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THE IMPORTANCE OF POLITICAL SYSTEMS FOR TRADE UNION MEMBERSHIP,
COVERAGE, AND INFLUENCE: THEORY AND COMPARATIVE EVIDENCE

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Abstract

Ideological connections between the state, political systems, and industrial relations have long been important. But the influence of the structural nature of a country's political system on trade union membership, coverage, and influence has been largely overlooked. We uniquely theorize three channels through which a political system can shape unionization in the workplace independent of ideology: incentives for inclusionary governance, legislative body composition, and policy enactment. Empirically, we use multiple European data sets to test the relationship between political and employee representation using multivariate analyses across more than 25 countries. We find that increased political representativeness, measured by lower disproportionality and the presence of multiparty coalitions, is a statistically significant predictor of a greater likelihood of individual trade union membership, coverage, and influence, while competitive fragmentation, measured by greater numbers of political parties, is associated with weakened collective voice.

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Scholars and practitioners have long recognized the important intersections between industrial relations, politics, and the state. Industrial relations actors seek to influence the state through supporting candidates for political office, lobbying, leading protests, participating in social dialogue, and other means. At the same time, the state shapes industrial relations through various roles—including as a public sector employer, a regulator of labor law, an overseer of macroeconomic policy and the welfare state, and an arbiter of what constitutes acceptable economic and social relationships (Traxler 1999; Hyman 2008; Godard 2017; Howell forthcoming). Much of this is ultimately connected to specific state actions or policies, whether in the form of laws, rulings, macroeconomic policies, public sector bargaining strategies, or the acceptance or rejection of social partnership involvement in policy-making, but it can also involve social norms and values (Lipset 1962; Godard 2002). We add to this by questioning the importance of a country’s political system for industrial relations. More specifically, we focus on a country’s electoral system and the presence of multiparty coalitions as key parts of a country’s political system that may affect trade union membership, coverage, and influence by shaping preferences for social partnership and creating values that shape “models of behavior” that become “institutionalized within varying social structures” (Lipset 1962: 97).

Broadly speaking, by making political systems, commonly explored by political scientists, a key factor in theorizing employment relations institutions and outcomes our ambition is to expand upon the well-established frameworks for understanding the relationships between political economies and industrial relations, such as varieties of capitalism (Hall and Soskice (2001) and other analyses of industrial relations across political economies (Crouch 1993; Traxler and Kittel 2000; Hyman 2001; Baccaro and Howell 2017). This is consistent with calls for supplementing varieties of capitalism theorizing with additional ways of understanding key trends

and outcomes in comparative industrial relations (McLaughlin and Wright 2018). By focusing on union membership, coverage, and influence, we also complement work such as Hamann and Kelly (2010) and Hamann et al. (2015) that explores the influence of electoral systems on the use of peak-level social pacts.

A country's electoral system is a significant part of its political system, and political science has a rich history of studying both the determinants and effects of these systems. Political scientists commonly identify two key dimensions to compare electoral systems across countries. The first is the extent to which a national electoral system yields a legislative body that is proportional to the fraction of votes each party received, and is often measured using a country's level of disproportionality, which indicates deviations from the baseline of perfect proportionality or representativeness (Gallagher 1991). The second is the effective number of parties within the country's political system, which adjusts the actual number of parties to account for the relative strength of each party, usually measured at the electoral or parliamentary level (Laakso and Taagepera 1979). A third component of political systems that has received significant attention from political scientists, and frequently operates tangential to comparative electoral systems scholarship, is the presence of multiparty coalitions. Coalition cabinets are common in Western Europe and a robust literature has emerged into how these entities form, the degree of bargaining that occurs within them, and the policies they create (Riker 1962; Laver and Schofield 1998).

Our research engages with this literature to ask two key questions: 1) theoretically, how might these dimensions of a country's political system affect trade union membership, coverage, and influence, and 2) empirically, is there evidence of these relationships. We seek to make unique theoretical and empirical contributions by presenting a theoretical framework in which a country's political system is predicted to affect unionization beyond factors related to a country's political

economy that are already well-recognized (such as legislative ideology, the country's variety of capitalism, and Ghent systems of union-run employment insurance). Theoretically, we develop multiple ways in which a country's political system might shape unionization, including enacting public policies, involving trade unions in peak-level corporatist initiatives, enabling direct relationships between trade unions and legislators, shaping attitudes around political inclusion that affect workplace agency, and giving social legitimacy to collective voice. Through all of these channels, a political system that is more inclusive or representative is generally expected to have stronger trade union membership, coverage, and influence. By contrast, weaker workplace unionization is likely to emerge under a fragmented political system in which parties behave competitively rather than cooperatively toward each other.

Empirically, we use multiple well-established European data sets to test the relationship between political systems and union membership, coverage, and influence using rigorous, multivariate analyses across more than 25 countries: 1) two waves of the European Company Survey (containing measures of trade union presence and collective agreement coverage in the workplace), 2) Round 5 of the European Social Survey (ESS) (containing measures of the presence and influence of trade unions in the workplace), and 3) all 8 rounds of the ESS pooled together (to analyze individual trade union membership). Taken as a whole then, we analyze multiple dimensions of unionization using establishment- and individual-level data.

Disproportionality is a clear-cut (inverse) measure of political representativeness and across all three data sets, we find supportive results that a lower level of disproportionality (i.e., a higher level of political representativeness) is a statistically significant predictor of a greater likelihood of unionization. If this relationship is causal, it likely runs from the electoral to the workplace level given the limited contemporary channels for unionization to affect

disproportionality. Multiparty coalitions typically reflect a political system that accepts and values bargaining, and we therefore expect that coalition-based systems will correlate with higher levels of unionization, although the causal direction of this relationship is less clear. Finally, the number of effective political parties can capture the extent of representative voice to diverse constituencies or it can indicate competitive fragmentation within a political system that creates extremism, bargaining complexities, and gridlock (Cox 1997). Across all three data sets, the influence of the number of political parties on workplace representation is always statistically significant and negative, consistent with competitive fragmentation. Taken together, we believe that this significantly adds to the literature on unionization and comparative industrial relations both theoretically and empirically, and points to broader relationships between the state, political systems, and industrial relations than are typically recognized.

Three Key Dimensions of a Political System

Political scientists have long puzzled over the design of political systems and their implications for societies. There exists no single ideal type of political system, so the choice of any given system must inevitably face tradeoffs (Carey and Hix 2011). Namely, should the system be inclusive (where political power is broadly shared), aiming to most accurately reflect the pluralistic array of political interests within a society and attempting to give at least some voice to those interests? If so, societies should trend toward allocating political power through proportional representation (Lijphart 1994, Powell 2000). Or, should the system be exclusive (where political power is deliberately concentrated), aiming to hold politicians accountable to voters while punishing those parties or individuals whose policies stray too far from what the majority of the electorate demands? If so, societies should trend toward allocating political power on a majoritarian basis (Taagepera and Shugart 1989; Cox 1997). These tradeoffs can be thought to

distinguish between systems designed to create governing bodies that are a microcosm of the society in which they inhabit, versus those designed to create agents that make decisions on behalf of the median voter (Farrell 2001).

In practice, a continuum exists between strictly majoritarian and strictly proportional representation, with electoral systems differing considerably depending on their specific design characteristics and construction, which may vary across countries and time (Gallagher 1991). Consequently, every legislative election results in a unique degree of proportionality when an election's votes are allocated to seats by these design characteristics. A standard measure of (inverse) proportionality is disproportionality, which measures deviations from the baseline of perfect proportionality in which each party's vote share equals its share of legislative seats. Larger values of an electoral system's disproportionality indicate larger deviations from perfect proportionality and reflect situations that have less representativeness. The 2019 United Kingdom general election graphically illustrates the relationship between disproportionality and representativeness: the Conservative Party received 56 percent of the seats while winning only 44 percent of the vote, while the Liberal Democrats received less than 2 percent of the seats despite winning 11 percent of the vote. We follow the political science literature by using disproportionality to measure (inverse) representativeness in the empirical analyses, and therefore we also use the concept of disproportionality in our theory-building below.

Those who study electoral systems also emphasize the effective number of parties found within a system as a key second dimension. This dimension is defined as being not simply a count of the number of parties in a system but rather “the number of hypothetical *equal*-size parties that would have the same total *effect* on fractionalization of the system as have the actual parties of *unequal size*” (Laakso and Taagepera 1979: 4, emphases in original). Unlike the proportionality-

disproportionality continuum in which greater proportionality is always seen as indicating greater representativeness, however, the continuum from few to many parties has competing interpretations. A common argument is that greater numbers of candidates or parties competitively fragments electoral systems by either creating too many options for voters, leading to wasted votes, or giving governance opportunities to marginal and extreme small parties (Cox 1997). However, a greater number of parties can also reflect new parties emerging to represent the diverse points of view of previously unrepresented constituencies (Clark and Golder 2006). Taken together, these perspectives result in ambiguous implications for theorizing the role of the number of parties.

A third institutional feature of political systems is whether governance is conducted through multiparty coalitions or by a single party. When multiparty ruling coalitions are present in a political system, this indicates at least some degree of bargained compromise between parties in order to secure governing power (Strom, Muller, and Bergman 2008). Political scientists generally treat the presence or absence of multiparty coalitions as tangential to electoral systems, rather than subsuming coalitions into classic electoral systems measures like disproportionality and the effective number of parties (Riker 1962; Laver and Schofield 1998). But we expect that the presence of multiparty coalitions could have implications for union membership, coverage, and influence that operate independent from other electoral systems effects so we add this to disproportionality and the effective number of parties in our theoretical and empirical analyses.¹

¹ We treat each of the three dimensions independently though they might at times interact within a political system. A full account of the complexity of the interactive relationships between these dimensions lies beyond the scope of this paper. Moreover, in political science scholarship it is common to empirically model the dimensions as separate independent variables (Curini and Hino 2012; Matakos, Troumpounis, and Xeftiris 2016) and this produces a conservative test of their individual effects if they are somewhat related because we will find statistically significant relationships only when there are main, independent effects.

Theorizing the Influence of Political Systems on Unionization

In theorizing how political systems that differ in their degree of disproportionality, the number of effective parties, and the presence of coalitions might influence union membership, coverage, and influence, we identify three categories of linkages: those connected to 1) incentives for inclusionary governance, 2) the composition of the legislative body, and 3) the nature of policies that are enacted. There has been some theorizing on the influence of aspects of political systems on peak-level industrial relations. In particular, Hamann and Kelly (2010) and Hamann et al. (2015) argue that electoral systems shape lawmakers' preferences for using social pacts as a shield against not being reelected after the passage of unpopular reforms. But we believe we are the first to focus on workplace-level representative voice. And although we are unable to directly examine each of the theorized linkages, we believe that, taken together, they capture linkages with enough plausibility and diversity to motivate empirical analyses and spur additional research on variations between electoral systems types and forms of workplace representation.

Before turning to each category, it is important to consider where ideology fits within our theory. While proportional representation systems generally result in national legislative bodies with low disproportionality and a large number of parties, they also tend to yield center-left governing coalitions (Iversen and Soskice 2006). In this way, more representative political systems would be theorized to be associated with greater union membership, coverage, and influence because left-leaning governing coalitions will be supportive of the labor movement. This type of ideological connection between the political and employment relations arenas is well-known in employment relations scholarship (Johansson and Raunio 2001; Hyman and Gumbrell-McCormick 2010). We recognize that ideology is an important contributor to any theoretical framework linking politics and employment relations, but one way in which our contribution is

novel is that we theorize ways that a political system can affect the workplace, holding constant the ideology of the ruling party or coalition and of the legislative body as a whole.

Our proposed linkages are based on a general premise derived from the political science literature: that spillovers from the political system into wider society are possible. Research connecting political systems and mass public behaviors shows that these systems commonly grant political elites the power to formulate their own positions on issues rather than simply mimicking mass majority attitudes (Sartori 1987). Political elites can then frame policy issues in ways that shape mass public opinion and attitudes (Druckman and Jacobs 2015). The result is that individual citizens may form at least some of their beliefs on the basis of elite cues (Converse 1964; Zaller 1992). Within the European context, the assumption that political elites can help to shape wider public attitudes, opinions, and behaviors been applied to policy issues like EU integration (Gabel 1998) and referendums (Hobolt 2007), as well as immigration (McLaren 2001) and redistribution policies (Bechtel, Hainmueller, and Margalit 2014). Our theorizing does not focus on elite cues on specific policies, but this literature is supportive of a generalized assumption that spillovers are possible from the political system into the wider civic environment, which we use to articulate several specific possible linkages to the workplace. Generally, then, just as the state can establish values and norms for industrial relations (Lipset 1962; Godard 2002), our premise is that political systems also contribute to the values and norms of industrial relations.

This approach is also supported by scholarship on institutional logics in sociology. Institutional logics are bundles of beliefs and practices based in assumptions, norms, values, and understandings that “provide the formal and informal rules of action, interaction, and interpretation that guide and constrain decision makers” (Thornton and Ocasio 1999: 804). Institutional logics exist at many levels within society, and it is common to theorize that institutional logics around

markets and competition shape organizational actions, including workplace representation strategies (Pernicka and Glassner 2014). But reminiscent of Lipset (1962), state-oriented logics can also shape and frame how actors in organizations understand their roles and acceptable actions (Greenwood et al. 2010). We posit that a political system, too, contributes toward and is part of institutional logics, especially relating to compromise/competition and inclusion/exclusion, that affect organizations and workplaces.

Incentives for Inclusionary Governance

The first theoretical channel from a political system to workplace voice is rooted in the distribution and concentration of political power. In more representative and coalitional political systems, it is difficult for any single party to govern or have outsized influence. In such systems, then, inclusionary governance arrangements are often required to attain political power, whereas in less representative and unilateral political systems, parties can be exclusionary in their governance (Baccaro and Lim 2007; Blais and Bodet 2006). Under more representative and coalitional systems, unions have greater opportunities to use their extra-parliamentary status to act as consensus-builders, thus enhancing their value.

Such systems are known to produce policy deadlocks since parties share power but hold contrasting values, interests, and perspectives (Martin and Vanberg 2004). This sometimes requires governments to turn to unions to help negotiate consensus-based policies. For instance, in Austria a right-leaning coalition under Wolfgang Schüssel in the early-2000s was unable to agree on labor policy reforms. So, the coalition took advantage of a legacy of institutional corporatism in deferring to social partnerships between unions, employers, and parties in order to enact the reforms (Traxler 2004; Rathgeb 2018a, 2018b). In contrast, unions and similar entities are less relied upon when single parties hold most or all political power. For example, in Sweden, the left-

leaning Social Democratic Party (SAP) was strongly supported by unions in the mid-1990s but Sweden's political system at the time gave it hegemonic policymaking power. It used this power to unilaterally reform job security and unemployment insurance policies while excluding unions from the process (Rathgeb 2018a, 2018b). Consequently, we maintain that under more representative and coalitional systems, unions are likely to have greater legitimacy and influence in the national political arena, which can spill over into greater legitimacy and influence for unions in the workplace. The spillover may occur since unions may be likely to be perceived positively by the public for the role they play in breaking policy deadlocks, and this can happen when the ideology of the legislature or ruling coalition is either right- or left-leaning.²

Moreover, because it is difficult for any single party to govern in representative and coalitional electoral systems, employers have an incentive to seek influence as a social partner rather than relying on influence within specific political parties (Cusack, Iversen, and Soskice 2007; Martin and Swank 2008). This in turn requires the business community to work with, rather than against, the labor movement. In certain types of political systems, then, there is a greater incentive for employers to embrace a culture of inclusion and compromise that recognizes rather than attacks the legitimacy of labor unions. In this way, we submit that unions and collective bargaining are less likely to be marginalized when a political system has a higher level of representativeness, and consequently, unions may have greater workplace influence and workers

² Theorizing that focuses solely on ideological linkages would predict that the Schüssel coalition would be hostile to the labor movement whereas Sweden's SAP would be supportive. This certainly could have been true in other ways and have been reflected in specific policy initiatives, but with respect to the influence of the electoral system, there appears to be an influence unconnected to ideology.

are more likely to join.³ For example, when Denmark introduced a system of proportional representation in 1920, the country's employers' associations viewed cooperation with labor groups as their best hope to promote industrial peace and avoid radicalism, purely out of tactical necessity rather than ideological beliefs. Conversely, in the United States, the National Association of Manufacturers (NAM) initially supported negotiating with labor unions, but the highly disproportional US electoral system allowed NAM to become entirely aligned with the Republican Party rather than requiring it to diversify its political activities or cooperate with unions to enact its preferred policies (Martin and Swank 2008).

Lastly, the distribution of power under different political systems yields varying degrees of clarity of responsibility (Hamann and Kelly 2010; Hamann et al. 2015). In systems where one party governs and in those with lower representativeness, there can be a high degree of accountability because voters can ascribe responsibility to the ruling party, whereas in systems with lower disproportionality, consensus building can be more important than clarity and accountability (Powell 2000). Under representative systems, governments looking to enact unpopular reforms often include unions in policymaking as a way of shielding the government from punishment by voters, taking advantage of the clouded accountability these systems offer. This may create a culture of consensus building between governments and unions. Such was the case in Sweden after a 1998 election took hegemony away from SAP and reduced its governing status to a minority government. In contrast to prior unilateral reforms, SAP was then required to emphasize the significance of unions as consensus-based social partners when enacting unpopular austerity reforms to labor programs, rather than forcing the policy changes through legislatively

³ Moreover, a spirit of inclusion, trust, and compromise among social partners (Martin and Swank 2004; Roche 2007) can set a tone of inclusion and compromise rather than conflict and repression in the workplace, potentially leading to greater union membership, coverage, and influence.

(Hamann and Kelly 2010). Assuming that elite cues supporting consensus-based decision-making attitudinally spill down into the workplace, systems having lower disproportionality will be associated with greater workplace support for bargained consensus, and therefore with higher levels of collective voice in the workplace.

Our theory linking the effective number of parties in a political system to workplace voice through inclusionary governance is more ambiguous. If parties give voice to previously unrepresented constituencies in society, a more representative system allows for a wider range of voices to be included in the decision-making process. This may spill over positively for unions, since labor-management relations can sometimes behave similar to political governance through pluralism and can allow for the representation of an array of interests at the bargaining table. But because the structural nature of a competitively fragmented system may also reward extreme political groups and allow these smaller parties to compete for relatively outsized power, this may make creating a spirit of consensus-building and compromise difficult, which could result in spillovers into organizations and workplaces that have negative implications for union membership, coverage, and influence.

Composition of the Legislative Body

The second theoretical linkage between a political system and workplace voice that we develop focuses on the makeup of the legislative body. Specifically, an electoral system with lower disproportionality and a larger number of parties, as well as one featuring multiparty governance, will consist of a national legislative body that has a different composition than one in an electoral system with higher disproportionality, fewer parties, and one-party rule (Martin and Vanberg 2004; Lublin and Bowler 2017). Even holding ideology constant, with a greater diversity of parties in the former case, there is a higher chance that the legislative body will have at least some

members who support trade unions, including legislators who are themselves union members (Carnes 2012; Sojourner 2013), and a greater likelihood that labor-friendly politicians will occupy at least some key positions such as ministers, shadow ministers, or members of important committees. This representation can give unions a source of legitimacy and visibility in the national consciousness, and it is possible that this gives unions legitimacy in the workplace, too.

In contrast, when there is a lack of worker-friendly legislators, unions can be more easily marginalized in the public imagination either simply because of their absence (out of sight, out of mind), or because no one is able or willing to counter or prevent rhetorical attacks. Research in Europe finds that when political elites express unchallenged exclusionary attitudes toward Muslim immigrants, mass public attitudes are similarly hostile (Czymara, forthcoming). Similarly, in the winner-take-all majoritarian US Republican primary campaign of 2015, when then-candidate Donald Trump labeled Mexican immigrants “rapists” and “criminals,” his views were unchallenged by most other candidates, and these elite cues led to increases in anti-immigrant attitudes among many Americans (Flores 2018). When there is high disproportionality and/or a small number of parties in the legislative body, it is more likely that politicians’ anti-union statements will go unchecked. This, in turn, can undermine union legitimacy and create negative public attitudes toward unions, leading to lower levels of union membership and influence. Compare this to a situation where the low disproportionality and/or a large number of parties in the legislative body but the same overall ideology. In this case, it is less likely that anti-union statements would go unchallenged—either because low disproportionality means that politicians are not as tied to the median voter or because more parties means more voices—and thus there might be less of an effect on public attitudes. Lastly, when there are multiple parties that might strive for union support (compared to a legislative body with the same overall ideology but with

fewer parties), this could make it less likely that the labor movement is dependent on one party while also creating a competition among these parties for this support, which could provide greater rhetorical support for the labor movement in public discourse (Hamann, Johnston, and Kelly 2013).

Policy Enactment

Inclusionary governance and compositional differences can lead to the third category of linkages from a country's political system to the workplace: the enactment of policies that lead to greater trade union influence, coverage, and membership. The most obvious linkage here might be an ideological connection in which left-leaning governing parties enact policies supportive of unions and workers (Iversen and Soskice 2006). But we believe it is reasonable to theorize additional linkages that are separate from ideological explanations.

First, a legislative body with a greater diversity of members might enact policies that reflect a wider variety of views and interests, because a wider variety of issues would have at least some members as champions (Blais 1991; Karp and Banducci 2008). So even without a labor-friendly government in power, there could be a greater chance of labor-friendly legislation in a political system that has a higher level of representativeness or one that operates as a multiparty coalition. Relatedly, there could be a greater likelihood of labor-friendly legislation even without a labor-friendly government because of a greater chance of horse-trading support for different issues when the legislative body is more diverse. This logic also applies to multiparty coalitions, where bargained arrangements between different groups are often required to form government and to create policies (Martin and Vanberg 2004).

Second, when right-leaning governments are in power, a greater diversity of legislative members or the existence of a multiparty coalition could be more likely to include a voice against

repressive policies that would reduce union influence, coverage, and membership. Third, with a greater diversity of views in a legislative body, more creative and innovative public policies could result (Orellana 2010), and some of these could be labor-friendly. Yet it is also important to recognize that the labor-friendly policies that may result from more representative political systems are unlikely to emerge if these systems engender competition rather than compromise. Such systems could result in policy stagnation and may be more likely to occur as the number of parties increases because of uncertainty and mistrust between parties (Timmermans 2006).

Lastly, the importance of all of these channels could be magnified for public sector unions and workers because the state is the ultimate arbiter of public sector terms and conditions of employment. So, for example, just as political systems with a greater diversity of members might be more likely to enact labor-friendly legislation, the same would be true of setting employment relations policies for public sector workers and unions. Similarly, any incentives for including private sector unions in social partnerships would apply to public sector unions, too. These could then directly affect public sector union membership, coverage, and influence, and also indirectly influence the private sector when these state policies are seen as being a norm-setting exemplar for the private sector (Godard 2002). These effects may be particularly pronounced under multiparty coalitions, which have been shown to both produce large public sectors and to spend considerably on the public sector (Martin and Vanberg 2013).

What about Reverse Causality?

The theoretical channels we have outlined all involve a causal chain from the electoral level to the workplace level. But what if this relationship is endogenous such that unionization is affecting disproportionality, the effective number of parties, and the emergence of multiparty coalitions, rather than the reverse? The presence or strength of trade unions might affect the

effective number of parties or the emergence of multiparty coalitions if, for example, unions create additional political parties or help broker the emergence of a governing coalition. Individual union membership could be seen as affecting the number of political parties and their presence in government if union members develop the skills or agency to become more engaged in the political process (D'Art and Turner 2007; Bryson et al. 2014), leading to support for a greater number of political parties or a greater likelihood of their being able to bargain to share political power.

In contrast, it is much more difficult to see how unionization can determine disproportionality. To the extent that disproportionality is determined by electoral rules, unions or other groups could campaign for changing these rules, but in practice electoral rules that affect representativeness rarely change (Matakos, Troumpounis, and Xefteris 2016). For instance, in Europe from 1945 to 2011, only 71 instances of electoral reform led to significant changes in disproportionality. Just eight of these instances happened from 2002 onward, and six of the eight involved political elites imposing reforms on the public rather than public-driven reforms (Renwick 2011). Beyond the exceptionally rare possibility that unions strategically pushed for electoral reforms during our study timeframe, we are unable to identify contemporary mechanisms by which workplace voice would affect disproportionality.⁴

⁴ Historically, struggles for political and workplace rights for the working class were closely intertwined (Lipset 1983; Crouch 1993; Ebbinghaus 1995), so with the emergence of modern democracies in the 19th and early 20th centuries, the character of the labor movement could have impacted the nature of the electoral system, or unique factors could have impacted both. If these founding conditions are enduring enough to manifest themselves in a correlation between union membership and electoral systems 150 years later, then perhaps our results are remarkable for a different reason. And our results that include country fixed effects control for unique founding conditions within a country.

Data

We conduct three sets of analyses using data from two waves of the establishment-based European Company Survey and from eight rounds of the individual-level European Social Survey (ESS). As will be described, each data set spans more than 20 countries. To each data set, we merge political systems measures indicating the country's level of disproportionality, number of effective parties, and presence of multiparty coalitions at the date of the interview.

European Company Survey Data

The European Company Surveys (ECS) are conducted by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) by surveying the manager responsible for human resources in the establishment, and when possible an employee representative, across a large number of establishments (European Foundation for the Improvement of Living and Working Conditions 2010, 2015). We use the data collected from the management representative in the 2009 and 2013 waves because these provide measures of workplace union presence. To use the fullest extent of control variables available in each wave, we analyze the two waves separately. As shown in columns 1 and 2 of Table 1, we are able to analyze establishments across 29 and 30 countries, respectively, after merging the 2009 and 2013 waves with the electoral system measures.

For the two waves, we are able to construct two dichotomous measures that indicate whether or not there is trade union representation and whether at least some employees are covered by a collective wage agreement. The former is not exclusive, meaning that there might also be forms of nonunion representation present; the latter includes agreements negotiated at the establishment, sectoral, occupational, and national levels. The sample sizes are in excess of 20,000 establishments for each wave, but vary across these measures because some representation forms

are not part of a country's industrial relations system, so managers in some countries were not asked about a particular form of representation.⁵

For each wave, we also constructed control variables including major industry, organizational structure, private or public sector, the number of employees, whether or not there has been a recent organizational change, and demographic characteristics of the establishment's workforce. Given how the questions were asked, all are categorical measures. We also create an indicator for Ghent system countries in which some benefits are administered by trade unions rather than the state (Ebbinghaus, Göbel, and Koos 2011). There is strong evidence that union density increases when individuals are incentivized to join unions in order to receive unemployment insurance, and union decline in some countries can be at least partly explained by the substitution of union-administered systems with state-administered ones (Böckerman and Uusitalo 2006). Finally, to account for the well-documented effects of varieties of capitalism on industrial relations (Hamann and Kelly 2008) we use Schneider and Paunescu (2012) to create controls for the national context by grouping countries into varieties of capitalism categories: liberal market economy, liberal market economy-like, coordinated market economy, hybrid, and state-dominated. Panel B in Table 2 shows the control variables available for the two waves.

European Social Survey Data

The European Social Survey is a cross-sectional survey administered to individuals by national research councils across numerous European countries using consistent survey

⁵ In 2009, there is no option for workplace-based union representation in Germany, Austria, Spain, and Luxembourg, and in 2013 the same is true of Germany, Austria, Netherlands, and Luxembourg. Because we know there are union members in some workplaces in these countries, we treat this variable as missing for these countries rather than coding all of them as not having unions in the workplace. Note that Montenegro and Macedonia are excluded from the data we analyze because of a lack of electoral systems measures.

specifications. It has been administered every other year starting in 2002. The original data are representative of all persons aged 15 and over living within private households, but we limit our analyses to workers by excluding those who do not report that their main activity in the previous seven days was working and by excluding the self-employed. Due to differential question availability across rounds of the European Social Survey, we conduct two separate analyses of extracts of workers.

We first focus on Round 5 (ESS5), which was primarily collected in 2010 (European Social Survey 2010). In this round we can identify whether there is a trade union in the workplace, and its degree of influence. Specifically, Round 5 uniquely asks “How much influence would you say that trade unions at your workplace generally have over decisions that affect your working conditions and practices?” [G44]. From the response option “No trade unions/trade union members at workplace,” we construct a dichotomous variable indicating if there are union members in the workplace. From the fuller set of response options, we also construct a 4-point scale measuring the degree of trade union influence in the workplace, ranging from 1=not much or no influence (including no unions present) to 4=a great deal of influence.⁶ After merging with the political systems measures, we have a sample of 15,899 workers to analyze, spanning the 25 countries as shown in the Round 5 column of Table 1.

Second, we analyze a pooled sample of workers across all 8 rounds of the European Social Survey which were primarily collected between 2002 and 2016 (European Social Survey 2018). Our primary variable of interest is whether or not an individual is a member of a trade union. This

⁶ In the first European Social Survey round, there are also questions about trade unions in the workplace. Creating an indicator for whether or not there is a trade union present, and estimating multivariate probit models yields similar results to those we present using Round 5. The questions are worded more directly in Round 5, and there are also a larger number of countries represented, so we focus on that round.

is constructed from the question “Are you or have you ever been a member of a trade union or similar organisation?” which is asked in each round. We code those who respond “yes currently” as a trade union member, and all others coded as not a member. Note that this is not a panel data set; rather, new individuals are interviewed in each round, and we pool them across countries and years. We exclude a small number of countries that lack electoral measures. As shown in Table 1, the resulting number of countries in each round ranges from 21 to 27. The overall sample size is 144,507 workers.

In our analyses of European Social Survey data we also include control variables for demographic, job, and organizational characteristics, including age, gender, years of education, has children at home, is a citizen of that country, is an ethnic minority in that country, urban location, is a supervisor, major occupation, major industry, type of employer (the Round 5 analyses only), and employer size. As with the European Company Survey data, we also create indicators for Ghent systems as well as Schneider and Paunescu’s (2012) varieties of capitalism categories: liberal market economy, liberal market economy-like, coordinated market economy, hybrid, and state-dominated.

Political Systems Measures

To the establishment-level European Company Survey data and the individual-level European Social Survey data, we merge political system measures using the interview date for each establishment or worker. As noted earlier, we draw on the political science literature on comparative electoral systems and multiparty coalitions (Lijphart 1994; Farrell 2001; Strom, Muller, and Bergman 2008) and use a country’s level of disproportionality and its effective number of political parties at the level of votes to measure electoral system differences. These measures are from Gallagher (2019), and we merge them by country based on the most recent national

election prior to each observation's interview date. Consequently, our analysis samples include the disproportionality score and number of effective parties for the national legislative body at the time of interview. The disproportionality score ranges between 0.72 (Denmark in 2008 and 2010) and 21.95 (France in 2002). Recall that perfect proportionality equates to a disproportionality score of 0. The number of effective political parties ranges from 2.08 (Malta in 2009 and 2013) to 10.28 (Belgium in 2002). The presence of a multiparty coalition within a political system is dichotomous and is based on the cabinet situation within a given country when each interview occurred. The three political measures are not highly collinear with each other. For instance, within the pooled ESS data, the correlation between disproportionality and both multiparty coalitions and effective number of parties is -0.21, and the correlation between multiparty coalitions and effective number of parties is 0.45.

Since we seek to explain the effects of political systems independent of ideology, it is important to identify and specify how we have incorporated ideology as a key control. We start with the ideology score for each political party in a country's legislative body using the ParlGov database (Döring and Manow 2018). This score uses the 0 (far-left) to 10 (far-right) ideological scale that is widely used in political science research and has high validity and reliability (Kroh 2007). To control for the ideology of a country's legislative body that resulted from a given election, we construct an overall ideology score by weighting each party's score by its legislative seat share. Separately, to control for governing ideology, we also include the left-right ideology score for the ruling cabinet, which is either (a) the ideology score for the ruling party in single-party cabinets, or (b) an average of the ideology scores for all parties in the ruling cabinet weighted by seat share if the cabinet is a multiparty coalition. This allows us to account for two discrete components of political system ideology: that of the specific ruling party (or parties) and the

general ideological makeup of the legislative body as whole. And to allow for more flexibility in the relationship between these ideology measures and our dependent variables, we also include the squares of these two measures in our models.

European Company Survey Results: Trade Union Presence and Coverage

In analyzing the relationship between unionization, disproportionality, the effective number of parties, and multiparty ruling coalitions in the 2009 and 2013 European Company Surveys, we use indicators for whether the following are present in the establishment as reported by management: (1) trade union representation, and (2) a collective wage agreement that applies to at least some employees in the establishment. Panel A of Table 2 presents the sample means for these measures. Slightly less than 35 percent report trade union representation in the workplace while a collective bargaining agreement is present in nearly 65 percent.

Each of these indicators are used as the dependent variable in a probit model where the key independent variables are disproportionality, the number of effective parties, and an indicator for a coalition government. Sample statistics for these three measures are shown in Panel A of Table 3, and full sample statistics are provided in Appendix Table 1. To control for other potential factors that influence the likelihood of representative workplace voice, the probit models also include the control variables listed in Panel B of Table 3 (including the two ideology measures described above and their squared values as well as varieties of capitalism indicators and organizational characteristics). Returning to Table 2, Panel B reports the marginal effects and standard errors for disproportionality, the number of effective parties, and coalition government. Throughout the paper, marginal effects are calculated as the average of each observation's predicted probability change from a one-unit increase in the relevant independent variable, based on each observation's

actual values for the variables included in that specification; standard errors are robust to arbitrary forms of heteroscedasticity. The full results are provided in Appendix Table 2.

First consider the probit results reported in columns 1, 3, 5, and 7. Disproportionality is statistically significant at the one percent level and is negative in each case. This indicates a negative relationship between disproportionality and union presence and coverage, holding legislative and cabinet ideology, varieties of capitalism, and organizational characteristics constant. Recall that this means that electoral systems that are more representative (that is, a lower disproportionality score) are associated with a greater likelihood of finding trade unions and collective agreements in the workplace. The marginal effect of -0.015 in column 1 means that a one unit increase in disproportionality reduces the probability of a trade union in the workplace by 0.015 percentage points, relative to an overall mean of 34 percent. Switching from the least to the greatest disproportional country (an increase of 17 in the disproportionality score) implies an increase in the probability of a union in the workplace by almost 14 percentage points.

In columns 1, 3, 5, and 7, the effective number of parties is also statistically significant and negative at the one percent level. In contrast to the results for disproportionality, a negative coefficient here implies that a larger number of parties is associated with a lower likelihood of finding trade unions and collective agreements in the workplace. This negative relationship is consistent with the competitive fragmentation aspect of larger numbers of political parties in an electoral system. The results for the coalition indicator variable in columns 1, 3, 5, and 7 lack a consistent pattern.

These models in columns 1, 3, 5, and 7 of Table 2 include a large number of control variables, but do not control for Ghent countries. The models reported in columns 2, 4, 6, and 8 add the Ghent control variable to each specification. The Ghent variable is highly statistically

significant in each case, and in most cases is very large in magnitude, too. The Ghent variable also overrides the importance of disproportionality in three of the four specifications. One interpretation of this is that the significantly negative disproportionality results in columns 1, 3, and 7 are spurious and may reflect a failure to control for the complex relationship between Ghent systems and unionization (Rasmussen and Pontusson 2018). An alternative interpretation is that the Ghent influence accounts for such a large amount of variance that it is difficult to identify weaker, but still important, and possibly correlated, relationships. With this in mind, note that the results we will present for the European Social Survey are robust to the inclusion of the Ghent control, and the effective number of parties variable remains significantly negative in Table 2 even when controlling for Ghent countries. It is also the case that our results do not appear driven by countries with extreme values of disproportionality or effective number of parties.⁷

European Social Survey Results: Trade Union Presence and Influence

We can use data from Round 5 of the European Social Survey to conduct a similar analysis for the presence of trade unions in a workplace. These data span a similar, albeit not identical range of countries (see Table 1), but are individual-based rather than establishment-based. Column 1 of Table 4 presents descriptive statistics for the dependent variables and key independent variables. In the sample we analyze from this round of the European Social Survey, 79.2 percent of workers indicate that there are trade union members in their workplace. Column 1 of Table 5 reports the

⁷ When considering extreme values of disproportionality and effective number of parties, it is first important to remember that even if extreme, the values are valid. Second, these two measures are right-skewed so we focus our attention on large extreme values. With this in mind, we re-estimated all of our European Company Survey and European Social Survey regression models in two ways: (a) by excluding all observations for which disproportionality or effective number of parties exceed the 95th percentile value for that measure in that model, and (b) excluding all observations for which disproportionality or effective number of parties are more than two standard deviations above the mean for that measure in that model. Most of the results are unchanged; in a couple of instances they are weaker, in a couple they are stronger.

key estimated marginal effects from a multivariate probit analysis in which this indicator is the dependent variable. This probit model also controls for ideology, Ghent systems, and varieties of capitalism in the same way as in the European Company Survey analyses, and also includes controls to account for key demographic and job characteristics (for sample statistics and marginal effects for all of the variables, see Appendix Table 3). Both disproportionality and the effective number of parties are negative predictors of the likelihood of trade unions in the workplace, and these estimates are statistically significant at the one percent level. The presence of multiparty coalitions is positive but small and non-significant for the workplace presence of union members in the Round 5 data.

A benefit of using the Round 5 data is that we are also able to construct a 4-point scale measuring the degree of trade union influence in the workplace, ranging from not much or no influence (including no unions present) to a great deal of influence. As shown in column 1 of Table 4, the average influence is 1.6, which is between no influence and some influence. Returning to Table 5, column 2 presents the results of a multivariate regression with this as the dependent variable, and the same controls as in the probit model in column 1. Similar to the results for union members in the workplace, the level of trade union influence has a negative relationship with both disproportionality and the effective number of parties, and these are precisely estimated with small standard errors relative to the coefficient estimates. Additionally, multiparty coalitions are positively related to higher levels of union influence.

European Social Survey Results: Individual Trade Union Membership

All eight rounds of the European Social Survey ask respondents about their trade union membership status. We can therefore analyze a pooled sample of 144,507 workers across 31 countries that not only has significant cross-country variability (31 countries), but also variation

across time (2002-2017). Column 2 of Table 4 presents the descriptive statistics for the key variables, including that 30.5 percent of workers across the eight rounds of the European Social Survey report currently belonging to a trade union. Turning to Table 5, column 3 reports the key marginal effects from a probit model where individual union membership is the dependent variable, and includes political system ideology and other control variables similar to the Round 5 models plus dummy variables for the year of the interview (for sample statistics and marginal effects for all of the variables, see Appendix Table 4). Again, there is a significantly negative estimate for disproportionality and the effective number of parties. The estimate for the presence of coalition government is statistically significant and positive.

In column 4, we exploit the fact that most countries are represented in more than one round. Specifically, this allows the inclusion of fixed country effects while still being able to identify the independent role of the political systems measures. In the column 4 specification, then, the influence of the political system variables is coming from within-country variation over time. In other words, in this specification the results reveal how variation in a country's political system over time affects that country's level of union membership. Even relying on within-country variation, the estimates for disproportionality and the effective number of political parties remain significantly negative, though under this most restrictive model, within-country changes in coalition governance lose significance. We take this as strong evidence that there is an important relationship between both disproportionality and the effective number of political parties and trade union membership, and the direction of this relationship is consistent with the other measures of workplace representation that we have analyzed: greater electoral representativeness is associated with greater workplace voice, while competitive fragmentation weakens workplace voice.

Implications for Comparative Industrial Relations and Workplace Voice

Our findings have several implications for both unions and scholars interested in the intersection between industrial relations, the state, and political systems. First, the results offer support to the notion that characteristics of political systems meaningfully affect union membership, coverage, and influence in a manner heretofore either missing from the literature or treated purely as a control. Much research has explored diverse explanations for declining union density and persistent differences in cross-national union membership and collective representation (e.g., Ebbinghaus, Göbel, and Koos 2011; Forth, Bryson, and George 2017; Kranendonk and Beer 2016; Schnabel 2013). While research has analyzed individual attitudes and demographic characteristics, job, and organizational characteristics, globalization and other economic trends, trade union activities, the success of right-wing ideological platforms, the decline of union-administered (Ghent) unemployment insurance, and differences in varieties of capitalism and industrial relations systems, it appears that the importance of a country's political system for influencing trade union membership, coverage, and influence has been overlooked. Our findings add to this literature by demonstrating that the country's broader political system is important in altering the likelihood of individuals belonging to unions, as well as the coverage and influence unions provide within the workplace. In addition to the extensively-researched varieties of capitalism framework, attention should be paid to varieties of political systems in comparative industrial relations.⁸

Second, this results imply that although overarching electoral reforms are rare, unions may stand to benefit from any changes to electoral systems that increase the system's proportionality.

⁸ A step-wise approach is a possibility for exploring the incremental explanatory power of disproportionality, the number of effective political parties, and coalition government. This is a cautious exercise because most of the dependent variables are dichotomous, but column 1 in

When the United Kingdom introduced its Alternative Vote (AV) referendum in 2011, the Labour Party was split on how much backing it should give to the referendum, and it ultimately failed at the polls (Qvortrup 2012). Our findings indicate that unions may have benefitted had the reform effort succeeded (notwithstanding coalitional governance complexities). While labor and other advocacy groups tend to push for a variety of governmental policies that they expect will further their goals of higher membership, such as fighting for changes to labor laws that will promote member mobilization or promoting policies to discourage anti-union employer behaviors, it is rare for unions and labor advocates to focus on the political system in which they operate as a factor that might aid or inhibit collective voice.

Third, our findings imply that political systems that encourage social dialogue in the form of tripartite partnerships and variants of social pacts may provide more indirect benefits to unions than have been recognized. In countries like Ireland, social partnership has been alternatively viewed as a tool of economic growth (Roche 2007), a mechanism to constrain worker voice at the expense of union elites (Allen 2000), or a relatively benign instrument that helped improve economic productivity before being made irrelevant by financialization during the 2000s (Teague and Donaghey 2015). While we are unable to test the specific role of social dialogue, our findings

Appendix Table 5 shows the adjusted R^2 values for a baseline specification without controlling for varieties of capitalism and the three key political systems measures but including all other controls used in Table 2 or 5. Following a step-wise approach, we then add varieties of capitalism indicators (column 2), and then the three political systems measures (column 3). A partial F -test indicates that the adjusted R^2 value increases by a statistically significant amount in the last step for each model, meaning that the three political systems measures add explanatory power to every model. To gauge the magnitude of this increased explanatory power, we use the change in the adjusted R^2 value that accompanies the addition of the varieties of capitalism indicators in the previous step because varieties of capitalism is widely accepted as important. In almost every case, the increase in the adjusted R^2 value is at least as large, if not larger, when adding the political systems variables compared to the prior step of adding the varieties of capitalism indicators. This is consistent with our contention that political systems are worthy of additional study.

suggest that missing from this analysis is the possibility that political systems that encourage social partnership and other forms of social pacts may benefit union interests in myriad ways that foster increased voice in the workplace. This opens up a need for further research investigating these possible linkages while also suggesting other possible routes for strengthening workplace-based representation.

Conclusion

We seek to make a unique theoretical contribution by developing a multi-channel framework in which a country's political system is predicted to affect trade union membership, coverage, and influence. By making political systems that are commonly explored by political scientists a key factor in theorizing employment relations institutions and outcomes, this expands on the well-established frameworks for understanding the relationships between political economies and industrial relations. We identify various ways in which a political system can shape collective voice, and craft a three-channel theoretical framework based on incentives for inclusionary governance, legislative body composition, and policy enactment. This also complements and extends the well-known connections between political ideology and industrial relations by theorizing mechanisms through which a country's political system can affect the workplace regardless of the ideology of the governing entity.

This theorizing motivates the empirical analyses that use multiple data sets. As the data do not allow us to test the specific channels we theorized, the analyses focus on testing the more general relationship between the political system and unionization. We follow the political science literature in using disproportionality and the number of effective political parties as the key dimensions to measure variation in electoral systems, as well as the presence or absence of multiparty coalitions, which has been identified as another important aspect of a country's political

system. Disproportionality (an inverse measure of electoral representativeness) is hypothesized to have a negative relationship with workplace collective voice, and multiparty coalitions are expected to be positively related with voice, while the prediction for the number of effective political parties is ambiguous owing to the alternative interpretations typically attached to this measure.

We test the impact of these measures on various measures of workplace representation based on the availability of different measures across alternative data sets. This includes multiple waves of establishment-level (the European Company Survey) as well as individual-level (the European Social Survey) data sets. The European Social Survey results consistently indicate that disproportionality negatively affects union membership, coverage, and influence, and these findings are shared by the European Company Survey outcomes except after accounting for Ghent systems in some cases. The overall strength of these findings are consistent with our theorizing that unions may specifically benefit from certain types of representative electoral systems. We also find that the presence of multiparty coalitions often correlates positively with unionization. This lends at least some support to our theory that political systems that have multiparty coalitions, which typically require bargaining in order to form governments and enact policies, will spill over into workplaces that also support systems like collective bargaining. Finally, our results indicate that as the effective number of parties in an electoral system increases, union membership, coverage, and influence decrease. This outcome is consistent with the idea that greater numbers of parties produce competitive fragmentation within a political system. Just as is the case for political democracy, then, it appears that the optimal political system for collective voice is one that achieves high levels of representativeness while avoiding excessive competitive fragmentation.

A possible counter to the arguments we articulate above is that our empirical analyses face issues of causality and endogeneity. Although we theorize that variations in political systems affect variations in unionization, under some circumstances the reverse may hold true. We do not think disproportionality likely fits these circumstances. It is difficult to envision the causal arrow running from unionization to disproportionality since overt electoral reform is uncommon and even minor changes to proportionality are generally made by political elites, who are unlikely to be heavily influenced by unions at that stage in their decision-making.

Turning to our other measures of political systems, reverse causality is possible whereby greater collective voice produces more political parties or multiparty coalitions. Unions may either form their own political parties or train members to become involved in politics, and these groups or individuals may bargain for a seat at the table when forming multiparty coalitions. However, the overarching goal of these organizations is usually to grow membership, service their members' interests, and advocate for policies that benefit the working class rather than to bring about electoral reform. Moreover, the literature on comparative trade union density treats union membership, coverage, and influence variation as the consequence of different micro (individual) and macro (institutional) effects rather than the cause (Ebbinghaus, Göbel, and Koos 2011). Lastly, the negative relationship between the effective number of parties and unionization is unlikely to be subject to reverse causality since it is difficult to imagine unions actively seeking to reduce the number of parties in a political system. Therefore, although we can discount the likelihood that reverse causality affects our disproportionality and effective number of parties results, a limitation is that causal ambiguity remains for the multiparty coalition outcomes.

Relatedly, perhaps there are unobserved norms of inclusivity or other factors that simultaneously support representative institutions in the workplace and in the political system. We

account for an array of potentially confounding determinants of changes in workplace representation, including country and time effects as well as macro-level political ideology changes, Ghent systems, and varieties of capitalism, but we may not have exhausted all possible variables that would explain these variations in collective voice. We therefore encourage additional empirical analyses that might isolate causal relationships while also investigating the role of specific channels through which a country's electoral system may influence the workplace independent of the political system's ideology at a particular moment.

While there is more to be done, we believe that we have uncovered an overlooked area with important implications for comparative industrial relations and collective voice. The importance of cross-national institutional differences in the nature of trade unions and workplace voice, supportive legislative policies, and varieties of capitalism needs to be complemented by a deeper understanding of the role of varieties of political systems, including but not limited to differences in electoral systems and multiparty coalitions. This also opens up the space to consider the theoretical and empirical importance of political systems for other employment relations trends and outcomes.

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Table 1: Countries Present in the Analyses

	European Company Survey		European Social Survey							
	2009	2013	1	2	3	4	5	6	7	8
Austria (AUT)	Yes	Yes	Y	Y	Y	Y	Y		Y	Y
Belgium (BEL)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Bulgaria (BGR)	Yes	Yes			Y	Y	Y	Y		
Croatia (HRV)	Yes	Yes				Y	Y			
Cyprus (CYP)	Yes	Yes			Y	Y	Y	Y		
Czech Republic (CZE)	Yes	Yes	Y	Y		Y	Y	Y	Y	Y
Denmark (DNK)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	
Estonia (EST)	Yes	Yes		Y	Y	Y		Y	Y	Y
Finland (FIN)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
France (FRA)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Germany (DEU)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Greece (GRC)	Yes	Yes	Y	Y		Y	Y			
Hungary (HUN)	Yes	Yes			Y	Y	Y	Y	Y	Y
Iceland (ISL)		Yes		Y				Y		Y
Ireland (IRL)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Israel (ISR)			Y			Y	Y	Y	Y	Y
Italy (ITA)	Yes	Yes	Y	Y				Y		Y
Latvia (LVA)	Yes	Yes				Y				
Lithuania (LTU)	Yes	Yes					Y	Y	Y	Y
Luxembourg (LUX)	Yes	Yes	Y	Y						
Malta (MLT)	Yes	Yes								
Netherlands (NLD)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Norway (NOR)			Y	Y	Y	Y	Y	Y	Y	Y
Poland (POL)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Portugal (PRT)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Romania (ROU)	Yes	Yes				Y				
Slovakia (SVK)	Yes	Yes		Y	Y	Y	Y	Y		
Slovenia (SVN)	Yes	Yes	Y		Y	Y	Y	Y	Y	Y
Spain (ESP)	Yes	Yes	Y	Y	Y	Y	Y		Y	Y
Sweden (SWE)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Switzerland (CHE)			Y	Y	Y	Y	Y	Y	Y	Y
Turkey (TUR)	Yes	Yes								
United Kingdom (GBR)	Yes	Yes	Y	Y	Y	Y	Y	Y	Y	Y
Total Number	29	30	21	22	21	27	25	24	21	22

Table 2: Analyzing Trade Union Presence and Coverage Using the European Company Survey

	Is the following is present in the workplace (1=yes, 0=no)?							
	Trade Union Representation (includes Dual Channel)				Collective Wage Agreement for at least Some Employees			
	2009		2013		2009		2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>PANEL A: Descriptive Statistics</u>								
Sample Mean (standard deviation)	0.348 (0.476)		0.339 (0.473)		0.648 (0.477)		0.634 (0.482)	
<u>PANEL B: Key Marginal Effects from Probit Models</u>								
Disproportionality	-0.015** (0.001)	0.010** (0.001)	-0.016** (0.001)	0.001 (0.001)	-0.032** (0.002)	-0.029** (0.002)	-0.008** (0.001)	-0.001 (0.001)
Effective Number of Political Parties	-0.011** (0.003)	-0.022** (0.003)	-0.020** (0.003)	-0.038** (0.004)	-0.078** (0.003)	-0.087** (0.004)	-0.076** (0.003)	-0.099** (0.004)
Coalition Government	0.059** (0.019)	0.220** (0.019)	-0.129** (0.010)	-0.181** (0.010)	0.039 (0.023)	0.053* (0.024)	-0.141** (0.011)	-0.144** (0.012)
Ghent Country	---	0.335** (0.018)	---	0.333** (0.018)	---	0.087** (0.022)	---	0.267** (0.020)
Ideology and Other Controls from Table 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sample Size	20,830	20,830	20,224	20,224	24,857	24,857	23,472	23,472

Notes: Each cell in panel A reports the sample mean and standard deviation of the dependent variable in the relevant sample. Each cell in Panel B reports the marginal effect and robust standard error for the key independent variables from a probit model for each dependent variable in the relevant sample. The control variables are those listed in Table 3, and the probit models are estimated using establishment sampling weights. Statistically significant at the * 0.05 or ** 0.01 level.

Table 3: European Company Survey Independent Variables

<u>PANEL A: Descriptive Statistics of Key Independent Variables</u>				
	<u>2009</u>		<u>2013</u>	
	<u>Mean</u> <u>(std dev)</u>	<u>Minimum /</u> <u>Maximum</u>	<u>Mean</u> <u>(std dev)</u>	<u>Minimum /</u> <u>Maximum</u>
	(1)	(2)	(3)	(4)
Disproportionality	5.678 (4.047)	0.72 16.73	6.584 (4.424)	0.73 17.66
Effective Number of Political Parties	4.466 (1.545)	2.08 9.04	4.744 (1.540)	2.08 10.04
Coalition Government	0.706 (0.455)	0 1	0.761 (0.426)	0 1

PANEL B: Other Control Variables

<u>2009</u>	<u>2013</u>
<ul style="list-style-type: none"> • Ideology of the ruling party or coalition (weighted by seats) (quadratic specification) • Ideology of the legislative body weighted by seats (quadratic specification) • Country-specific varieties of capitalism (5 categories) • Organizational structure (3 categories) • Public or private (4 categories) • Organizational change (3 categories) • Fraction female (7 categories) • Fraction part-time (7 categories) • Fraction high skilled (7 categories) • Number of employees (10 categories) • Industry (11 categories) 	<ul style="list-style-type: none"> • Ideology of the ruling party or coalition (weighted by seats) (quadratic specification) • Ideology of the legislative body weighted by seats (quadratic specification) • Country-specific varieties of capitalism (5 categories) • Organizational structure (3 categories) • Public or private (2 categories) • Ownership change (2 categories) • Fraction female (7 categories) • Fraction part-time (7 categories) • Fraction university degree (7 categories) • Number of employees (3 categories) • Industry (6 categories)

Note: The descriptive statistics are derived from the full analysis samples used for the models in columns 5-8 in Table 2 (n=24,857 for 2009 and n=23,472 for 2013).

Table 4: European Social Survey—Summary Statistics for Key Variables

	Mean (std dev)	
	Round 5 Analysis Sample (1)	Rounds 1-8 Analysis sample (2)
There are Union Members in the Workplace (1=yes, 0=no)	0.792 (0.406)	---
Trade Union Influence in the Workplace (1=not much or no influence, 4=a great deal)	1.641 (0.807)	---
Respondent is a Trade Union Member (1=yes, 0=no)	---	0.305 (0.460)
Disproportionality	5.790 (4.101)	5.884 (4.832)
Effective Number of Political Parties	5.138 (1.670)	5.181 (1.626)
Coalition Government	0.849 (0.358)	0.835 (0.371)
Ghent Country	0.171 (0.377)	0.186 (0.389)
Sample size	15,899	144,507

Table 5: Analyzing Trade Union Presence, Influence in the Workplace, and Individual Trade Union Membership Using the European Social Survey

	Round 5		Rounds 1-8	
	Trade Union Members in the Workplace (1)	Trade Union Influence in the Workplace (2)	Respondent is a Trade Union Member (3) (4)	
Disproportionality	-0.014** (0.001)	-0.028** (0.002)	-0.009** (0.0003)	-0.002** (0.0008)
Effective Number of Political Parties	-0.039** (0.003)	-0.036** (0.005)	-0.022** (0.001)	-0.006** (0.002)
Coalition Government	0.019 (0.011)	0.268** (0.023)	0.063** (0.004)	0.003 (0.005)
Ghent Country	0.164** (0.016)	-0.052* (0.024)	0.323** (0.003)	---
Country-specific varieties of capitalism (5 categories)	Yes	Yes	Yes	No
Ideology and Other Control Variables (see note)	Yes	Yes	Yes	Yes
Country effects	No	No	No	Yes
Sample Size	15,899	15,899	144,507	144,507

Note: Columns 1, 3, and 4 reports the marginal effect and robust standard error from a probit model; column 2 reports the coefficient and robust standard error from a regression. All models are estimated using ESS design weights and include the following control variables: ideology of the ruling party or coalition (weighted by seats) (quadratic specification); ideology of the legislative body weighted by seats (quadratic specification); whether a citizen; whether belong to a minority ethnic group; gender; have children at home; urban location (3 categories); years of education; age (quadratic specification); whether supervises others; number of employees (5 categories); occupation (10 categories); industry (20 categories). Columns 1 and 2 also control for type of employer (5 categories); columns 3 and 4 also control for year of interview (16 categories).

Statistically significant at the * 0.05 or ** 0.01 level.

Appendix Table 1:
European Company Survey Descriptive Statistics

	2009 (1)	2013 (2)
Disproportionality	5.678 (4.047)	6.584 (4.424)
Effective number of political parties	4.466 (1.545)	4.744 (1.540)
Coalition government	0.706 (0.455)	0.761 (0.426)
Ghent country (Sweden, Denmark, Finland, Iceland, and Belgium)	0.155 (0.362)	0.158 (0.364)
Ideology of the ruling party or cabinet	5.672 (1.473)	5.728 (1.513)
Ideology of the ruling party or cabinet (squared)	34.344 (16.211)	35.098 (15.811)
Ideology of the legislative body weighted by seats	5.358 (0.508)	5.413 (0.559)
Ideology of the legislative body weighted by seats (squared)	28.966 (5.462)	29.618 (5.972)
Varieties of capitalism: LME	0.091 (0.288)	0.083 (0.276)
Varieties of capitalism: LME-like	0.256 (0.436)	0.257 (0.437)
Varieties of capitalism: CME	0.217 (0.412)	0.223 (0.416)
Varieties of capitalism: Hybrid	0.283 (0.451)	0.289 (0.454)
Domestic ownership (private sector)	0.651 (0.477)	
Foreign ownership (private sector)	0.104 (0.305)	
Establishment taken over in past three years	0.049 (0.215)	
Establishment relocated in past three years	0.057 (0.233)	
Significant ownership change in past three years		0.097 (0.295)
Fraction of employees who are female: None at all	0.027 (0.161)	0.020 (0.141)
Fraction of employees who are female: <20%	0.287 (0.452)	0.314 (0.464)
Fraction of employees who are female: 20-39%	0.179 (0.383)	0.234 (0.424)
Fraction of employees who are female: 40-59%	0.186 (0.389)	0.215 (0.411)
Fraction of employees who are female: 60-79%	0.159 (0.365)	0.132 (0.338)

Fraction of employees who are female: 80-99%	0.148 (0.355)	0.077 (0.266)
Fraction of employees who are part-time: None at all	0.389 (0.488)	0.333 (0.471)
Fraction of employees who are part-time: <20%	0.424 (0.494)	0.492 (0.500)
Fraction of employees who are part-time: 20-39%	0.098 (0.297)	0.091 (0.287)
Fraction of employees who are part-time: 40-59%	0.039 (0.194)	0.036 (0.187)
Fraction of employees who are part-time: 60-79%	0.025 (0.156)	0.025 (0.155)
Fraction of employees who are part-time: 80-99%	0.020 (0.140)	0.018 (0.133)
Fraction of employees who are high-skill: None at all	0.180 (0.385)	
Fraction of employees who are high-skill: <20%	0.402 (0.490)	
Fraction of employees who are high-skill: 20-39%	0.176 (0.381)	
Fraction of employees who are high-skill: 40-59%	0.078 (0.268)	
Fraction of employees who are high-skill: 60-79%	0.065 (0.247)	
Fraction of employees who are high-skill: 80-99%	0.075 (0.263)	
Fraction of employees with a university degree: None at all		0.120 (0.325)
Fraction of employees with a university degree: <20%		0.467 (0.499)
Fraction of employees with a university degree: 20-39%		0.187 (0.390)
Fraction of employees with a university degree: 40-59%		0.088 (0.283)
Fraction of employees with a university degree: 60-79%		0.060 (0.238)
Fraction of employees with a university degree: 80-99%		0.061 (0.239)
Establishment size: 10 to 19	0.266 (0.442)	
Establishment size: 20 to 49	0.273 (0.445)	
Establishment size: 50 to 99	0.162 (0.368)	
Establishment size: 100 to 149	0.068 (0.251)	
Establishment size: 150 to 199	0.038 (0.190)	

Establishment size: 200 to 249	0.026 (0.159)	
Establishment size: 250 to 299	0.028 (0.166)	
Establishment size: 300 to 399	0.041 (0.199)	
Establishment size: 400 to 499	0.027 (0.162)	
Establishment size: 10-49		0.520 (0.500)
Establishment size: 50-249		0.320 (0.467)
Major industry (NACE 1.1): Mining and quarrying; Manufacturing; Electricity, gas and water supply	0.316 (0.465)	
Major industry (NACE 1.1): Construction	0.102 (0.302)	
Major industry (NACE 1.1): Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	0.148 (0.355)	
Major industry (NACE 1.1): Hotels and restaurants	0.035 (0.184)	
Major industry (NACE 1.1): Transport, storage, and communication	0.047 (0.213)	
Major industry (NACE 1.1): Financial intermediation	0.020 (0.139)	
Major industry (NACE 1.1): Real estate, renting, and business activities	0.092 (0.290)	
Major industry (NACE 1.1): Public administration and defence; compulsory social security	0.062 (0.240)	
Major industry (NACE 1.1): Education	0.069 (0.253)	
Major industry (NACE 1.1): Health and social work	0.068 (0.251)	
Major industry (NACE 2): Industry		0.348 (0.476)
Major industry (NACE 2): Construction		0.089 (0.285)
Major industry (NACE 2): Commerce and hospitality		0.237 (0.425)
Major industry (NACE 2): Transport and communication		0.067 (0.251)
Major industry (NACE 2): Financial services and real estate		0.043 (0.203)
Sample Size	24,857	23,472

Appendix Table 2: European Company Survey Full Marginal Effects Results

	Trade Union Representation (includes Dual Channel)				Collective Wage Agreement for at least Some Employees			
	2009		2013		2009		2013	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Disproportionality	-0.015** (0.001)	0.010** (0.002)	-0.016** (0.001)	0.001 (0.001)	-0.032** (0.002)	-0.029** (0.002)	-0.008** (0.001)	-0.001 (0.001)
Effective number of political parties	-0.011** (0.003)	-0.022** (0.003)	-0.020** (0.003)	-0.038** (0.004)	-0.078** (0.003)	-0.087** (0.004)	-0.076** (0.003)	-0.099** (0.004)
Coalition Government	0.059** (0.019)	0.220** (0.019)	-0.129** (0.010)	-0.181** (0.010)	0.039 (0.023)	0.053* (0.024)	-0.141** (0.011)	-0.144** (0.012)
Ghent Country		0.335** (0.018)		0.333** (0.018)		0.087** (0.022)		0.267** (0.020)
Ideology of the ruling party or cabinet	-0.254** (0.022)	-0.364** (0.024)	-0.059** (0.016)	-0.060** (0.016)	-0.050 (0.027)	-0.038 (0.027)	0.364** (0.021)	0.434** (0.024)
Ideology of the ruling party or cabinet (squared)	0.023** (0.002)	0.031** (0.002)	0.003* (0.002)	0.005** (0.002)	0.006* (0.002)	0.004 (0.002)	-0.039** (0.002)	-0.044** (0.002)
Ideology of the legislative body weighted by seats	1.410** (0.212)	0.666** (0.217)	-0.193 (0.131)	-0.535** (0.127)	6.948** (0.212)	6.851** (0.213)	2.785** (0.145)	2.747** (0.146)
Ideology of the legislative body weighted by seats (squared)	-0.124** (0.019)	-0.057** (0.020)	0.020 (0.012)	0.051** (0.012)	-0.648** (0.020)	-0.640** (0.020)	-0.264** (0.014)	-0.263** (0.014)
Varieties of capitalism: LME	0.107** (0.019)	-0.096** (0.020)	-0.003 (0.016)	-0.092** (0.018)	-0.069* (0.027)	-0.098** (0.030)	0.347** (0.019)	0.296** (0.019)
Varieties of capitalism: LME-like	0.030 (0.019)	-0.096** (0.020)	-0.030* (0.014)	-0.074** (0.015)	0.013 (0.022)	0.016 (0.022)	0.504** (0.014)	0.501** (0.014)
Varieties of capitalism: CME	0.058* (0.023)	-0.151** (0.024)	0.109** (0.017)	0.050* (0.020)	0.128** (0.026)	0.125** (0.026)	0.441** (0.016)	0.470** (0.015)
Varieties of capitalism: Hybrid	-0.013 (0.017)	-0.045** (0.016)	-0.182** (0.014)	-0.142** (0.013)	-0.072** (0.022)	-0.069** (0.022)	0.245** (0.014)	0.260** (0.014)
Organizational structure: Headquarters	0.019 (0.011)	0.019 (0.011)	0.070** (0.010)	0.066** (0.010)	0.009 (0.014)	0.010 (0.014)	0.058** (0.013)	0.053** (0.013)
Organizational structure: Organizational structure:	0.088** (0.011)	0.075** (0.011)	0.156** (0.010)	0.155** (0.010)	0.116** (0.014)	0.113** (0.014)	0.102** (0.013)	0.099** (0.013)

Subsidiary	(0.011)	(0.011)	(0.014)	(0.013)	(0.017)	(0.017)	(0.017)	(0.017)
Public sector	0.154**	0.152**	0.218**	0.224**	-0.008	-0.007	0.071**	0.080**
establishment	(0.029)	(0.029)	(0.015)	(0.015)	(0.042)	(0.042)	(0.017)	(0.018)
Domestic ownership	-0.007	-0.009			-0.085*	-0.083*		
(private sector)	(0.028)	(0.028)			(0.040)	(0.040)		
Foreign ownership	0.019	0.013			-0.156**	-0.157**		
(private sector)	(0.030)	(0.030)			(0.043)	(0.043)		
Establishment taken over	0.025	0.018			0.032	0.030		
in past three years	(0.016)	(0.017)			(0.024)	(0.025)		
Establishment relocated in	-0.022	-0.027			-0.001	-0.001		
past three years	(0.016)	(0.016)			(0.020)	(0.020)		
Fraction of employees	0.127**	0.143**	0.079	0.057	0.091*	0.090*	0.021	0.013
who are female: None at	(0.033)	(0.035)	(0.046)	(0.045)	(0.042)	(0.042)	(0.051)	(0.051)
all								
Fraction of employees	0.096**	0.110**	0.091*	0.074	0.072*	0.071*	0.025	0.024
who are female: <20%	(0.028)	(0.030)	(0.041)	(0.040)	(0.036)	(0.036)	(0.045)	(0.046)
Fraction of employees	0.096**	0.115**	0.080*	0.066	0.018	0.018	0.021	0.020
who are female: 20-39%	(0.029)	(0.031)	(0.041)	(0.040)	(0.036)	(0.037)	(0.045)	(0.046)
Fraction of employees	0.079**	0.093**	0.071	0.060	0.019	0.019	0.002	0.001
who are female: 40-59%	(0.028)	(0.030)	(0.041)	(0.040)	(0.036)	(0.036)	(0.046)	(0.046)
Fraction of employees	0.068*	0.082**	0.061	0.052	0.023	0.023	0.030	0.028
who are female: 60-79%	(0.027)	(0.029)	(0.041)	(0.040)	(0.036)	(0.036)	(0.046)	(0.046)
Fraction of employees	0.067**	0.083**	0.063	0.060	0.001	0.000	0.027	0.026
who are female: 80-99%	(0.026)	(0.028)	(0.042)	(0.041)	(0.036)	(0.036)	(0.047)	(0.047)
Fraction of employees	0.056	0.037	0.073	0.065	-0.091	-0.091	0.035	0.031
who are part-time: None	(0.063)	(0.063)	(0.044)	(0.044)	(0.056)	(0.056)	(0.045)	(0.044)
at all								
Fraction of employees	0.067	0.055	0.089*	0.082	-0.056	-0.056	0.062	0.059
who are part-time: <20%	(0.063)	(0.063)	(0.044)	(0.044)	(0.056)	(0.056)	(0.045)	(0.044)
Fraction of employees	0.040	0.026	0.104*	0.097*	-0.048	-0.048	0.052	0.056
who are part-time: 20-	(0.064)	(0.064)	(0.046)	(0.045)	(0.057)	(0.057)	(0.047)	(0.046)
39%								
Fraction of employees	0.008	0.006	0.060	0.054	0.002	0.004	0.090	0.094

who are part-time: 40-59%	(0.067)	(0.067)	(0.049)	(0.049)	(0.059)	(0.060)	(0.050)	(0.050)
Fraction of employees who are part-time: 60-79%	-0.002 (0.067)	0.002 (0.068)	0.078 (0.052)	0.070 (0.052)	0.009 (0.063)	0.009 (0.063)	0.108* (0.053)	0.114* (0.053)
Fraction of employees who are part-time: 80-99%	-0.016 (0.067)	-0.011 (0.067)	0.077 (0.053)	0.069 (0.053)	-0.032 (0.065)	-0.031 (0.066)	0.006 (0.055)	0.007 (0.055)
Fraction of employees who are high-skill: None at all	0.059* (0.024)	0.060* (0.023)			0.036 (0.032)	0.037 (0.032)		
Fraction of employees who are high-skill: <20%	0.102** (0.023)	0.096** (0.023)			0.044 (0.031)	0.043 (0.031)		
Fraction of employees who are high-skill: 20-39%	0.090** (0.024)	0.082** (0.023)			0.052 (0.032)	0.051 (0.032)		
Fraction of employees who are high-skill: 40-59%	0.095** (0.025)	0.086** (0.025)			0.034 (0.034)	0.033 (0.034)		
Fraction of employees who are high-skill: 60-79%	0.130** (0.027)	0.121** (0.026)			0.016 (0.034)	0.014 (0.034)		
Fraction of employees who are high-skill: 80-99%	0.081** (0.024)	0.072** (0.023)			0.019 (0.034)	0.018 (0.034)		
Establishment size: 10 to 19	-0.363** (0.013)	-0.360** (0.013)			-0.198** (0.018)	-0.199** (0.018)		
Establishment size: 20 to 49	-0.268** (0.013)	-0.266** (0.013)			-0.173** (0.017)	-0.173** (0.017)		
Establishment size: 50 to 99	-0.177** (0.014)	-0.178** (0.013)			-0.116** (0.018)	-0.117** (0.018)		
Establishment size: 100 to 149	-0.151** (0.017)	-0.147** (0.016)			-0.096** (0.022)	-0.095** (0.022)		

Establishment size: 150 to 199	-0.097** (0.018)	-0.097** (0.018)	-0.069** (0.027)	-0.069* (0.027)
Establishment size: 200 to 249	-0.083** (0.021)	-0.083** (0.020)	-0.026 (0.029)	-0.026 (0.029)
Establishment size: 250 to 299	-0.065** (0.022)	-0.061** (0.019)	-0.048 (0.030)	-0.048 (0.030)
Establishment size: 300 to 399	-0.039* (0.018)	-0.040* (0.017)	-0.035 (0.025)	-0.036 (0.025)
Establishment size: 400 to 499	-0.024 (0.023)	-0.020 (0.020)	0.025 (0.028)	0.026 (0.028)
Major industry: Mining and quarrying; Manufacturing; Electricity, gas and water supply	-0.009 (0.017)	-0.001 (0.017)	0.009 (0.026)	0.009 (0.026)
Major industry: Construction	-0.068** (0.020)	-0.060** (0.020)	0.051 (0.028)	0.051 (0.028)
Major industry: Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	-0.052** (0.019)	-0.044* (0.019)	-0.033 (0.027)	-0.034 (0.027)
Major industry: Hotels and restaurants	-0.030 (0.028)	-0.029 (0.028)	0.009 (0.034)	0.008 (0.034)
Major industry: Transport, storage, and communication	0.007 (0.022)	0.009 (0.022)	-0.018 (0.033)	-0.019 (0.033)
Major industry: Financial intermediation	-0.004 (0.035)	0.012 (0.035)	0.022 (0.042)	0.022 (0.041)
Major industry: Real estate, renting, and business activities	-0.045* (0.019)	-0.038 (0.019)	-0.103** (0.028)	-0.103** (0.028)
Major industry: Public	0.066**	0.068**	0.000	-0.000

administration and defence; compulsory social security	(0.022)	(0.021)			(0.033)	(0.033)		
Major industry: Education	0.091** (0.021)	0.102** (0.021)			0.065* (0.032)	0.065* (0.032)		
Major industry: Health and social work	0.058** (0.021)	0.056** (0.021)			0.058 (0.030)	0.056 (0.030)		
Significant ownership change in past three years			0.041** (0.013)	0.037** (0.013)			-0.020 (0.015)	-0.022 (0.015)
Fraction of employees with a university degree: None at all			-0.030 (0.030)	-0.020 (0.030)			-0.003 (0.034)	0.003 (0.035)
Fraction of employees with a university degree: <20%			-0.001 (0.028)	0.007 (0.028)			0.017 (0.033)	0.023 (0.033)
Fraction of employees with a university degree: 20-39%			-0.006 (0.029)	-0.000 (0.029)			0.002 (0.034)	0.006 (0.034)
Fraction of employees with a university degree: 40-59%			0.009 (0.030)	0.011 (0.030)			-0.023 (0.035)	-0.021 (0.035)
Fraction of employees with a university degree: 60-79%			0.005 (0.031)	0.008 (0.031)			0.000 (0.036)	0.002 (0.037)
Fraction of employees with a university degree: 80-99%			-0.038 (0.032)	-0.035 (0.032)			-0.045 (0.036)	-0.042 (0.036)
Establishment size: 10-49			-0.273** (0.011)	-0.266** (0.011)			-0.117** (0.014)	-0.117** (0.014)
Establishment size: 50- 249			-0.122** (0.011)	-0.115** (0.011)			-0.096** (0.014)	-0.093** (0.014)
Major industry: Construction			0.052** (0.012)	0.055** (0.012)			0.036** (0.014)	0.036** (0.013)

Major industry:			0.010	0.014			0.069**	0.069**
Commerce and hospitality			(0.017)	(0.016)			(0.018)	(0.017)
Major industry: Transport			0.015	0.018			0.040**	0.041**
and communication			(0.012)	(0.012)			(0.014)	(0.013)
Major industry: Financial			0.056**	0.057**			0.052*	0.052*
services and real estate			(0.018)	(0.018)			(0.021)	(0.021)
Major industry: Other			0.073**	0.072**			0.077**	0.077**
services			(0.021)	(0.021)			(0.024)	(0.024)
Sample size	20,830	20,830	20,224	20,224	24,857	24,857	23,472	23,472

Notes: Each cell reports the marginal effect and robust standard error from a probit model for each dependent variable in the relevant sample, estimated using establishment sampling weights.
Statistically significant at the * 0.05 or ** 0.01 level.

Appendix Table 3:
European Social Survey Full Means and Marginal Effects Results (Round 5)

	Mean (Std Dev) (1)	There are Union Members in the Workplace (2)	Trade Union Influence in the Workplace (3)
There are union members in the workplace	0.792 (0.406)	Dependent Variable	---
Trade union influence in the workplace	1.641 (0.807)	---	Dependent Variable
Disproportionality	5.790 (4.101)	-0.014** (0.001)	-0.028** (0.002)
Effective number of political parties	5.138 (1.670)	-0.039** (0.003)	-0.036** (0.005)
Coalition government	0.849 (0.358)	0.019 (0.011)	0.268** (0.023)
Ghent country	0.171 (0.377)	0.164** (0.016)	-0.052* (0.024)
Ideology of the ruling party or cabinet	5.899 (1.379)	0.031 (0.021)	0.098* (0.044)
Ideology of the ruling party or cabinet (squared)	36.695 (14.918)	-0.004 (0.002)	-0.012** (0.004)
Ideology of the legislative body weighted by seats	5.394 (0.457)	3.459** (0.186)	5.231** (0.408)
Ideology of the legislative body weighted by seats (squared)	29.308 (4.919)	-0.325** (0.017)	-0.481** (0.038)
Varieties of capitalism: LME	0.141 (0.348)	0.116** (0.019)	-0.152** (0.038)
Varieties of capitalism: LME-like	0.262 (0.440)	0.138** (0.018)	-0.028 (0.035)
Varieties of capitalism: CME	0.233 (0.423)	0.119** (0.017)	-0.035 (0.036)
Varieties of capitalism: Hybrid	0.277 (0.448)	0.018 (0.017)	-0.132** (0.036)
Citizen of country	0.956 (0.206)	0.046** (0.015)	0.068* (0.032)
Belong to minority ethnic group in country	0.048 (0.213)	0.020 (0.014)	0.073* (0.031)
Female gender	0.501 (0.500)	-0.014* (0.007)	-0.001 (0.015)
Children living in the home	0.506 (0.500)	-0.000 (0.007)	0.016 (0.014)
Urban residence	0.224 (0.417)	0.009 (0.009)	0.025 (0.018)
Suburban residence	0.125 (0.331)	0.014 (0.011)	0.006 (0.022)

Town or small city residence	0.306 (0.461)	0.020** (0.008)	0.010 (0.016)
Years of full-time education completed	13.773 (3.620)	0.002 (0.001)	0.001 (0.002)
Age of respondent	42.195 (11.570)	0.003 (0.002)	-0.004 (0.004)
Age of respondent (squared)	1914.296 (988.958)	-0.000 (0.000)	0.000 (0.000)
Responsible for supervising other employees	0.289 (0.453)	0.027** (0.008)	0.035* (0.016)
Central or local government employer	0.124 (0.330)	0.156** (0.022)	0.265** (0.049)
Other public sector employer	0.163 (0.370)	0.185** (0.021)	0.248** (0.047)
State-owned enterprise employer	0.070 (0.256)	0.180** (0.023)	0.234** (0.050)
Private employer	0.617 (0.486)	-0.006 (0.019)	-0.093* (0.044)
Establishment size under 10	0.232 (0.422)	-0.203** (0.013)	-0.432** (0.025)
Establishment size 10 to 24	0.199 (0.399)	-0.166** (0.013)	-0.337** (0.025)
Establishment size 25 to 99	0.263 (0.440)	-0.129** (0.013)	-0.282** (0.023)
Establishment size 100 to 499	0.173 (0.379)	-0.057** (0.014)	-0.117** (0.026)
Major occupation: Legislators, senior officials, managers	0.210 (0.408)	0.046** (0.015)	-0.015 (0.030)
Major occupation: Professionals	0.165 (0.371)	0.029 (0.015)	-0.014 (0.030)
Major occupation: Technicians & associated professionals	0.108 (0.310)	0.039* (0.016)	0.014 (0.033)
Major occupation: Clerks	0.166 (0.372)	0.013 (0.015)	-0.004 (0.032)
Major occupation: Service & shop & market sales	0.007 (0.085)	0.001 (0.038)	-0.168* (0.075)
Major occupation: Skilled agriculture and fish	0.114 (0.318)	0.036* (0.016)	0.034 (0.035)
Major occupation: Craft and related trade	0.079 (0.270)	0.036* (0.018)	0.050 (0.037)
Major occupation: Plant and machine operators	0.076 (0.265)	0.019 (0.018)	-0.019 (0.037)
Major occupation: Elementary occupations	0.006 (0.077)	0.170** (0.057)	0.229* (0.105)
Major industry: Agriculture, forestry, fishing	0.167 (0.373)	0.064* (0.025)	0.106* (0.053)

Major industry: Mining and quarrying	0.010 (0.102)	0.140** (0.044)	0.228** (0.079)
Major industry: Manufacturing	0.008 (0.087)	0.078 (0.040)	0.069 (0.101)
Major industry: Electricity, gas, steam, a/c supply	0.062 (0.242)	0.028 (0.027)	0.071 (0.056)
Major industry: Water supply; waste management	0.116 (0.320)	0.047 (0.026)	0.061 (0.053)
Major industry: Construction	0.061 (0.240)	0.072** (0.027)	0.171** (0.057)
Major industry: Wholesale/retail trade	0.040 (0.195)	0.061* (0.028)	0.030 (0.059)
Major industry: Transportation and storage	0.033 (0.179)	0.045 (0.030)	-0.048 (0.061)
Major industry: Accommodation and food service	0.036 (0.187)	0.056 (0.029)	0.141* (0.061)
Major industry: Information and communication	0.006 (0.075)	0.041 (0.045)	-0.054 (0.093)
Major industry: Financial and insurance	0.053 (0.225)	-0.030 (0.028)	-0.127* (0.057)
Major industry: Real estate activities	0.044 (0.205)	0.024 (0.028)	0.112 (0.060)
Major industry: Professional, scientific, technical	0.070 (0.255)	0.002 (0.029)	-0.040 (0.059)
Major industry: Administrative and support service	0.105 (0.307)	0.059* (0.029)	0.142* (0.058)
Major industry: Public admin, defence, social security	0.121 (0.326)	0.000 (0.027)	0.057 (0.056)
Major industry: Education	0.017 (0.130)	-0.009 (0.034)	-0.015 (0.071)
Major industry: Human health and social work	0.016 (0.125)	0.045 (0.032)	-0.072 (0.064)
Major industry: Arts, entertainment, recreation	0.005 (0.072)	-0.072 (0.042)	0.015 (0.090)
Major industry: Activities of households	0.007 (0.085)	-0.024 (0.045)	0.122 (0.098)
Sample size	15,899	15,899	15,899

Notes: Column 1 reports means and standard deviations. Column 2 reports the marginal effect and robust standard error from a probit model; column 3 reports the coefficient and robust standard error from a regression. All models are estimated using ESS design weights. Columns 2 and 3 report the marginal effect and robust standard error from a probit model estimated using ESS design weights.

Statistically significant at the * 0.05 or ** 0.01 level.

Appendix Table 4:
European Social Survey Full Means and Marginal Effects Results (All Rounds)

	Mean	There are Union Members	
	(Std Dev)	in the Workplace	
	(1)	(2)	(3)
Respondent is a Trade Union Member (1=yes, 0=no)	0.305 (0.460)	Dependent Variable	
Disproportionality	5.884 (4.832)	-0.009** (0.000)	-0.002** (0.001)
Effective number of political parties	5.181 (1.626)	-0.022** (0.001)	-0.006** (0.002)
Coalition government	0.835 (0.371)	0.063** (0.004)	0.003 (0.005)
Ghent country	0.186 (0.389)	0.323** (0.003)	
Ideology of the ruling party or cabinet	5.493 (1.472)	-0.135** (0.006)	-0.027** (0.010)
Ideology of the ruling party or cabinet (squared)	32.335 (15.919)	0.013** (0.001)	0.003** (0.001)
Ideology of the legislative body weighted by seats	5.288 (0.523)	1.220** (0.050)	0.174** (0.052)
Ideology of the legislative body weighted by seats (squared)	28.231 (5.585)	-0.115** (0.005)	-0.017** (0.005)
Varieties of capitalism: LME	0.138 (0.345)	0.064** (0.006)	
Varieties of capitalism: LME-like	0.329 (0.470)	0.040** (0.006)	
Varieties of capitalism: CME	0.236 (0.425)	0.005 (0.006)	
Varieties of capitalism: Hybrid	0.223 (0.416)	0.060** (0.006)	
Citizen of country	0.951 (0.217)	0.049** (0.006)	0.059** (0.006)
Belong to minority ethnic group in country	0.053 (0.224)	-0.012* (0.005)	-0.004 (0.005)
Female gender	0.483 (0.500)	-0.010** (0.003)	-0.004 (0.002)
Children living in the home	0.498 (0.500)	0.004 (0.002)	0.002 (0.002)
Urban residence	0.214 (0.410)	-0.023** (0.003)	-0.012** (0.003)
Suburban residence	0.126 (0.331)	0.015** (0.004)	-0.002 (0.004)
Town or small city residence	0.308 (0.462)	0.004 (0.003)	0.012** (0.003)
Years of full-time education	13.587	0.003**	0.001**

completed	(3.640)	(0.000)	(0.000)
Age of respondent	42.235	0.016**	0.018**
	(11.908)	(0.001)	(0.001)
Age of respondent (squared)	1925.555	-0.000**	-0.000**
	(1026.963)	(0.000)	(0.000)
Responsible for supervising other employees	0.322	0.022**	0.015**
	(0.467)	(0.003)	(0.002)
Central or local government employer	0.293	-0.201**	-0.190**
	(0.455)	(0.004)	(0.004)
Other public sector employer	0.192	-0.128**	-0.117**
	(0.394)	(0.004)	(0.004)
State-owned enterprise employer	0.242	-0.087**	-0.076**
	(0.428)	(0.004)	(0.004)
Private employer	0.159	-0.053**	-0.048**
	(0.366)	(0.004)	(0.004)
Establishment size under 10	0.203	0.090**	0.085**
	(0.402)	(0.005)	(0.005)
Establishment size 10 to 24	0.166	0.083**	0.083**
	(0.372)	(0.005)	(0.005)
Establishment size 25 to 99	0.098	0.091**	0.082**
	(0.297)	(0.006)	(0.006)
Establishment size 100 to 499	0.161	0.093**	0.077**
	(0.368)	(0.005)	(0.005)
Major occupation: Legislators, senior officials, managers	0.018	0.094**	0.075**
	(0.134)	(0.013)	(0.013)
Major occupation: Professionals	0.119	0.124**	0.125**
	(0.323)	(0.006)	(0.006)
Major occupation: Technicians & associated professionals	0.076	0.125**	0.124**
	(0.265)	(0.006)	(0.006)
Major occupation: Clerks	0.071	0.074**	0.069**
	(0.257)	(0.006)	(0.006)
Major occupation: Service & shop & market sales	0.006	0.171**	0.129**
	(0.076)	(0.016)	(0.016)
Major occupation: Skilled agriculture and fish	0.165	0.029**	0.026**
	(0.371)	(0.010)	(0.010)
Major occupation: Craft and related trade	0.010	0.152**	0.146**
	(0.098)	(0.014)	(0.014)
Major occupation: Plant and machine operators	0.007	0.095**	0.089**
	(0.084)	(0.016)	(0.015)
Major occupation: Elementary occupations	0.071	0.021	0.006
	(0.257)	(0.011)	(0.011)
Major industry: Agriculture, forestry, fishing	0.126	-0.013	-0.025*
	(0.332)	(0.010)	(0.010)
Major industry: Mining and quarrying	0.061	0.099**	0.086**
	(0.239)	(0.011)	(0.011)
Major industry: Manufacturing	0.040	-0.015	-0.028*

	(0.195)	(0.012)	(0.012)
Major industry: Electricity, gas, steam, a/c supply	0.025 (0.157)	-0.023 (0.012)	-0.042** (0.012)
Major industry: Water supply; waste management	0.035 (0.184)	0.046** (0.011)	0.026* (0.011)
Major industry: Construction	0.008 (0.087)	-0.007 (0.018)	-0.014 (0.018)
Major industry: Wholesale/retail trade	0.059 (0.236)	0.004 (0.011)	-0.017 (0.011)
Major industry: Transportation and storage	0.022 (0.148)	0.031* (0.012)	0.014 (0.012)
Major industry: Accommodation and food service	0.066 (0.248)	0.151** (0.010)	0.135** (0.010)
Major industry: Information and communication	0.098 (0.297)	0.195** (0.010)	0.177** (0.010)
Major industry: Financial and insurance	0.118 (0.323)	0.143** (0.010)	0.120** (0.010)
Major industry: Real estate activities	0.019 (0.138)	0.052** (0.013)	0.038** (0.013)
Major industry: Professional, scientific, technical	0.023 (0.150)	-0.009 (0.013)	-0.008 (0.013)
Major industry: Administrative and support service	0.006 (0.080)	0.022 (0.018)	0.034* (0.017)
Major industry: Public admin, defence, social security	0.007 (0.086)	0.113** (0.015)	0.086** (0.015)
Year: 2002	0.077 (0.267)	0.032** (0.007)	0.064** (0.008)
Year: 2003	0.045 (0.208)	0.030** (0.008)	0.059** (0.009)
Year: 2004	0.088 (0.283)	0.004 (0.007)	0.049** (0.008)
Year: 2005	0.035 (0.184)	0.015 (0.009)	0.048** (0.009)
Year: 2006	0.091 (0.288)	-0.014* (0.007)	0.036** (0.008)
Year: 2007	0.033 (0.178)	-0.016 (0.009)	0.039** (0.009)
Year: 2008	0.079 (0.269)	-0.019* (0.007)	0.029** (0.008)
Year: 2009	0.057 (0.232)	-0.056** (0.008)	0.012 (0.009)
Year: 2010	0.063 (0.244)	-0.022** (0.007)	0.033** (0.008)
Year: 2011	0.064 (0.244)	-0.024** (0.008)	0.022** (0.008)
Year: 2012	0.075	-0.024**	0.019*

	(0.264)	(0.007)	(0.008)
Year: 2013	0.053	-0.038**	0.005
	(0.224)	(0.008)	(0.008)
Year: 2014	0.067	-0.006	0.027**
	(0.251)	(0.007)	(0.008)
Year: 2015	0.047	-0.032**	0.022**
	(0.213)	(0.008)	(0.008)
Year: 2016	0.080	-0.016*	0.017*
	(0.271)	(0.007)	(0.008)
Country: Belgium	0.043		0.137**
	(0.203)		(0.012)
Country: Bulgaria	0.018		-0.132**
	(0.134)		(0.011)
Country: Switzerland	0.048		-0.112**
	(0.214)		(0.008)
Country: Cyprus	0.012		0.073**
	(0.111)		(0.014)
Country: Czech Republic	0.044		-0.187**
	(0.204)		(0.010)
Country: Germany	0.071		-0.128**
	(0.256)		(0.007)
Country: Denmark	0.037		0.367**
	(0.189)		(0.008)
Country: Spain	0.038		-0.116**
	(0.191)		(0.009)
Country: Estonia	0.037		-0.192**
	(0.189)		(0.010)
Country: Finland	0.050		0.298**
	(0.219)		(0.007)
Country: France	0.045		-0.179**
	(0.207)		(0.015)
Country: United Kingdom	0.053		-0.040**
	(0.225)		(0.013)
Country: Greece	0.023		-0.056**
	(0.151)		(0.011)
Country: Croatia	0.006		0.029
	(0.075)		(0.015)
Country: Hungary	0.026		-0.193**
	(0.160)		(0.012)
Country: Ireland	0.046		0.044**
	(0.210)		(0.008)
Country: Iceland	0.005		0.489**
	(0.072)		(0.018)
Country: Israel	0.035		-0.001
	(0.184)		(0.010)
Country: Italy	0.014		-0.031*

	(0.120)		(0.015)
Country: Lithuania	0.023		-0.207**
	(0.148)		(0.015)
Country: Luxembourg	0.009		0.095**
	(0.093)		(0.013)
Country: Latvia	0.005		-0.098**
	(0.073)		(0.019)
Country: Netherlands	0.039		-0.055**
	(0.194)		(0.008)
Country: Norway	0.051		0.169**
	(0.219)		(0.008)
Country: Poland	0.037		-0.156**
	(0.189)		(0.009)
Country: Portugal	0.036		-0.154**
	(0.185)		(0.010)
Country: Romania	0.004		-0.017
	(0.060)		(0.018)
Country: Slovakia	0.023		-0.142**
	(0.151)		(0.011)
Country: Slovenia	0.022		-0.001
	(0.145)		(0.009)
Country: Sweden	0.050		0.274**
	(0.217)		(0.007)

Sample size	148,296	148,296	148,296
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Notes: Column 1 reports means and standard deviations. Columns 2 and 3 report the marginal effect and robust standard error from a probit model estimated using ESS design weights.

Statistically significant at the * 0.05 or ** 0.01 level.

Appendix Table 5: Adjusted R² Changes When Adding the Three Key Political Systems Measures Last

Dependent Variable	Regression Specification		
	All Controls except Columns (2) and (3) (1)	Adding Varieties of Capitalism Controls (2)	Adding Three Key Political Systems Measures (3)
European Company Survey			
Trade Union Representation in the Workplace, 2009	0.301	0.306 (0.005)	0.314 (0.008)
Trade Union Representation in the Workplace 2013	0.116	0.139 (0.023)	0.173 (0.034)
Collective Wage Agreement for at least Some Employees in the Workplace, 2009	0.128	0.223 (0.095)	0.276 (0.053)
Collective Wage Agreement for at least Some Employees in the Workplace, 2013	0.089	0.142 (0.053)	0.199 (0.057)
European Social Survey, Round 5			
Trade Union Members in the Workplace	0.167	0.182 (0.015)	0.198 (0.016)
Trade Union Influence in the Workplace	0.117	0.121 (0.004)	0.140 (0.019)
European Social Survey, Rounds 1-8			
Respondent is a Trade Union Member	0.255	0.259 (0.004)	0.271 (0.012)
Respondent is a Trade Union Member (with country fixed effects)	0.311	n/a	0.311 (0.000)

Notes: Each entry reports the adjusted R² value for the relevant regression implied by the dependent variable (row) and independent variables (column). The values in parentheses indicate the change in the adjusted R² value compared to the previous column.