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## The Power Resource Theory Revisited

### What Explains the Decline in Industrial Conflicts in Sweden?

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# The Power Resource Theory Revisited: What Explains the Decline in Industrial Conflicts in Sweden?\*

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## Abstract

This paper revisits the Power Resource Theory (PRT) by testing one of its more influential claims: the relation between the strength of the labor movement and the reduction of industrial conflicts. Using panel data techniques to analyze more than 2,000 strikes in 103 Swedish towns we test whether a shift in the balance of power towards Social Democratic rule was associated with fewer strikes. The focus is on the formative years between the first general election in 1919 and 1938, when Sweden went from a country of fierce labor conflicts to a state of industrial peace. We find that Social Democratic power reduced strikes, but only in towns where union presence was strong. We do not see any tangible concessions in terms of increased social spending by local governments after a left-wing victory as predicted by PRT. Instead the mechanism leading to fewer strikes appears to be related to corporatist explanations.

Key words: Power Resource Theory; industrial conflicts; strikes; labor markets; local politics

JEL Codes: N34; N44; H53; J51

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## 1 Introduction

Why are some societies characterized by internal conflicts and others by cooperation? This question has lured scholars for decades. With regard to labor relations, some have assumed that industrial conflicts would naturally “wither away” as industrialization would set societies on a common path towards the institutionalization of class conflict (Ross and Hartman, 1960), an influential alternative was formulated in the so-called Power Resource Theory (PRT) (Korpi and Shalev, 1979; Korpi, 1983, 2006).<sup>1</sup>

The PRT claims that social change is best explained by the relative access to power of capital and labor. In periods of powerful labor movements, the conflicts between capital and labor tend to shift from the labor market to politics, resulting in a lower incidence of strikes.<sup>2</sup> According to the PRT, the political power of the working class is determined by the electoral strength and unity of the parties of the left, together with their “closeness” to trade unions. The combination of strong unions and “a party that clearly dominates on the left and commands a sizable proportion of the electorate” will influence the balance of power in society and shift attention from the labor market to politics (Korpi and Shalev, 1979, p. 170).

The narrative of the Swedish case has been central to the early articulations of the PRT since the country is claimed to have made a transition from having “the highest measured ‘relative volume’ of industrial conflict in the western world” to a state of labor peace in the early twentieth century (Korpi and Shalev, 1979, p. 166). When discussing the pattern of Swedish industrial conflicts, Korpi observed an abrupt change in the mid-1930s, when it had become apparent that the Social Democrats would remain in power for a long time to come (Korpi, 1978, p. 117). Korpi argues that this shift meant that politics suddenly could offer solutions to labor-market related problems, as well as the basic question of the distribution of resources in society. Thus, with a socialist government, workers could secure a greater part of national income through welfare reforms, re-distributive taxes, and labor market policies. This involved a reduction in industrial conflicts as the conflict zone between capital and labor left the labor market and entered into the political arena. For employers, lockouts became less attractive after 1932, due to the risk of state interference. Korpi’s account has been challenged by Fulcher (1991), Thörnqvist (1994) and Hamark (2018), who point out that the aggregate strike frequency began to decline already in the 1920s, but remains influential in textbooks.

This paper revisits the empirical origins of the PRT by moving beyond national-level trends and summary statistics. By using a panel dataset covering 2,000 disputes in 103 towns to test for a relation between a left-

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<sup>1</sup>More generally, studies that stressed the links between politics and labor conflicts became influential in the 1970s (Hibbs, 1976; Shorter and Tilly, 1974).

<sup>2</sup>In more recent years, the PRT has often been contrasted with approaches that pay more attention to the role of employers and cross-class alliances. See Swenson (2002); Korpi (2006).

wing majority in the local government and the occurrence of strikes, we aim to shed new light on the effect of left-wing domination on the decline in industrial conflicts, as well as its driving mechanism. We collect data on the political affiliation of each town council chair to measure political influence, as well as more traditional measures, such as electoral power in terms of the share of seats held by left parties. The focus is on the period from the first general elections in 1919 to the famous Saltsjöbaden Agreement (a historical compromise between the Swedish Trade Union Confederation and the Swedish Employers Association) in 1938. During this period, Sweden went from being a country of fierce labor conflicts to a state of industrial peace. In addition, this period covers the first democratic elections with substantial variations in local political majorities.

A common assumption in much of the earlier literature on labor relations has been the sole importance of the national level, i.e., that societal development is primarily determined in parliaments and similar arenas.<sup>3</sup> This assumption is problematic since it neglects the potential significance of the local political level. Even though Swedish Social Democrats did not manage to form stable, lasting national governments until the 1930s, they managed to seize power in many municipalities much earlier. The focus on the national level may be a case of writing history backwards; that is, assuming that present-day conditions are valid for the past. Although the welfare reforms of the 1950s and 1960s focused on comprehensive social solutions at the national level, there were documented tensions between those Swedish Social Democrats who advocated “communal socialism” and those for “state socialism” in the early twentieth century (Ekström von Essen, 2003).

In addition, the local arena was traditionally the main thrust for poor relief and social welfare, a responsibility carried out by the church. Following industrialization and urbanization, more diverse needs arose, related to infrastructure and sanitation, involving a reform of local politics relating to public goods. The inter-war period, and the 1920s in particular, has been characterized as a phase of thrift (Östberg, 1996, pp. 112, 116). Yet, from the 1910s to the 1930s, the municipal sector (including county councils and some other activities) increased its share of GDP from about 5 to 8 percent (Wångmar, 2003). Pertaining to labor markets specifically, it has been shown that one increasingly important local political area was unemployment policy. While the national framework for how to help the unemployed was characterized by the aim of inducing employment (*arbetslinjen*) rather than resorting to cash handouts (Svensson, 2004, p. 216), local politicians could exert substantial influence on unemployment policies. In Västerås, one of the fastest growing Swedish towns of the period, the Social Democrats used “the local employment policy in order to

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<sup>3</sup>See Johansson (1989).

fight against Syndicalists and other left wing opponents.” Thus, local politics were much more forceful in terms of labor market and welfare policies than is commonly recognized. As suggested by Östberg (1996), local politics may have functioned as a meeting place for labor market parties.

By analyzing the proposed impacts and mechanism of PRT at the local level, our results show that Social Democratic power did indeed reduce industrial conflicts, but only in towns where unions had marked organizational strength. Union presence in itself was not enough to reduce local strike activity. Instead, we find a linear relation between membership in unions and strikes. This finding suggests that the Swedish labor movement, while strong enough to organize loud protests on the labor market, was not strong enough to influence local governments or shift the conflict strategy into the political realm, unless they had an accommodating Social Democratic partner in the local government.

We distinguish between two main mechanisms explaining how a shift in the balance of power to the Social Democrats reduced the number of strikes: (i) By offering expanded redistribution through increased public spending (a mechanism typically associated with the PRT); and (ii) Through personal ties between political and union leaders (more in line with corporatist theories).<sup>4</sup>

We do not find any increase in per capita spending with a shift in power to the Social Democrats in the three significant areas of primary education, health care, or poor relief. Testing for lagged effects up to four years does not reveal any relative change in spending patterns compared to towns that remained in the hands of the left, suggesting that there were no short-run effects on public spending on average. Thus, the lack of an immediate re-distributive response through increased public expenditures suggests that other mechanisms must have been at work. We argue that these patterns point to corporatist channels. In order to demonstrate the importance of the close ties between political and union leaders, we collected biographical information on the background of all the Social Democratic council chairs that appear in our dataset and for which we can obtain data. We find that 73 percent of those that made a political career in the Social Democratic party had a working class background. From these the vast majority (79 percent) were members of a trade union, many of which had held positions in it as local or regional leaders. We argue that the political promise inherent in a gain of power resources through putting a union leader in political power may have been enough to calm labor, even without tangible monetary concessions—at least in the immediate aftermath of a victory of the left.

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<sup>4</sup>In this paper we mainly discuss mechanisms connecting left-wing power and the behavior of trade unions, highlighted by the PRT. The balance of power may also influence the conflict strategies of the capitalists if capitalists become more willing to accept union demands in settings where left-wing politicians control politics. A limitation to this study is that we are only able to observe a decrease in the strike level, and not changes in the balance of power *per se*. Finding out whether a decrease in conflicts was due to employers or workers moderating their claims is unfortunately beyond the scope of this paper.



Our results offer a fresh perspective on how Sweden changed path from a high-conflict society to labor peace as well as insights for theories about the interplay between politics and labor conflicts more generally.

The rest of this paper is organized in the following way. We begin by describing the PRT in more detail in Section 2 followed by a discussion in Section 3 of the role of tangible concessions vs. corporatist channels in explaining the association between labor’s strength and strike activity. Some historical background ensues in Section 4. In Section 5 and 6 we present the data and empirical specification used in Section 7 to analyze the relationship between left political influence, union presence, and industrial conflicts. In Section 8 we expand on the mechanisms that could account for the muting influence of left political power on strikes that we uncover in the regression analysis. Finally, in Section 9 we run a counterfactual exercise examining the impact of the Social Democrats coming to power on industrial conflicts before concluding in Section 10.

## 2 The Power Resource Theory

The PRT does not spell out the precise functional form of the relation between the labor movement’s power resources and potential outcomes in any great detail. In the theory, unions and leftist parties both influence the relative power of labor by representing the working class in their respective areas. It is, however, likely that amassing resources in both these places will change, in a non-linear way, labor’s ability to affect policies and reach their goals. Korpi and Shalev (1979) argue, for example, that it was only after the Social Democratic party came to power nationally that the unions shifted their conflict strategy away from costly strikes and to the political arena. For this reason, the power resources in the hands of the labor movement must be considered individually as well as in the way they interact to create a stronger position for the labor movement. Similarly, Korpi and Shalev downplay the importance of institutional factors to explain the frequency of labor conflicts. Institutions are seen as “intervening variables, which are themselves dependent on the the power structure in society,” although “once in existence” they can “be of some importance” (Korpi and Shalev, 1979, pp. 170–171).<sup>5</sup> Another reference stating possible interactions between union strength and left-wing governance in more detail is Lange and Garrett (1985), who argue that unions make strategic choices under great uncertainties. For this reason, there is no universal guarantee that their sacrifices will translate into gains for their members. According to the authors, the most suitable instrument for the reduction of such risk is the government. By affecting the investment behavior of capital owners and the

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<sup>5</sup>This is of course in line with their theoretical point of departure, but they also base their conclusion on the abruptness of the fall in the frequency of strikes, claiming that institutions would have caused more gradual changes. However, Korpi and Shalev identify two types of variables that, along with the balance of power, can influence patterns of conflict: (1) the overall performance of the economy and (2) the international context. This essentially means that in good times and when facing an external threat, labor and capital are more likely to cooperate.

distribution of economic growth between social classes, politics can change the uncertainties faced by unions in shifting to an encompassing strategy. To persuade labor organizations, the presence of a government party on the left closely linked to the union movement is necessary. In essence, therefore, this perspective argues that there is an interaction between the strength of the labor movement and the presence of a leftist party in the government.

## 2.1 Union Strength

Although PRT is clearly focused on all the power resources available to workers and their potential synergies, there is a vast literature focusing on the relation between unionization and strikes by themselves. Social scientists have often studied strikes as a sign of the mobilization and organizational capacity of the workers. Arguing that at least a minimum of resources and organizational skills are needed to coordinate collective actions, such as strikes, there should be some relation between union density and the occurrence of strikes (Shorter and Tilly, 1974). The level of unionization is typically measured as union density (the number of members as a share of the labor force), whereas the main aspect related to the nature of unionization concerns whether organizations are defined on the basis of craft or industry.

However, whether this relation is one of a linear increase with union strength has been debated. In his influential theory, Mancur Olson described two types of strategies that interest groups can pursue to satisfy the material demands of their members. They can either follow a strategy of seeking collective gain, where they strive to increase the size of the economic pie while the relative share accruing to their membership remains constant, or they can attempt a strategy of redistribution, where instead they try to boost their share of the pie, disregarding the impact on larger societal developments (Olson, 1982). From Olson's perspective, the latter strategy, of increasing the share for their own membership, is the most likely, given that most organizations have little strategic interest in caring for the broader society. There is one exception to this rule, however. If an organization is big enough that it represents a large enough share of society, it would seek instead to increase general prosperity while being mostly content with their current share of the overall pie. According to Olson, any redistributive action taken by such an organization will ultimately hit back on their own members by reducing growth.

As this relates to organizations on the labor market, such an encompassing strategy would involve a more cooperative approach to industrial relations. For unions, this would mean a moderation in industrial conflicts and a lesser willingness to use strikes as a weapon to reach their goals. From this reasoning, it is easy to derive the exception of a hump-shaped relation between union density and the intensity of strikes:

In cases where the unions are very strong, they will strike less than in cases where they are less powerful. Economists have been especially influenced by this reasoning and tend to propose such an inverted U-shaped relation, arguing that there are moderating effects of centralization in wage bargaining models (Moene et al., 1992). A slightly different but related connection has been suggested by Ashenfelter and Johnson (1969), assuming that strikes are consequences of too high wage demands made by imperfectly informed workers, increasing the likelihood that wages are set based on more correct or objective information by introducing centralized wage negotiations should minimize the risk of conflict. This relation employs union density as a proxy for the level of centralization of wage bargaining, and while its moderating effects are considered to be a stylized fact by many economists, the empirical evidence is relatively slight. One exception is Tsebelis and Lange (1995), who suggest that strikes are most prevalent in countries with a moderate level of union strength because of the problem of incomplete information.

However, union density might be high without much centralized bargaining taking place at the national level.<sup>6</sup> In that case, economic theories have less to say about the relation. Instead, political scientists have suggested that the moderating mechanisms of union strength can be transmitted through the political arena.

A recent study by Lindvall (2013) has documented the existence of an inverted U-shape in the relation between union density and the likelihood of strikes.<sup>7</sup> According to Lindvall, there are three distinct theoretical reasons to expect such an inverted U-shape. When unions are weak, they do not possess the organizational capabilities necessary to organize effective political strikes. In the intermediate case, strikes become more frequent since it is harder for the unions and the government to reach a compromise. The reason is that the strength of the unions is not very secure and that it is harder for both parties to commit since there is uncertainty over the future strength of the unions. When unions are strong, however, they can credibly threaten the government into submission. Politicians respond by adjusting their policies, and there is less reason to actually go through with a costly strike. The moderating mechanism appears regardless of the ideological composition of the government, since any government will have incentives to seek some form of accommodation with the trade unions if the movement is very strong (Lindvall, 2013, p. 543).

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<sup>6</sup>This was to some extent the case in Sweden in the early 20th century. Today, the Swedish Model, as it has become known, is characterized by a high degree of centralization and coordination (Lundh, 2010). However, early unions were rather decentralized organizations with features of direct democracy, and it is likely that union strategies differed between localities. Although some first steps towards centralization were taken around 1900, the process was not completed until after World War II.

<sup>7</sup>His analysis is focused on political strikes in a sample of advanced democracies from 1980–2008, but his reasoning is of interest also for strikes more generally.

### 3 Tangible Concessions vs. Corporatist Channels

The mechanism governing the effect of a shift to left-wing power, present in the analysis of both Lindvall (2013) and Korpi and Shalev (1979), is that stronger unions can exert influence on politicians in order to receive tangible policy concessions. This is indeed the essence of the political exchange. Exactly what type of concessions the unions would demand is not clearly articulated in the PRT. Actually, the institutionalists Ross and Hartman are more explicit about this matter. After having established that “[t]hrough political action, labor is offered the opportunity to gain its objectives without sacrificing income,” they give the following concrete examples of what unions can hope for in the political exchange, namely “tax policy, public spending, economic planning, and social welfare legislation” (Ross and Hartman, 1960, p. 58). Swenson (2002) dismisses the idea of a political exchange by referring to the fact that the most important welfare reforms in Sweden came after World War II: one or two decades after the fall in the frequency of strikes. However, Swenson is referring to welfare reforms at the national level. In this paper, we test whether union presence is empirically linked to changes in public expenditures at the local level.

The political exchange mechanism is not the only possible link between left-wing power and labor conflicts. Growing left-wing power may also have meant that the interaction between the representatives of labor and capital increased. Representatives of the labor movement were allowed to enter contexts that had previously been exclusively bourgeois domains, such as town councils and related boards. As suggested by Rothstein (2005), increased interaction can lead to higher levels of trust, which in turn allows solving conflicts by negotiation. Left-wing governments might persuade unions to strike less in order to create a perception of calm and to minimize the effect on third parties.<sup>8</sup> There may be close personal connections between union leaders and left-wing politicians. Individual union members or officials may, for example, also hold seats in the chambers of power and be less eager to strike, since union action affecting third parties will also reflect poorly on the sitting government.

Moreover, as pointed out by Ross and Hartman (1960), leaders of labor parties generally have a need to attract middle-class voters, these voters are discouraged by strikes, and leaders of labor parties may influence the leaders and members of the trade unions. Hibbs (1976) argues that the incentives of labor party leaders to attract middle-class voters are particularly strong when electoral victory is close but not obvious. Many decisions at the local level in Sweden required qualified majorities. This may have pushed the local political branch of the labor movement towards reformism and away from labor militancy.

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<sup>8</sup>It may likewise be the case that right-wing governments increase the level of local conflict.

## 4 The Formative Years of the Early 20th Century

With the reform of universal suffrage for Swedish men and women in 1919, voting rights were extended to cover 54 percent of the population. As elsewhere, the extension of voting rights was followed by a period of political instability. During the 1920s, no government remained in power for the full term. The close links between labor conflicts and politics, particularly with regard to the Social Democratic Party, are notable. An employer lockout in the building industry in 1920 hindered the first Social Democratic government, lead by Hjalmar Branting, from implementing an ambitious housing reform (Åmark, 1994). Branting's efforts to bring the conflict to an end before the elections in the autumn of 1920 failed and he had to leave power. The second Social Democratic government resigned in 1923 after having failed to secure support for its demand to make workers involved in a conflict eligible for unemployment support. In 1926, a conflict involving mining workers contributed to the end of the Social Democrats' third government. In 1933, a strike on the part of building workers put another Social Democratic government in difficulties, blocking political measures to counteract the current economic crisis (Åmark, 1994). This time, the government not only offered mediation but also threatened legislation to accomplish a settlement, which is eventually what happened. This example also shows that labor peace was essential for the political wing of the labor movement, at least at the national level. It is very likely that the same applied to local politics, as suggested by Östberg (1996, pp. 157–163).

As previously noted, Sweden experienced a relatively high number of industrial conflicts in the 1920s. Table 1 highlights this fact by showing the number of disputes per million inhabitants in some western countries, including Sweden, for four periods between 1919 and 1938. Although international comparisons of strike activity are difficult (Lyddon, 2007), the high rate of conflict in Sweden at the beginning of this period is remarkable. Between 1919 and 1924, there were as many as 60 strikes per million people in Sweden, the highest rate of any country in the comparison. In light of this, the decline over the following period is striking. Between 1935 and 1938, there were only 12 strikes per million people, a drop by 80 percent compared to 1919–1924. Denmark is the only country with a more significant decline, and in the Danish case, 1919 and 1920 appear as clear outliers, with many more strikes than in other years. While the number of industrial conflicts dropped significantly in Sweden, Denmark, and the Netherlands, declining strike activity was not a general experience. In contrast, strike levels increased over time in Norway, the US, and France.

The early 20th century was a formative period in several other important aspects. Sweden stood outside of World War I and managed to evade revolutionary change with a peaceful transition to universal suffrage in 1919. As the postwar boom came to an end, Sweden was hit by the deflationary impulses emanating from the United States, pushing the economy into a deep recession that peaked in 1921 with GDP dropping by

**Table 1:** Number of Strikes per Million Inhabitants in Sweden Compared to a Number of Western Countries, 1919–1938

Period	Sweden	Nordic			Anglo-Saxon		Continental Europe			Total
		Denmark	Norway	Finland	UK	US	Netherlands	France	Germany	
1919–24	60	51	16	21	21	21	55	30	56	37
1925–29	33	8	31	17	9	8	30	25	12	19
1930–34	29	7	31	4	9	9	24	12	8	15
1935–38	12	5	62	8	18	23	14	127		34

*Note:* The table shows the number of industrial conflicts per one million inhabitants in Sweden and in eight other western countries between 1919 and 1938.

*Source:* The source for the number of strikes is Shorter and Tilly (1974) and for population Bolt et al. (2017).

as much as 8 percent. With the eight-hour day, introduced in 1920, unions also managed to retain weekly nominal wages. Together with rapid deflation, hourly wages increased unprecedentedly for workers outside agriculture (Bengtsson and Molinder, 2017). While the economy recovered towards the end of the 1920s, unemployment remained high for the remainder of the decade.<sup>9</sup>

Both labor and capital were well organized. Local trade unions, often under the auspices of the Social Democratic Party, had in many cases been in place since the late nineteenth century, had achieved a relatively high level of density, and built up national federations based on crafts, or, increasingly often, industry. While the labor movement suffered a major defeat during the general strike in 1909 (*Storstrejken*) and lost many of its members, it would soon regain its position. In contrast to many other industrialized countries, membership expanded rapidly during the inter-war period, and by 1938 union membership as a share of the labor force stood at 51%, the highest level of all countries with comparable data (Donado et al., 2012; Bain and Price, 1980; Visser, 1989; Freeman, 1998). Partly in response to workers’ collective action, employers formed their own organizations, which were more centralized than the trade unions. The employers’ organizations also pushed for collective agreements on a national level, which contributed to a centralization of power also within the trade unions. Still, throughout the inter-war period, the bulk of all conflicts in the Swedish labor market had a local nature. Large, nation-wide lockouts appeared, but were few in relation to the total number of conflicts.<sup>10</sup> The same was true for collective agreements, which remained mostly local in nature throughout the period.

Along with a high level of union density, the Swedish labor movement was characterized by a fairly homogeneous composition. It was, for example, not divided according to religion or ethnicity. Neither

<sup>9</sup>This period was also marked by unrest in the labor market. Politically, these two issues—unemployment and labor conflict—were intertwined since the National Unemployment Commission could direct the unemployed to work sites that were affected by conflicts Unga (1976). Otherwise, there was relatively little direct state involvement in labor market issues. State-sponsored mediation, introduced in 1907 (Enflo and Karlsson, 2018), and a labor court, established in 1929, are two exceptions.

<sup>10</sup>Our dataset only includes the industrial conflicts that were defined as “strikes.” They were the vast majority of the industrial conflicts at that time.

were there any strong competing trade unions with conservative values. However, there were challenges from the left (Korpi, 1978; Horgby, 2012). Syndicalists were successful in forming their own unions for some years, particularly after the general strike in 1909. In 1919, the Social Democratic Party was split into reformist and radical parties, respectively, following the establishment of the Third International. The radicals (communists) continued to be active within the trade unions and could in some periods influence union policies. In the 1928 elections, the Right Party (*Högerpartiet*) successfully connected an historical antipathy to Russia and the growing strength of the communists within the labor movement (Schullerqvist, 1992). According to Åmark (1994, pp. 146–147), this election made it clear to the reformists that links to communists could reduce electoral support. In the years 1928 to the mid-1930s there followed an internal battle between reformists and radicals in trade unions, where the former eventually reinforced their position.<sup>11</sup>

#### 4.1 Municipal Politics and the Supply of Politicians

Due to a change in the Local Government Act in 1918, all towns were required to have a town council with representative democracy (*stadsfullmäktige*).<sup>12</sup> The personal orientation of local politics diminished with the coming of proportional elections in 1909 (Högberg, 1981). A couple of years thereafter, in 1911, the Social Democrats articulated their first political program for the local level, which set up the aim of “communal socialism” (*kommunsocialism*), including demands for the socialization of local firms, progressive taxation, and public housing (Ekström von Essen, 2003). However, local democracy was restricted by the Municipal Act (*Kommunallagen*) of 1862. This legislation, which was in effect throughout our period of investigation, stipulated two-thirds majorities for the “approval of grants for new purposes or needs”<sup>13</sup> and for acquisitions of land that was not already part of an already existing town plan (Norrlid, 1983). Thus, coalition building became a central feature of local politics. Billing et al. (1992) notes that the Swedish Municipal Act “fettered” Social Democrats to “a relatively cautious reform work” in the 1920s.

Another aspect that may have shaped the nature of local politics was the supply of politicians. As noted by Östberg (1996, pp. 18–19, 129), early generations of Social Democratic politicians had often been fostered in the temperance movement, which typically was led by liberals, and were more often pragmatic than radical. There was an established view that local politics primarily should be governed by skill and expertise

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<sup>11</sup>The communists were strongest in the counties of Gävleborg, Kopparberg, Norrbotten, Värmland and Västernorrland, and in the towns of Stockholm and Gothenburg. Among the unions, the Paper Workers’ Union and the Forestry and Floating Workers’ Union were notable for a significant communist influence (see Horgby, 2012, p. 43). However, neither of these unions were particularly strong in towns.

<sup>12</sup>Rural communes with less than 1,500 inhabitants could voluntarily decide between direct and representative democracy. By 1938 the limit was set to 700 inhabitants and by 1952 all local governments in Sweden have adhered to the system of representative democracy. However, up to 1919, direct democracy still remained the rule.

<sup>13</sup>In Swedish, “*beviljande av anslag till nya ändamål och behov.*”

rather than party affiliation. After 1919, the Social Democrats sometimes allowed liberal and right-wing politicians to remain in important positions even though the election outcome spoke otherwise (Svensson, 2004, pp. 82–85). It should also be pointed out that local commissions of trust were unpaid and hardly possible to combine with industrial wage work. These facts suggest a slight revision of the PRT: political power resources not only include electoral strength and unity, but also a supply of political leaders.

To follow up on the idea that the supply of politicians mattered, we do not rely on electoral strength by itself as our only indicator of political power. Indeed, we use the affiliation of the chair of the town council as an explanatory variable, while we also use the more traditional measure of the share of mandate to left parties as well. Being chairman was to some extent an honorary task.<sup>14</sup> The chairman had a representative and moderating function and was, for example, not expected to participate directly in debates (Åberg, 1998, p. 99). As noted above, the town chair was not necessarily a member of a majority party (or party coalition). Thus, the presence of a Social Democratic chairman means that the party had strong electoral support and that the party had candidates who were experienced and enjoyed a certain degree of recognition across party lines. Fig. 1 uses this indicator to illustrate the shift of power over time in Swedish town councils. As seen in the figure, the introduction of universal suffrage did not lead to an immediate change in the balance of power. In 1919, only 15 percent of the positions as town council chair were held by a Social Democrat; the same number of towns were controlled by liberals. The dominant political force was still the Right Party, holding as many as 70 percent of all positions as council leader. This was subject to change over the following 19 years, however. During the 1920s and 1930s, the Social Democratic Party slowly gained power in a larger number of towns, which came almost completely at the cost of the Right Party. While the share of towns with liberal leaders would remain flat, between 10 and 15 percent, by 1938 the Social Democrats had attained power in 46 percent of the towns while the share of the Right Party was now down to 43 percent.

## 5 Data

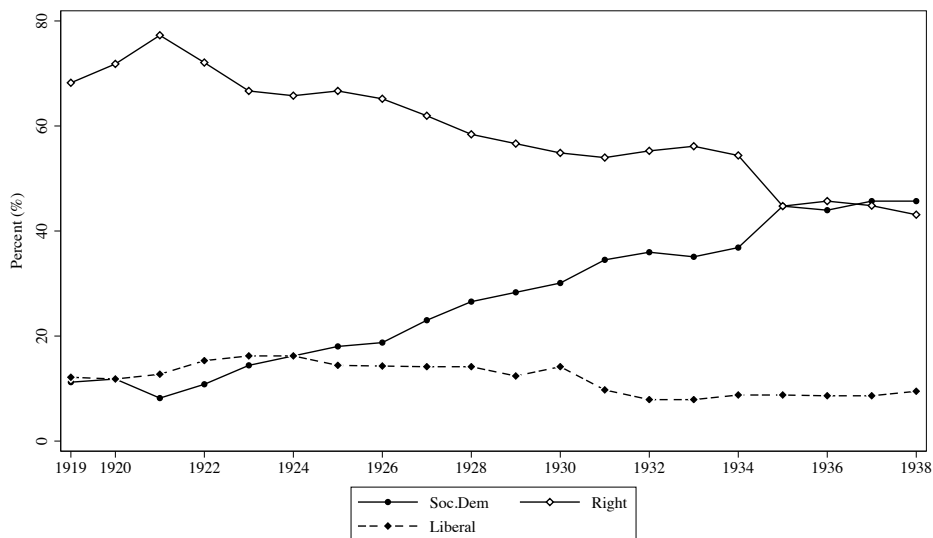
We have collected data on strikes from official sources. (*Statistics Sweden: Arbetsstatistik. E, Arbetsinställelser i Sverige, 1919–1927*). For the years 1919–1927, information on each individual conflict was published in the official reports.<sup>15</sup> After 1927, data by conflict ceased to be available in the published official reports. Therefore, we have collected information about the remaining strikes, those of 1927–1938, from the original

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<sup>14</sup>In terms of direct political influence, the chairman of the local Finance Department (*drätselkammaren*) was the most important local commission of trust.

<sup>15</sup>See Enflo and Karlsson (2018) for a full description of the data until 1927. For more detailed information about the distribution of strikes by sector and locality, the reader is referred to table A1 in the Appendix.



**Figure 1:** Share of Town Council Chairs by Party, 1919–1938

*Note:* Share of towns with Social Democratic, liberal, and Right Party municipal council chairs over the 1919–1938 period.  
*Source:* The Journal of the Association of Swedish Towns (*Svenska stadsförbundets tidskrift*).

questionnaires collected by the Ministry of Health and Welfare underlying the official statistics (*Socialstyrelsen*) and stored at the National Archives (*Riksarkivet*) in Stockholm (Förlikningsmannarexpeditionen, 1917–1976, series E5: 96–127).

The dataset we use in this paper is restricted to strikes that took place in towns. This is due to data limitations in terms of the political variables. Since the party system and representative democracy was less developed in rural parishes, there is a lack of data on political majorities outside the defined towns.<sup>16</sup> Yet the towns holding administrative charters constitute a suitable laboratory to test the PRT on a local scale. The towns had a clear political administration and their boundaries and sizes are coherent enough to represent historical local labor markets. By 1919, there were 103 towns holding administrative town charters.<sup>17</sup> The locations of the towns are displayed in the map in Fig. 3, with the size of each point being proportional to the population in 1919.<sup>18</sup>

Fig. 2 plots the total number of strikes divided between towns and the countryside over the period from 1919 to 1938. Since only about 30 percent of the population lived in what was defined as a town, the figure

<sup>16</sup>The official statistics do not report electoral outcome data (share of seats and names and party affiliations of town council chairs) at the rural level until 1938.

<sup>17</sup>The number increased over time, but in order to create a balanced panel we restrict attention to those that existed in 1919.

<sup>18</sup>The dataset of municipal council chairs in Swedish towns is similar to the data compiled on the ideology of heads of government for states in the Western World, but without many of the methodological issues concerning comparability between nations (Brambor and Lindvall, 2017).

**Figure 2:** Number of Strikes in Towns and in the Countryside, 1919–1938

*Note:* Number of strikes in Towns and in the countryside, 1919–1938.

*Source:* Enflo and Karlsson (2018).

highlights a disproportionate skew towards towns in strike activity. However, the secular decline in the number of strikes is clearly visible in the towns and the country-side alike.<sup>19</sup> The location of the towns is displayed in the map in Fig. 3 with the size of the points proportional to population in 1919.<sup>20</sup>

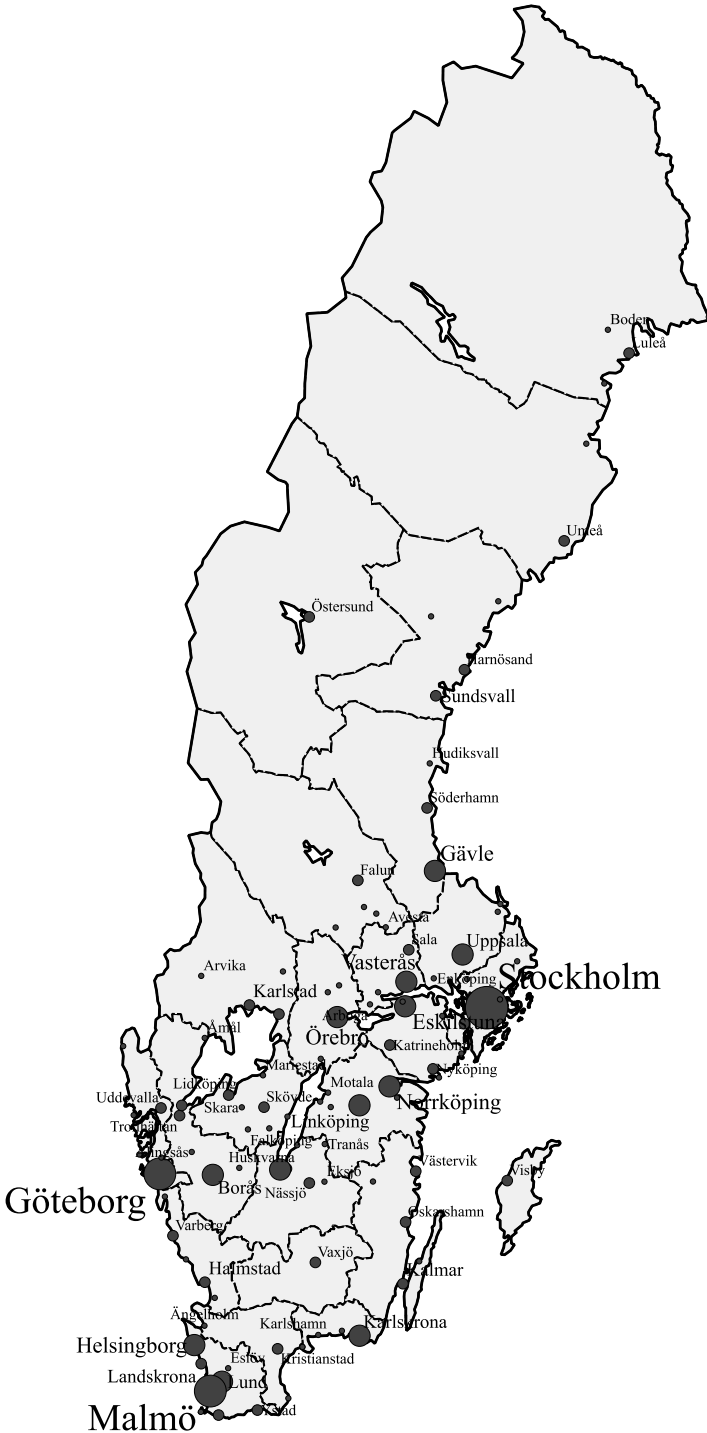
To measure the shift to left-wing political dominance in local governments, we collected data on the names and political affiliations of the municipal council chairs for every year in all 103 towns from the *Journal of the Association of Swedish Towns* (*Svenska stadsförbundets tidskrift*). From this data source we have been able to trace the names and individual careers of the town chairmen. For our period of study, we have identified 69 Social Democratic chairmen. We will look into their individual careers and background in more detail in Section 8 of this paper. As a robustness check for our measure of political influence, we also collected data on the distribution of the number of seats held by political parties in the town councils. The data builds on the Official Statistics (SOS Kommunala val 1919–1966) and were collected by Nilsson (1992).

In addition to the data on the number of strikes and the political affiliations of the municipal chairmen, we use information on the size of the population and membership in trade unions. Data on the number

<sup>19</sup>In 1919, there were 251 registered strikes in towns and the corresponding figure for rural places was 199. By 1938 the number had fallen to 20 and 13 respectively. While the pattern over time is broadly similar for the two groups, there are some deviations in certain episodes. During the the international economic crises of the early 1930s, for example, there was an upsurge in strike activity in towns that was not mirrored on the countryside.

<sup>20</sup>The dataset of municipal council chairs in Swedish towns is similar to compiled data on the ideology of heads of government for states in the Western World, but without many of the methodological issues concerning comparability across nations (Brambor and Lindvall, 2017).

**Figure 3:** Map of Swedish Towns in 1919



*Note:* The map gives the locations of all towns holding town charters in 1919. The diameter of each point is proportional to the population.

of inhabitants comes from Nilsson (1992) providing data for five-year benchmarks. We interpolate the population between those years. Information on union membership has been collected from The Social Movement Archive (Andrae and Lundqvist, 1998). We divided union membership by population to arrive at our measure of union strength. For this reason, our variable is better described as a measure of local *union presence* rather than *union density*. While union density measures the degree of organization among the population that could possibly join a union, viz., those in the labor force, we are interested in measuring the footprint of unions in the local community in a broader sense. For the remainder of our paper, we will define this variable as union presence in order to avoid confusion with the more conventional measures of union strength.<sup>21</sup>

In the discussion of possible mechanisms that could account for our results, we will also use data on public spending and information on the background of Social Democratic politicians. These data sources will be explained in more detail in Section 8.

## 6 Empirical Specification

In Section 2 we spelled out the important determinants of strikes, distinguishing between three main channels: union strength, the power of the left, and the interaction between the two. To empirically gauge the influence of these channels, we estimate the following regression specification:

$$strike\ dens_{i,t} = \alpha + \beta\ union\ pres_{i,t} + \gamma\ chair_{i,t} + \delta\ (union\ pres * chair)_{i,t} + \mu_i + \lambda_t + \epsilon_{i,t}, \quad (1)$$

where  $strike\ dens_{i,t}$  is defined as the logarithm of  $(1 + strikes/population)$  in town  $i$  in year  $t$ , union presence is defined as  $(union\ membership/population)$ , and  $chair$  is a set of dummies taking on the value 1 depending on the political affiliation of the town council chair and 0 otherwise. We distinguish between the categories Social Democrat, Liberal and non-political/wild. A town council chair belonging to the Right Party is the omitted baseline category. We also include a dummy indicating whether the chair was vacant, which is true in three town-year pairs. In terms of the explanatory variables, we are interested in the coefficients  $\beta$ ,  $\gamma$  and

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<sup>21</sup>We do not have access to data on the labor force by town for this period. Although we admit that our measure of union strength could be driven by differences in the local economic and social structures, we argue that union presence might indeed be the relevant measure in our case. In addition, we will always include town- and year-fixed effects to effectively control for any variation in the age structure as well as other social and economic factors that might vary from town to town. To influence our results, the economic and social structure therefore needs to have divergent trends depending on the town, which is unlikely. As a further robustness check, we will also control for sectoral shares in employment, which should pick up any sector-specific influences.

$\delta$ .  $\beta$  measures the influence of union presence,  $\gamma$  whether the town council chair was a Social Democrat, and  $\delta$  the interaction of these two effects.

To ensure that our results are not driven by the way we have specified political influence, we also use an alternative measure of the power of the left, namely the share of seats held by left-wing parties in the town council. The regression then takes the following form:

$$\text{strike dens.}_{i,t} = \alpha + \beta \text{union pres.}_{i,t} + \gamma \text{lshare}_{i,t} + \delta (\text{union pres.} * \text{lshare})_{i,t} + \mu_i + \lambda_t + \epsilon_{i,t}, \quad (2)$$

where *lshare* is defined as (*left seats/total seats*). Thus, in contrast to the specification in Equation (1), the left-share variable is a continuous measure of the share of seats, which ranges from a minimum of 0 to a maximum of 85 and has a mean of 43. For this reason, the variable indicates the power held by the left in a less discontinuous way than the council chair variable, which only takes the value of 0 or 1. In this way the two variables are complementary. While the council chair indicator measures successful coalition building by the Social Democrats, the left-share variable provides information on the political leverage of the left as a whole in the town.

There are naturally many omitted and unobserved variables that jointly determine the power of the left and strike behavior in any specific location (i.e., industrial structure, historical power relations, local culture, etc.).<sup>22</sup> To better identify the effect of a changing power relation on strike propensity, the town fixed effects  $\mu_i$  ensure that variation in the model is restricted to towns that actually experience a change in power, while holding all other non-varying town-specific effects constant. A full set of time dummies,  $\lambda_t$ , control for all common time trends present each year in all towns. The specification in Equation 1, using a dummy indicating the political affiliation of the council chair, is analogous to a difference-in-difference specification, as outlined by Angrist and Pischke (2008). Thus we are estimating the effect of a switch to being within the “treatment group” (towns that change to a Social Democratic majority within the period) compared to the “control group” (towns that remain with other majorities).<sup>23</sup>

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<sup>22</sup>For analyses of the importance of industrial structure, business cycle, regional characteristics and other variables on Swedish labor conflicts, see Mikkelsen (1992).

<sup>23</sup>To credibly identify the effect of the interaction between union presence and the political influence of the left, there has to be enough variation in our data along these two dimensions. That is, in addition to places in which unions were strong, and the town came to be ruled by the Social Democrats, there must also be towns where unions were powerful but never went into the hands of the left. A few specific cases can be mentioned. In the group where union density was high, and there was a shift in political power, we find places such as Södertälje, Ronneby, and Arvika. In the case of Södertälje, union membership as a share of the population was above 20 percent over the whole of the period, and the town came into the hands of the Social Democrats relatively early, in 1923, and remained to the left for the subsequent years. In the case of Arvika and Ronneby, union presence was at similar levels to Södertälje, but the political shift came a bit later, in 1931 and 1935 respectively. Perhaps the most interesting set of towns are those where unions were strong but no political shift away from the Right Party took place.

In our case, the time-fixed effects also hold valuable information on factors possibly explaining the decline in strikes over time. While  $\beta$ ,  $\gamma$  and  $\delta$  inform us of the role of local power resources, the time dummies will absorb those factors common to all towns, including the effects of the business cycle and national politics. Taking note of the information contained in these fixed effects allows us to provide a fuller account of Sweden’s transition to labor peace. We will investigate the pattern revealed by the time effects in Section 8.

## 7 Results

### 7.1 Main Specification

Table 2 gives the regression results. Our main specification is shown in column 1, while columns 2–4 provide the results for the robustness checks. The upper panel provides the results for the first specification given in Equation 1 with the party affiliation of the council chair as our measure of political influence. The lower panel shows the corresponding results from the specification in Equation 2 using the left’s share of council seats as an alternative indicator.

Considering first the estimates in column 1 in the upper panel, the coefficient of “Union presence” suggests that when the municipal council chair belongs to the Right Party, an increase in union presence from 0 to 100 percent is associated with an increase in the strike rate of 33 percent per year. This is a sizable effect, since over the period from 1919 to 1938, the median town experienced an increase in union strength of 10 percentage points, which would imply an increase in the strike rate by 3.3 percent per year.

The results under the heading “Chairs” give the estimated impact of a shift in power from a Right Party chairman to one who is either a Social Democrat, a liberal, or non-political/wild, respectively. As a consequence of the interaction with union presence, the coefficients for the political affiliation of council chairs should be interpreted as the estimated effect in the theoretical case where the union presence is zero. As the results in column 1 show, shifts in power did not have any such independent effects. For example, the estimated impact of a change from the Right Party to the Social Democrats is not statistically significantly different from zero at the 10 percent level.

Under the heading of “Interactions,” the main test of our theory appears. As seen in the point estimate, the interaction of union presence with a move from a Right Party council chair to a Social Democratic one

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With the fixed effects model we employ, these towns effectively work as the counterfactual to the towns with strong unions and a political move to the left. Here we find places such as Sundsvall, Nora, and Skellefteå. In all these cases, union presence approached 30 percent of the population but political power remained in the hands of the Right Party throughout the inter-war period. There are, not surprisingly, many cases in which union strength was low and where the Right Party remained in power. They include towns like Skara, Strängnäs, and Söderköping. In Simrishamn, on the other hand, union strength was low but the polity shifted to the Social Democrats during our period.

**Table 2:** Regression Results

<i>Independent variable: Party affiliation of council chair</i>				
<i>Dependent variable</i>	(1)	(2)	(3)	(4)
	log(1+ strikes/pop)	log(1+ strikes)	Strikes	log(1+ strikes/pop)
	<i>Main</i>	<i>Absolute</i>	<i>Negative binominal</i>	<i>Sector controls</i>
Union density	0.331*** (0.079)	1.356*** (0.333)	4.848*** (1.024)	0.321*** (0.082)
<b>Chairs:</b>				
Soc.Dem	0.023 (0.017)	0.066 (0.073)	-0.010 (0.258)	0.023 (0.018)
Liberal	-0.009 (0.018)	-0.069 (0.076)	-0.020 (0.331)	-0.009 (0.018)
Non Political/Wild	-0.049 (0.039)	-0.158 (0.162)	-0.571 (0.994)	-0.038 (0.040)
<b>Interactions:</b>				
Union presence*Soc.Dem	-0.202** (0.086)	-0.899** (0.359)	-0.775 (1.349)	-0.188** (0.087)
Union presence*Liberal	0.009 (0.141)	0.533 (0.587)	0.073 (2.310)	0.013 (0.142)
Union presence*Non Political/Wild	0.018 (0.356)	-0.663 (1.481)	2.365 (5.818)	0.001 (0.357)
<b>Control:</b>				
Log(population)		0.125 (0.129)	2.029*** (0.487)	
Cross-section FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Sector controls	No	No	No	Yes
Observations	2038	2038	2038	2010
Nr of towns	103	103	103	102

<i>Independent variable: Left share of council seats</i>				
<i>Dependent variable</i>	(1)	(2)	(3)	(4)
	log(1+ strikes/pop)	log(1+ strikes)	Strikes	log(1+ strikes/pop)
	<i>Main</i>	<i>Absolute</i>	<i>Negative binominal</i>	<i>Sector controls</i>
Union density	0.864*** (0.146)	4.881*** (0.602)	14.830*** (2.335)	0.854*** (0.149)
Left share	0.188*** (0.058)	1.338*** (0.240)	3.284*** (0.835)	0.183*** (0.059)
<b>Interaction:</b>				
Union presence*Left share	-1.253*** (0.259)	-8.147*** (1.068)	-21.365*** (4.569)	-1.237*** (0.263)
<b>Control:</b>				
Log(population)		0.193 (0.125)	1.899*** (0.491)	
Cross-section FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Sector controls	No	No	No	Yes
Observations	2042	2042	2042	2014
Nr of towns	103	103	103	102

*Note:* The "Vacant" category is omitted from the table. Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

is significantly different from zero at the 5 percent level and the effect is large and negative, underscoring the importance of considering how a shift in local political power varied in cases with high and low levels of union presence. However, we only observe an effect in terms of a Social Democratic town chair's coming to power. In the case of a liberal, there is no discernible effect. This difference between the parties is not simply driven by the larger standard errors, as the estimated effect of a liberal chair is positive, not negative, and very small. Since our main result refers to an interaction effect, which is difficult to gauge from a regression table, we provide a plot of the effect of a shift from a Right Party to a Social Democrat at different levels of union presence in Fig. 4. The figure highlights the following: at very low levels of union presence, local political power does not influence the propensity to strike. However, as we move to contexts where union presence exceeds 20 percent, shifting to a Social Democrat mitigates some of the increase in strike activity associated with union power. For example, in a case where union presence is 30 percent, a turnover would lead to a decrease in strike activity by 3.7 percent per year.

Turning to the results of the main specification for the alternative model measuring the left's share of council seats, given in column 1 of the lower panel of Table 2, we find that all coefficients remain with similar signs as in the upper panel. In this specification, we additionally find that union presence, the share of seats held by the left and the interaction between union presence and the left's share are all estimated with statistical significance at the 1 percent level. Since the political indicator is continuous rather than binary, it is difficult to directly compare the point estimates of the lower panel with those of the upper panel. However, the results suggest that in the theoretical case that the left's share is zero percent, an increase in union presence from 0 to 100 percent would be associated with an increase in the strike rate of 86 percent per year. The median town experienced a 10 percentage point increase in union presence, which in this case would imply an increase in the strike rate of 8.6 percent per year. Correspondingly, an increase in the left's share from 40 to 60 percent in a case where union density is 30 percent, would be associated with a decrease in the strike rate of 3.7 percent per year.

## 7.2 Controls and Robustness Checks

One worry about our main baseline specification could be that we divide the number of strikes in each town-year by the town's population. By doing this, we take into account the fact that towns with larger populations are more likely to experience strikes in a particular year. However, by expressing the independent variable in this way, we also implicitly put a higher weight on strikes in smaller towns, since going from, for example, zero to one strike in a year will mean a larger percentage change in a town with fewer inhabitants.



To consider how our results might be affected by normalizing the independent variable, we also estimate an alternative model using the log of the number of strikes in a town–year while controlling for the size of the population, by including it as an independent variable instead. The results from this alternative specification can be found in column 2 of Table 2. Reassuringly, all the estimated effects retain similar signs and actually become larger in magnitude.

Another issue might result from using a linear model to estimate the determinants of strike activity when our dependent variable contains many zeros. To take this into consideration, we additionally consider an alternative model using negative binomial regression with the number of strikes as the dependent variable, while once again controlling for the size of the population by including it as an independent variable. The results are found in column 3 and as shown, they do not change the qualitative interpretation of our results.

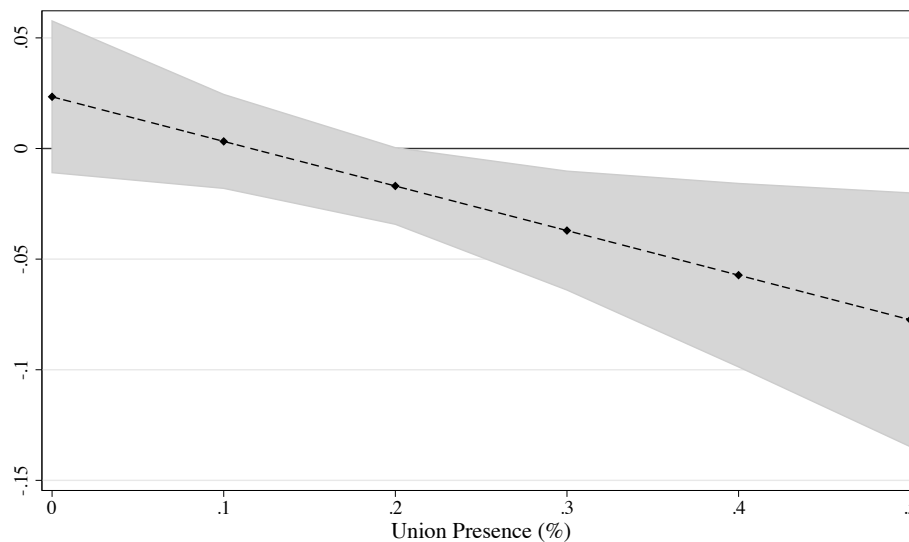
As a final robustness check, we estimate a model controlling for sectoral shares of employment in each town–year. The results appear in column 4 of Table 2 and address the worry that the result in our baseline specification is driven by changes in the local industrial structure. Since we only use variation within towns over time, all structural changes common to all towns, as well as differences between them, are picked up by the fixed effects. However, there might still be trends in structural change for some towns towards industries where union presence is higher or where workers are less or more likely to strike. To take into account this possibility, we control for the industrial structure by entering the shares of employment in agriculture, manufacturing, trade and commerce, and services, as independent variables. None of the variables measuring sectoral shares are significant at the 10 percent level. There are likewise only minor changes to the point estimates for union presence and the interaction between union membership and a Social Democratic municipal council chair.

## 8 Mechanisms

### 8.1 Tangible Concessions

So far, we have shown that in towns with high union presence, a shift in political power from the right to the left mitigated the increase in strike intensity associated with strong unions. This result is in line with Korpi and Shalev (1979), who argue that the labor movement gains new power resources and shifts its conflict strategy into the political arena in response to such a shift; that is to say, a political exchange takes place. For such an exchange to take place, some tangible concession in the form of social spending is likely.

To test if this mechanism can account for the pattern uncovered in the previous section, we have collected

**Figure 4:** Marginal Effect of a Social Democratic Chair at Different Levels of Union Presence

*Note:* Marginal effect of shifting from a Right Party municipal chairman to a Social Democratic one as predicted using the regression results presented in Table 2.

data on per capita public spending on primary schooling, health care, and poor relief for each town. These budget items pertain to areas of public spending with different potential interest coalitions. While primary schooling and health care was to the benefit of large segments of the population, poor relief was more directly targeted to the poor. In the case of health care and poor relief, they are also the types of spending items often invoked in the Power Resource literature (Kwon and Pontusson, 2010; Swank, 2002). The items we examine accounted for a large share of total spending by municipal governments. Over our period, per capita spending in these areas increased by an average of 39 percent.<sup>24</sup> Data availability forces us to restrict our attention to the period from 1928 to 1938.<sup>25</sup>

We expect a takeover from a Right Party council chair by a Social Democrat to be associated with an increase in public spending. We do not want to impose a too rigid structure on the data, but rather let it speak for itself. To this end, we estimate a model with time- and town-fixed-effects and test for any party effects by adding four lags and four leads of an indicator variable taking the value of 0 if the municipal council chair is from the Right party, and 1 if there is a shift to a Social Democratic chair in a particular year. When formulating the regression in this way, we effectively look only at those places where there was actually a shift in power during the period. In addition, adding leads of this turnover indicator allows us to

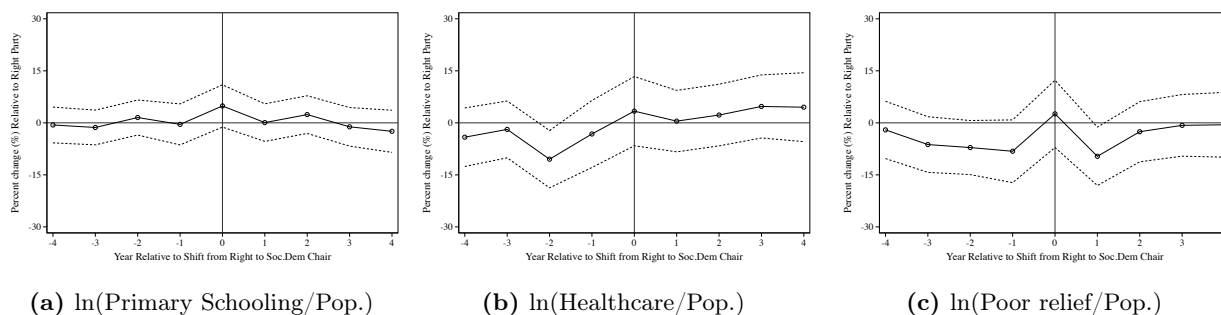
<sup>24</sup>The average increase across towns for primary schooling, healthcare and poor relief was 21, 79 and 34 percent respectively.

<sup>25</sup>Because some towns for some years also report other temporary expenditures under one of these three headings, we have to remove a number of town-year pairs from the data.

see if there were different prior trends in those towns that experienced a shift. In addition, by adding lags of this indicator, we avoid making assumptions about when in time a possible change in spending took place. We focus on the shift in the council chair since the discontinuous nature of the variable makes it suitable for a event study of this type.

The resulting estimates are shown in Fig. 5. The  $x$ -axis gives the number of years relative to the time when the shift from the Right Party to the Social Democrats took place, and the  $y$ -axis measures the estimated percentage increase in per capita spending. Discussing first the result for primary schooling, no party effects are apparent. After a shift in power, spending on this item is unchanged. The estimate is also precise, as highlighted by the 95% confidence interval. The same appears to be true for spending on health care as well as poor relief: there is no change in spending with political turnover. The confidence intervals are likewise small, albeit slightly larger than in the case of primary schooling. The three graphs also expose the lack of any divergence of prior trends in spending in those towns that saw a shift in political power relative to those without turnover.

**Figure 5:** Effect on Per Capita Public Spending on Primary Schooling, Healthcare, and Poor Relief of a Shift of the Municipal Council Chair from the Right Party to the Social Democrats.



*Note:* Effect on public spending on schooling, healthcare and poor relief of a shift of the municipal council chair from the Right Party to the Social Democrats. The effect is estimated using a model with time and cross-sectional fixed effects and four lags and leads of the outcome variable. The model is estimated on a sample of towns between 1928 and 1938 for which we have spending data.

These results suggest, in contrast to the expectation from the Power Resource theory, that there were no change in public spending associated with a shift in power to the left wing. Our findings are aligned with those of Östberg (1996, pp. 117–118)<sup>26</sup> Our findings are also consistent with narrative accounts of Swedish local politics. Billing, Olsson and Stigendal 1992, for example, observe that although Social Democrats

<sup>26</sup>Östberg compares changes in taxation during the period 1915–1938 in towns where the Social Democrats seized power early (before 1928) and towns where bourgeoisie parties remained in power (at least until 1938). To make the groups more comparable, Östberg excludes Stockholm, Gothenburg, and Malmoe, but he notes that the Social Democrats typically grew stronger in large and medium sized towns that had experienced rapid industrialization and where huge investments in infrastructure had already been made.

took power in Malmö in 1919, the Municipal Act narrowed their opportunities to implement radical social reforms at the local level. In the case of Malmö, things did not change until 1934, when the Social Democrats occupied two-thirds of the seats in the town council

In Stockholm, the Social Democrats refrained from the influential position as Mayor of finance (*finansborgarråd*) for many years, although they had obtained 51 of the 100 seats in the town hall already by 1919 Högberg (1981).<sup>27</sup> The same applied to the fast-growing town of Västerås, where strong Social Democrats also collaborated with conservatives and liberals “to keep the town district’s expenses for measures against unemployment as low as possible” (Svensson, 2004, p. 214).

## 8.2 Corporatism

An alternative mechanism linking politics to labor conflicts is that left-wing parties need peace in the labor market in order to gain support from broader segments of society. If middle-class voters associate Social Democracy with labor militancy, they may give their votes to bourgeois parties instead. Given the requirements of qualified majorities in Swedish local politics, the support from at least one of these parties was always necessary for the Social Democracy.

At the national level, the Social Democratic Party showed a clear tendency towards targeting broader groups in elections: from industrial workers, to workers in agriculture, and “ordinary people” (*småfolk*); a development that culminated in Per-Albin Hansson’s famous metaphor “the people’s home” (*folkhemmet*) in 1928 (Groning, 1990, p. 200). A part of this development was also the educational campaigns set up by the Central Trade Union Confederation (LO) leadership to shape the identity of Social Democratic workers and set them apart from more radical strands of the labor movement (Jansson, 2013). In this context, we may also recall previously mentioned examples of how Social Democratic governments tried to settle labor conflicts. An important difference between the national and the local level was that local politicians had more limited formal means to influence the labor market actors. Local politicians could not use the threat of legislation or the use of force (police or military). However, local politicians could use more subtle means since they often had close personal ties to the actors in the labor market. Östberg (1996, p. 157) actually describes local politics as “a meeting place between the local employers and the politically organized workers.” For employers, a tradition of local representation could be traced back to the nineteenth century, although there seems to have been a switch from direct to indirect employer representation in the inter-war period.<sup>28</sup>

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<sup>27</sup>The political climate in Stockholm became more polarized towards the late 1920s and the early 1930s; when Zeth Höglund entered the town council, the Social Democrats had increased their share of the votes and formed a national government.

<sup>28</sup>This was at least the case in Gothenburg, as observed by (Åberg, 1998, p. 108), who claims that “businessmen began to conduct politics through agents.”

In the labor movement, there was a great deal of personal overlapping (*korssittning*) between commissions of trust in unions and local politics.<sup>29</sup>

To get an idea of the importance of personal ties in local politics, we have collected information on the background of the Social Democratic politicians who appear as municipal council chairs in our dataset. Two questions are of particular interest: i) What was their social background? And ii) Were the unions able to influence the party to elect their representatives to the highest local office? If it was, in fact, the case that strong unions could see their peers selected, this could be a reason why strikes declined with a turnover to a Social Democratic majority.

The five-volume book project named *The Swedish Popular Movements (Svenska folkrörelser)* was published in the 1930s. In addition to providing short histories of the union movement, the Social Democratic party, the temperance and sports movements and the free churches, these books include a catalog of the persons active in any of these organizations. The third volume, published in 1936, is of particular interest to us since it covers the political labor movement as well the unions. From that volume, we have collected information on all Social Democratic politicians present in the catalog who at any time between 1929 and 1935 held a position as municipal council chair. These are years for which the book has reasonable coverage. During that period, there were a total of 69 Social Democratic chairmen, and from the source, we have managed to collect information on 40 of these, i.e., 58%. The book gives a great deal of personal information, such as name, year of birth, short occupational and organizational histories, and indications of membership in other popular movements. For each of the 40 politicians that we were able to locate, we have collected information on their professional background and whether they were members of a union. Since many of these Social Democratic politicians were titled using their political occupation such as “member of parliament” (*riksdagsledamot*) or “trustee” (*sysloman*), we have used their professional histories to track their social background. In cases where a person had started their career working in a manual occupation, we have coded them as working class, but as non working-class if they had not. Examples of the latter are those that came into politics through academia or by working as newspapermen.

How many of these Social Democratic municipal council chairs had a working-class background? While this will give us an indication of the class character of these politicians, it also provides an essential context for the information on union membership. The relevant data is presented in the first panel of Table 3. This chart shows that as many as 73% of those who made it to a position as council chair for the Social Democrats had a working-class background. Importantly, the table also gives the share within the two

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<sup>29</sup>See however Svensson (2004, pp. 136–137) for a possible exception.

**Table 3:** Background of Social Democratic Municipal Council Chairs*Social democratic chairs by class background and share of union members*

<b>Background</b>	<b>Number</b>	<b>Share</b>	<b>% union members</b>
Non working class	11	27%	0%
Working class	29	73%	79%
<b>All</b>	40		61%

*Share of Social Democratic chairs with working class background and union membership by quantile of local union strength*

<b>Quantile of UM</b>	<b>% working class</b>	<b>% union members</b>
Lowest	71%	50%
Intermediate	71%	56%
Highest	75%	86 %
<b>All</b>	73%	61%

*Note:* The first table shows the number and share of Social Democratic municipal council chairs by class background and gives the percentage belonging to a union in each group. The second table gives the share of Social Democratic municipal council chairs with a working class background and the percentage belonging to a union by quantile of local union membership rates. *Source:* The biographical information is drawn from Hansson (1936) and local union presence is calculated from data in Andrae and Lundqvist (1998) and Nilsson (1992) as described in the data section.

groups who were members of a union. Not surprisingly, membership was absent among those without a working-class background. However, among those with a such a background, as many as 79% were members of a union. Of these 79%, their occupational past also indicates that many of them had held positions within the union movement as local or regional leaders. This is a clear testament of the close connection between the party and the union movement. But was it also the case that strong local unions could influence the party to put their members in positions of power?

In the second panel of Table 3, we have sorted the municipalities into three groups, based on the local union membership rate. This allows us to see if there were any differences between towns with different levels of union strength in the type of leaders representing the Social Democratic party. The first quantile includes the group of towns with the lowest level of union presence, the second quantile the group of towns with the second highest, and the last quantile the remaining one-third of the municipalities, those with the highest union presence. For each quantile, the table gives the share of Social Democratic chairmen with a working class background, as well as the share of those who were members of a union.

The table reveals that the share who belonged to a union was highest in those towns where union strength was likewise the strongest. As many as 86% of all Social Democratic chairmen in the group of towns with the highest union presence belonged to a union, suggesting that in the case of a shift in power towards the Social Democrats in these towns, unions could also expect one of their members to represent them in the

highest local office. Interestingly, what the table also highlights is the lack of a difference in the number of chairs with a working class background between towns with different levels of union presence. Consequently, the higher share of union members among the council chairs in these towns is not driven by a higher presence of individuals more likely to have a union background.

## 9 How Sweden Went from Industrial Conflict to Peace

### 9.1 Cumulative effects

Up to this point, we have focused on the relation between labor’s power resources and strike activity at the level of individual towns, and the mechanism underlying this relation. In this section we move to a discussion of how important power resources were for the bigger picture in explaining the Swedish transition to labor peace. A first step is to assess the cumulative impact of the two variables highlighted in the empirical analysis: union presence and its interaction with left-wing political power. A straightforward way to determine their relevance is to perform a counterfactual exercise. To carry out this calculation, we use the coefficient estimates from our baseline regression in Table 2, and relate them to the evolution of union presence and the number of Social Democratic chairs between 1919 and 1938.

The equation for calculating the counterfactual impact of union presence is

$$Impact\ of\ Union\ Presence_t = \sum \beta * (union\ presence_{i,t}), \quad (3)$$

where  $\beta$  is the coefficient for the effect of union presence on strikes, in this case, 0.331. We calculate the impact by taking, for each year, the actual union presence in each town, multiplying by the coefficient, and summing.

The corresponding equation for the counterfactual impact of the interaction of union presence with left-wing political power is

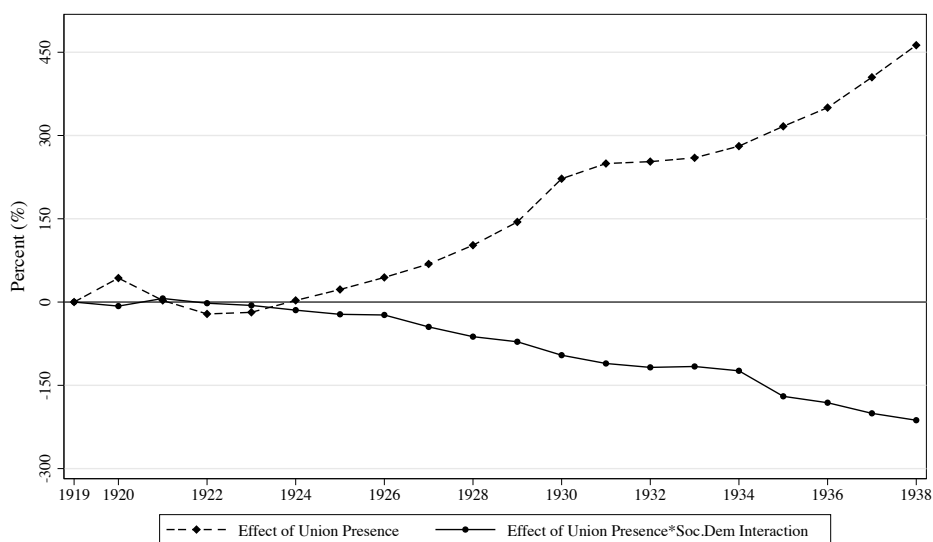
$$Impact\ of\ Union\ Presence * Soc.Dem\ Chair_t = \sum \delta * (union\ presence_{i,t,soc.dem=1}), \quad (4)$$

where  $\delta$  is the coefficient for the interaction between union presence and a Social Democratic council chair, in this case, -0.202. The impact is calculated by taking, for each year, the actual union presence in those towns with a Social Democratic chair, multiplying by the coefficient, and summing.

Fig. 6 shows the result of the calculations. Considering first the influence of union presence on the

number of strikes, given by the dashed line, our counterfactual suggests a significant impact. While during the economic crisis in the early 1920s the influence of union strength was muted, as organizing was down, this would soon change. From the late 1920s, union presence began to increase and continued to grow throughout the 1930s. The result of this spurt in union organizing was an upturn in the number of strikes compared to the case where no such increase in union presence had occurred: our counterfactual suggests a cumulative increase in the number of conflicts by 460 percent as a result of unions' becoming stronger. This, however, only accounts for the direct impact of union strength absent the influence of local politics. The effect of the interaction of union strength with left-wing political power is given instead by the solid line. As the Social Democrats saw an increasing number of towns coming into their hands, the effect of growing union strength was moderated. Our calculation suggests that the cumulative impact of the party's coming to power reduced strikes by 210% relative to the case in which union strength had grown without any shift in local political influence. With the moderating impact of politics, increasing union strength produced an increase in the number of strikes by 250%, instead of the increase by 460% that would have taken place without any interplay with politics. The rise of the Social Democratic party in municipal governments offset about 45% of the effect ascribed to increased union presence.

**Figure 6:** The Counterfactual Impact of Union Presence and Social Democratic Local Power on the Number of Strikes, 1919–1938



*Note:* Counterfactual impact of union presence and the interaction of union presence with the political power of the left, calculated using Equations 3 and 4.

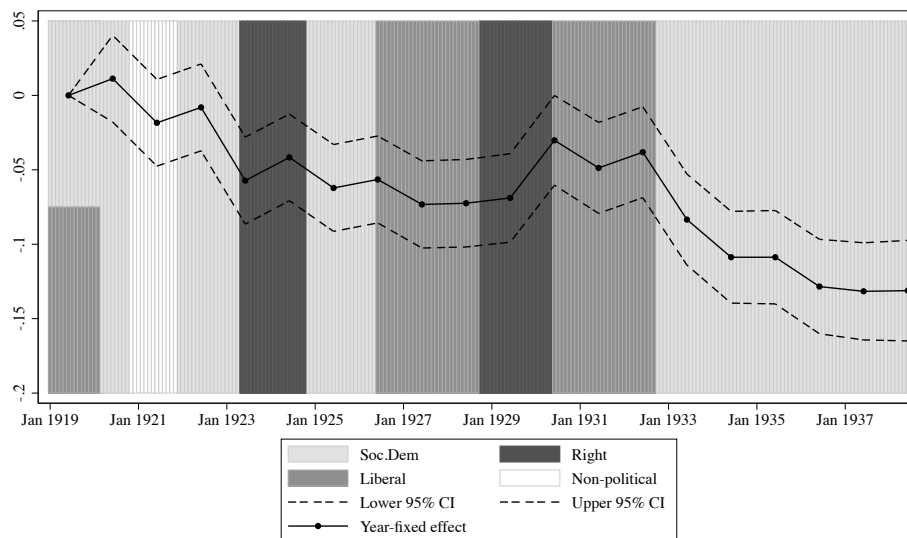


## 9.2 Combining the national and local levels

So far we have examined the mechanisms linking the evolution of strikes to union strength and Social Democratic political power. Recurrent in the PRT literature is the influence of national politics on industrial conflicts. We have shown that the local level also mattered. This should not be surprising given that the local arena was where many decisions affecting the livelihood of workers as well as capitalists were taken. In Sweden, the Social Democratic party gained power in many towns before it did so at the national level.

Therefore, a full account of the decline in industrial conflicts in Sweden by the late 1930s needs to consider both the national and the local levels. Previously we noted that with the yearly data used in this paper, we have not been able to determine with precision the influence of national governments on strike activity. The reason for this is that during the 1920s and early 1930s, most governments sat for only short periods that do not necessarily map in any straightforward way to the yearly data we use in our regressions. However, while we are not able to make any direct inference about the effect of national governments, they are picked up by the year-fixed effects, and these effects can still tell us something about patterns over time. In Fig. 7 we plot the year fixed-effects from our main specification in Table 2 along with information on which party was in the government, each month between January of 1919 and June of 1938. While the evolution of these national trends captured by the year-fixed effects is only suggestive, it highlights some intriguing patterns. The period began with a government that was split between the Social Democrats and the liberals. After the rule by a non-political cabinet in the period 1920–1921, the government then changed hands between the Social Democrats, the Right Party, and the liberals during the 1920s and early 1930s. Finally, after 1932, the government came into the hands of the Social Democrats and remained so for the rest of the period.

We have shown that at the local level, a political exchange where unions trade increased social spending for labor peace is not the mechanism explaining reduced strike activity. Could this have been a more significant channel at the national level? That is the argument by Korpi and Shalev (1979) in their account of the decline in the number of strikes in Sweden. The pattern in the “national shifts” captured by the year-fixed effects plotted in Fig. 6 also shows a steady decline during the period of Social Democratic rule after 1932. However, here it is worthwhile to return to the argument by Swenson (2002). While the timing of the decline in strike activity coincides with the Social Democrats’ coming to power, it is much less clear whether the mechanism of increased spending, suggested by the PRT, can account for these patterns.

**Figure 7:** Plot of year fixed effects and holders of the national government, 1919–1938

*Note:* Year fixed effects from the baseline regression specification given in the upper panel of Table 2 alongside 95% confidence intervals. Background colors denote the holder of national government each month between January of 1919 and June 1938.

## 10 Conclusions

This paper has revisited the Power Resource Theory (PRT) and, in particular, its claim that the tranquility of the labor market in Sweden emerged as a consequence of Social Democratic strength in the political arena in the 1930s. However, in contrast to the original PRT, we study local politics rather than the national arena. For this purpose, we combine data on industrial conflicts with information about the local political influence in towns from the first democratic elections in 1919 to 1938. More specifically, we estimate how the frequency of strikes was influenced by shifts in the party affiliation of town council chairs, left-wing seats and changes in the degree of union presence. We find that Social Democratic power in this sense reduced strike activity, but only in towns where union presence was strong. Union strength in itself did not reduce local strike activity.

We discuss two possible mechanisms for the observed pattern: tangible concessions and corporatism. The first mechanism is when trade unions become less inclined to strike because they see other opportunities for improving the welfare of their members. To assess the empirical significance of this mechanism, which is the one that we primarily associate with the PRT, we investigate whether Social Democratic power also led to increased social spending. That was hardly the case. To assess the second mechanism, which we find more credible, we present new evidence on the personal background of Social Democratic leaders at the local level.

We show that they often had a background in trade unions. Moreover, this correlation was most pronounced in towns with well organized workers. Local politics was an arena where parties in the labor market could meet—directly and indirectly—and this was in particular the case in towns where the two wings of the Social Democratic labor movement were strong. Our results suggest that the rise of the Social Democratic party in municipal government offset about 45 percent of the effect of increased union presence. After the Social Democrats came into power in 1932, we also observe a strong mitigating effects on strikes from the shift in power resources at the national level. However, by that time, most of the power resources had already shifted to the hands of the labor movement at the local level, explaining the gradual decline in industrial conflicts visible from the early 1920s and onwards.

Taken together, our findings highlight that local politics cannot be neglected when understanding the aggregate picture of social change. Without the moderating effect of Social Democrats in town councils, higher union presence would in itself have resulted in more labor conflicts over the course of the inter-war period. One can only speculate about the wider consequences such as a counter-factual intensification of labor conflicts would have had, but most probably Swedish history would then have taken a very different path.

## References

- Åberg, M. (1998). *Samförståndets tid: konflikt, samarbete och nätverk i svensk lokalpolitik*. Historiska media.
- Åmark, K. (1994). *Vem styr marknaden?: facket, makten och marknaden 1850-1990*. Tiden.
- Andrae, C. G. and Lundqvist, S. (1998). Folkrörelsearkivet 1881-1950 (The Social Movement Archive).
- Angrist, J. D. and Pischke, J.-S. (2008). *Mostly harmless econometrics: An empiricist's companion*. Princeton university press.
- Ashenfelter, O. and Johnson, G. E. (1969). Bargaining theory, trade unions, and industrial strike activity. *The American Economic Review*, 59(1):35–49.
- Bain, G. S. and Price, R. (1980). *Profiles of Union Growth: a comparative statistical portrait of eight countries*. Blackwell.
- Bengtsson, E. and Molinder, J. (2017). The economic effects of the 1920 eight-hour working day reform in sweden. *Scandinavian Economic History Review*, 65(2):149–168.
- Billing, P., Olsson, L., and Stigendal, M. (1992). "malmö - our town": local politics in social democracy. *Creating social democracy: a century of the Social Democratic Labor Party in Sweden*, S. 271-305.
- Bolt, J., Inklaar, R., de Jong, H., and van Zanden, J. L. (2017). Maddison project database, version 2018. rebasing 'maddison': new income comparisons and the shape of long-run economic development.
- Brambor, T. and Lindvall, J. (2017). the ideology of heads of government, 1870–2012. *European Political Science*, pages 1–12.
- Donado, A. et al. (2012). How trade unions increase welfare. *The Economic Journal*, 122(563):990–1009.
- Ekström von Essen, U. (2003). *Folkhemmets kommun: socialdemokratiska idéer om lokalsamhället 1939-1952*. PhD thesis, Atlas.
- Enflo, K. and Karlsson, T. (2018). From conflict to compromise: The importance of mediation in swedish work stoppages 1907-1927. *CEPR working paper series*.
- Freeman, R. B. (1998). Spurts in union growth: defining moments and social processes. In Goldin, C. and White, E. N., editors, *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, pages 265–296. University of Chicago Press, Chicago, IL.

- Fulcher, J. (1991). *Labour movements, employers, and the state : conflict and co-operation in Britain and Sweden*. Clarendon, Oxford.
- Groning, L. (1990). Vagen till makten: Sap: s organisation och dess betydelse for den politiska verksamheten 1900-1933.
- Hamark, J. (2018). From Peak to Through: Swedish Strikes and Lockouts in the First Half of the Twentieth Century. *Workers of the World*, 1(8):137–166.
- Hansson, S. (1936). *Svenska folkrörelser. 1, Nykterhetsrörelse. Politisk arbetarrörelse. Fackföreningsrörelse. Folkbildning. Kooperation*. Lindfors, Stockholm.
- Hibbs, D. A. (1976). Industrial conflict in advanced industrial societies. *American Political Science Review*, 70(4):1033–1058.
- Högberg, S. (1981). *Stockholms historia: Småstaden; Fabriksstaden; Storstaden*. Bonnier fakta.
- Horgby, B. (2012). *Kampen om facket : den socialdemokratiska hegemonins förändringar*. Boréa, Umeå, 1. uppl. edition.
- Jansson, J. (2013). From movement to organization: constructing identity in swedish trade unions. *Labor History*, 54(3):301–320.
- Johansson, A. (1989). *Tillväxt och klassarbete: en studie av den svenska modellens uppkomst*. PhD thesis, Tiden.
- Korpi, W. (1978). The working class in welfare capitalism.
- Korpi, W. (1983). *The democratic class struggle*. Routledge.
- Korpi, W. (2006). Power resources and employer-centered approaches in explanations of welfare states and varieties of capitalism: Protagonists, consenters, and antagonists. *World politics*, 58(2):167–206.
- Korpi, W. and Shalev, M. (1979). Strikes, industrial relations and class conflict in capitalist societies. *The British Journal of Sociology*, 30(2):164–187.
- Kwon, H. Y. and Pontusson, J. (2010). Globalization, labour power and partisan politics revisited. *Socio-economic review*, 8(2):251–281.

- Lange, P. and Garrett, G. (1985). The politics of growth: Strategic interaction and economic performance in the advanced industrial democracies, 1974-1980. *The Journal of Politics*, 47(3):792–827.
- Lindvall, J. (2013). Union Density and Political Strikes. *World Politics*, 65(03):539–569.
- Lundh, C. (2010). Spelets regler. *Institutioner och lönebildning på den svenska arbetsmarknaden 1850–2000*.
- Lyddon, D. (2007). Strike statistics and the problem of international comparison. *van der Velden et al.: Strikes, Amsterdam*, pages 24–40.
- Mikkelsen, F. (1992). *Arbejdskonflikter i Skandinavien 1848-1980*, volume 143. Odense universitetsforlag.
- Moene, K. O., Wallerstein, M., Hoel, M., et al. (1992). *Bargaining structure and economic performance*. Univ., Department of Economics.
- Nilsson, L. (1992). *Historisk tätortsstatistik. D. 1, Folkmängden i administrativa tätorter 1800-1970*. Stads- och kommunhistoriska institutet, Stockholm.
- Norrlid, I. (1983). *Demokrati, skatterättvisa och ideologisk förändring : den kommunala självstyrelsen och demokratins genombrott i Sverige*. Liber/Gleerup, Lund. Diss. Lund : Univ.
- Olson, M. (1982). *The rise and decline of nations: economic growth, stagflation, and social rigidities*. Yale U.P., New Haven.
- Östberg, K. (1996). *Kommunerna och den svenska modellen: socialdemokratin och kommunalpolitiken fram till andra världskriget*. B. Östlings bokförl. Symposion.
- Ross, A. M. and Hartman, P. T. (1960). *Changing patterns of industrial conflict*. Wiley, New York.
- Rothstein, B. (2005). *Social traps and the problem of trust*. Cambridge University Press.
- Schullerqvist, B. (1992). *Från kosackval till kohandel: SAP: s väg till makten (1928-33)*. Tiden.
- Shorter, E. and Tilly, C. (1974). *Strikes in France 1830-1968*. CUP Archive.
- Svensson, R. (2004). *När järnarbetare hanterar spaden och målaren knackar makadam: Om arbetslöshetspolitik i en arbetarstyrd kommun, Västerås, under 1920-talets krisår*. PhD thesis, Acta Universitatis Upsaliensis.
- Swank, D. (2002). *Global capital, political institutions, and policy change in developed welfare states*. Cambridge University Press.

- Swenson, P. (2002). *Capitalists against markets: The making of labor markets and welfare states in the United States and Sweden*. Oxford University Press on Demand.
- Thörnqvist, C. (1994). *Arbetarna lämnar fabriken: strejkrörelser i Sverige under efterkrigstiden, deras bakgrund, förlopp och följder*.
- Tsebelis, G. and Lange, P. (1995). Strikes around the world: A game theoretic approach. *The Workers of Nations: Industrial Relations in a Global Economy*, pages 101–26.
- Unga, N. (1976). *Socialdemokratin och arbetslöshetsfrågan 1912-34 : framväxten av den "nya" arbetslöshetspolitiken*. Arkiv för studier i arbetarrörelsens historia, Stockholm. Diss. Uppsala : Univ., 1977.
- Visser, J. (1989). *European trade unions in figures*. Kluwer Law Intl.
- Wångmar, E. (2003). *Från sockenkommun till storkommun: en analys av storkommunreformens genomförande 1939-1952 i en nationell och lokal kontext*. PhD thesis, Växjö University Press.

## Appendix A Share of Strikes by Sector

Table A1 presents information on two points relating to the distribution of strikes. The first two columns describe the distribution of strikes and striking workers by sector between 1919 and 1926, the period for which we have access to disaggregated data on the characteristics of individual conflicts. These figures help to reveal whether using the number of strikes as our indicator of industrial conflict means that we cover a different type of disputes than would be the case if we had examined the number of workers involved in strikes instead. The two columns show that the choice affects two sectors in particular. Mining and metal account for 28 percent of all striking workers, but only 16 percent of all disputes, while the opposite is true for construction, which accounted for 19 percent of all strikes but just 8 percent of the workers involved in conflicts. This pattern is unsurprising given that workplaces in the mining and metal industry were large and conflicts engaged many workers, while the opposite was the case for construction, where employers remained small and conflicts were local in nature.

The third and fourth columns display the distribution of strikes by sector in towns and countryside respectively, showing whether conflict patterns were different in the towns covered in our data than they were in rural areas. The two columns reveal that there were important differences in the sectoral distribution. In rural areas, over 70 percent of all strikes took place in the manufacturing sector, while in urban areas, this figure was only 58 percent. Looking within the manufacturing industry, the principal difference is found for the wood industries, a sector accounting for 24 percent of rural strikes but only 11 percent of conflicts in towns. In comparison, food products and textile and clothing were overrepresented in urban areas. A difference is also found for sectors outside of manufacturing, with a considerable fraction of conflicts in urban areas taking place in industries such as trade, transport, and construction. Overall the pattern suggests that in towns, strikes were concentrated in home-market producing sectors that were not subject to competition from foreign producers to the same extent as, most notably, metal and manufacturing and the wood-producing industries. If politics had an impact on strike activity, we would be most likely to find the effect in towns, since strikes in urban areas were more focused in sectors where the external economic conditions did not impact the firm's profitability and wages to the same extent. Workers in these industries consequently had more scope to raise their incomes through conflicts with employers.



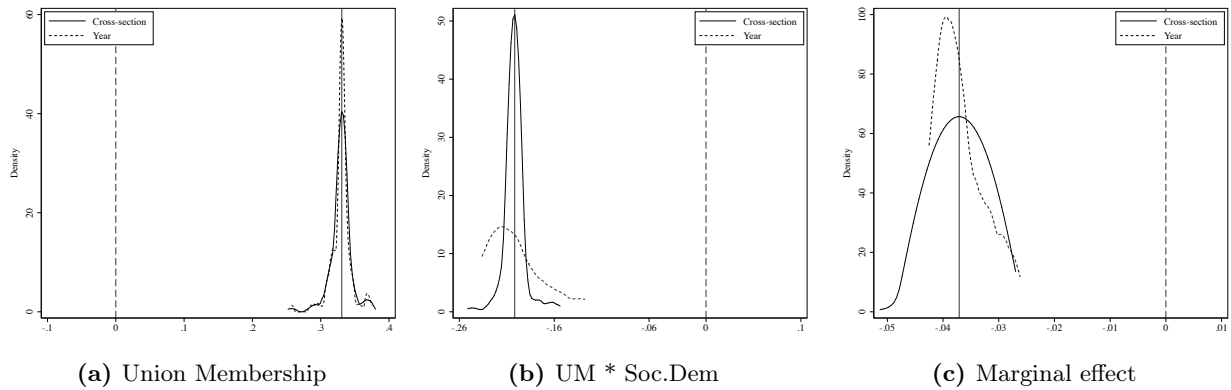
**Table A1:** Distribution of Industrial Conflicts, 1919–1926

<i>Sector</i>	<i>By strikes/striking workers:</i>		<i>Strikes by rural/urban status:</i>	
	% of strikes	% of striking workers	% of rural	% of urban
Manufacturing	63	66	71	58
<i>Within manufacturing:</i>				
1. Mining and Metal	16	28	18	15
2. Stone, Clay and Glass	7	3	11	3
3. Wood Industries	16	14	24	11
4. Pulp and Paper	4	13	6	3
5. Food Products	6	3	3	8
6. Textile and Clothing	7	3	4	10
7. Leather, Hair and Rubber	2	1	1	2
8. Chemical	3	1	3	3
9. Power, Gas and Water	2	1	1	2
Trade	3	1	0	5
Transport	6	11	4	8
Agriculture and forestry	5	13	9	0
Construction	19	8	13	23
Other	4	1	1	6
Sum	100	100	100	100

## Appendix B Sensitivity analysis

Since we are dealing with a limited number of cross-sections (103 in the main specification) and years (19), one worry might be that the estimates in Table 2 are sensitive to the inclusion of any one town or year. To address this, we perform the following sensitivity analysis. We reestimate our main specification, but dropping each of the towns and years sequentially. To get a visual indication of the sensitivity of the results, we then produce a density plot of the resulting parameter estimates. Since we are using interaction effects, parameter estimates are not necessarily very informative. As an additional robustness check we also consider the marginal effect of changing from a Right Party chair to a Social Democratic one when union presence is 30 percent and all other values are held at their means.

**Figure A1:** Sensitivity Analysis Removing each Cross-Section and Year Sequentially.



*Note:* Sensitivity analyses of the results presented in Table 2. Panels a, b and c show, respectively, the effect of removing each cross-section and year sequentially on the estimate of the effect of union presence, the interaction between union presence and a Social Democratic chair, and the marginal effect of changing from a Right Party chair to a Social Democratic one when union presence is 30%.