Organizational Capacity and Candidate Emergence: the Case of Union Members as Candidates for Public Office

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Abstract

Does organizational capacity facilitate candidate emergence? Research about representation emphasizes the size of group membership in the electorate, while other scholars argue that organizations and institutions play a crucial role in candidate emergence. However, despite the importance of organizations, due to a shortage of data about organizational activities and capacity, prior studies need a theory and further empirical evidence to substantiate how organizational capacity fosters candidate emergence. In this paper, I argue that organizations can incentivize their members to run for office by using their organizational capacity. To explain incentives from organizations, I establish two concepts of support. Indirect support is political capital such as political skills and networks to run for office, while direct support is monetary resources to run for office. I test my theoretical argument using the case of candidates with union experience (union candidates) in the U.S. House primaries from 2008 to 2012. By exploiting micro-level data of unions' expenditures on political activities, I find that union candidates are more likely to emerge where unions provide higher levels of indirect and direct support during the pre-primary period. To estimate the effects of organizational incentives, I exploit panel data, and matching methods, yielding evidence for the claim that indirect and direct support are vital in candidate emergence. These results have implications for understanding representation by highlighting the role organizations can play.

Political scientists have studied candidate emergence because it is a crucial first step of representation (Bawn et al., 2012; Broockman, 2014; Carnes, 2018; Fox and Lawless, 2010; Fraga, Juenke and Shah, 2020; Ladam, Harden and Windett, 2018; Maisel and Stone, 1997). Both the "voter demand" and "candidate supply" sides of candidate emergence literature speak to strength in numbers as predictive of candidate emergence, and this literature is particularly well developed in race and ethnic politics (Barreto, Segura and Woods, 2004; Branton, 2009; Canon, 1999; Lublin, 1999; Guinier and Carter, 1994; Juenke and Shah, 2016). For instance, districts with a majority or near-majority minority populations are necessary to ensure substantial non-white representation (Grofman, Handley and Lublin, 2001; Lublin et al., 2009). However, from another set of studies on candidate emergence, scholars have theorized the importance of institutions and organizations rather than the sheer number of group members (Bawn et al., 2012; Broockman, 2014; Carnes, 2018; Fox and Lawless, 2010; Seligman, 1961). Here, scholars argue that institutions and organizations mobilize their members to run for office (Bawn et al., 2012; Broockman, 2014; Cohen et al., 2009). However, one of the major difficulties in substantiating this theory of organizations is empirical evidence due to a general lack of data on organizational capacity. Further, there remains a need to theorize how organizations operate as mobilizers with their capacity.

In this paper, I argue that organizations can facilitate their members to run for office when organizations incentivize their members by providing political capital and monetary resources with their organizational capacity. To explain organizational support, I develop two concepts of organizational incentives: indirect support and direct support from organizations. Indirect support from organizations is political capital such as political skills and networks to run for office, while direct support from organizations is defined here as monetary resources to run for office. I theorize that the organizational incentives in a district hold psychological and/or practical value for their members who would consider a political career, affecting their members' willingness to run.

I test my theoretical argument using the case of candidates with union experience (union

candidates) in the U.S. House primaries from 2008 to 2012. The U.S. House primaries are the first stage of candidate emergence, making them an appropriate setting for understanding candidate emergence. I use local unions' spending on political activities from the U.S. Department of Labor's administrative records to measure their indirect and direct support. I demonstrate that organizational support can incentivize their members to run for office by leveraging detailed information about unions' spending for micro-level political activities. To examine my hypotheses, I exploit panel data to identify the effect of organizational capacity on candidate emergence. Additionally, I employ matching techniques to address possible model dependence and test the robustness of my findings.[1]

I find that union candidates are more likely to emerge when unions incentivize their members with their organizational capacity. More precisely, union candidates are more likely to emerge where local unions provide higher levels of indirect and direct support during the pre-primary period (i.e., before the ballot access date for primary candidate registration). Further, I use matching techniques to substantiate my findings which, likewise indicate that higher institutional support yielded greater emergence.

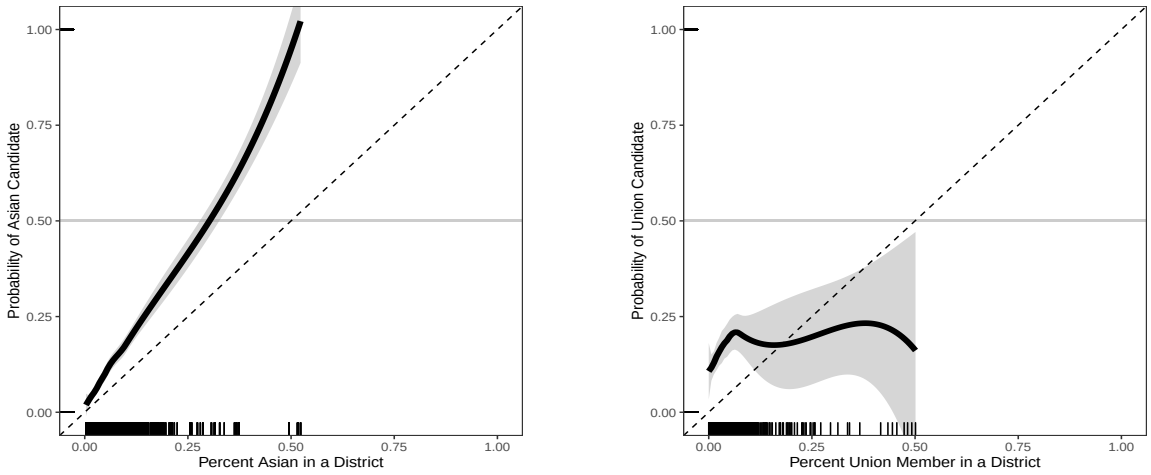
The article has six parts. First, I briefly review a theory about candidate emergence focusing on descriptive characteristics of districts (i.e. strength in numbers of ethnic population). Then, I show that the theory does not sufficiently explain candidate emergence in a setting such as candidate emergence from organizations. Second, I review studies on organizations as mobilizers of their members to enter politics. Third, I provide a theory of organizational capacity to foster candidate emergence from the members of organizations. Fourth, I describe data and methods, and explain why organizations' expenditures on political activities are important to understand how organizational capacity promotes candidate emergence. I then show findings from a series of analyses with robustness tests. Lastly, I provide the implications of the findings.

[1]The Appendix engages in a series of robustness tests.

The Strength in Numbers and Candidate Emergence

Among the studies about candidate emergence, a large portion of research on group members and candidate emergence has focused on the relationship between district-level characteristics (e.g., the size of the African American population), and electoral outcomes (Branton, 2009). The findings of this literature indicate that the likelihood of minority descriptive representation increases as the district-level minority population increases (Barreto, Segura and Woods, 2004; Branton, 2009; Canon, 1999; Lublin, 1999; Guinier and Carter, 1994; Juenke and Shah, 2016). This pattern is clear in Figure 1 (a) which shows the relationship between district's percent of a certain racial/ethnic population and the emergence of at least one co-ethnic candidate for primaries.[2] When the Asian American population reaches 50 percent of a district, it is almost certain that there is at least one Asian candidate competing in the district's primaries.

Figure 1: District's Descriptive Characteristics and Candidate Emergence



(a) Asian Candidates (b) Union Candidates

Note: The solid black line is fit to percent union member (or Asian) and the probability of at least one union (or Asian) candidate in the primary. Each line is a LOESS fit to the binary outcome data, with a 95% confidence interval with light gray shades. The dashed line is 45 degree angle for a benchmark. That is if descriptive composition of union/ethnic population can explain emergence of union/co-ethnic candidate, then we can expect the solid black line and the dashed line overlap with each other.

[2]The data for candidates' ethnicity are from Hassell and Visalvanich (2019). The data cover candidates of the U.S. House primaries from 2010 to 2014 while the data for Figure 1 (b) cover the U.S. House primaries from 2008 to 2012.

Figure 1 demonstrates strength in numbers explains candidate emergence, however, the question remains whether this theory of groups' strength in numbers can be applied to other settings such as the membership size of local organizations. In fact, Figure 1 (b) shows that in the case of union members, the district-level characteristics do not fully capture emergence of union candidates here. The pattern is strikingly different from the case of Asian American candidates.[3] It shows that as district's percent union member increases, the probability of observing a union candidate does not vary meaningfully according to the confidence intervals. The likelihood of union candidate emergence is nearly equal where district's relative union member population is approximately 5 percent and where it is 20 or even 50 percent. Thus, while it is clear that strength in numbers predict ethnic candidate emergence, it is not sufficient explanation in other settings.

Organizations as Mobilizers of their Members to Participate in Politics

In this section, I outline why organizations can mobilize their members to emerge as political candidates. Studies suggest that organizations act as mobilizers to promote their members to participate in politics. Scholars argue that organizations can promote political involvement of their members by providing individuals the opportunity to develop skills necessary to engage in various types of political participation (Andrews and Caren, 2010; Broockman, 2014; Fox and Lawless, 2011; Leighley, 1996; Verba et al., 1993; Verba, Schlozman and Brady, 1995). Pollock III (1982) and Verba and Nie (1987), for example, use survey respondents' reports on group membership, types, and activities to show that groups' intentional mobilization can foster their members' participation in politics. Beyond intentional mobilization, Leighley (1996) finds that organizations can promote unintentional mobilization through their political activities. Moreover, scholars shows that church and political organizations serve as alternative, community-based resources that promote group members' participation

[3]Further examples, the cases for White, Black and Hispanic candidates are in the Appendix A.2.

(Tate, 1991; Whitby, 2007). Overall, organizations can mobilize their members to contact government officials, vote, work on projects, donate, and even protest (Leighley, 1996, 2001; Chong, 2014; Verba, Schlozman and Brady, 1995). However, although directly participating in politics as a candidate is a crucial form of political participation, until recently, relatively less is known about *whether* and *how* organizations can mobilize their members to enter politics (see Broockman 2014 for a review of research on candidate emergence).

Organizations and Candidate Emergence

The existing theories on candidate emergence facilitated by organizations have shown that parties and interest groups engage in candidate selection and nomination (Bawn et al., 2012; Broockman, 2014; Frendreis, Gibson and Vertz, 1990; Seligman, 1961), but, at the same time, some scholars have been skeptical about whether and how parties and organizations can provide incentives to foster candidates among those not otherwise intending to run (see Maisel 2001, Carson, Engstrom and Roberts 2007, Cox and Katz 2002). Particularly, research on candidate emergence facilitated by organizations focus on 1) qualitative studies based on historic data or interviews with varied organizations' leaders (see Bawn et al. 2012, Cohen et al. 2009, Wasser and Lamare 2013) and 2) surveys of (potential) candidates and legislators, asking them what influenced their decision to run for office (see Broockman 2014, Fox and Lawless 2010, Seligman 1961). For instance, based on qualitative studies, scholars argue that organizations actively recruit their members and like-minded people and train them to run for office (Bawn et al., 2012; Rauch and La Raja, 2017; Wasser and Lamare, 2013). Organized groups also particularly target open seats and weak incumbents to increase their chances of influencing nominations at early stages through "invisible primaries" that political elites such as party leaders, major donors, and interest groups coordinate and influence candidate emergence before the actual primaries take place (Bawn et al., 2012; Cohen et al., 2009; Hadley, 1976). However, the major shortcoming of this line of research is invisible primaries are often literally invisible in that it is difficult to observe organizational

activities and capacity to influence this process.

Together qualitative studies and research based on surveys suggest that we need to know more about whether and how organizations can foster their members to run for office. Scholars have long been skeptical of parties' and interest groups' ability to stimulate individuals to run without selective incentives (see Maisel 2001).[4] As Maisel (2001) points out, scholars have generally thought parties and interest groups must play "a limited role at best" in recruiting and mobilizing candidates as they lack selective incentives for inducing candidacy among those not otherwise intending to run (see also Broockman 2014, Carson, Engstrom and Roberts 2007, Cox and Katz 2002). For instance, nineteenth-century parties clearly can coordinate entry decisions and even compel reluctant candidates to run by providing incentives (Carson, Engstrom and Roberts, 2007). Early parties could offer "insurance" to candidates in the event they lost by ensuring potential candidates jobs if they lost elections (Brady, Buckley and Rivers, 1999). Thus, scholars argue that organizational incentives should clearly exceed the cost of entering politics to foster organizations' members to become political candidates.

Although earlier scholars were skeptical about the capability and activities of parties and interest groups to provide selective incentives to individuals to spur candidate emergence, more recently, scholars show that even messages of personal encouragements (i.e., as organizational incentives) to run for office can facilitate their members to enter politics. Studies focused on surveys of (potential) candidates indicates that organizations such as women's organizations actively mobilize their members to run for office (Broockman, 2014; Carnes, 2018; Fox and Lawless, 2010). Nonetheless, prior studies do not substantiate *how* organizations and institutions can mobilize their members beyond theoretical examination (For experimental evidence of personal encouragement from organizations see Broockman 2014).[5] Therefore, although prior research has provided valuable insights on the role of orga-

[4]As Brady, Buckley and Rivers (1999) show a good example of selective incentives that is providing "insurance" for individuals who decided to run (i.e. a guaranteed job if she loses an election). Other selective incentives can be promised funding and manpower for campaigning.

[5]For instance, Broockman (2014) ran field experiments with an interest group to mobilize its members

nizations in candidate emergence, the question remains (1) whether organizational capacity can foster their members to run for office and (2) how candidate emergence operates within organizations.

Organizational Capacity, Incentives, and Mobilizing Candidates

I argue that (1) organizational activities can incentivize their members as indirect and direct support and (2) they can facilitate members of organizations to enter politics. To be more precise, in this paper, I argue that organizations such as unions can incentivize their members to run for office by providing indirect and direct support with their organizational capacity. Indirect support is the political capital such as political skills and networks to run for office, and direct support is the monetary resources to run for office.

Literature shows that for individuals to emerge as candidates, feelings of efficacy, political capital, and monetary resources are key (Fox and Lawless, 2010; Schlozman, Verba and Brady, 2013). Therefore, organizations use their organizational capacity to offer incentives to run through both indirect and direct support. Specifically, meeting practical needs with political capital and resources to run while also offering a means to build up feelings of efficacy, the necessary psychological process, allows organizations to facilitate their members to run.

In this paper, I select unions and union candidates as a case to test my theory for three reasons. First, labor unions are politically active organizations that make efforts to influence both elections and policies (Ahlquist and Levi, 2013; Jackson and Engel, 2003). Because they are politically active, I can examine their efforts to incentivize their members to run for office with their capacity. Second, labor unions are localized in that the incentives from political

to run for office, and even with "personal encouragement" (the treatment in his study) to its members could increase the likelihood of candidate emergence among the organization's members.

activities with their capacity are provided at the local level. Therefore, this localized setting offers an appropriate case to study the impact of local organizations and their capacity on candidate emergence at the primary level. Third, studying unions and union candidate offers practicality and transparency because the U.S. Department of Labor's Labor-Management forms (LM forms) allow researchers to explore micro-level political activities and spending of local organizations. Based on these data, I can also examine different types of organizational efforts to incentivize their members. As Wilcox and Iida (2010) state, the shortage of data on organizations' political activities has been the major difficulty in studying the influence of interest groups on politics. Therefore, because LM forms record detailed information about political activities of unions, from political contributions to training programs, unions and union candidates offer a good opportunity to study the capacity and activities of organizations to influence politics.

Indirect Support from Organizations

Based on mobilization and participation literature, institutions and organizations can incentivize their members with their political activities (Bawn et al., 2012; Fox and Lawless, 2010; Leighley, 1996; Tate, 2018; Whitby, 2007). Particularly, organizations mobilize their members to run for office (Bawn et al., 2012; Broockman, 2014; Fox and Lawless, 2010). One of the underlying assumptions in this theory of organizational candidate mobilization is that organizations can increase feelings of efficacy in their members by providing personal encouragement and political capital with organizational capacity (Bawn et al., 2012; Broockman, 2014; Fox and Lawless, 2010; Wasser and Lamare, 2013).

To date, how political capital from organizations might impact feelings of efficacy, remains an open question. Only Wasser and Lamare (2013) have contributed to this space directly in their qualitative work which indicated that self-efficacy from organizational activities is an important factor (see Wasser and Lamare 2013 for further details). Likewise, scholars have shown that personal encouragements from elites and organizations can increase

the likelihood of running for office among their members (Broockman, 2014; Fox and Lawless, 2010). Thus, when organizations provide opportunities to develop political capital, they can increase individuals' willingness to run. The effects of organizational incentives (such as political capital) on individual members' behaviors are already established in the literature of political participation and mobilization by organizations (Leighley, 1996; Schlozman, Verba and Brady, 2013). In the case of unions, members of unions can be more confident when running for office, since unions can train them to have political skills such collective bargaining, candidate training, and participation in campaigns. Moreover, organizations run specially designed programs to incentivize their members to participate in politics. For instance, unions run "Path to Power" programs to mobilize their members to run for office (Quinnell, 2018). In this program, unions teach campaign strategies, speech skills, and fundraising techniques to their members. These intentional mobilization efforts can function as organizational incentives to increase political efficacy of their members, galvanizing them to run.

Furthermore, unintentional mobilization efforts can also operate as institutional incentives to their members (Leighley, 1996; Pollock III, 1982). To be specific, even if organizations are not intending to mobilize their members to run for office, organizational activities can result in mobilization of members to enter politics (Pollock III, 1982). For instance, a wide range of unintentional political activities of organizations from educational seminars to barbeque parties can increase a member's feeling of efficacy to run for office because unions are also providing political networks to their members through these activities. These institutional incentives can actually help union members to gain campaign support if one of their members runs for office (Wasser and Lamare, 2013). Particularly, in the case of unions, this unintentional mobilization can substantially influence their members' feelings of efficacy to enter politics because unions teach their members leadership skills via participation in labor relations between employers and employees. Union members in the workplace collective-bargain and communicate with administration to manage their industrial relations

(Lichtenstein, 2013; Rosenfeld, 2014; Tattersall, 2005). In the context of American unions, because unions are decentralized at the local and workplace level, the experience from their workplaces through the union activities is crucial (Lichtenstein, 2013; Rosenfeld, 2014; Tattersall, 2005). For example, Maggie Carlton, a member of Local 226, described the story of why and how she ran for public office with the institutional incentives from local unions (Wasser and Lamare, 2013):

> "Her shop floor experiences as a union member influenced her path to political candidacy. In addition to her job as a waitress in the casino's coffee shop, Carlton served as a bargaining team member, shop steward, and volunteer on the union's organizing and political campaigns. She participated in negotiations for three collective bargaining agreements, represented colleagues through daily contract administration, and helped non-union hospitality workers in Las Vegas join the Culinary Workers and gain a voice in their own workplaces."

Her participation in political campaigning and collective bargaining increased her campaigning and political skills as political capital, and her experience as a union steward to represent other union (and non-union) workers may have boosted her feelings of efficacy as a competent political candidate. Together, unions can incentivize their members with indirect support to run for office with their organizational capacity. Therefore, I hypothesize that unions' indirect support can increase the likelihood of union candidates to run for U.S. House primaries.

Direct Support from Organizations

Direct support is monetary resource to run for office that can incentivize their members to run. Unions spend political money to influence politics via political contribution, donation and lobbying. Different from indirect support, direct support is explicit monetary resource. Particularly, political contribution is essential to run for office, so unions' direct support can incentivize their members with campaign contributions if they run for office. Other than political contribution, lobbying and other political donations can have similar mobilization effects on their members. This is because lobbying and other political donations can bring

about unintentional mobilization of their members to run for office (Leighley, 1996). That is, even if organizations' lobbying and other political donations are not for elections, the members can perceive that the organizations can provide monetary resources for politics. The organizations' political capacity to influence politics with monetary resources is an important incentive to their members. These organizational incentives can be more effective if organizations (e.g., unions) spend more money during pre-primary period, because union members can expect direct support from unions to run for primaries. Furthermore, if unions are more likely to provide political contributions to their members (union candidates), then the members might have the expectation of resources if they run.[6].

Organizations also intentionally mobilize their members to run for office by providing monetary incentives to their members (Bawn et al., 2019). For instance, Andy Roth, The Club for Growth's vice president for government affairs mentioned that "We felt, in order to change [advance free-market and low-tax policies], we needed to get involved in primaries." (Rauch and La Raja, 2017). By providing monetary support and examples of success, its model not only sustains existing candidates but also encourages newcomers to run (Rauch and La Raja, 2017). These pre-primary activities to mobilize candidates and the expectation of monetary support for campaigning from organizations are important strategies of organizations to influence candidate emergence. To be more specific, the direct support from organizations (unions) can increase their members' political efficacy and potentially resources. As mentioned before, these two factors are important for individuals' decisions to run for office. Therefore, I hypothesize that unions' direct support can increase the likelihood of union candidates to run for U.S. House primaries.

[6]I confirm that unions and labor PACs are more likely to give money to union candidates during primaries This is post-candidate emergence, but this pattern shows that unions are more likely to give political contributions to union candidates (group members). The results are in the Appendix C.1.

Data

A key contribution of this study is to examine whether and how organizations can incentivize their members to run for office with their organizational capacity. In this section, I describe the data I use to examine my theoretical expectations.

Outcome Variable

The dependent variable is a binary variable that shows whether there was at least one union candidate who ran for the U.S. House primary in a district or not. I rely on the data from U.S. House primary candidates who ran in elections between 2008 and 2012. During these election cycles, only about one percent of districts had more than one union candidate running in the same district, so a binary outcome variable is employed, rather than a count of union candidates in a given district. The data of candidate's union membership are collected primarily from Vote Smart.[7] Although Vote Smart provides the most comprehensive existing data about candidate biography and organizational membership records, their data are not complete. Followed by Sojourner (2013)'s search protocol, for candidates who are not covered by Vote Smart, I searched to learn about candidates' biographies from the internet. If this failed to return results, then union membership indicators were assumed to be missing completely at random and those individuals were excluded from further analysis. About six percent of all candidates across 2008 to 2012 were missing organizational membership data.

[7] https://votesmart.org

Explanatory Variables: Measures for Organizations' Indirect and Direct Support

The data source of organizations' indirect and direct support is LM forms.[8] Unions have to file an initial report with the Office of Labor-Management Standards (OLMS) followed by a yearly report using the LM form. Local unions have to submit this mandatory report annually to the U.S. Department of Labor based on the Labor-Management Reporting and Disclosure Act (LMRDA) of 1959. The LMRDA is designed to increase union democracy but was later transformed by legislators into a push to regulate the economic and organizational power of unions by understanding information about unions and their activities (Aaron, 1960). LM forms are useful resources for information about unions, their members, and their micro-level activities.[9] Therefore, I used LM forms to measure local unions' indirect and direct support. Indirect support is measured as unions' spending for political activities that are not political contributions, lobbying, or donations. Direct support is union spending for political activities such as political contributions, lobbying, and donations. They are aggregated at the congressional district-level for analyses. To test my theory of union candidate emergence in primaries, I only use unions' expenditure data (disbursement records) during the pre-primary period (i.e., before the ballot access date for primary candidate registration) to measure unions' institutional support.[10] To construct unions' spending during

[8]To my knowledge, only two studies used LM forms in political science research (Becher, Stegmueller and Käppner, 2018; Feigenbaum, Hertel-Fernandez and Williamson, 2018) Becher, Stegmueller and Käppner (2018) used LM forms to measure union membership and concentration in congressional districts to study their relations to policy making. Feigenbaum, Hertel-Fernandez and Williamson (2018) used LM forms to study the effect of Right-to-work laws on the allocation of state-level unions' spending between political activities and representational activities.

[9]Although there are some disadvantages to using LM forms in that some of drawbacks are some unions are exempt from filing requirements, LM forms provide detailed and reliable information about union in local level (Becher, Stegmueller and Käppner, 2018). For validation of data derived from LM forms, Becher, Stegmueller and Käppner (2018) show that a very high degree of coverage with governmental data (Current Population Survey).

[10]In fact, unions' support is continuous and the skills and politicization of members to run for office might not be just effective before the ballot access date for primary candidate registration. Rather, particularly, unions provide the indirect support at daily basis from their workplaces and direct support can be given from previous year's budget other than the election year. However, the purpose of selecting unions' spending for political activities spent before the ballot access date is that to differentiate the spending for general elections, and make the measures more focused on pre-primary periods where union candidates initially can

pre-primary period, I aggregate district-level unions' spending with one-lagged year prior to the ballot access date for primary elections.[11] Therefore, unions' indirect and direct support are measured by examining a year long spending on political activities.

Table 1: Local Unions' Indirect and Direct Political Spending

	2008	2010	2012
Direct political spending	$ 70,244,593	$ 62,271,417	$ 113,038,091
Indirect political spending	$ 219,125,966	$ 238,898,684	$ 339,096,281
Percent of direct political spending	24.274 %	20.676 %	25.000 %
Percent of indirect political spending	75.725 %	79.323 %	74.999 %

Note: The source of data is LM forms. I classified direct political spending as political contributions, lobby and other political donations. Indirect political spending include all other types of spending among political activities. The data in this table cover each year.

It is important to understand how unions invest money in political activities between indirect and direct support because except data from LM forms, other agencies such as FEC do not capture unions' spending on micro-level political activities. Particularly, indirect support from organizations like unions have largely neglected in literature (For further discussion of the comprehensive review on organized interests' influence see Hojnacki et al. 2012). Table 1 shows that in 2008, 2010 and 2012, unions spent on average about 23% out of their total "political activities" for direct support (i.e., political contributions and lobbying), but more than 75% of spending for political activities went to indirect political spending. The indirect political spending can provide valuable experience to their members, and through this experience, organizations can incentivize their members to run for office.[12]

Finally, I aggregated data from LM forms to find district-level of union characteristics and local unions' political spending for their activities. To locate every union in congressional

emerge. Also I try to decrease the post-treatment problem of using spending data after the ballot access date for studying candidate emergence in primaries.

[11]For instance, to measure unions' spending for 2008 pre-primary elections, I aggregated unions' district-level spending from 2007 to the ballot access date for primaries of each states in 2008. The ballot access dates for primaries can be found from FEC (https://www.fec.gov/).

[12]The reason why a "political party" can be "political activity" is explained by reporting instructions for LM forms. Unions have to report their intention and purpose of spending in that even if a union has two different political party events, if one is for political purpose and the other is not, the union has to report them differently in their purpose coding. A Political party can be a political activity because if a union uses a political party for a candidate or a political event, that should be a political activity. This political party can build political networks for union members and this can be political capital (indirect support). Therefore, unions' political party can be as effective incentives as much as political training to union members.

districts, I geo-code the address of each union.[13] Following previous studies' geo-coding protocols, I first convert street address to congressional district. If the address is not fully indicated, I used the zip code of address (see Becher, Stegmueller and Käppner 2018 about using zip codes for locating unions in congressional districts). Table 2 shows the examples of data from LM forms. After I identify unions' locations, I analyze unions' expenditure data.

Table 2: Using LM Forms to Measure Local Unions' Organizational Support with their Capacity

Union Name	Members	RPT ID	Year	Street Address	City	State	Zip code
NATIONAL PRODUCTION	1737	401105	2008	2210 MIDWEST ROAD	OAK BROOK	IL	60521
A M P I EMPLOYEES UNION	159	388379	2008	312 CENTER ST	NEW ULM	MN	56073
AERONAUTICAL EXAMINERS	187	406306	2008	103 SPRING RIDGE COURT	NEW BERN	NC	28562
AERONAUTICAL EXAMINERS	99	375783	2008	1128 TEBO ROAD	NEW BERN	NC	28562
AERONAUTICAL EXAMINERS	81	391176	2008	ORANGE PARK	ORANGE PARK	FL	32067
AFSCME COUNCIL	45	401148	2008	3325 CAPRICIO STREET NE	CANTON	OH	44721
AGRICULTURE EMPLOYEES	3	374355	2008	88 SWEET PEA LANE	WILLOW SPRING	NC	27592

Disbursement Type	Purpose	Date	Amount	RPT ID
504	2007 YEAR END AUDIT	10/17/2008	8300	383832
502	DONATION	2/28/2008	10400	363172
502	Election 08' Political Training	4/15/2008	5587	369215
503	PROMOTIONAL JACKETS	10/19/2007	6467	369259

Note: The first table in Table 2 is general LM form data showing detailed characteristics of each unions such as name, location, membership size, and union's unique ID (RPT ID). The second table in Table 2 is disbursement data from LM forms and it shows spending date, purpose, and union's unique ID (RPT ID). Information from the tables is combined by unique union id (RPT ID) and aggregated by district level for analysis.

The instructions for LM forms indicate that unions have to report their disbursement purpose and type when reporting activities and spending.[14] By using this disbursement data, I can identify when the money is spent and for what purposes. Therefore, the data show timing, amount and purpose of spending for unions' political activities. Additionally, to identify each unions' spending for political activities more precisely, I classified approximately 35,000 records of unions' disbursement on political activities to nine categories as shown in Table 3. Indirect support is further classified into six categories: political spending on campaigns and elections, education, training, consulting and professional services, events,

[13] I mainly use Google's Civic Information API to geo-code unions.

[14] "Report the labor organization's direct and indirect disbursements to all entities and individuals during the reporting period associated with political disbursements or contributions in money. Also report the labor organization's direct and indirect disbursements to all entities and individuals during the reporting period associated with dealing with the executive and legislative branches of the Federal, state, and local governments and with independent agencies and staffs to advance the passage or defeat of existing or potential laws or the promulgation or any other action with respect to rules or regulations (including litigation expenses)."

and other activities. Direct support is divided in three categories: political expenditures related to campaign contributions, lobbying, and other donations.

Table 3: Different Categories of Unions' Political Activities and their Examples

Types	Categories	Examples
Direct support	Contribution	Contribution for federal, state, and local candidates, PAC spending
	Lobbying	Lobbying expenditures, lobbying consulting spending, lobby day
	Donation	Donation, subsidies, COPE fund, fund, legislative action fund
Indirect support	Education	Education, member education, education cost, political education, collective action education, project
	Election	Campaigns, GOTV, mails, Advertising, media, election, phone, polls, call, primary, grassroot
	Training	Candidate training, grassroot training, political action training
	Consulting	Consulting, legislative consulting, research, professional services
	Events	Fundraising events, conferences, dinner, convention, luncheon, meeting, rally, party
	Other	Computer software, advocating fee, t-shirt, air travel, hotel, sponsor, public policy, promoting

Note: The data are from LM forms' disbursement data. The data cover unions' political spending from 2007 to 2012. To classify categories, I hand-coded data.

Lastly, to employ matching methods for the robustness check later in this paper, I construct a "treatment" variable using unions' political spending.[15] Therefore, for the purpose of matching analysis, if unions in a district provide organizational support of any kind, the district is "treated", and if unions in a district provide no institutional support, the district is "controlled."

Control Variables

The literature provides theoretically driven control variables: political, institutional, demographic and industrial controls. All my specifications include a set of time-varying district-level controls. Political conditions can influence candidate emergence, so I used a dummy variable called open seat because organizations like unions target open seats to increase their

[15]The treatment for matching does not have to be a binary variable. However, for convenience of using binary treatment variable to apply to a matching method, I simplified the treatment condition from a continuous to a binary variable. (See The Appendix for continuous treatment variable approach of a matching method)

chances of winning by avoiding incumbents (Maisel and Stone, 1997). District's partisanship should be controlled, so I used the most recent presidential elections' Democratic vote share. Since unions have formed a lasting coalition with Democratic party, the partisanship of a district may predict union candidate emergence (see Rudolph 1999 and Schickler, Pearson and Feinstein 2010 for the further discussion about the alliance between Democratic party and labor unions). Also, institutional characteristics of unions, the number of union members (logged) in a district, and the number of unions are controlled for because unions' organizational characteristics and the strength in numbers might influence the emergence of union candidates (Delaney, Fiorito and Masters, 1988; Radcliff and Davis, 2000; Radcliff, 2001). I used demographic controls that can affect candidate's characteristics following previous studies on candidate emergence (e.g. Branton 2009). Therefore, racial composition (percentage white), median household income, level of education (percentage with BA degree or higher), and urbanization rate of a district are controlled. Additionally, I used industrial controls because both unions and union candidates can be affected by industrial characteristics of a district. Therefore, I control for the share of a district's workers employed in the service and agriculture sector, and the number of firms in a district because they can suppress unionization and union strength (Freeman and Medoff, 1984; Becher, Stegmueller and Käppner, 2018).

Design

It would be ideal to randomly assign unions' organizational incentives (treatment) to individuals to compare against controls, however this design is not feasible for my study. Therefore, I examine my theoretical argument with a series of analyses of district-level data with two identification strategies. First, by exploiting panel data, I use logit regression with fixed effects to examine the relationship between unions' support and the likelihood of union candidate emergence (e.g., regression models with fixed effects are widely used to estimate causal

inference in social science Angrist and Pischke 2008). Second, I use a matching method for causal inference with Time Series Cross Sectional (TSCS) data (a non-parametric generalized difference-in-differences estimator) proposed by Imai, Kim and Wang (2018) as robustness checks.[16] Additionally, such matching offers robust results even when there are concerns of model dependence.

Robustness Checks with Matching Methods

Additionally, I used various matching methods to check robustness of findings. Although unions form to serve economic purposes rather than political purposes (Ahlquist and Levi, 2013,?; Iversen and Soskice, 2015), union spending for political activities (i.e., the measures for unions' institutional support in this paper) is not randomly assigned. Consequently, alongside controlling for demographic, political, institutional, and industrial characteristics of a district, I use a matching strategy to achieve balance between the treatment (institutional support) and control (no institutional support) groups on a set of relevant variables, matching on identified essential covariates (the number of unions, the number of union members, open seat, percent white, percent BA or higher, and recent Democratic Presidential vote share.)[17] (see the Appendix (B.3) for detailed discussion of balance and weights.)

Although the matching method improves the validation of causal inference in observational studies by reducing model dependence, until recently scholars have not applied matching method to analyze TSCS data (Imai, Kim and Wang, 2018). This method first matches each treated observation with control observations from other units in the same time period that have an identical treatment history up to the pre-specified number of lags.[18] Basically,

[16] I also show a series of robustness tests in the Appendix B, but I only present the outcomes of a matching method with TSCS data in text.

[17] To apply matching methods, I simplify my main explanatory variables (indirect and direct support (i.e., theoretical treatment variables)) to binary treatment variable. It means that if unions provide either way of institutional support (either indirect or direct support) in any level in a given district, I code the district is "treated". Conversely, if unions did not provide any support in a given district, the district is "controlled". I also run models with "continuous" treatment, continuous treatment with Covariate Balancing Generalized Propensity Score (CBGPS) estimation in the Appendix (Fong et al., 2018).

[18] In this paper, I do not have many repeated measures (three time periods), I use only one lag.

this method allows us to consider the TSCS aspect while matching treated and controlled within the same time period that has treatment history. Then, I can use standard matching and weighting methods to further refine this matched set so that the treated observation has outcome and covariate histories similar to those of its matched control observations. After a refinement, I estimate the average treatment effects using the difference-in-differences estimator (Imai, Kim and Wang, 2018).[19]

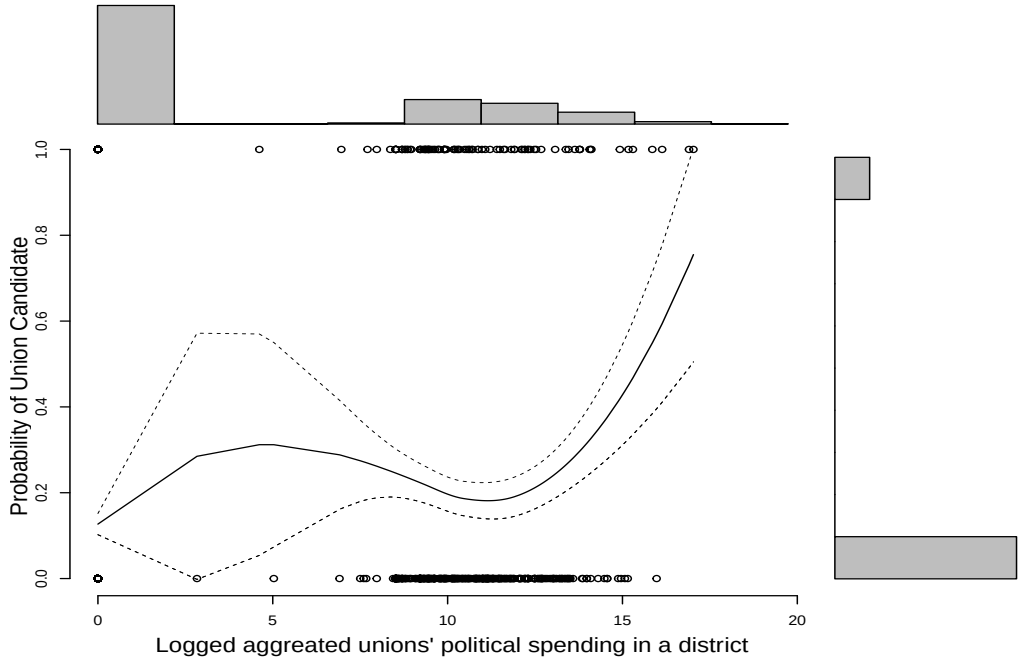
Results

The general findings of this paper show that organizations can incentivize their members to run for office by providing institutional support. Union candidates are more likely to emerge when unions provide indirect and direct support. Using LOESS, Figure 2 shows that unions' organizational capacity to incentivize their members to participate in politics can increase the likelihood of union candidate emergence. As Figure 2's histogram (the histogram of the x axis) shows, it is notable that there are some unions that spend money for political activities during pre-primaries, logged aggregated unions' political spending. The distribution of unions' political spending in congressional districts is highly skewed in that most unions invest no or little money for political activities during pre-primaries. Local unions have not spent money for political activities during pre-primaries in about 66 percent of districts from 2008 to 2012.[20] Overall, as Figure 2 shows, unions' political spending and the likelihood of union candidate emergence shows a positive association particularly where the unions spend money in districts. Therefore, the relationship between organizational support using their capacity and candidate emergence requires further examination.

[19]This matching method for TSCS data can address issues in the regular matching method (i.e., the regular matching method does not consider TSCS nature of data.) However, because I have only three different time periods (2008, 2010, and 2012), applying this method with `PanelMatch` to my study has limitations.

[20]This skewed distribution of unions' organizational effort allows me to use explanatory variables (organizational support) as dichotomous variables rather than continuous variables particularly for matching methods.

Figure 2: Local Unions' Aggregated Support and Union Candidate Emergence



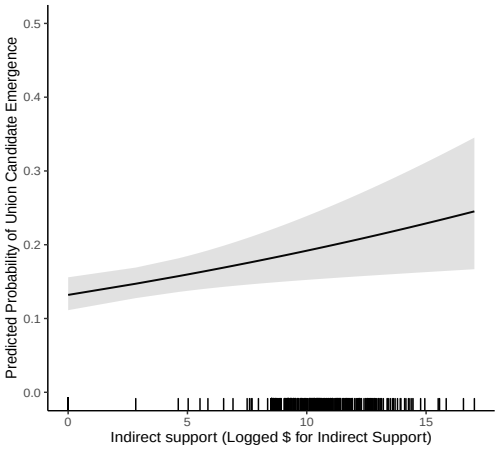
Note: The solid black line is fit to local unions' political spending and the probability of at least one union candidate in the district's primary elections. Each line is a LOESS fit to the binary outcome data, with a 95% confidence interval with dotted lines. The histogram over the x-axis shows the distribution of aggregated local unions' political spending in district-level during pre-primaries (the explanatory variable). The histogram on the right side of the y-axis describes the distribution of districts where a union candidate is running. The dots in the Figure show the binary outcome variable. The Figure 2 used a pooled sample of congressional primaries from 2008 to 2012.

Unions' Indirect and Direct Support and Union Candidate Emergence

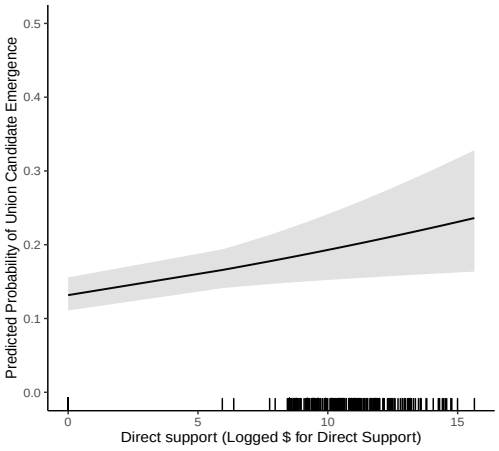
For my main analysis, I used logit regression with state and year fixed effects to examine the relationship between unions' indirect support and the likelihood of union candidate emergence. Figure 3 (a) shows the predicted probability of union candidate emergence. Most of data are distributed around logged $8 to $14 as the figure presents. In this range of support, the probability of union candidate running in a district increases about 10 percentage points. Substantively, this is a relative modest size of effect, but in the aggregated level over many districts, the size of effects could be larger. Figure 3 (b) shows the relationship between

unions' direct support and the predicted probability of union candidate emergence. The estimated effect is similar to the finding of indirect support. Figure 3 (c) presents the marginal effect of aggregated political spending on both indirect and direct support on predicted probability of union candidate emergence. Overall, the results show that organizations' capacity to incentivze their members can increase the probability of their members entering politics.

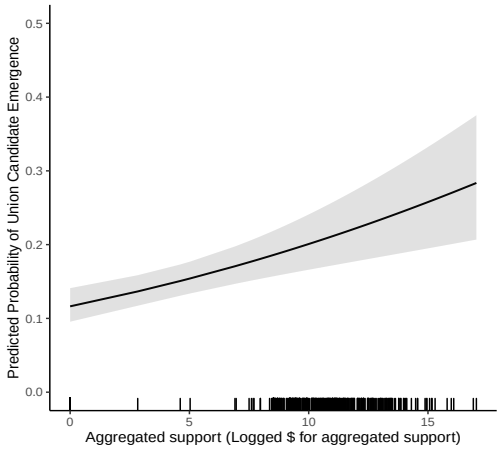
Figure 3: Marginal Effect of Unions' Support on Union Candidate Emergence



(a) Indirect Support



(b) Direct Support



(c) Aggregated Support

Note: The solid black line is fit to local unions' political spending and the probability of at least one union candidate in the district's primary elections. Each line is a LOESS fit to the binary outcome data, with a 95% confidence interval with dotted lines. Distribution of aggregated local unions' political spending in district-level during pre-primaries. The figure used a pooled sample of congressional primaries from 2008 to 2012.

Further, to examine both indirect and direct support from unions more precisely, I classified approximately 35,000 records of unions' disbursement on political activities to 9 categories. Indirect support is further classified to political spending on campaigns and elections, education, training, consulting and professional services, events, and other activities (6 categories). Direct support is divided to political expenditures related to campaign contributions, lobbying, and other donations (3 categories) (See the Appendix for detailed classification). The results from Table 4 show that except for other political donations and education programs, unions' institutional support increases the likelihood of union candidates. Particularly, the association between union candidate emergence and training program is relatively high compared to other institutional support.

This finding implies that unions' training programs are effective ways to spur union candidates. Although few unions run training programs and invest less money to these programs than other types of political activities, these training programs are most likely to specifically designed to facilitate candidate emergence. Moreover, training programs could be mainly run by unions that have established political influences and experiences of institutionalizing candidate emergence programs. For instance, New Jersey American Federation of Labor and Congress of Industrial Organizations (AFL–CIO) has run "Labor Candidates Program" that promote their members to run for office for decades. Their programs have been successful role models for other unions and more recently other unions officially launched similar program called "Path to Power" to facilitate candidate emergence. In this training program, unions teach fundraising skills, campaign techniques, and effective messages, and building a campaign team. Therefore, this program and other like it may more directly influence union candidate emergence. However, only some unions have the capacity to run these well-designed programs, so the existence of these training programs may be a barometer of unions that have more political capacity.

Table 4: Different Types of Unions' Expenditures and Union Candidate Emergence

	Dependent variable:								
	At least one union candidate running								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Contribution	0.038*								
	(0.020)								
Lobbying		0.095***							
		(0.026)							
Donation			−0.020						
			(0.034)						
Elections				0.066***					
				(0.023)					
Education					0.038				
					(0.031)				
Training						0.209***			
						(0.076)			
Consulting							0.064**		
							(0.026)		
Events								0.061**	
								(0.028)	
Others									0.045**
									(0.021)
Observations	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pseudo R^2	0.038	0.045	0.035	0.041	0.036	0.041	0.039	0.038	0.039

Note: Year and state fixed effects are used. District-level controls are political (open seat and Democratic presidential vote share), institutional (the number of union members (logged) and the number of unions), demographic (percent white, median household income, percent BA or higher, and urbanization rate) and industrial controls (percent Agriculture employment, percent service sector employment and the number of firms (logged)). The unit of analysis is congressional district. *p<0.1; **p<0.05; ***p<0.01

Robustness Checks: Matching Methods

To further substantiate the findings, I used matching methods for causal inference.[21] This method allows me to estimate average treatment effect on treated (ATT). As Table 5 shows, the matched data decrease the sample size substantially. This is mainly because matching methods for causal inference with TSCS data only match treated and controlled within the same time period that has treatment history with lag of 1 time period in this paper. Table 5 shows the ATT of unions' support on union candidate emergence. The size of effect estimated as ATT is large that union candidates are about 20% more likely to emerge from a district where unions provide support comparing to a district where unions provide no support.

[21]In the main text, I only report results from matching method with TSCS data proposed by Imai, Kim and Wang (2018), but results from other matching methods as robustness checks are in the Appendix. They all show substantively similar outcomes.

Table 5: Union Support and Predicted Union Candidate Emergence with Matching Method with TSCS Data

	Dependent variable:
	Union Candidate Running
Unions' Aggregated Support	0.209**
	(0.042)
Controls	✓
Observations (Matched Units)	87

Note: The table shows the estimate of average treatment effect on the treated (ATT). The standard errors are bootstrapped. Unions' aggregated support is a binary treatment variable in here. Unions' aggregated support is coded as 1 if unions in a given district provide either indirect support or direct support. District-level controls are political (open seat and Democratic presidential vote share), institutional (the number of union members (logged) and the number of unions), demographic (percent white, median household income, percent BA or higher, and urbanization rate) and industrial controls (percent Agriculture employment, percent service sector employment and the number of firms (logged)).*p<0.1; **p<0.05; ***p<0.01

Do Organizations Incentivize Their Members Once They Emerge as Candidates?

The findings of this paper meet my theoretical expectations in that organizational capacity to incentivize their members facilitates political candidate emergence from the organizations. One way to find evidence of incentives from organizations to their members once they emerge as candidates can be found from the relationship between organizations' campaign spending and candidates from the organizations. Therefore, I used Federal Election Commission (FEC) data to confirm whether unions actually provide support to union candidates during primary (post-candidate emergence at the individual-level analysis). I find that unions and labor PACs are more likely to give money to union candidates over non-union candidates even after controlling for incumbency. With this analysis, I confirm an implicit assumption underlying my argument that unions selectively provide institutional support to union members. As organizations incentivize their members to enter politics with their organizational capacity during pre-primaries, once candidates emerge, organizations continue to support these candidates. I provide fuller discussion of the connection between union candidates and

unions' campaign contributions in the Appendix (C.1).

Discussion

Given that voting occurs from a bounded set of choices, candidate emergence (as one of these choices) is crucial to understanding the process of representation. Previous research has overlooked the role that organizational capacity can play in fostering candidate emergence. In this paper, I provide a theory of institutional capacity's impact on candidate emergence that explains how some citizens can be incentivized to run by organizations' efforts. I explore my theory with the case of union candidates, and I find supporting evidence, exploiting panel data and matching methods. To be precise, I use micro-level data on political expenditures to show that both indirect and direct organizational efforts can spur candidate emergence above levels we would anticipate form descriptive characteristics alone. These findings suggest that unions' institutional support can affect union candidate emergence, and they offer several contributions.

First, this paper's findings establish the importance of organizational capacity in candidate emergence. Literature on candidate emergence shows (particularly, ethnic minority candidate emergence) that strength in numbers can explain candidate emergence from groups, but another set of research has theorized the importance of institutions and organizations in candidate emergence rather than the number of group members. The findings of this paper contribute to the literature on the role of organizations and institutions and show that they play a crucial role in candidate emergence. To be more specific, organizations' capacity to incentivze their members promotes candidate emergence.

Second, I was able to measure two types of organizational support using largely neglected data source (LM forms). Particularly, this study employs union data for practicality and transparency. Because LM forms allow researchers to explore micro-level political activities and spending of local organizations, I was able to examine different types of organizational

efforts to incentivize their members. For instance, LM forms reveal unions' political contributions and donations that are not captured by federal or local agencies such as FEC or state-level campaign finance agencies. Moreover, LM forms also indicate spending for various political activities such as training programs, campaign actions, and buying professional services. This indirect support is crucial for candidate emergence, but has not been captured and measured in previous research on candidate emergence and organized interests. Therefore, using administrative data to measure organizational capacity and incentives is an important way to contribute to literature.

Third, union candidates are an important case to study because many union members are an active contingent of the working-class, and they are more likely than other candidates to have working-class sympathy as they have experienced working-class life (Burden, 2007; Lowande, Ritchie and Lauterbach, 2019). More specifically, legislators with union experience vote more frequently in support of worker-related policies (Lamare, 2016). Therefore, understanding the process of union candidate emergence can be crucial to the representation of working-class citizens who have been underrepresented in the legislative body.

Lastly, the findings suggest an insight that can explain underrepresentation of certain groups in a society. Different groups of citizens devote efforts to produce candidates from the members of groups since shared identities are crucial for representation. Perhaps, the reason why we observe more representatives from businesses may be because organizations such as pro-business organizations with more capacity make efforts to foster candidate emergence from the organizations. If groups with more capacity can foster their members to run for office despite small numbers of group members, organizational capacity can result underrepresentation of groups that have less capacity.

The findings also indicate a variability in unions' involvement in politics. Likewise, prior research indicates the changing political environment around local unions can yield variation (Wilcox and Iida, 2010). For instance, local unions allocated more money for representational activities when some states passed right-to-work laws that limit unions'

organizational power. For unions, maintaining their membership becomes a central priority under the right-to-work legislation. Thus, they will allocate less money for political activities (Feigenbaum, Hertel-Fernandez and Williamson, 2018). Beyond local political environments, there are also other organizations and actors that promote candidate emergence. Therefore, political involvement of unions could vary in response to these actors and organizations. For example, if unions notice other agents embarking on candidate emergence which supports their goals, they may elect to opt out of contributing their own candidates. Moreover, if the incumbent is union-friendly, the unions may not perceive the necessity of promoting union candidate emergence. If so, the unions will allocate more money for the general election for the incumbent instead of the primary election for union candidate emergence.

This paper analyzes detailed union data to identify the impacts of union supports on union candidate emergence. Despite attempts to identify exact causal mechanisms, this study was unable to identify causal relationship between organizations' capacity and candidate emergence. Future research should examine these phenomena more broadly through experiments with organizations or further analyses of other organizations which may foster candidate emergence.

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Contents

A Appendix

A.1 Descriptive Statistics

Table A.1: Primary Candidate Union Membership

	Democrat	**Republican**
Union Candidate	104	68
Non-Union Candidate	2542	3308

	2008	**2010**	**2012**
Union Candidate	65	74	79
Non-Union Candidate	1941	2711	2470

Note: The table includes all primary candidates for the U.S. House of Representatives from 2008 to 2012.

Table A.2: At Least One Union Candidate Running in a District

Year	2008	2010	2012
Union Candidate	59	69	74
Non-Union Candidate	361	357	337

Table A.3: Descriptive Statistics

	Mean	SD	Min	Max
Indirect support (logged $)	2.517	4.599	0	17.024
Direct support (logged $)	2.563	4.575	0	15.644
Aggregated support (Indirect + Direct) (logged $)	2.563	4.575	0	15.644
Contribution expenditures (logged $)	1.886	4.070	0	14.991
Lobbying expenditures (logged $)	0.928	2.933	0	13.982
Donation expenditures (logged $)	0.647	2.520	0	15.428
Education expenditures (logged $)	0.504	2.243	0	15.631
Training expenditures (logged $)	0.074	0.883	0	13.204
Election and campaign expenditures (logged $)	1.105	3.257	0	15.314
Consulting expenditures (logged $)	0.799	2.799	0	13.610
Event expenditures (logged $)	0.754	2.649	0	13.550
Other expenditures (logged $)	1.628	3.821	0	17.022
Number of unions	49.11	31.539	1	230
Union membership (logged)	9.635	1.136	2.708	13.725
Median income	2.291	1.391	2.291	10.739
Percent white	0.639	0.228	0.022	0.968
BA or higher	0.278	0.098	0.068	0.661
Percent agriculture	0.007	0.014	0	0.215
Percent service	0.180	0.033	0.095	0.407
Number of firms (logged)	16.974	3.588	7.893	42.687
Urbanization rate	0.801	0.190	0.233	1
Democratic presidential vote share	0.542	0.147	0.222	0.950

Note: The data in this table are pooled from 2008 to 2012.

Table A.4: Where Do Union Candidates Run?

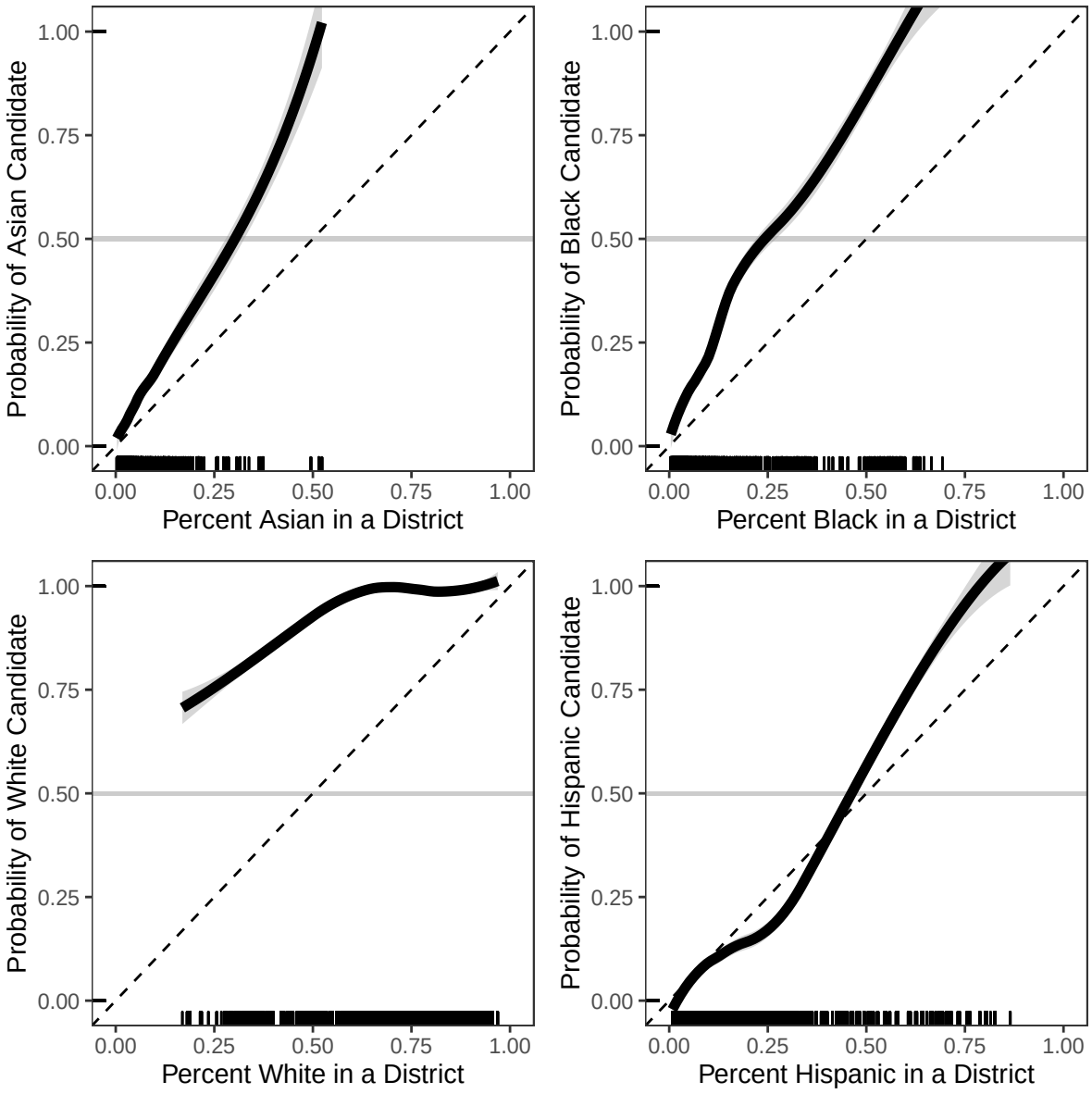
State	Number of districts where a union candidate running
AL	1
AR	4
AZ	5
CA	33
CO	1
CT	2
FL	6
GA	3
HI	1
IA	3
IL	6
IN	8
KS	3
KY	1
LA	1
MA	6
MD	5
ME	4
MI	11
MN	6
MO	3
MS	1
MT	2
NC	2
NE	1
NH	4
NJ	3
NV	1
NY	15
OH	6
OK	5
OR	1
PA	8
SC	1
TX	13
UT	1
VA	4
WA	8
WI	2
WV	4

Note: This table shows the states that union candidates are running. The data are pooled from 2008 to 2012. Reflecting the number of districts assigned to each state, there are more districts that union candidates are running in larger states. Additionally, this descriptive table shows that union candidates are not just running in the Rust belt area.

A.2 District Racial Composition and Minority Candidate Emergence in Primaries

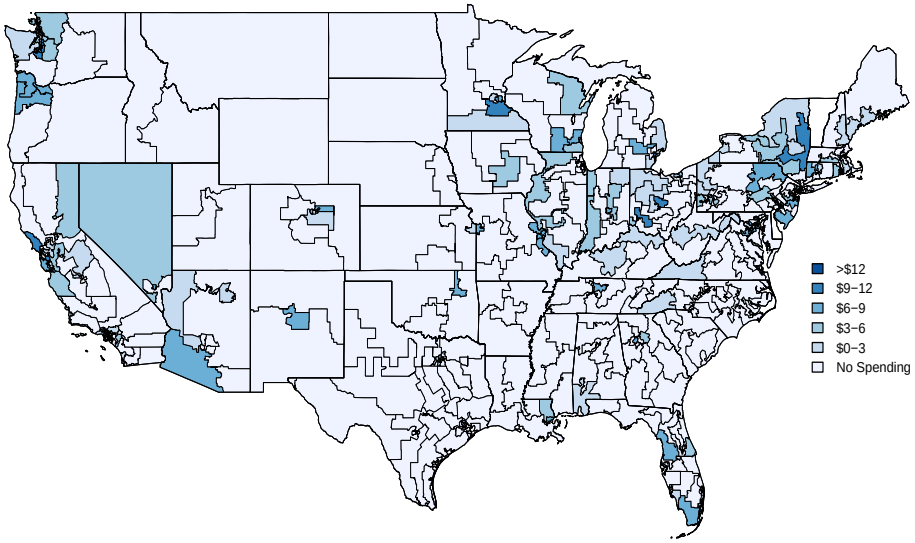
Figure A.2 shows that districts' descriptive statistics (i.e. ethnic population) well explains the emergence of co-ethnic candidates. In the case of minority candidate emergence (i.e. Asian, Black, or Hispanic candidates), ethnic populations predict co-ethnic candidate emergence. On the other hand, even if there are not many white population, the probability of at least one white candidate running in primaries starts from 0.75.

Figure A.1: District Racial Composition and Minority Candidate Emergence



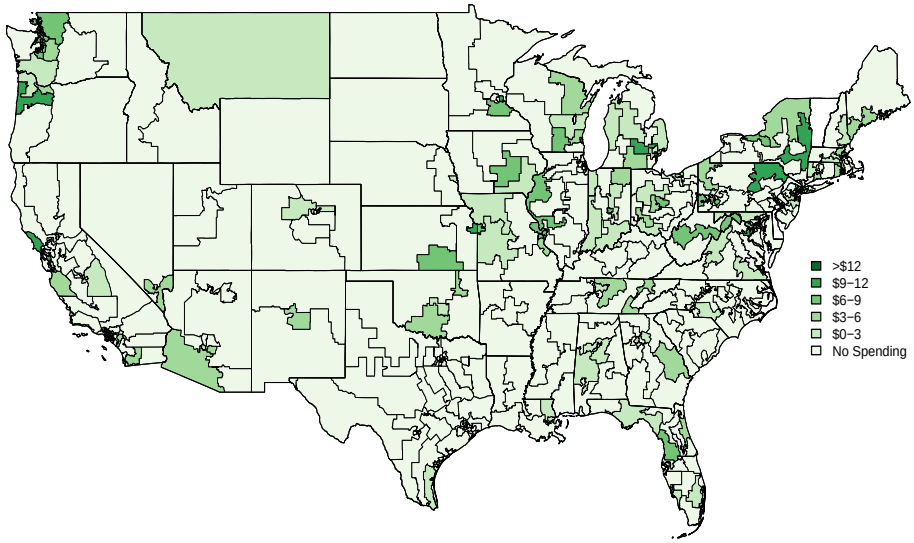
A.3 Unions' Indirect and Direct Support

Figure A.2: Unions' Indirect Support by Districts



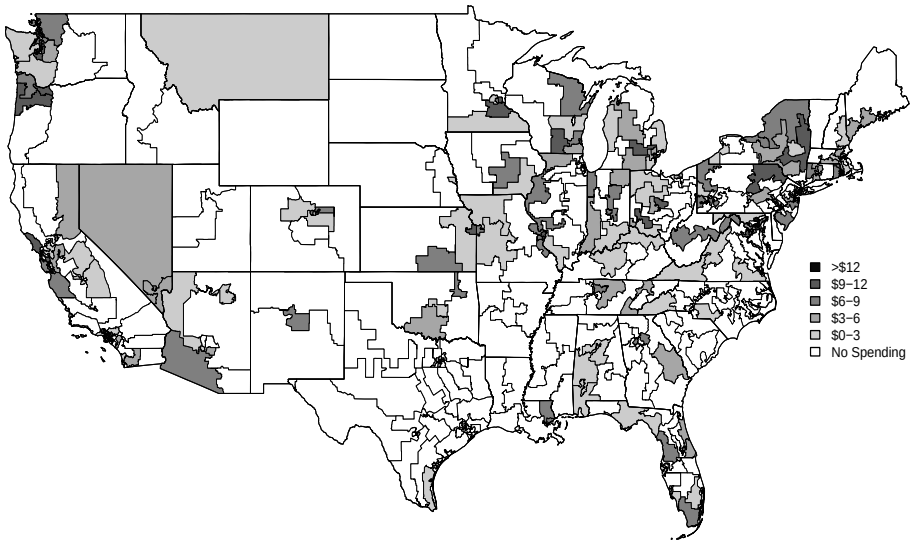
Note: The figure shows the average indirect support in each district over 2008, 2010 and 2012.

Figure A.3: Unions' Direct Support by Districts



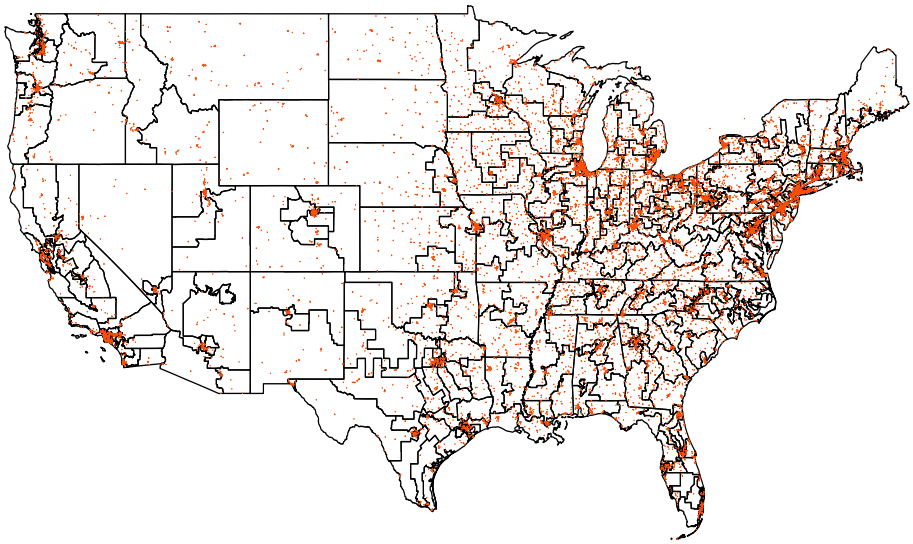
Note: The figure shows the average direct support in each district over 2008, 2010 and 2012.

Figure A.4: Unions' Aggregated Support by Districts



Note: The figure shows the average aggregated support in each district over 2008, 2010 and 2012.

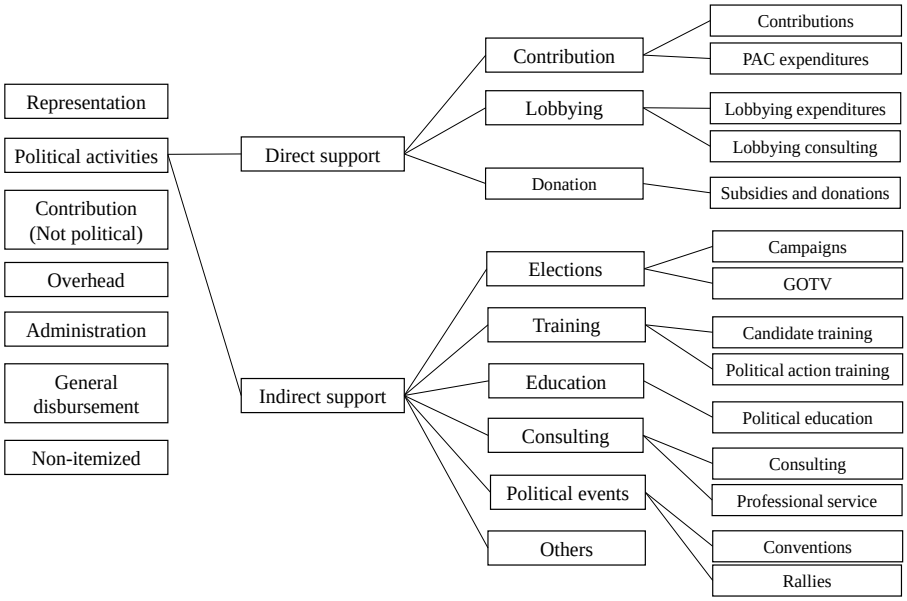
Figure A.5: Mapping Local Unions in Districts in 2010



Note: The figure shows the locations of local unions (about 2000 unions) in 2010 based on LM forms.

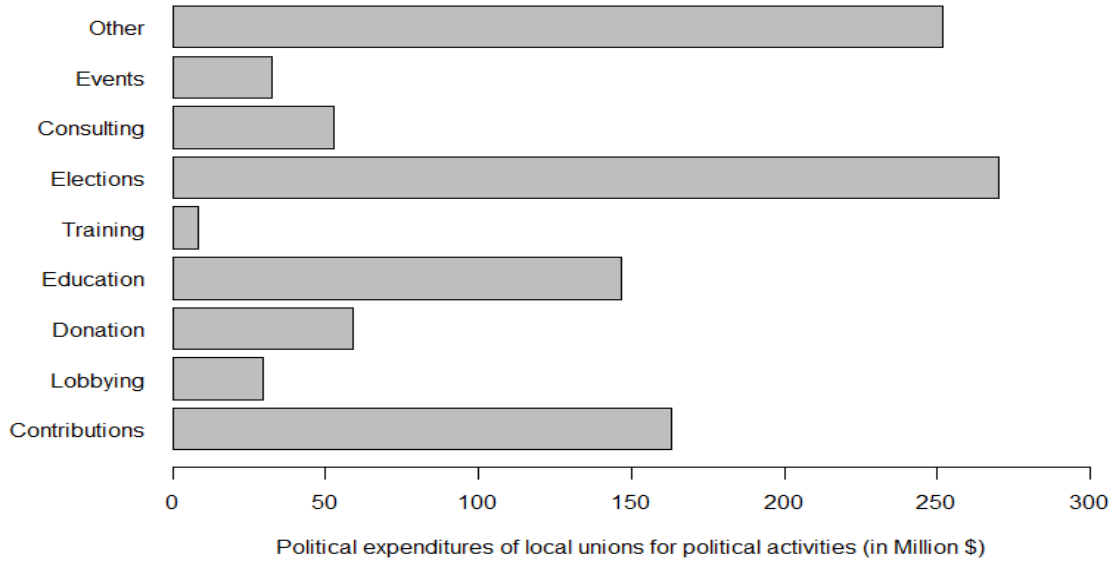
A.4 Political Spending for Different Purposes

Figure A.6: Descriptions of Unions' Expenditures



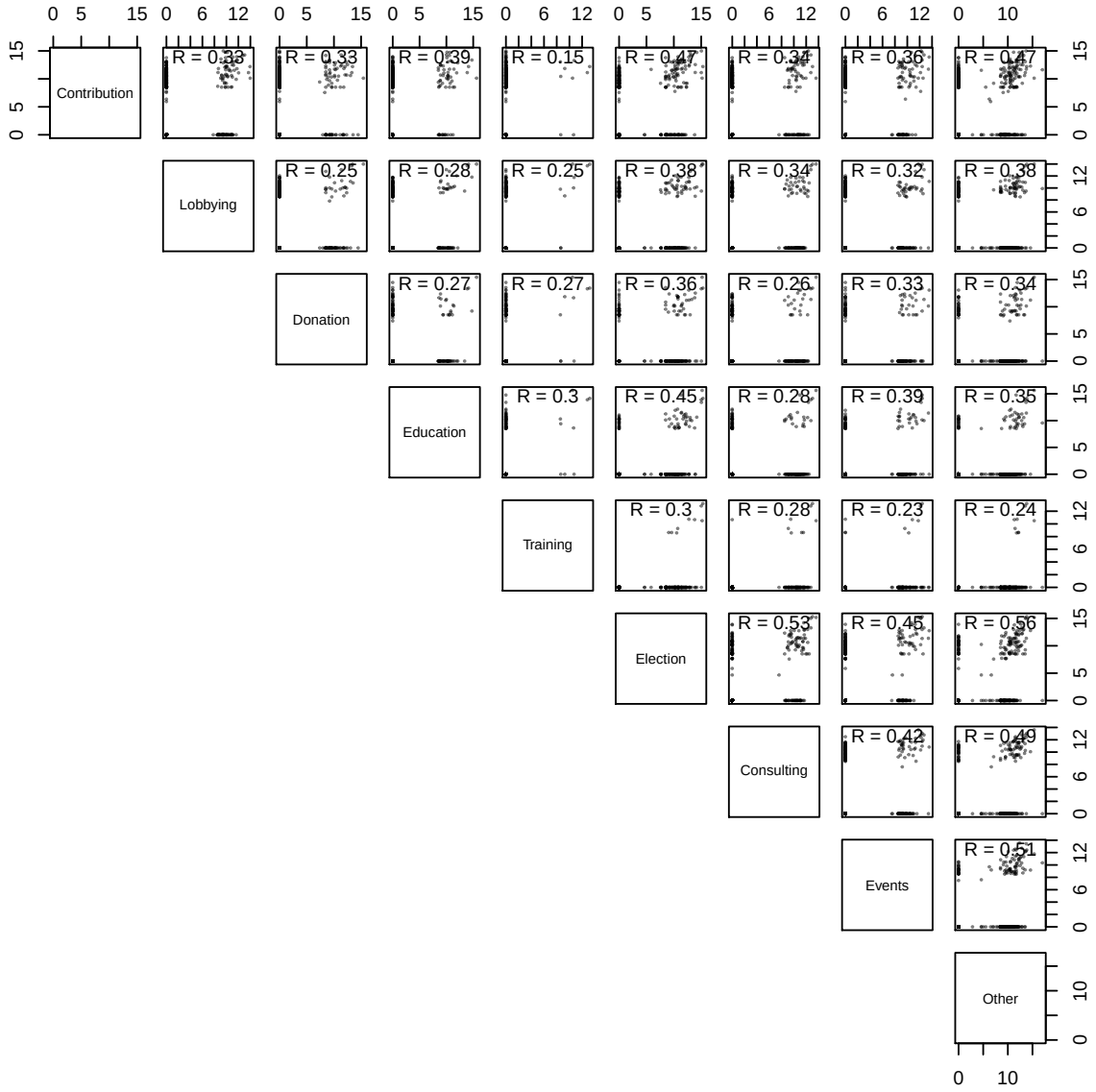
Note: Unions have to report how they spent their budgets for. There are seven big categories that unions themselves need to classify for each transaction: spending for "Representation", "Political activity", "Non-political contribution", "Overhead", "Administration", "General disbursement", and "Non-itemized". Based on unions' self-reported disbursement type, I categorized unions' spending for "Political activity" to Direct and Indirect Support, and further classified them into nine categories.

Figure A.7: Unions' Political Spending for Different Purposes



Note: The data for this figure are pooled from 2007 to 2012 (local unions' spending for 2008, 2010 and 2012 primaries).

Figure A.8: Correlations among Unions' Spending for Political Activities by Different Purposes



B Appendix

This section shows results of main models and various robustness tests. Overall, a series of robustness tests confirms the findings of this paper.

B.1 Logit Regression: Main Models

Table B.1: The Relationship between Unions' Support and the Likelihood of Union Candidate Emergence

	Dependent variable:		
	Union Candidate Running		
	(1)	(2)	(3)
Indirect Support (logged $)	0.046***		
	(0.018)		
Direct Support (logged $)		0.052***	
		(0.019)	
Aggregated Support (logged $)			0.070***
			(0.017)
Open Seat	0.626**	0.612**	0.609**
	(0.275)	(0.275)	(0.277)
Number of Unions	0.011**	0.011***	0.012***
	(0.004)	(0.004)	(0.004)
Number of Union Members (logged)	0.063	0.048	0.027
	(0.111)	(0.111)	(0.112)
Median Household Income	0.122	0.112	0.138
	(0.144)	(0.145)	(0.146)
Percent White	1.818*	1.811*	1.746*
	(0.944)	(0.942)	(0.939)
Percent BA or Higher	−3.188*	−3.502*	−3.565*
	(1.875)	(1.888)	(1.901)
Percent Agriculture	0.916	0.629	1.232
	(5.450)	(5.486)	(5.499)
Percent Service	5.700	5.577	5.697
	(4.742)	(4.703)	(4.748)
Number of Firms (logged)	−0.062	−0.054	−0.062
	(0.041)	(0.040)	(0.041)
Urbanization Rate	−0.113	0.025	−0.154
	(0.887)	(0.888)	(0.894)
Dem Presidential Vote Share	2.408**	2.317**	2.257**
	(1.103)	(1.104)	(1.108)
Observations	1,257	1,257	1,257
R^2	0.040	0.041	0.048
Log Likelihood	−349.514	−348.808	−344.259
State and Year Fixed Effects	✓	✓	✓
Note:			*p<0.1; **p<0.05; ***p<0.01

Table B.2: Different Types of Unions' Expenditures and Union Candidate Emergence

	Dependent variable:								
	Union Candidate Running								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Contribution	0.038*								
	(0.020)								
Lobbying		0.095***							
		(0.026)							
Donation			−0.020						
			(0.034)						
Elections				0.066***					
				(0.023)					
Education					0.038				
					(0.031)				
Training						0.209***			
						(0.076)			
Consulting							0.064**		
							(0.026)		
Event								0.061**	
								(0.028)	
Other									0.045**
									(0.021)
# of Union Members	0.073	0.050	0.095	0.061	0.082	0.067	0.072	0.075	0.058
	(0.110)	(0.111)	(0.110)	(0.111)	(0.110)	(0.111)	(0.111)	(0.110)	(0.111)
Number of Unions	0.010**	0.011**	0.010**	0.011**	0.010**	0.011**	0.010**	0.011**	0.011***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Open Seat	0.607**	0.643**	0.582**	0.631**	0.612**	0.578**	0.618**	0.605**	0.612**
	(0.274)	(0.275)	(0.273)	(0.275)	(0.274)	(0.274)	(0.274)	(0.273)	(0.274)
Median HH Income	0.097	0.151	0.103	0.111	0.106	0.100	0.112	0.111	0.121
	(0.143)	(0.148)	(0.143)	(0.145)	(0.143)	(0.143)	(0.144)	(0.144)	(0.144)
Percent White	1.848*	1.883**	1.860**	1.981**	1.778*	1.931**	1.858*	1.851*	1.785*
	(0.945)	(0.945)	(0.948)	(0.946)	(0.946)	(0.957)	(0.948)	(0.948)	(0.948)
Percent BA or Higher	−3.314*	−3.867**	−3.206*	−3.246*	−3.174*	−2.788	−3.253*	−3.164*	−3.124*
	(1.873)	(1.902)	(1.860)	(1.879)	(1.863)	(1.884)	(1.877)	(1.871)	(1.874)
Percent Agriculture	0.321	1.126	0.075	1.005	0.122	0.928	0.959	0.755	0.900
	(5.471)	(5.429)	(5.462)	(5.449)	(5.458)	(5.443)	(5.444)	(5.441)	(5.439)
Percent Service	5.245	5.797	5.149	6.161	5.129	5.670	5.308	5.284	5.511
	(4.687)	(4.797)	(4.703)	(4.739)	(4.710)	(4.715)	(4.725)	(4.720)	(4.724)
Number of Firms	−0.056	−0.057	−0.058	−0.060	−0.059	−0.059	−0.059	−0.058	−0.061
	(0.040)	(0.041)	(0.039)	(0.040)	(0.040)	(0.039)	(0.040)	(0.040)	(0.040)
Urbanization Rate	0.021	0.108	0.069	0.121	0.036	−0.114	0.003	−0.077	−0.035
	(0.883)	(0.897)	(0.885)	(0.887)	(0.885)	(0.888)	(0.886)	(0.884)	(0.885)
Dem Presidential VS	2.406**	2.283**	2.670**	2.432**	2.538**	2.830**	2.503**	2.546**	2.425**
	(1.103)	(1.103)	(1.099)	(1.100)	(1.093)	(1.111)	(1.101)	(1.098)	(1.104)
Observations	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257
Pseudo R^2	0.038	0.045	0.035	0.041	0.036	0.041	0.039	0.038	0.039
Log Likelihood	−351.055	−346.389	−352.592	−348.734	−352.078	−348.713	−349.846	−350.519	−350.378
Fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: The data are from LM forms' disbursement data. The data cover unions' political spending from 2007 to 2012. To classify categories, I hand-coded data.*p<0.1; **p<0.05; ***p<0.01

B.2 Logistic Regression for Rare Events

Table B.3: Logistic Regression for Rare Events

	Model 1	Model 2	Model 3
	(2405.81)	(2388.36)	(2418.10)
Indirect Support (logged $)	0.05*		
	(0.02)		
Direct Support (logged $)		0.05**	
		(0.02)	
Aggregated Support (logged $)			0.07***
			(0.02)
Open Seat	0.67*	0.65*	0.65*
	(0.30)	(0.30)	(0.30)
Number of Unions	0.01*	0.01*	0.01**
	(0.00)	(0.00)	(0.00)
Number of Union Members (logged)	0.06	0.05	0.03
	(0.12)	(0.12)	(0.12)
Median Household Income	0.13	0.12	0.15
	(0.15)	(0.15)	(0.15)
Percent White	1.86	1.86	1.81
	(0.99)	(0.99)	(0.99)
Percent BA or Higher	−3.33	−3.65	−3.74
	(1.95)	(1.97)	(1.99)
Percent Agriculture	0.47	0.24	0.86
	(5.56)	(5.60)	(5.62)
Percent Service	5.92	5.93	6.03
	(4.94)	(4.92)	(4.96)
Number of Firms (logged)	−0.07	−0.06	−0.06
	(0.04)	(0.04)	(0.04)
Urbanization Rate	−0.12	0.02	−0.15
	(0.94)	(0.94)	(0.95)
Dem Presidential Vote Share	2.46*	2.37*	2.32*
	(1.14)	(1.15)	(1.15)
AIC	1172.85	1171.17	1161.16
BIC	1912.50	1910.83	1900.82
Log Likelihood	-442.42	-441.59	-436.58
Deviance	884.85	883.17	873.16
Num. obs.	1257	1257	1257
State and Year Fixed Effects	✓	✓	✓

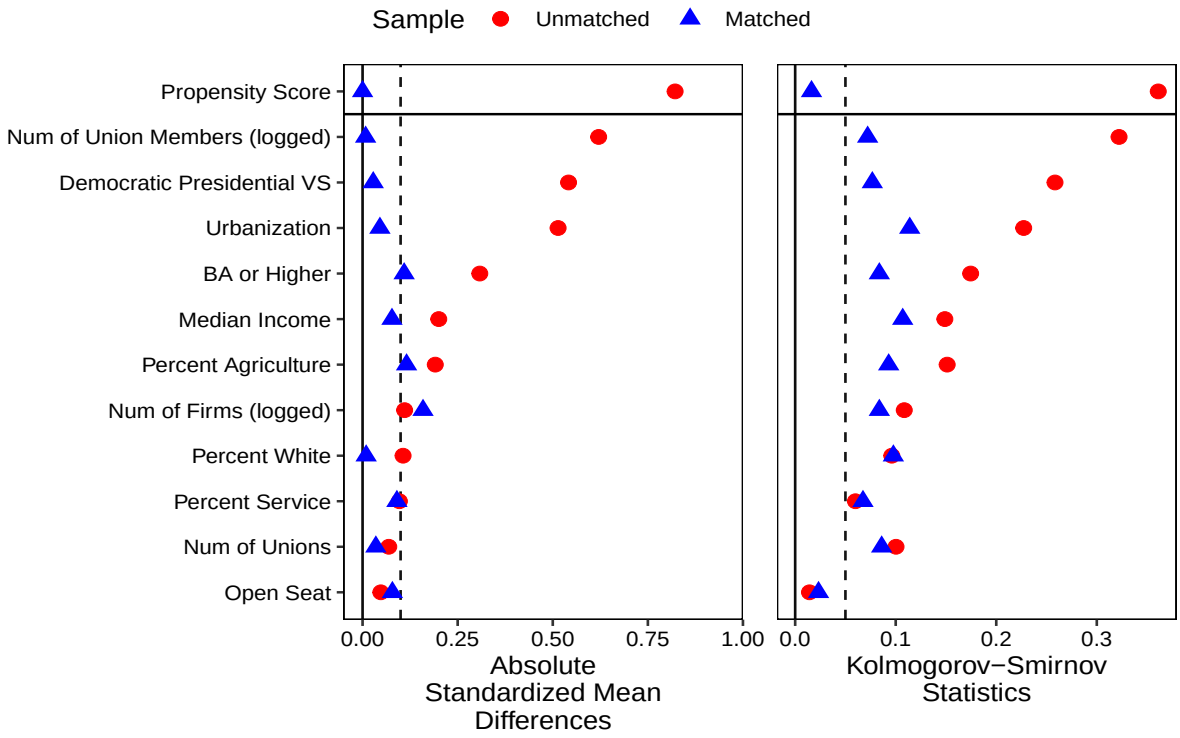
$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

B.3 Balance in Matching and Adjustment by Weights

As King and Nielsen (2019) state, choosing propensity score matching (PSM) method introduces "avoidable risks" and so researchers should report on what techniques they used to avoid the resulting problems. King and Nielsen (2019)'s main concerns of using PSM is that propsensity score matching can increase imbalance, inefficiency, model dependence, and bias that are the opposite of its intended goal using this PSM.

Therefore, a user should carefully explain the process of matching and present balance. Figure B.1 is a summary plot of covariate balance before and after conditioning. In a visually appealing and clear way, balance can be presented to demonstrate to readers that balance has been met within a threshold, and that balance has improved after conditioning. As King and Nielsen (2019) state, balance is not always improved after matching. Therefore, in this paper, first, I show the balance in my covariates used and use weighting scheme to adjust imbalance. Also, I need to note that I matched on following covariates: the number of unions, the number of union members, open seat, percent white, percent BA or higher, and recent Democratic Presidential vote share.

Figure B.1: Covaraite Balance after Adjustment by Weights



Since the balance of covariates are important to use matching method properly, I need to show the balance of covarites. Bascially, I should assess balance on the covariates of interest from the distance measure. If the balance is not achieve then I should readjust the the distance measure by using weighting scheme. To do this, I use `cobalt`, R package to assess the balance after matching. As Figure B.1 shows, before adjustment by weighting

scheme suggested by Greifer with the R package, `cobalt` (Greifer, 2018), five covariates are unbalanced (number of union members, education, percent agriculture, urbanization, and Democratic presidential vote share).[22] Figure B.1 shows that balance was improved on almost all variables after adjustment, bringing all but two below the threshold of 0.1 for absolute mean differences.

[22]The weighting method is followed by Austin (2008).

B.4 Propensity Score and Mahalanobis Distance Matching: Nearest Matching with Adjusted Balance

Propensity score matching and Mahalanobis Distance Matching (MDM) methods are differetn but similar in that they can fall within the Equal Percent Bias Reducing (EPBR) class (Rubin, 1974; Rubin, Stuart et al., 2006). Coarsened Exact Matching (CEM) is the leading example within the Monotonic Imbalance Bounding (MIB) class (Iacus, King and Porro, 2012). In the later section, I used CEM for MIB class matching[23].

Table B.4: The Relationship between Unions' Support and the Likelihood of Union Candidate Emergence

	Dependent variable:	
	Union Candidate Running	
	Propensity Score	Mahalanobis distance
Aggregated Support	0.482***	0.482***
	(0.152)	(0.152)
Number of Unions	0.004	0.004
	(0.003)	(0.003)
Number of Union Members (logged)	0.175**	0.175**
	(0.087)	(0.087)
Open Seat	0.642***	0.642***
	(0.222)	(0.222)
Median Household Income	0.095	0.095
	(0.096)	(0.096)
Percent White	0.009	0.009
	(0.573)	(0.573)
Percent BA or Higher	−1.470	−1.470
	(1.550)	(1.550)
Percent Agriculture	2.324	2.324
	(5.796)	(5.796)
Percent Service	3.999	3.999
	(3.349)	(3.349)
Number of Firms (logged)	−0.052**	−0.052**
	(0.026)	(0.026)
Urbanization Rate	−2.175***	−2.175***
	(0.727)	(0.727)
Dem Presidential Vote Share	1.301	1.301
	(0.826)	(0.826)
Constant	−2.660*	−2.660*
	(1.441)	(1.441)
Observations	1,257	1,257

Note: Logit regression is used with matching. Aggregated Support is a binary treatment variable. Aggregated Support is coded as 1 if unions in a given district provide either indirect support or direct support. *p<0.1; **p<0.05; ***p<0.01

[23]I matched on the number of unions, the number of union members, open seat, percent white, percent BA or higher, and recent Democratic Presidential vote share.

B.5 Coarsened Exact Matching (CEM)

The specific statistical goal is to estimate some version of a causal effect, such as the sample average treatment effect on the treated (the "SATT"). I used theoretically important six variables to use CEM (number of union members, open seat, number of unions, percent White, Percent BA or higher, Democratic presidential vote share). The matched pair after adjusting balance is 106.[24] I used `cem` package. Table B.5 shows the outcomes and the findings are similar to the findings in text.

Table B.5: CEM Estimates

	Difference
SATT point estimate	0.166***
	(0.058, 0.2748)

Note: *p<0.1; **p<0.05; ***p<0.01

[24] I matched on the number of unions, the number of union members, open seat, percent white, percent BA or higher, and recent Democratic Presidential vote share.

B.6 Continuous Treatment with Covariate Balancing Generalized Propensity Score (CBGPS) Estimation

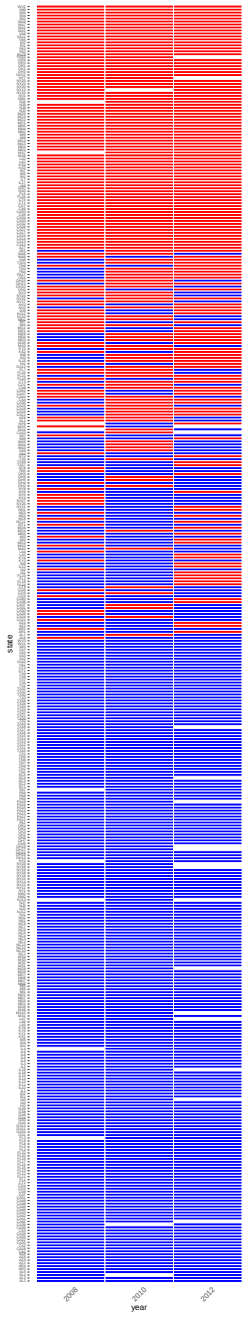
As Fong et al. (2018) described, I can use continuous treatment variable with a matching method. Table B.6 shows the outcome and the findings are similar to the findings in text. Like other matching method used in this paper, I matched on the number of unions, the number of union members, open seat, percent white, percent BA or higher, and recent Democratic Presidential vote share. Aggregated support is the aggregate spending of unions in logged dollar.

Table B.6: The Relationship between Unions' Support and the Likelihood of Union Candidate Emergence

	Dependent variable:
	Union Candidate Running
Aggregated Support (logged $)	0.051^{***}
	(0.018)
Number of Unions	-0.010^{***}
	(0.004)
Number of Union Members (logged)	0.744^{***}
	(0.119)
Open Seat	0.448^{*}
	(0.264)
Percent White	1.343^{**}
	(0.668)
Percent BA or Higher	-5.505^{***}
	(1.881)
Median Household Income	0.268^{**}
	(0.131)
Percent Agriculture	10.268^{***}
	(3.555)
Percent Service	5.215
	(3.530)
Number of Firms (logged)	0.065^{***}
	(0.024)
Urbanization Rate	-2.588^{***}
	(0.722)
Dem Presidential Vote Share	2.518^{***}
	(0.887)
Constant	-10.847^{***}
	(1.729)
Observations	1,257
Note:	*p<0.1; **p<0.05; ***p<0.01

B.7 Matching with TSCS data: the Visualization of Treatment

Figure B.2: Treatment Distribution across Time and Unit



Note: The Figure B.2 is the variation of treatment across space and time. This will help readers build an intuition about how comparison of treated and control observations can be made. The red cells treated observations (unions' institutional support), and blue cells are (no unions' institutional support). Y-axis is all congressional district and x-axis is time.

B.8 Instrumental Variable (Right-to-Work Laws)

Right-to-work laws can decrease the political spending of unions (Feigenbaum, Hertel-Fernandez and Williamson, 2018). Also, this paper finds that the political spending of unions can increase the likelihood of union candidate emergence. These findings provide an opportunity to use instrumental variable as the presence of Right-to-work laws in each states. There are concerns of the violation of "exclusion restriction", using this instrumental variable approach, but the preliminary outcome shows that unions' institutional support can have causal effect on union candidate emergence.

Table B.7: Effect of unions' support on union candidate emergence

	Dependent variable:	
	At least one union candidate running	
	(1)	(2)
Indirect Support (logged $)	0.049***	
	(0.017)	
Direct Support (logged $)		0.039***
		(0.013)
Constant	0.040	0.060*
	(0.043)	(0.035)
Observations	1,257	1,257
Note:		*p<0.1; **p<0.05; ***p<0.01

C Appendix

C.1 Unions and Labor PACs' Contributions in Primaries for Union Candidates (Candidate-level Analysis)

I show that union candidates are more likely to emerge when there is more unions that provide indirect and direct support to union members. In this argument, one assumption that I made is unions selectively incentivize union candidates with direct support once they emerge and run for office. One way to examine my assumption is using unions and labor PACs' political contribution data from FEC to test whether unions actually more likely to give money to union candidates or not. As I theorized, Table C.1 shows that unions and labor PACs are more likely to incentivize union candidates.

One problem in this analysis is this is during the primary election campaigns. The data are collected during the primaries, so I could not isolate the time of "pre-primary" as I did in my paper for unions' institutional support. There can be a case where a candidate tests the waters before they actually register as a candidate, and her fundraising and spending activities can be recorded in FEC. This testing the waters can be "pre-primary" activities. However, even a candidate who tests the waters, if a candidate raises or spend money more than $5,000, she has to register as a candidate, so "pre-primary" or "pre-candidate emergence" activities are rarely captured by FEC records[25]. In summary, I argue that although unions and labor PACs' spending during primaries are post-candidate emergence, once union candidates emerge, unions and labor PACs incentivize them with their direct support of campaign contributions with their organizational capacity.

As shown in Table C.1 (1), unions and labor PACs are more likely to give money even after controlling for candidate quality and incumbency. Particularly, Table C.1 (2) shows that when percent union members in a given district is higher, unions and labor PACs provide more money to union candidates. This implies that unions and labor PACs may strategically give more money to union candidates if there are more union populations because unions and labor PACs consider higher percent of union population as a favorable condition for supporting union candidates to win. Unions support union candidates but they strategically support candidates where they think where union candidates have higher chances of winning: "We very much want our members to run, but we don't want them to go on suicide missions (Wasser and Lamare, 2013)." This statement from a senior union leader correspond to the findings in Table C.1 (2); unions see higher union populations in a district as a positive sign for winning an election, so unions provide more support to union candidates from districts that have higher percent of union members.

[25] https://www.fec.gov/help-candidates-and-committees/registering-candidate/house-senate-president-candidate-registration/

Table C.1: Unions and Labor PACs' Contributions in Primary Elections for Union Candidates (Logged $ Amount)

	Dependent variable:			
	Amount of Political Contribution from Unions (Logged $)			
	(1)	(2)	(3)	(4)
Union Candidate	1.678***	1.365***	0.856**	0.536
	(0.329)	(0.353)	(0.359)	(0.386)
Percent Union Member		196.308**		239.916**
		(78.958)		(105.066)
Candidate Quality	1.299***	1.199***	1.373***	1.286***
	(0.155)	(0.157)	(0.168)	(0.170)
Incumbent	7.662***	7.696***	6.917***	6.937***
	(0.135)	(0.135)	(0.145)	(0.145)
Candidate' Ideology (CFscore)			−1.495***	−1.505***
			(0.054)	(0.054)
Union Candidate : Percent Union Member		4.438*		4.138*
		(2.339)		(2.380)
Constant	2.813*	−7.470**	2.440	−10.150**
	(1.481)	(3.658)	(1.491)	(5.170)
Observations	5,909	5,793	4,576	4,489
R^2	0.589	0.592	0.659	0.662
Adjusted R^2	0.471	0.475	0.522	0.525
District and Year Fixed Effects	✓	✓	✓	✓
Note:				*p<0.1; **p<0.05; ***p<0.01

Table C.1 (3) and (4) show that even after controlling for candidates' ideologies beyond candidate's quality and incumbency, unions and labor PACs are more likely to give political contributions to union candidates. It is important to consider candidate's ideology since unions may give political contributions not because of candidates' union membership but because of candidates' ideological position. Therefore, as I need to control for candidates' ideologies. Scholars used Campaign Finance scores (CFscores) constructed by political contributions to estimate candidates' ideology (Bonica, 2013). Because candidates do not have roll call records, traditional way of measuring legislators' ideology based on roll call record is not feasible in the case of candidates. Therefore, CFscores are useful to a measure for candidates' ideologies. However, in this paper, the main problem of using CFscores is that CFscores are post-treatment variable because CFscores are measured after the primaries are ended, so my dependent variable, unions and labor PACs' spending during primaries are used to measure CFscores of candidates. That means candidates' CFscores are affected by unions' contributions. Therefore, using CFscores as measurements of candidates ideology can be problematic in this paper. However, even with this problem, I used CFscores as

controls for candidates' ideologies to address the issue of candidates' ideologies. Another problem of using CFscores is the data decrease by approximately 1500 candidates. Table C.1 (1) has 5,909 candidates, but the sample size drops to 4,489 in (4). This is because CFscores are missing due to either there is no campaign contribution record to calculate CFscores or not enough contribution records for generating CFscores. These missing data are another issue in using CFscores because in models, missing CFscores are regarded as if they are missing completely randomly.

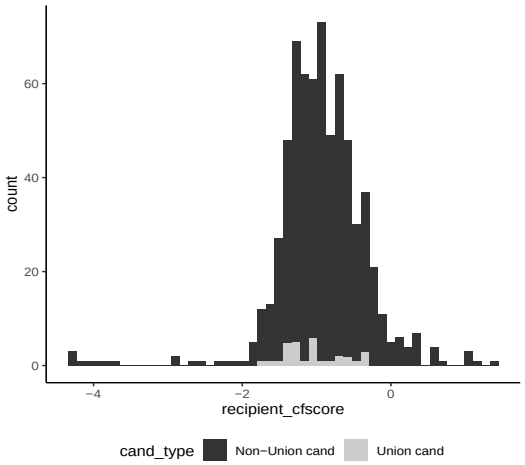
Table C.2: Two-Sample t-Test on Candidates' Ideologies between Union and Non-Union Candidates

	Democratic candidates			Republican candidates		
t-Statistic	1.466	3.148	1.131	-1.215	-0.214	0.011
Degree of freedom	36.613	41.685	41.817	15.313	19.555	21.546
p-value	0.151	0.003	0.264	0.242	0.832	0.991
The mean of non-union candidate	-0.931	-0.851	-0.93	0.94	1.106	1.117
The mean of union candidate	-1.039	-1.107	-1.012	1.207	1.141	1.115
Year	2008	2010	2012	2008	2010	2012

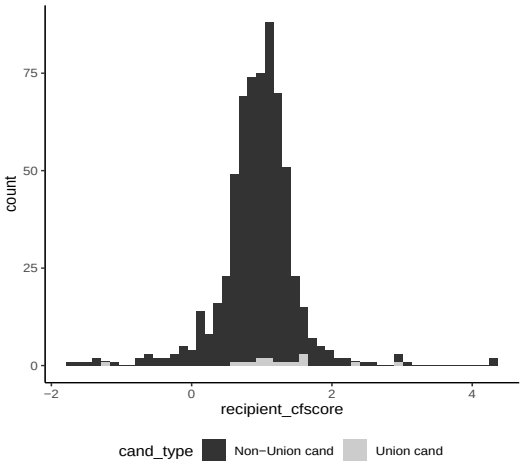
Additionally, to check whether union candidates are ideologically different from non union candidates, I used two-sample t-tests between union candidates and non-union candidates using CFscores as candidates' ideologies. Table C.2 shows that except 2010's Democratic candidates, there are no difference between union candidates and non-union candidates in their ideologies measured by CFscores. It is not completely clear why there is ideological differences between union and non-union candidates in 2010's Democratic primary candidates' pool, but all other cases shows that there is no statistical difference in their means. I also visualize the distribution of ideologies between union and non-union candidates across election cycles as shown in Figure C.1. Although there are not many union candidates, there is no noticeable differences between union and non-union candidates across year and party based on their distributions.

Overall, with the series of analyses, I argue that unions and labor PACs are more likely to give political contributions to union candidates not because of their ideology but because of their union membership. Moreover, because unions are more likely to give money to union candidates, as I theorized, once union candidates emerge, they can expect selective incentives from unions as campaign contributions.

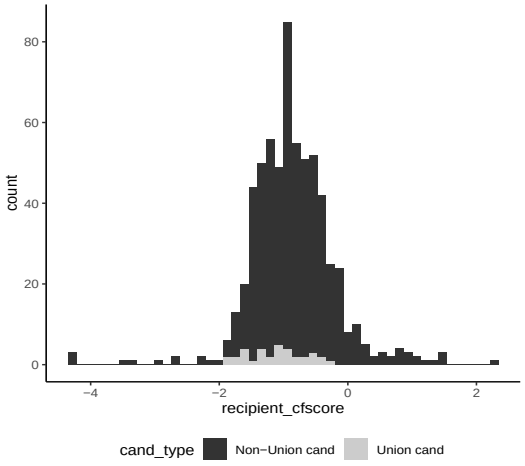
Figure C.1: Union Candidates' Ideologies by CFscores



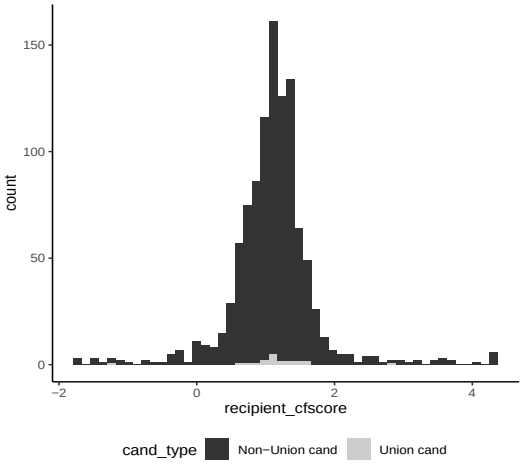
(a) Democratic candidates, 2008



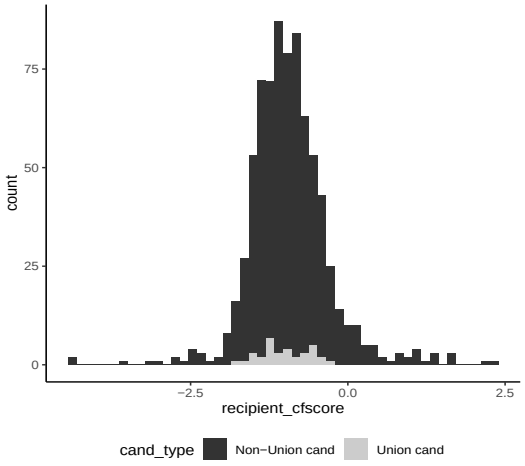
(b) Republican candidates, 2008



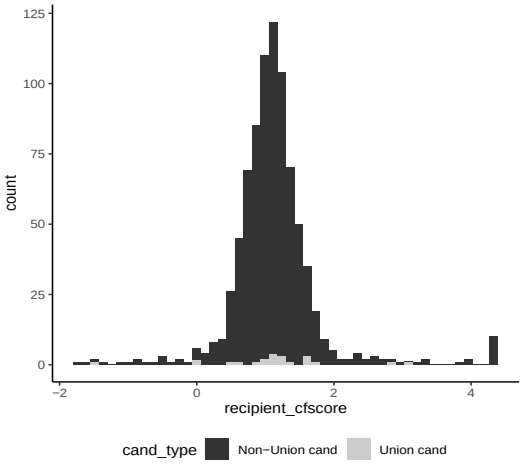
(c) Democratic candidates, 2010



(d) Republican candidates, 2010



(e) Democratic candidates, 2012



(f) Republican candidates, 2012