly political workplace benefits these public-sector unions offer to members that appear to ultimately inspire support from rank-and-file members. Unions, and particularly the public-sector unions we study in this paper, may thus face a trade-off between “bread and butter” workplace issues and a broader solidaristic vision of “bread and roses”—unless unions are able to successfully use “bread and butter” benefits like professional benefits to build memberships in order to subsidize their more political-solidaristic activities. It also suggests that the concerns of public-sector unions’ critics—including the conservative majority writing the 2018 *Janus* decision for the Supreme Court—about the fundamentally political nature of those unions may be misplaced.

The rest of this paper proceeds as follows. We describe our theoretical framework for thinking about worker decisions about union membership and then briefly justify our

focus on Iowa and describe the relevant landscape in that state. We then summarize our research design and lay out our results. The final section describes broader implications of our findings for the study of the American labor movement and civic association and participation.

Workers' Decisions to Join Unions

Why do workers join unions? Classical pluralist perspectives on interest group membership and participation stressed group membership as the natural consequence of human interactions and mutual interests (e.g., Truman 1951). Beginning with Mancur Olson, however, another powerful tradition emphasized the collective action problems inherent in group membership, including unions (Olson 1965). Olson pointed out that rational, personal welfare-maximizing individuals have few incentives to contribute to large groups given the possibility of free-riding off of the efforts of others. This is an issue for unions, as Olson argued, because their primary economic benefits—higher wages and benefits, better working conditions, and stronger worker voice in workplace governance—accrue to all workers in a business or organization, regardless of union membership status. In the United States, this is especially true because American unions are generally legally required to represent all workers equally in the collective bargaining and grievance processes (regardless of union membership).

How then could unions attract members? Olson speculated that smaller craft unions, organizing mostly skilled workers, were able to build on non-economic motivations for membership. In contrast, later and larger industrial unions organizing a mix of unskilled and semi-skilled workers relied first on social pressure and violence and then on legal compulsion in the form of union security agreements to build their memberships. Union security agreements stipulate that workers must either join a union as a condition of employment or else contribute dues and fees to the union equal to the costs of collective

bargaining and job protections offered by the union. As Olson described it, “most unions can no longer draw a great deal of strength from small groups, and a union’s noncollective benefits cannot usually be sufficient to bring in very many members. Smallness and noncollective benefits can probably now explain only the exceptional union. In most cases it is compulsory membership and coercive picket lines that are the source of the union’s membership (75).”

In Olson’s view, excludable selective benefits, which some large groups can offer to attract members, would not be effective for unions given the extent to which the welfare state had begun providing benefits that unions had historically used to attract members—like unemployment insurance, health insurance, and pensions. Compulsion, through closed shop, union shop, or union security agreements (which give unions the ability to hire only union members, mandate union membership, or charge non-member free-rider fees, respectively), thus offered unions the best route to maximizing membership (see also Levi 1977 in the context of public-sector employees).

Written in mid-century (in 1965), Olson’s account was compelling for an era in which unions largely retained the ability to implement mandatory membership or free-rider fees. But since then, American unions have been steadily losing their ability to compel membership and dues payment from workers at unionized businesses and organizations. The Taft-Hartley amendments to the National Labor Relations Act, passed in 1947, banned closed union shops altogether and recognized the ability of states to pass “right-to-work” laws, which bar unions from negotiating union shop or union security agreements with employers. (Note that unions in non-right-to-work states are barred from charging non-members for any political activities; in these states, unions can only charge non-members the costs of collective bargaining and grievance protections.³) Those laws thus create a

³This is the result of the 1977 *Abood v. Detroit Board of Education* decision in the case of public-sector unions.

free-rider problem for unions, since unions are typically legally obligated to represent all workers in collective bargaining and grievance protections, regardless of workers' membership status.⁴

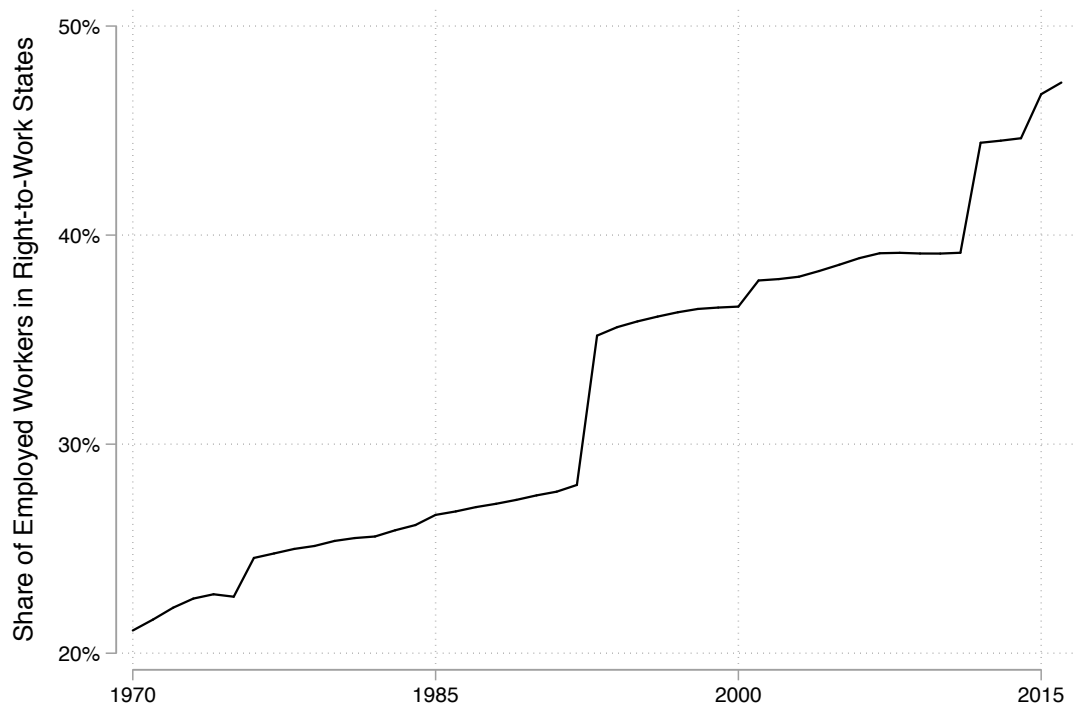
Initially, only a handful of states in the South and Southwest opted to pass right-to-work laws. As late as 1970, only about 21% of American workers lived in a right-to-work state. Since then, however, right-to-work laws have spread across many new states; by 2016, nearly half of all workers lived in a right-to-work state (there are currently 28 right-to-work states; see Figure 1 for the proportion of workers in right-to-work states and Figure 2 for current right-to-work states.⁵). Without the compulsion described by Olson, how do unions in these right-to-work states attract and retain members?

Another potential explanation for union membership comes from the work of Terry Moe, Peter Clark and James Wilson (e.g., Moe 1988; Clark and Wilson 1961). Those authors, while recognizing the importance of selective benefits for membership in some organizations, pointed out other motivations that might drive individuals to join and support groups. In particular, these authors stressed the role of non-material solidary and purposive incentives (see also Naylor and Cripps 1993 on the role of social norms in encouraging union membership). Solidary benefits are intangible rewards derived from association and participating in an organization, while purposive incentives refer to the benefits an individual derives from meeting the stated ends of an association. The framework put forward by these authors suggests that unions in right-to-work states might overcome their free-rider problem not necessarily through selective benefits, but rather by fostering an environment in which workers derive strong social benefits from participating in the

⁴There are some exceptions to this requirement, including Florida and New York, which do not require public unions to represent non-members in the grievance process. As we discuss below, Iowa is not such a state.

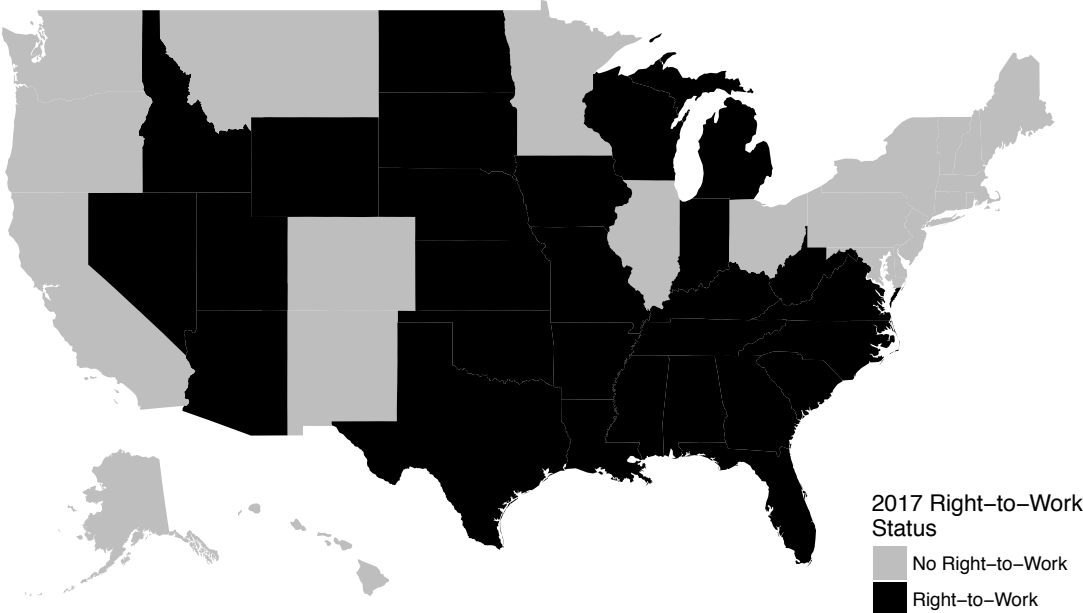
⁵Missouri is currently holding a referendum on its right-to-work law, passed in 2017.

Figure 1: Share of Employed Workers in Right-to-Work States, 1970-2016



Employed worker series from the U.S. Bureau of Labor Statistics.

Figure 2: Right-to-Work States, 2017



union and can contribute to broader political and economic objectives, like shaping elections and public policies (see also Ahlquist and Levi 2013; Mosimann and Pontusson 2017 on solidaristic unions; see also Han 2016 on relational organizing, in which organizations create incentives for individuals to want to affiliate with the groups).

Past research, then, leaves open the question of how contemporary American unions in right-to-work states can attract and retain members. Following Olson, unions might try to generate new and valuable excludable selective benefits that make membership appealing that are not otherwise offered by the welfare state or other associations. On the other hand, unions might also emphasize the solidaristic or purposive benefits of membership. Which of these strategies is most likely to be effective and why? And are there broader consequences to the choices unions make about which organizational incentives to offer? These are important questions to answer given that past research has argued that the incentive

structures adopted by unions can shape the effectiveness of those unions more generally.⁶

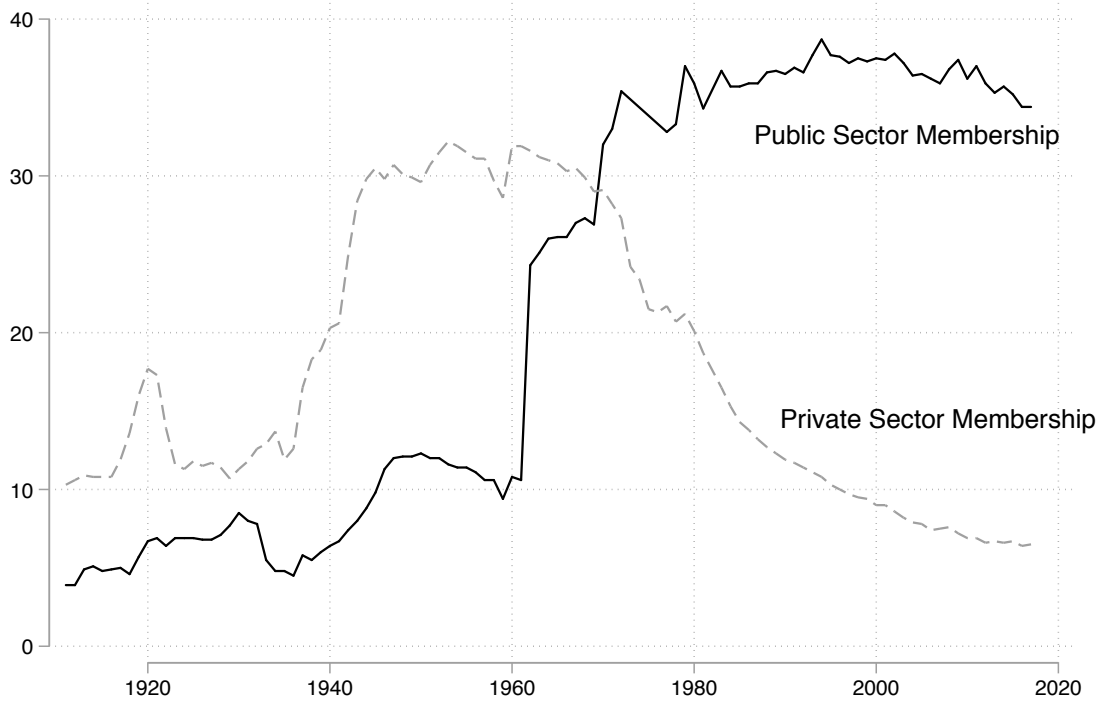
We explore the effectiveness of different appeals to union members in the context of teachers unions in Iowa. In the following section, we discuss why this empirical context is appealing on both substantive and theoretical grounds.

Why Study Worker Support for Teachers Unions in Iowa?

Historically the strength of the American labor movement was concentrated in the manufacturing and industrial sectors. Yet since mid-century, the center of gravity within the labor movement has shifted to public-sector unions. Not only has membership in private-

⁶Ian Robinson, for instance, has contrasted a “social union” model against “economistic unionism” (Robinson, 1990; see also Eidlin, 2018). (This typology is broadly similar to the distinction often made between business and social movement unionism, see e.g. Lichtenstein 2002, chapter 4.) The former stresses a “moral economy” that advances causes in the interest of workers as a broader class, rather than just unions’ immediate members. Social unions thus attract members through a mix of incentives that includes selective benefits but leans heavily toward solidaristic and purposive benefits. In contrast, “economistic unionism” focuses more narrowly on providing material, selective benefits to union members and de-emphasizes solidaristic and purposive goals. Robinson argues that over the long run, social unions are more likely to survive and grow as compared to economistic unions. That is because economistic unionism is more vulnerable to employer and government opposition as the narrow selective benefits offered by economistic unions are unlikely to outweigh the heavy costs of employer or governmental action against unions. Mosimann and Pontusson 2017 also argue that more solidaristic unions are more likely to inculcate support for equality and redistribution among high-wage workers than less solidaristic unions.

Figure 3: Union Membership in the Public and Private Sectors



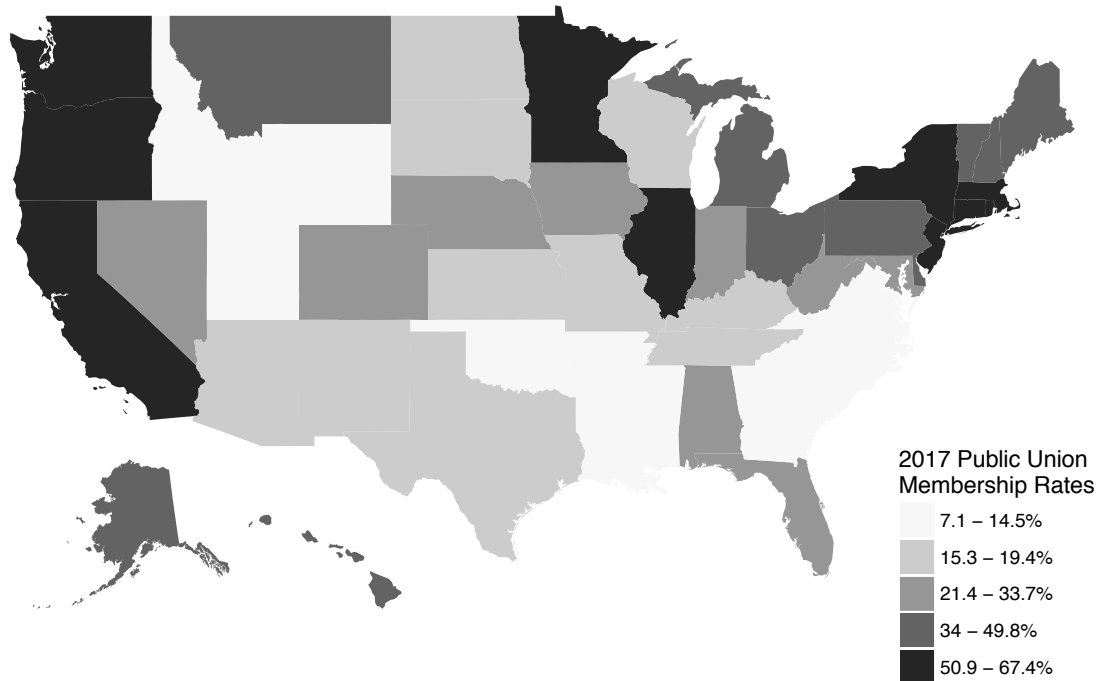
Union membership data before 1973 from Troy-Sheflin series, reported in Eidlin 2018; after 1973 from Current Population Surveys, reported by UnionStats.

sector unions collapsed, but since the 1960s and 1970s, public-sector unions have gained significant clout since the federal government and the states began recognizing the rights of government employees to organize and collectively bargain (Anzia and Moe, 2016; Levi, 1977; Walker, 2014). Figure 3 summarizes the divergent trends in public and private sector union membership.⁷ By 2017, it was about as likely that a U.S. union member came from the public as the private sector.

In addition, as previously highlighted, public-sector unions are often political pow-

⁷Though see Farber et al., 2018 for issues with the Troy-Sheflin series.

Figure 4: Public Union Membership by State, 2017



Union membership data from Current Population Surveys, reported by UnionStats. States divided into quintiles of public union membership.

erhouses, especially in the states in which they still retain significant membership (see Figure 4 for a summary of public sector membership by state in 2017). Indeed, Moe has described public employee unions – teachers’ unions above all – as “among the most powerful interest groups of any type in any area of public policy” (Moe 2011, 8). Given the centrality of public-sector unions for American politics, we argue that it makes sense to understand what drives worker support for, and membership in, these unions.

Aside from their political clout, there are good reasons to study membership in public employee unions as distinct from private-sector unions (see especially the calls for more research in Anzia and Moe 2015; Riccucci 2011). First, public employees participating

in government unions tend to look quite different from their private-sector counterparts. Government union members are much more likely than private-sector members to be female, have higher levels of education, especially post-graduate education, and to earn higher wages (Rosenfeld 2014, Table 2.5). These large demographic differences may well shape the motivations government workers have for joining unions, as well as the services public unions offer to their members.

Another reason public-sector unions merit their own analysis is that the laws governing public employee unionization are entirely separate from those in the private sector. While private-sector employees organize and bargain under the New Deal-era National Labor Relations Act (the “Wagner Act”; Walker 2014), public employees depend on state-level laws, which vary enormously across the fifty states. Some states require bargaining between public employees and the government, while others do not; some limit the scope of that bargaining; and still others set restrictions on how unions can collect dues from public employees. These laws, in turn, often vary by the occupation of public employees, with separate legislation for teachers, protective service officers, and government agency workers (Freeman and Ichniowski, 1988). Past research has shown that union formation is more likely and union membership is higher in states with laws recognizing public sector collective bargaining, indicating that bargaining rights are a benefit that public employees value greatly (Ichniowski 1988; Saltzman 1988, see also Anzia and Moe 2016; Flavin and Hartney 2015; Paglayan Forthcoming).

While states generally expanded bargaining rights for public employees through the 1960s and 1970s, more recent GOP-controlled states have moved in the opposite direction, passing legislation to cut back the rights of government employees to bargain, organize, and participate in politics (Hertel-Fernandez, 2018). Wisconsin’s reforms in 2011 marked a turning point in this movement, when GOP Governor Scott Walker championed an ultimately successful bill to curb the bargaining rights of many public-sector workers (with

the important exception of protective services officers, many of whom supported Walker; Kroll 2011). Iowa introduced similar reforms after state Republicans gained trifecta control of the government in 2017 (Petroski and Pfannenstiel, 2017). The final Iowa legislation curtailed bargaining rights for nearly all public workers, preventing unions from negotiating over health insurance, pensions, and teacher evaluation standards.⁸ Unions now can only negotiate over wages, and even then wage hikes are capped by the law. Importantly, the new law also requires public employee unions to hold recertification elections at the end of every contract. In these elections, unions must win a majority of all employee votes to continue on as the labor representative of each workplace – not just a majority of votes among those employees turning out to vote.

Although the Wisconsin and Iowa laws represent the most extreme versions of public employee union cutbacks, they are consistent with a more general trend that will likely change the way public-sector unions recruit and retain members in the coming years (Ahlquist, 2012; Hertel-Fernandez, 2018). This legislative shift will only be reinforced by the recent *Janus* Supreme Court decision, in which the court effectively applied “right-to-work” laws across all public employees, even in otherwise non-right-to-work states.

Studying public unions in Iowa, then, provides an important window into the future of public sector unionism in the United States. Not only has the legislature already greatly restricted the scope of Iowan public sector bargaining, but the state has also been right-to-work for most of the twentieth century.⁹ In addition, Iowa’s overall public sector union density is about the same as state employee union membership across the rest of the country. As of 2016, 29% of Iowan public employees were in a union, nearly identical to the

⁸Previously, the law governing Iowa’s teachers specified an implicit duty to bargain over a range of issues, including worker compensation (coding from Robert G. Valletta and Richard B. Freeman’s NBER Public Sector Collective Bargaining Law Data Set).

⁹Iowa was one of the first handful of states to pass a right-to-work law in 1947.

national rate of state employees (30%; data from the Bureau of Labor Statistics). And a cross-state assessment by the Fordham Institute ranked Iowan teachers union at about the median in terms of their involvement in politics and political clout as of 2012 (Winkler, Scull, and Zeehandelaar 2012, 33).

In sum, our experiment may not speak to public sector unions in every state, but it does offer a picture of membership in a state that has until recently looked about average – and increasingly offers insight into the future landscape of U.S. public union law in the years to come.

Research Design

We partnered with the Iowa State Education Association, the state’s main union representing public educators, to conduct the experiment.¹⁰ ISEA’s membership is mainly elementary and secondary school teachers but also includes some school secretaries, paraprofessionals, custodians, and instructors at post-secondary institutions. The association represents around 30,000 members out of a potential membership pool of around 50,000 employees across 410 local affiliates. ISEA, like most state teachers associations, is a member of the National Education Association, the largest labor union in the United States. (The other major teachers union, the American Federation of Teachers, does not have affiliates in Iowa.)

Of their 410 locals, 220 were required to hold recertification elections in the fall of 2017 as a result of the recently-passed public employee reform legislation. (The timing of recertification depended on when locals’ contracts had expired.¹¹) The Public Employ-

¹⁰Like other teachers unions, ISEA refers to itself as an association, rather than a union.

We use both union and association interchangeably throughout the rest of the paper.

¹¹See <https://iowaperb.iowa.gov/> for more details on election timing.

ment Relations Board of Iowa was responsible for administering the election and working with public employee unions and employers to establish a roster of eligible voters, but public employee unions were responsible for paying for the costs of administering the election. Eligible workers could cast ballots for recertification by calling a toll-free number and entering in unique identifiers, or by logging on to a website to do the same. Votes could be cast between 8 AM on October 10, 2017 and 1 PM on October 24, 2017.

We worked with ISEA to develop ten messages to distribute to their voting members encouraging those members to click on a link embedded in the message to vote in the recertification election. (ISEA only had contact information for their own members, not non-members who would also be eligible to vote in the recertification election.) Our overall objective was to test which benefits and services were most likely to encourage ISEA members to vote in the election. We pre-registered a pre-analysis plan with E-GAP, the full text of which appears in the appendix.

Based on a pre-survey and a focus group of members, combined with the theoretical expectations from the literature on union membership we described above, we arrived at three broad categories of benefits to describe in the emailed messages.¹² *Professional benefits* referred to things like trainings, classes, conferences, and workshops provided by ISEA to its members to help members become more effective educators. These correspond to the sort of classic excludable, selective benefits described in the interest group and union literature above. *Collective voice in politics* referred to the ways that ISEA pro-

¹²For this pre-experimental survey, we emailed all voting-eligible members of the ISEA with an invitation to participate in a short, confidential online survey. Members had previously received an email from ISEA leadership informing them that they were working with us and to expect an email invitation for the survey. See appendix for the recruitment material. In all, we emailed 12,891 members in September 2017, of whom 202 completed the survey for a final response rate of about 1.6%.

motes the interests of its members in school and politics by keeping track of important issues, regularly communicating about those issues to members, and lobbying on members' behalf. We view these as corresponding to the non-material, solidaristic benefits in the union and interest group literature. Lastly, *job security and legal protection* benefits referred to the legal protections and assistance that ISEA offers to members, such as their attorney referral program that gives members access to affordable legal representation, as well as a civil liability insurance policy for job-related lawsuits. We added this third category based on our pre-survey and interviews, and while it corresponds to a material benefit, rather than solidaristic benefit, these job protections are less excludable than the professional benefits because Iowan unions are required to represent all teachers fairly in grievance claims and job disputes regardless of whether or not they are union members.¹³

Our definition of these benefits of union membership thus encompass those included on Moe's survey of public school teachers from 2003 and reported in his book *Special Interest* (2011, chapter 3). Moe's survey offered a rare look into the question of why teachers might join unions. Moe found that an overwhelming proportion of teachers participating in unions (about 80%) said that they had joined voluntarily, that is, they were not required to or felt pressured to do so. After providing six possible benefits, the survey Moe designed asked which of these benefits had most motivated teachers to join their union. These benefits included collective bargaining, political activities, collective bargaining and politics, social pressure from other teachers, liability insurance, and job protections. Moe found that job protections, collective bargaining, and politics were the most commonly-cited benefits in districts with collective bargaining in place, while insurance and job protections dominated workers' justifications in districts without collective bargaining. We include these major reasons for membership (with the exception of collective bargaining since that was not fully available in Iowa after the collective bargaining reform legislation) and

¹³This is known as the "duty of fair representation"; see Iowa Code 20.17.1.

we also add to that list professional trainings, job resources, and certifications (which we dub “professional benefits”)— something that Moe did not include in his original survey.

For each of these three broad categories of benefits, we further described those benefits in three different ways, producing nine possible message combinations. One approach was to use boilerplate language describing each benefit from official ISEA material (available on the ISEA website). This language was framed as coming directly from ISEA state leadership. For instance, for the professional benefits message, this included the following text: “The ISEA Academy, for instance, has offered high quality courses for teaching license renewal and graduate credits for over a decade.”

A second approach was to use actual quotes from ISEA members (taken from the pre-survey we administered on members) to describe the benefits. For the professional benefits message, this included the following anonymized quote, among others: “I have found the union...helps me maintain my certification and helps me update my training.” In the third condition, we again included anonymized member quotes, but told recipients that the quotes were from members in their local union affiliate or one similar to their own. A final message was a control condition that did not mention specific benefits of the union but instead talked generally about the importance of voting for recertification. We made an effort to ensure that all messages were roughly the same length. (The appendix contains the full text of each message).

We designed our messages to test two main sets of hypotheses. First, as described above, we tried to disentangle which of the three benefits, if any, would be most motivating in encouraging members to vote to recertify the union. We had no prior theoretical expectation for which benefit would elicit the strongest response. On the one hand, Olson’s canonical work on union membership emphasizes the importance of selective benefits in attracting and retaining members in organizations that are large enough where collective action problems hold (Olson 1965). On the other hand, other work on labor union partic-

ipation and membership has stressed the non-material, purposive and solidaristic benefits offered by unions, and we might think this is especially true for public employee unions given their much greater involvement in politics (Moe 1988). Lastly, many teachers participating in our focus groups and pre-survey brought up the importance of union job protections as a reason for their support of the ISEA, and so it may well be the case that these protections are valuable to members even though they are not entirely excludable to non-members as with professional benefits.

Second, we aimed to test whether workers were more likely to respond to benefits explained by ISEA leadership through official language or benefits explained through quotes from their fellow union members, independent of which specific benefits were being described. This test focuses on whether union members find information from their peers (especially peers within their own affiliate or a similar one) more credible as compared to information from the top of the organization. Here too there are conflicting theoretical expectations. There is research from social psychologists and political scientists that emphasizes how social endorsements from peers within one's own social network provide persuasive signals for acceptable behavior (e.g., Paluck, Shepherd, and Aranow 2016; Sinclair 2012). That research would suggest that union benefits would be more credible when backed up with quotes from rank-and-file ISEA members, especially quotes from members within one's own union local or one similar to it. But we might also think that union leaders would be best-positioned to credibly describe the benefits unions provide, given that it is ultimately the union leadership that is responsible for deciding how to offer services to members. Table 1 summarizes the ten conditions in our experiment.

ISEA provided us with a list of all of their members eligible to vote in the October 2017 recertification election (12,451) who had a confirmed email address on file with the union. Using that list, we assigned each member to receive one of the ten messages, blocking on the union local to which a member belonged (there were 210 such locals among eligi-

Condition	Benefit Described	Who Described Benefit
1	Professional benefits	ISEA leadership boilerplate
2	Collective voice in politics	ISEA leadership boilerplate
3	Job protection	ISEA leadership boilerplate
4	Professional benefits	Fellow union member quotes
5	Collective voice in politics	Fellow union member quotes
6	Job protection	Fellow union member quotes
7	Professional benefits	Fellow union member quotes—identified from local
8	Collective voice in politics	Fellow union member quotes—identified from local
9	Job protection	Fellow union member quotes—identified from local
10	Generic/control	Generic/control

Table 1: Summary of Messages Sent to ISEA Members

ble members). Blocking on local both increased the probability of achieving balance on local-level covariates, like school size, local union membership, as well as school district characteristics, and increased the precision of our estimates. On the morning of October 10th at 9 AM, ISEA leadership sent out the email messages to members, ultimately successfully reaching 10,461 educators. (Emails to the remaining workers bounced back or were otherwise not successfully delivered.)

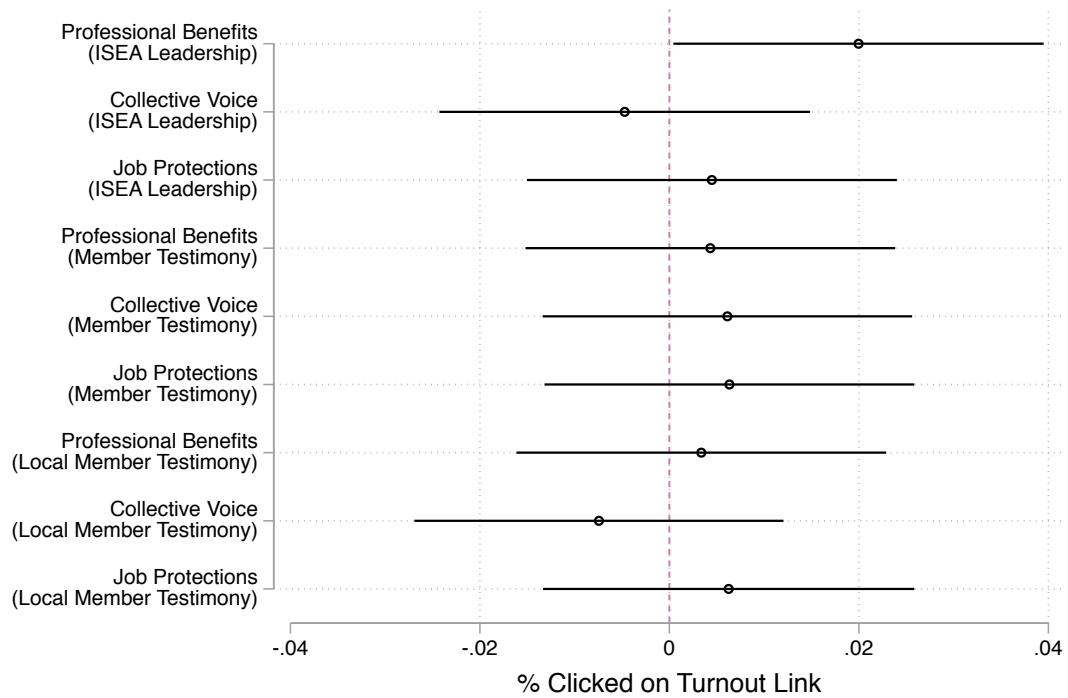
It is important to note that ISEA was communicating to its members about the recertification election in advance of our email intervention through other email messages, phone calls, social media messages, and newsletters. In addition, local union leaders were communicating to their members and stressing the importance of voting in favor of recertification. The presence of these other messages provide useful context to our findings, but ultimately do not hamper our efforts at analysis because of our block-randomized assignment of members to email interventions within each local ISEA affiliate. To our knowledge, no ISEA messages during the election apart from ours discussed the benefits of union membership using the same language that we employed in our intervention, which might have introduced a stable unit treatment assumption violation.

Recertification Experiment Results

The randomization of ISEA members to email message conditions makes our analysis relatively straightforward. Overall, about 21% of members opened our email, which is in line with other email correspondence distributed by ISEA leadership to its members. About 5.5% of all members across all conditions clicked the link embedded at the end of each message to vote in the recertification election, which we interpret as support for the union. One condition attracted significantly more support from members than all the rest: the email message describing professional benefits using text from ISEA state-wide leadership. 7.1% of members shown that professional benefit conditions clicked the link to vote in the election, compared to only 5.1% of members who saw the generic control message condition, about a two percentage point (or nearly 40%) increase from the generic message.

As specified in our pre-analysis plan, we present results without covariates in Table 2 and results with covariates in Table 3. We model our results with OLS and logit, as well as with and without cluster-standard errors, clustering at the local level. We have access to the following individual member-level covariates: Age, self-reported party identification, salary, sex, and race. All covariates are based on data provided to us by ISEA. We construct *Age* based on subject's birth date as reported to ISEA, with the resulting variable reflecting subjects' age in years as measured in the month prior to administration of the study. ISEA also provided us data on subjects' party identification, with subjects self-identifying as either Democrats, Republicans or neither; this informs our *Democratic* and *Republican* binary variables. Since ISEA only had party information about 21.43% of our sample, we also include a *No Party Information* dummy. *Base salary* is administrative data, again delivered to us by ISEA, that we present as-is. Race and sex are also self-reported and

Figure 5: The Causal Effects of Union Benefit Descriptions on Recertification Turnout



The figure shows the effect of each email message condition on the proportion of ISEA members clicking the link to vote in the recertification election (that is, the difference between the email condition and the generic message condition). Lines indicate 95% confidence intervals. See Table 2, model 1 for complete regression results.

inform *White* and *Female* dummy variables.¹⁴ We were well-balanced on these covariates across conditions, as Table 4 in the appendix shows.

The variables “Professional Benefits Only”, “Collective Voice Only” and “Job Protection Only” display results for those messages that lack endorsements from either the recipient’s local or state leadership. The variables “Professional Benefits/Quotes,” “Collective Voice/Quotes” and “Job Protection/Quotes” refer to messages that included quotes from generic ISEA members, while the variables “Professional Benefits/Similar Quotes,” “Collective Voice/Similar Quotes” and “Job Protection/Similar Quotes” refer to messages that include quotes by members identifying as belonging to locals similar to the recipients.

Our results are substantively consistent across model specifications: The message emphasizing professional benefits—and *only* professional benefits—prompted union members to try and turn out to vote. As the first model in Table 2 shows, receiving the message that only emphasized professional benefits increased subjects’ willingness to click on the link to vote for ISEA recertification by about 2.2 percentage points. This effect size is greater than the effect size that civic duty messages have been found to have on voter turnout, about equal to the effect size that messages which aim to activate a “Hawthorne effect,” and slightly more than a quarter as large as the effects of famed “social pressure” treatments (Gerber and Larimer, 2008). It is about half as large as effects generated by treatments in which recipients are encouraged to develop a plan in advance of election day (Nickerson and Rogers, 2010), but is much larger than the effects of social pressure messages on turnout when such messages re delivered on Facebook (Bond, 2012). Of course,

¹⁴In our pre-analysis plan, we indicated that we would match treatment assignment to official individual-level voting records, to the extent permissible under Iowa law. However, subsequent to data collection, we learned that, pursuant to Iowa Code section 22.7(69), individual-level participation records in the recertification elections are confidential and cannot be shared with researchers.

those studies studied how the mass public responded to messages designed to increase turnout in general elections—and we lack direct comparisons to the union recertification election context we study in this paper.

Figure 5 presents a more detailed way of visualizing the causal effect of each of the email messages on ISEA member support for recertification. We show the difference between the proportion of members supporting the union in each email message condition compared to the generic message (based on Table 2, model 1). We also indicate 95% confidence intervals for each of these differences. As Figure 5 makes clear, only the professional benefits description described by ISEA leadership is statistically significant from the control condition at conventional levels of significance. Figure 5 also indicates that we do not identify any consistent pattern between the messages with descriptions provided by ISEA leadership and those described by members themselves. There is no evidence to suggest that in general messages described by union leadership are more or less effective than messages described by fellow union members.

One important exception to this pattern involves messages in which other union members described professional benefits. Comparing the three messages that described professional benefits to members, we find suggestive evidence that members were somewhat *less* likely to respond to the messages by trying to vote in the election when the professional benefits were described by member testimony, especially when that testimony came from a worker in their local affiliate or one similar. The difference between the ISEA leadership message and the member testimony message is 1.6 percentage points ($p=.13$); the difference between the ISEA leadership condition and the local member testimony message is 1.7 percentage points ($p=.11$).¹⁵ (The difference between the ISEA leadership condition and the two testimony conditions is 1.6 points and obtains a p-value below .10, pooling across both testimony conditions.)

¹⁵These comparison come from Table 2, model 1.

Table 2: Results Without Covariates

	<i>Dependent variable:</i>			
	Clicked Link			
	<i>OLS</i>	<i>Logistic</i>	<i>OLS</i>	<i>Logistic</i>
	(1)	(2)	(3)	(4)
Professional Benefits Only	0.022** (0.010)	0.383** (0.190)	0.022* (0.012)	0.383** (0.190)
Collective Voice Only	-0.002 (0.010)	-0.041 (0.207)	-0.002 (0.010)	-0.041 (0.212)
Job Protections Only	0.005 (0.010)	0.090 (0.201)	0.005 (0.090)	0.090 (0.172)
Professional Benefits/Quotes	0.005 (0.010)	0.106 (0.200)	0.005 (0.010)	0.106 (0.190)
Collective Voice/Quotes	0.006 (0.010)	0.122 (0.199)	0.006 (0.010)	0.122 (0.184)
Job Protections/Quotes	0.007 (0.010)	0.138 (0.198)	0.007 (0.010)	0.138 (0.175)
Professional Benefits/Similar Quotes	0.004 (0.010)	0.075 (0.202)	0.004 (0.080)	0.075 (0.168)
Collective Voice/Similar Quotes	-0.005 (0.010)	-0.099 (0.208)	-0.005 (0.010)	-0.099 (0.204)
Job Protections/Similar Quotes	0.007 (0.010)	0.130 (0.200)	0.007 (0.010)	0.130 (0.181)
Constant	0.051*** (0.007)	-2.917*** (0.145)	0.051*** (0.007)	-2.917*** (0.137)
Observations	9,815	9,815	9,815	9,815
Cluster-Standard Errors?	No	No	Yes	Yes
R ²	0.001		0.001	
Adjusted R ²	-0.00003		-0.00003	
Log Likelihood		-2,120.724		-2,120.724
Akaike Inf. Crit.		4,261.448		4,261.448
Residual Std. Error (df = 9805)	0.230		0.230	
F Statistic (df = 9; 9805)	0.962		0.962	

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 3: Results With Covariates

	<i>Dependent variable:</i>			
	Clicked Link			
	<i>OLS</i>	<i>Logistic</i>	<i>OLS</i>	<i>Logistic</i>
	(1)	(2)	(3)	(4)
Professional Benefits Only	0.036** (0.018)	0.667* (0.347)	0.036 (0.023)	0.667* (0.378)
Collective Voice Only	-0.018 (0.019)	-0.518 (0.445)	-0.018 (0.014)	-0.518 (0.415)
Job Protections Only	0.019 (0.019)	0.371 (0.374)	0.019 (0.017)	0.371 (0.354)
Professional Benefits/Quotes	0.020 (0.018)	0.402 (0.365)	0.020 (0.017)	0.402 (0.342)
Collective Voice/Quotes	0.010 (0.019)	0.221 (0.376)	0.010 (0.018)	0.221 (0.365)
Job Protections/Quotes	0.032 (0.019)	0.574 (0.360)	0.032 (0.018)	0.574 (0.316)
Professional Benefits/Similar Quotes	0.023 (0.019)	0.430 (0.359)	0.023 (0.020)	0.430 (0.352)
Collective Voice/Similar Quotes	0.007 (0.018)	0.107 (0.371)	0.007 (0.017)	0.017 (0.357)
Job Protections/Similar Quotes	0.003 (0.019)	0.027 (0.398)	0.003 (0.017)	0.027 (0.385)
Constant	-0.031 (0.239)	-2.79** (1.39)	-0.031 (0.054)	-2.798*** (0.748)
Observations	3,244	2,423	3,244	2,423
Cluster-Standard Errors?	No	No	Yes	Yes
R ²	0.095		0.095	
Log Likelihood		-604.33		-604.33

Note:

*p<0.1; **p<0.05; ***p<0.01

Explaining the Value of Professional Benefits to Iowan Teachers

Why did teachers voting in the recertification elections respond so strongly to the professional benefits condition? To explore the mechanisms behind the results in our field experiment, we fielded a follow-up online survey of all ISEA members in May 2018. All ISEA members with valid emails ($N=26,134$) received an invitation to participate in the survey, distributed by ISEA's communications team. In addition to the initial email invitation, ISEA sent three additional follow-up reminder emails and one text message reminder to union members with cell phone numbers on file with the union. We used the promise of lotteried Amazon.com gift certificates to further incentivize ISEA members to take the survey. In all, 1,904 ISEA union members responded to our survey, for a response rate of 7.3%. In the appendix, we show that our survey sample compares relatively favorably to the overall population of unionized public school educators in Iowa using data from ISEA's internal records of their member demographics, as well as the Current Population Survey Monthly Outgoing Rotation Group pooled from 2011 to 2017.¹⁶ Compared to these benchmarks, our survey respondents are slightly older than the ISEA membership but well-balanced on race, ethnicity, and gender.

We used the follow-up survey to probe the reasons why the professional benefits treatment had been so effective. First, we asked members whether they had personally taken advantage of any of the three specific benefits we mentioned in our email message during the election. (Specific text: "Of the following benefits that ISEA offers, how many have you personally taken advantage of? Check all that apply.") 32% of surveyed members said

¹⁶We used the NBER extracts of the CPS MORG data. We included in our sample all respondents who indicated they worked in Iowa, were employed by state or local government, were union members at the time of the survey, and were employed in primary/secondary schools or universities and colleges (including junior colleges).

that they had taken advantage of “in-person or online classes through the ISEA Academy”; 34% said that they had participated in “conferences and workshops”; and 23% said that they had relied on ISEA for “support with the licensing and evaluation process”. In all, 56.5% members said that they had used any of these three professional benefits offered by ISEA. Given that a majority of members reported taking advantage of these benefits, we think it should come as no surprise that they were so motivating for the average teacher voting for recertification.

Second, we explored the value that surveyed members attached to these three specific benefits, asking survey respondents to rank on a 0-100 thermometer how warmly they felt toward each one. On average, respondents ranked in-person or online classes as 72.5, conferences and workshop as 70.5, and support with licensing and evaluation as 73.1. Most union members value each of these three benefits quite highly. In sum, not only do a majority of members report using the professional benefits offered by the union, but they quite like those benefits too.

Lastly, we examined which aspects of professional benefits are most appealing to the union members. We asked respondents how strongly they agreed or disagreed with the following four statements, which each tap into a different motivation for why the professional benefits might be appealing:

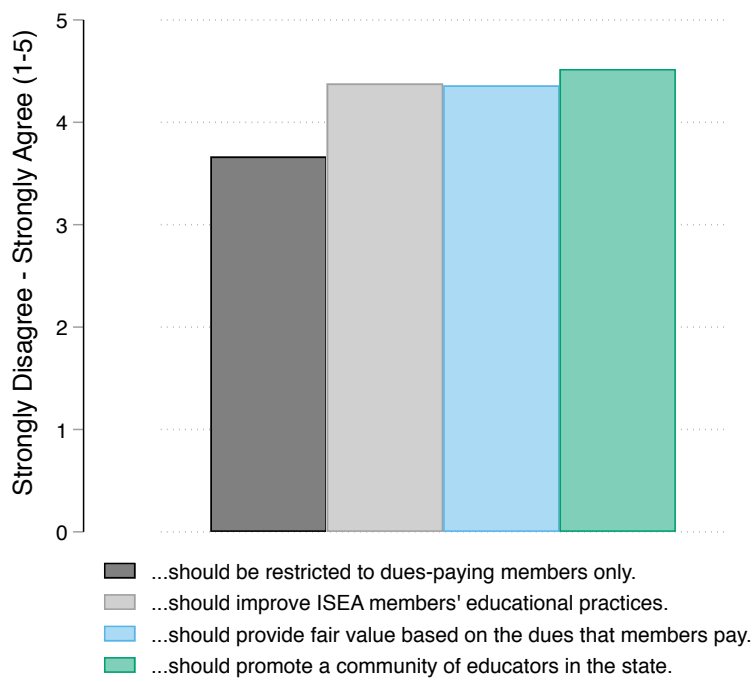
- “ISEA’s programs and services should be restricted to dues-paying members only.” This statement gauges the degree to which union members value the excludability of professional benefits to non-union members.
- “ISEA’s programs and services should improve ISEA members’ educational practices.” This statement gauges the degree to which union members value professional benefits because of the direct benefit to teachers’ work.
- “ISEA’s programs and services should provide fair value based on the dues that members pay.” This statement gauges the degree to which union members value professional benefits because they offset the dues members give to the union.”

- “ISEA’s programs and services should promote a community of educators in the state.” This statement gauges the degree to which professional benefits reinforce the community of educators within the state.

Respondents indicated their agreement with these statements on a five-point scale, ranging from “strongly agree” to “strongly disagree”. Figure 6 below summarizes the average responses to each item. In general, survey respondents regarded all of our reasons as plausible explanations of why they value professional benefits. Respondents agreed most strongly with the last explanation, relating to the idea that professional benefits should work to create a “community of educators” in Iowa. That was followed by a preference for fair-value and for improving their educational practices. While we observed the least appetite for excluding non-members from using benefits, 62% of respondents still said that non-members should be excluded from receiving professional benefits.

The appeal of professional benefits to teachers makes sense given research from education policy scholars on professional development and training as well. Although aggregate analyses often fail to identify a clear positive effect of professional development programs on teacher quality or student achievement outcomes, that may be because teacher training programs are so variable in their content and quality so as to be difficult to compare to one another (e.g. Harris and Sass, 2011, 811). In an environment like that, trainings offered by a trusted source—like a statewide teachers association—could be useful in signalling to employers the value of the training that educators have received. In addition, teachers do consistently indicate in self-reported survey data that some forms of professional development, including union programs, are much more useful to them than others (e.g. Garet et al., 2001).

Figure 6: Understanding ISEA Members' Support of Professional Benefits



The figure shows the average response given by ISEA members agreeing or disagreeing with various statements about the professional benefits and services offered by their union.

A Selective Benefits versus Solidaristic Benefits Trade-off?

On the one hand, our findings provide an optimistic message to public-sector unions, especially teachers unions, looking to retain and build their memberships in a politically constrained environment: Professional benefits are highly valued by teachers and providing them and reminding workers about those benefits can motivate support for unions. But on the other hand, the fact that members are most motivated by professional benefits—but not the non-material solidaristic or purposive benefits described by Clark, Wilson, and Moe—introduces the possibility for tensions within the union. It suggests that public-employee associations, like ISEA, may face a trade-off between focusing on the bread-and-butter professional benefits that attract member support and the political activities that are necessary to ensure a favorable legislative and policy environment—especially in the current context where public employees face an increasingly unfriendly government in many states, Iowa included.

More broadly, our experimental results call into question whether solidaristic or expressive benefits are sufficient, on their own, to spur public-employee membership in labor organizations—at least in the context we are exploring (cf. Moe 2011). They also suggest that public-sector critics’ description of public-sector unions as being inherently political may not be right, at least when it comes to these unions’ rank-and-file members (e.g. DiSalvo, 2015). For instance, in ruling against the ability of public-sector unions to levy “agency fees” on non-members, Justice Alito, writing for the Court’s majority in *Janus*, argued that politics was inescapable in all the activities of public-sector unions—even those that were ostensibly related to bread-and-butter bargaining over wages and benefits.¹⁷ Yet these political activities were not the primary reason that Iowan teachers were voting to support their unions in the recertification elections.

¹⁷585 U. S. ____ (2018), 30-1.

We present additional results that underscore the notion that public sector unions may face a strong trade-off between professional benefits provision and broader solidaristic activities, like political mobilization. To do so, we examined heterogeneity in the effect of the professional benefits treatment in school districts with higher and lower levels of political activity, which we use as a proxy for the underlying level of political solidarity in union locals—since political involvement is one of the classic non-material, solidaristic and purposive activities in which unions engage. Using data provided by ISEA, we split our sample of union locals into those that fell in the bottom half of PAC participation (that is, the proportion of union members voluntarily contributing to the union’s state PAC in 2016-2017) and the top half of PAC participation and estimated separate regressions for the two samples. (The median local in our sample had 82% of members contributing to the ISEA PAC.) We interpret the locals with above-average levels of PAC participation as locals with higher levels of political solidarity, and those with below-average PAC participation as locals with lower levels of solidarity.

Figure 7 summarizes the effect of our email messages on union turnout across the two sets of local school districts with high and low political solidarity. Although we emphasize that these results should be interpreted cautiously because we did not pre-register this hypothesis, we note that our professional benefits results are driven by districts in the bottom 50% of PAC participation. The point estimate for the professional benefits condition was nearly seven times larger in the bottom 50% sample than the top 50% sample (3.4 percentage points, $p < 0.05$, versus 0.5 percentage points, $p = 0.72$). Figure 7 thus suggests that professional benefits are more motivating in unions with low solidarity, and not as motivating for high solidarity unions. This suggests that professional benefits and solidaristic behaviors, at least as we have measured them here, are substitutes, not complements, es-

pecially in unions with low solidarity.¹⁸

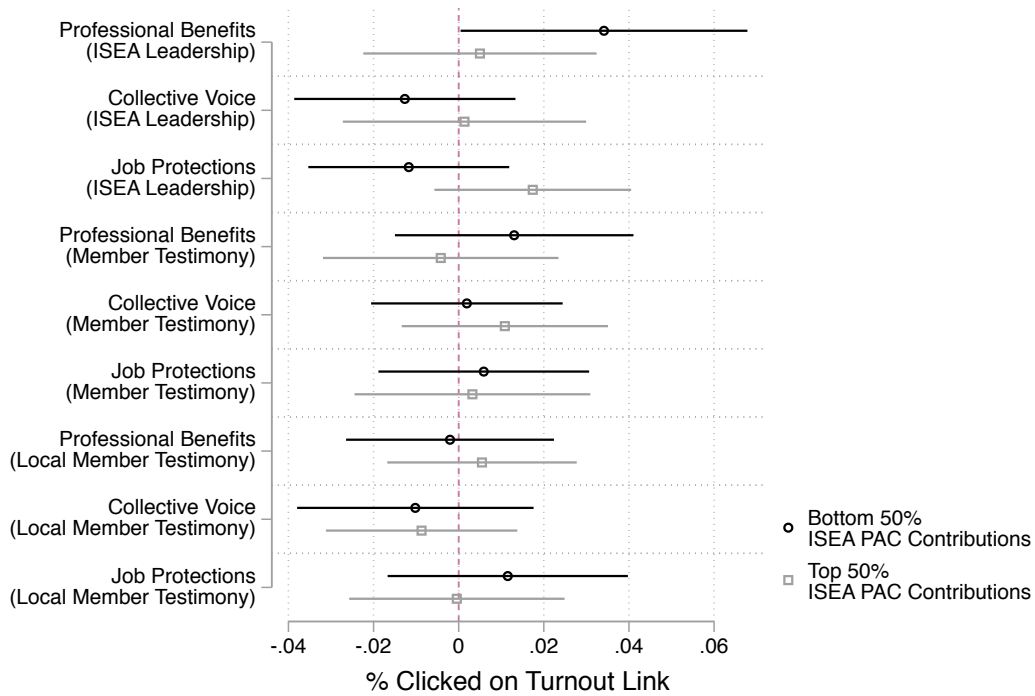
If the professional benefits condition complemented workers' sense of solidarity with the union, we might have expected to see a stronger effect of the professional benefits message in the locals with high PAC participation, suggesting that workers who felt stronger solidarity with the union also valued the professional benefits it offered. The fact that we do not suggests that professional benefits and union solidarity represent alternative mechanisms to generating union member participation (though we recognize the challenges in making a claim about individual union member behavior on the basis of aggregated data). Equally strikingly, the collective voice messages did not have a statistically significant effect in either the high or low solidarity union locals, suggesting that the solidaristic messages did not resonate more strongly in locals that already were highly motivated to support the political activities of the state union.

Beyond Iowa, one nationally representative online survey of teachers fielded by the teacher advocacy group Educators 4 Excellence in spring 2018 provides some evidence of the fact that politics is not all that mobilizing to teachers union members in the country as a whole.¹⁹ Only 22% of unionized teachers said that the union providing information about political candidates and their issue positions was “critically important” to their interests, and only 15% of those unionized teachers said the same about the union supporting and endorsing political candidates. More generally then, politics do not appear to be an important aspect of what unionized teachers expect their unions to do on their behalf.

¹⁸A regression model where we interact a continuous measure of PAC participation with the professional benefits treatment as an interaction term yields a *p*-value of .126.

¹⁹The survey was fielded from April 14 to May 6, 2018 on a sample of 1,000 full-time public school and public charter teachers by Gotham Research. For more information, see: <https://e4e.org/news/voices-classroom-survey-americas-educators>

Figure 7: The Causal Effects of Union Benefit Descriptions on Recertification Turnout by Union PAC Participation, 2016-2017



The figure shows the effect of each email message condition on the proportion of ISEA members clicking the link to vote in the recertification election (that is, the difference between the email condition and the generic message condition). Separate regression models estimated for union locals in the bottom half of PAC contribution participation and the top half of PAC contribution participation. PAC contribution participation measured as the proportion of ISEA members in a local school district contributing to the union's state PAC. Lines indicate 95% confidence intervals. Standard errors clustered by union local.

Conclusion

Unions, especially in the public sector, are significant economic and political actors. Not only do they shape the pay, benefits, and working conditions of millions of American workers (Farber et al., 2018; Freeman and Medoff, 1984; Rosenfeld, 2014), but they are major forces in politics across all levels of government, supporting political candidates, lobbying elected officials, and serving as broader “schools of democracy” for their members (Ahlquist, 2017; Ahlquist and Levi, 2013; Dark, 1999; Greenstone, 1969; Feigenbaum, Hertel-Fernandez, and Williamson, 2018; Kim and Margalit, 2017; Leighley and Nagler, 2007; Verba, Schlozman, and Brady, 1995; Schlozman, Verba, and Brady, 2012). Mounting research also suggests that unions—and their decline over the past decades—play an important role in accounting for inequalities of political voice as one of the few remaining mass-membership organizations representing the interests of working and middle class Americans (Hacker and Pierson, 2010; Schlozman, Verba, and Brady, 2012). In their work relating public opinion to policy outcomes, for instance, Gilens and Page find that unions are one of the few interest groups that reliably represent the preferences of low- and middle-income Americans (Gilens and Page 2014; Page and Gilens 2017, see also Becher, Stegmueller, and Kappner 2018; Flavin 2016).

Yet for all their substantive and theoretical importance, we know little about why workers voluntarily decide to join and support these associations. In this paper, we have explored the reasons why public employees might decide to support a union in a context where they can reap the collective bargaining benefits and grievance protections of the union without paying dues (that is, under a right-to-work regime) and where public unions are more limited in their ability to formally bargain with government (that is, a state with significant cutbacks in collective bargaining). Our field experiment results suggest that government employees—in this case, teachers—are most likely to respond to reminders about professional benefits offered by the union—trainings, teaching resources,

and certifications—and not solidaristic political benefits, nor job protections. In a follow-up survey, union members indicated that they value professional benefits for a variety of reasons, but especially because the benefits reinforce the professional community in which teachers belong, the benefits offer a fair value return for teachers' dues paid to the union, and they directly improve the quality of teachers' work.

Our findings thus engage directly with the longstanding literature on interest group participation and membership stretching back to Olson and Truman, underscoring the importance of selective benefits and the weakness of purely solidaristic or purposive appeals in building support for large organizations like labor unions. At the same time, they also point to the limits of this strategy for unions, indicating the potential tension between relying on professional benefits as opposed to solidaristic or purposive appeals for unions' long-run political clout. One interesting area for further examination is whether, by fostering a community of professional educators, professional selective benefits can be used to establish a form of solidarity that ultimately feeds back into political mobilization.

We also found that union members were most responsive to descriptions of professional benefits that came from the union's leadership, rather than their fellow members, suggesting that social endorsements may not be effective in the context of unions' selective benefits. But more research is needed to understand why it is that members seem to respond more on this issue to their leadership, perhaps testing whether they find messages about professional benefits more credible coming from their top representatives, and looking to see if there are messages or benefits that are more credible coming from their peers.

Our experimental design has a number of strengths, including the ability to estimate credible causal effects of our messages on a substantively important behavioral outcome: whether or not workers tried to vote to maintain their union as a legally-recognized bargaining unit. At the same time, we acknowledge that our results may not generalize across

different contexts and this merits future research. Would we find similar results had we conducted the experiment in a public union stronghold state under partial or full Democratic control, like New York, Connecticut, or California? On the one hand, it might be the case that public employees in these states are more aligned with their unions politically because of the more liberal context in which they are embedded. That might mean that messages about political voice could motivate members in those states more so than the members we studied in Iowa. Yet public unions in those union stronghold, non-right-to-work states likely include workers who might not want to join but feel they must because they have to pay dues to the union regardless of their membership status—at least until the recent *Janus* decision. That in turn could mean that less solidaristic, professional benefits are even more important to motivating support than in Iowa.

We believe that the setting in which we conducted our experiment might be thought of as an especially easy case (or “most likely” case) to observe an effect of solidaristic incentives. The 2017 recertification elections came just months after electoral losses and a big legislative blow to Iowan public sector unions. Under those circumstances, we might think that workers would be especially likely to be motivated to support the unions’ political activities to retake the legislature and governorship and roll back the recent cuts to their bargaining and union rights. Having a clear political out-group opponent is often thought to be an especially motivating identity for collective and solidaristic political mobilization (see for instance Lacombe 2018 on gun-owners and the National Rifle Association). Yet this is not what we observed—and it makes the null effect all the more striking. Regardless of this interpretation, however, it remains the case that given the recent *Janus* Supreme Court decision and the conservative backlash against public sector collective bargaining in many states, the context in Iowa looks increasingly like the norm across states, thus making our case study of this one state especially important.

In all, our research underscores the need for more scholarly attention to unions, es-

pecially public sector unions, in the contemporary American political economy (see also Frymer 2010; Levi 2003). Even in their weakened state, they remain incredibly important economic and political associations, and understanding why workers support, join, and remain in the labor movement amidst a changing legal landscape is a question that merits much more work.

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Appendix: Full Message Text from Field Experiment

Message 1: Emphasizing professional benefits

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that ISEA can continue to offer the professional benefits that you value, like in-person and online classes, conferences, and workshops. The ISEA Academy, for instance, has offered high quality courses for teaching license renewal and graduate credits for over a decade. Those courses cover topics as varied as ethics in education, helping students overcome depression and anxiety, using technology effectively in the classroom, and supporting homeless students in school. Voting “yes” on recertifying your education association also means keeping your connection to the network of thousands of other professional educators in ISEA and across the country.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 2: Emphasizing collective voice

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that your association and ISEA can continue looking out for your interests and those of your fellow educators. Regardless of whether it is in your building, your school board, or the state legislature, ISEA amplifies your voice in the decisions that affect your job. We keep track of the issues that matter to our members, regularly communicating with them and then using our resources to ensure that those issues get a fair hearing all across the state. Voting “yes” on recertifying your local association means that we can keep providing you a collective voice when it comes to education.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 3: Emphasizing job protections and legal protections

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that your association and ISEA can continue to offer the security and support you need to do your job. ISEA gives you the peace of mind that your side will be heard in any disputes you might have with your school and that your rights will be protected. Through our attorney referral program, for instance, eligible members are entitled to two free consultations with a lawyer and reduced legal rates after that. Our membership also comes with a \$1 million insurance policy that protects you against civil proceedings brought against you in job-related matters. Voting “yes” on recertifying your local association means that we can keep providing you these important protections.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 4: Control, baseline message

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Voting yes to recertify means you wish to maintain the current bargaining agent - the ISEA which is your local association - as the representative for the Master Contract. This vote has nothing to do with joining the association/union. All employees of the bargaining unit should vote, including union members and non-members, because not voting is counted as a no vote. Vote YES to support your colleagues and recertify your union.

You have the opportunity to vote online for recertification, by clicking here and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 5: Emphasizing professional benefits, with quote

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that ISEA can continue to offer the professional benefits that you value, like in-person and online classes, conferences, and workshops. Here's how some of your fellow ISEA members have described it in their own words:

“I have found the union...helps me maintain my certification and helps me update my training.”

“I believe in education and the benefits and information I receive from ISEA helps me make informed decisions.”

“I'm a member because I want to be informed and a part of the public education community.”

“I like belonging to a professional organization to support my fellow teachers....both locally and on a larger level”

Voting “yes” on recertifying your education association also means keeping your connection to the network of thousands of other professional educators in ISEA and across the country.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 6: Emphasizing professional benefits, with quotes from a similar local

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that ISEA can continue to offer the professional benefits that you value, like in-person and online classes, conferences, and workshops. Here's how some of your fellow ISEA members from a local similar to yours have described it in their own words:

“I have found the union...helps me maintain my certification and helps me update my training.”

“I believe in education and the benefits and information I receive from ISEA helps me make informed decisions.”

“I'm a member because I want to be informed and a part of the public education community.”

“I like belonging to a professional organization to support my fellow teachers....” both locally and on a larger level”

Voting “yes” on recertifying your education association also means keeping your connection to the network of thousands of other professional educators in ISEA and across the country.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 7: Emphasizing collective voice, with quotes

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that your association and ISEA can continue looking out for your interests and those of your fellow educators. Here's how some of your fellow ISEA members have described it in their own words:

“ISEA is my voice on a state and national level. They make heard the voices of educators from around the nation, from inner cities and rural communities alike.”

“[I'm a member because] I think it is important to have a collective voice.”

“ISEA keeps us apprised of all that is going on legislatively and looks out for our interests.”

“I believe that together, we have a louder voice to attempt to explain our beliefs and views about education and policy that affects educating our youth.”

Voting “yes” on recertifying your local association means that we can keep providing you a collective voice when it comes to education.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 8: Emphasizing collective voice, with quotes from a similar local

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that your association and ISEA can continue looking out for your interests and those of your fellow educators. Here's how some of your fellow ISEA members from a local similar to yours have described it in their own words:

“ISEA is my voice on a state and national level. They make heard the voices of educators from around the nation, from inner cities and rural communities alike.”

“[I'm a member because] I think it is important to have a collective voice.”

“ISEA keeps us apprised of all that is going on legislatively and looks out for our interests.”

“I believe that together, we have a louder voice to attempt to explain our beliefs and views about education and policy that affects educating our youth.”

Voting “yes” on recertifying your local association means that we can keep providing you a collective voice when it comes to education.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 9: Emphasizing job protections and legal protections, with quote

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that your association and ISEA can continue to offer the security and support you need to do your job. Here's how some of your fellow ISEA members have described it in their own words:

“[ISEA membership] is insurance for me in my job, just like homeowners, vehicle, or health insurance...I want someone in my corner to fight for what should be reasonable and to protect me [as a teacher].”

“ISEA provides the support and protection teachers need in order to remain successful and confident in our profession.”

“It provides security and support when district support and security may be lacking.”

“I may need their help in case I have a situation that I cannot handle on my own.”

Voting “yes” on recertifying your local association means that we can keep providing you these important protections.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Message 10: Emphasizing job protections and legal protections, with quotes from a similar local

Dear [First Name],

Starting this week through October 24th, you'll have the opportunity to vote to keep your education association as the exclusive bargaining representative for your district, also called a recertification election. The association needs a majority of all employees in the bargaining unit – not just members – to win.

Recertification will mean that your association and ISEA can continue to offer the security and support you need to do your job. Here's how some of your fellow ISEA members from a local similar to yours have described it in their own words:

"[ISEA membership] is insurance for me in my job, just like homeowners, vehicle, or health insurance...I want someone in my corner to fight for what should be reasonable and to protect me [as a teacher]."

"ISEA provides the support and protection teachers need in order to remain successful and confident in our profession."

"It provides security and support when district support and security may be lacking."

"I may need their help in case I have a situation that I cannot handle on my own."

Voting "yes" on recertifying your local association means that we can keep providing you these important protections.

You have the opportunity to vote online for recertification, by clicking [here](#) and entering in your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

You can also vote by phone (toll-free) by dialing 1-855-976-9349 toll-free. Please be prepared to provide your birthday (in MM/DD/YYYY format), along with the last four digits of your Social Security number.

Onward, Your ISEA Leadership Team

Figure 8: Survey Balance

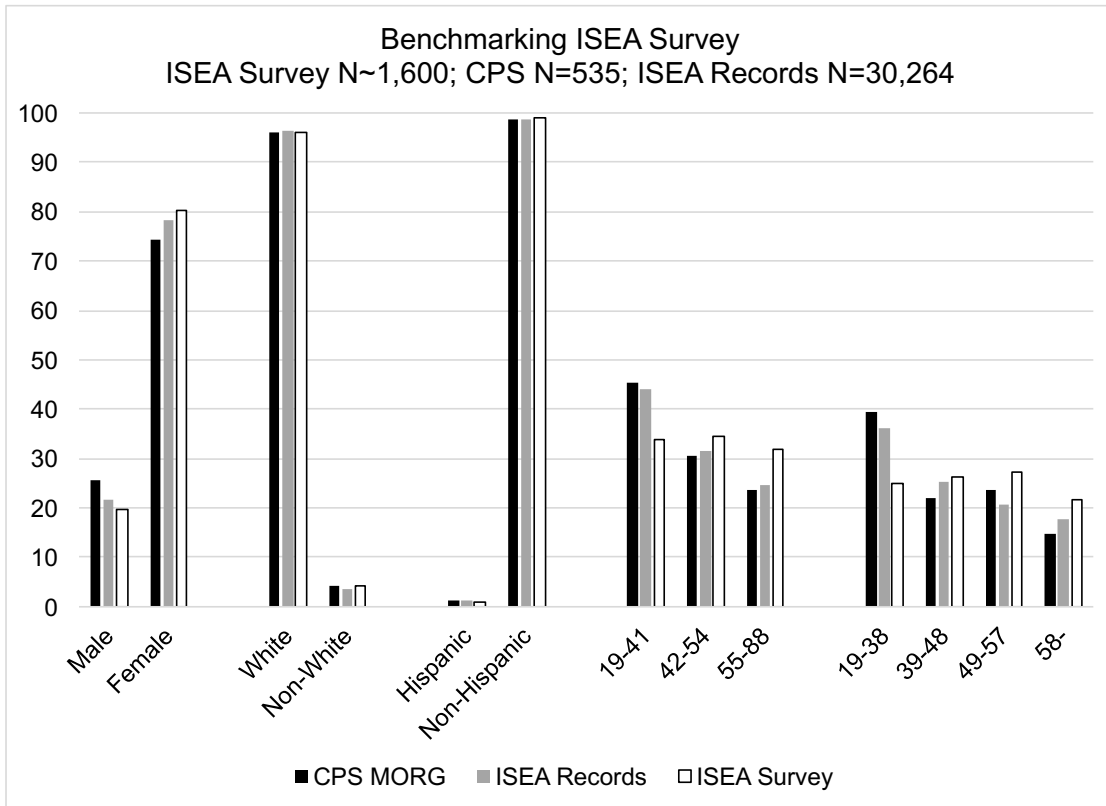


Figure compares survey sample with ISEA’s internal records and CPS MORG data on Iowan public school union members from 2007-2011.

Appendix: Logit Results

Appendix: Survey Balance

In Figure 8, we show balance of our survey respondents compared to CPS MORG data on Iowa public school union members pooled from 2011 to 2017 (see text for more details).

	Prof. Benefits Only	Voice Only	Protections Only	Generic	Prof. Benefits/Quotes	Benefits/Sim Quotes	Voice/Quotes	Voice/Sim Quotes	Protections/Quotes	Protections/Sim Quotes
Sex (Female)	704	746	761	740	772	753	776	756	755	756
Chi-squared 13.24										
Race (White)	901	897	913	904	922	930	934	934	920	911
Chi-squared 9.56										
Party ID (Democrat)	103	108	131	124	152	125	134	140	134	117
Chi-squared 17.64										
No Party ID	594	623	623	603	603	615	630	611	633	612
Chi-squared 5.83										
Party ID (Republican)	97	90	80	93	66	88	73	84	75	89
Chi-squared 15.33										
Salary (Mean)	56026.9	55741.77	56438.58	56188.36	56678.27	56356.44	56126.6	56430.08	56810.75	55925.11
Age (Mean)	42.05	42.23	42.32	42.49	42.51	42.1	42.17	42.62	43	42.26

Table 4: The composition of each treatment by available covariate. Chi-squared tests are reported for the sex, race and party ID variables. The sex, race and party ID rows report counts for each treatment group. The salary and age rows report means.

Pre-Analysis Plan

C Registration Data

This section should normally be filled out prior to data collection and certainly prior to data analysis. It relates to design and analysis and provides a space for preposting of hypotheses.

C1 Background and explanation of rationale.

Brief description of goals of project

Earlier this year, Iowa became the latest in a string of states to enact sharp cutbacks to the collective bargaining rights of its public workers. Two of the most important provisions include limiting the scope of bargaining of most public workers to wages and requiring public unions to win a majority of bargaining unit member votes in regular recertification elections (typically at the end of contracts). Other states, like Wisconsin, which have introduced similar reforms have seen sharp drops in public union memberships, budgets, and political engagement. Through a partnership with the Iowa State Education Association (ISEA), the state's union representing public school teachers and staff, we will examine what kind of messages best persuade union members to turn out to vote in recertification elections.

Specifically, we will be investigating what effects framing the union as a provider of collective benefits, professional benefits or insurance/job protection benefits has on turnout in the recertification election. We will also be examining whether these frames are more or less effective when interacted with social proof conditions. While past work has examined union members' attitudes towards unions, that work has generally been in the context of private sector unions in past decades, when the labor movement was much larger and stronger. Our current study is significant in that it focuses on the public sector and does so in a context of unfavorable state public policy, an increasingly common occurrence. Our results will speak to the motivations that public sector workers have to continue supporting unions in the context of punitive labor law, as well as the broader processes of persuasion and mobilization in contemporary labor organizations.

What are the hypotheses to be tested?

Please list the hypotheses including hypotheses on heterogeneous effects.

On October 10th, 2017, the Iowa Educational Association (ISEA) will mail its approximately 10,542 voting members messages we have designed in partnership with them about the upcoming recertification election. At the end of every message will be a link to a website where members can vote for recertification electronically. We posit the following hypotheses:

Hypothesis 1: Members who receive a message emphasizing that the union provides them a collective voice in their school, school district, and the state legislature will be more likely to vote in a union recertification election, compared to control.

Hypothesis 2: Members who receive a message emphasizing that the union provides them professional benefits, like continuing education requirements and certification, will be more likely to vote in a union recertification election, compared to control.

Hypothesis 3: Members who receive a message emphasizing that the union provides them with insurance and legal protections against job-related litigation will be more likely to vote in a union recertification election, compared to control.

Hypothesis 4: Members who receive a message emphasizing either the collective voice, professional benefits, or insurance protections that the union provides, when the message also contains testimony from a fellow union member attesting to those benefits (amounting to social proof) will be more likely to vote in a union recertification election, compared to members who received those same messages without such testimony.

Hypothesis 5: Members who receive a message emphasizing either the collective voice, professional benefits or insurance that the union provides, when the message also contains testimony from a fellow union member attesting to those benefits (amounting to social proof) *and* when the testimony is described as coming from a similar local as their own, will be more likely to vote in a union recertification election, compared to members who received those messages without such testimony, and compared to members who received such testimony that was not identified as coming from a similar local as their own.

To test these hypotheses, we will randomly assign subjects to see one of the following ten messages:

1. A message that emphasizes professional benefits provided by ISEA
2. A message that emphasizes the collective voice provided by ISEA
3. A message that emphasizes the insurance and legal protections provided by ISEA
4. A message that emphasizes professional benefits provided by ISEA, combined with testimony from union members attesting to this benefit
5. A message that emphasizes the collective voice provided by ISEA, combined with testimony from union members attesting to this benefit
6. A message that emphasizes the insurance and legal protections provided by ISEA, combined with testimony from union members attesting to this benefit

7. A message that emphasizes professional benefits provided by ISEA, combined with testimony from union members attesting to this benefit, and identified as coming from member of a similar local as the subject
8. A message that emphasizes the collective voice provided by ISEA, combined with testimony from union members attesting to this benefit, and identified as coming from member of a similar local as the subject
9. A message that emphasizes the insurance and legal protections provided by ISEA, combined with testimony from union members attesting to this benefit, and identified as coming from member of a similar local as the subject
10. A control message consisting of standard ISEA messaging

All messages appear at the end of this document.

How will these hypotheses be tested? Describe formal tests

To evaluate our hypotheses, we will first regress voter turnout on indicator variables for all treatment conditions, excluding the control condition, with standard errors clustered at the local level. We will do this with and without any covariate data on members that ISEA provides us. Hypotheses 1-3 will be tested on this basis. To further test these hypotheses, we will create an indicator variable for messages 1, 4 and 7; another indicator variable for messages 2, 5 and 8; and another for messages 3, 6 and 9. We will then regress this against control, again with and without covariates, and again with standard errors clustered at the local level. To test Hypothesis 4, we will evaluate the difference between messages 1 and 4, messages 2 and 5, and messages 3 and 6. To further test Hypothesis 4, we will create an indicator variable for all those who saw messages 1-3 and one for those who saw messages 4-6, and evaluate the difference. To test Hypothesis 5, we will compare messages 4 and 7, 5 and 8, and 6 and 9. To further test Hypothesis 5, we will create an indicator variable for all those who saw messages 4-6 and one for those who saw messages 7-9, and evaluate the difference.

All tests will be two-tailed.

We will measure voter turnout in two ways. First, we will evaluate click-through data. If a recipient clicks on the link to vote, we will count them as having demonstrated a willingness to vote. Second, to the extent possible under Iowa state labor law, we will match the voting records of members with their treatment assignment.

Eligibility and exclusion criteria for participants:

All ISEA members with active email accounts will be assigned to treatment. Before analyzing results, we will remove subjects whose email addresses bounced.

Has this research received Institutional Review Board (IRB) or ethics committee approval? *

No

Yes

Other:

Was a power analysis conducted prior to data collection? *

No

Yes

Other:

Will the intervention be implemented by the researcher or a third party? If a third party, please provide the name.

Researchers

Other: The ISEA will deliver the messages and the data to the researchers.

Did any of the research team receive remuneration from the implementing agency for taking part in this research?

No

Yes

Other:

If relevant, is there an advance agreement with the implementation group that all results can be published?

No

Yes

Other: