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THE CLASS CEILING IN POLITICS

by

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Svårt för arbetarklassen att avancera inom politiken

Andelen personer från arbetarklassen minskar för högre politiska uppdrag jämfört med lägre uppdrag. Detta beror inte på väljarnas preferenser eller att arbetare har lägre politiska ambitioner eller kompetens, utan snarare på nackdelar som uppstår inom de politiska partierna.

Forskning visar att arbetarklassen utgör mer än hälften av många länders befolkningar, men bara en liten minoritet av dess parlamentariker. Detta får negativa konsekvenser för politikens innehåll och legitimitet. Föreliggande studie undersöker arbetarklassens karriärer inom svensk politik.

Digitalisering av svenska valsedlar gör det möjligt att studera karriärvägar i politiken för över 80 tusen politiker under de senaste 50 åren. För de flesta politiker börjar karriären på kommunnivå. Vägen till riksdagen går ofta via nominering och val till kommunfullmäktige samt via ledarskap i kommunens partigrupp. Personer från arbetarklassen blir färre och färre för varje pinnhål på karriärstegen. Arbetarklassen utför ungefär hälften av den röstberättigade befolkningen, men bara 15% av riksdagen.

Socialdemokraterna, Vänsterpartiet och Sverigedemokraterna har högre andelar arbetare bland sina politiker än andra partier. Med undantag för Vänsterpartiets riksdagsgrupp sjunker samtidigt andelen arbetare på högre nivåer även inom dessa organisationer. Ungefär två tredjedelar av alla arbetare som blivit riksdagsledamöter under de senaste 50 åren har representerat Socialdemokraterna.

Vi undersöker anledningar till att arbetarnas svårighet att avancera. Nivån av politiska ambitioner är lägre bland arbetarklassen i befolkningen, men inte bland människor som påbörjat den politiska karriären. Arbetare får inte sämre resultat i personvalet och har samma nivåer av public service-motivation, ärlighet och arbetsinsats på sina politiska uppdrag. Det är inte heller mer vanligt att arbetare lämnar sina uppdrag.

Även om den genomsnittliga arbetaren har lägre betyg från högstadiet och sämre resultat på det skriftliga mönstringsprovet kan dessa skillnader förklara endast en liten andel av arbetarnas nackdel i karriärerna. Organisatoriska kopplingar till LO:s fackföreningar hjälper arbetare att komma in i politiken, men denna mekanism är dock begränsad till lägre politiska nivåer inom Vänsterpartiet och Socialdemokraterna.

The Class Ceiling in Politics*

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Abstract

Prior studies have documented that working-class individuals rarely become parliamentarians. We know less about *when* in the career pipeline to parliament workers disappear, and *why*. We study these questions using detailed data on the universe of Swedish politicians' careers over a 50-year period. We find roughly equal-sized declines in the proportion of workers on various rungs of the political career ladder ranging from local to national office. We reject the potential explanations that workers lack political ambition, public service motivation, honesty, or voter support. And while workers' average high school grades and cognitive test scores are lower, this cannot explain their large promotion disadvantage, a situation that we label a *class ceiling*. Organizational ties to blue-collar unions help workers advance, but only to lower-level positions in left-leaning parties. We conclude that efforts to improve workers' numerical representation should apply throughout the career ladder and focus on intra-party processes.

Keywords: Political Selection, Social Class, Discrimination, Careers in Politics

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1. Introduction

Working-class people are largely absent from parliaments around the world (Esaiasson and Holmberg 2017; Best and Cotta 2000; Carnes and Lupu 2015a; Carnes and Lupu 2023a). Their exclusion is problematic for the functioning of democracy: it causes a deficit in issue representation that undercuts the democratic system’s ability to address distributional conflicts between social classes (Carnes and Lupu 2015a; Carnes 2018; O’Grady 2019; Hemingway 2020).¹ It also undermines government legitimacy and raises the risk of populist counter-movements (Barnes and Saxton 2019; Mudde 2004).

While workers’ absence from parliaments has been well documented, we know less about *where* in the career pipeline to parliament they disappear – and *why* (Carnes and Lupu 2023a).² This paper studies these two questions using new and detailed data. We combine multiple data sources to analyze career progressions toward parliament for the universe of Swedish politicians over a 50-year period. We compare workers’ presence at various rungs of the typical parliamentarians’ career ladder to analyze at what point this presence declines. We then test competing explanations for workers’ slower career progression, focusing on voter preferences, individual resources, party promotion processes, and organizational ties to labor unions.

Our analysis requires defining the working class and operationalizing the political career ladder. We follow the growing empirical literature on workers’ political representation and define the working class as having one’s primary employment in a working-class occupation (e.g., Carnes and Lupu 2015a, 2023a; Barnes and Saxton 2019). We characterize the political career ladder as having four steps from local to national political office (see Figure 1). Our results are insensitive to several alternative measurement choices.

The first set of results documents a gradual decline in the share of workers on each rung of the political career ladder. The share drops by a roughly equal margin on each step, from 50% in the voting-age population to 38% of nominated local politicians, further down to 32%

¹ Policies and political programs are developed based on ideology – normative judgments about priorities between policies that have different distributional profiles. Given that social class determines voters’ and politicians’ ideologies and political preferences, a working-class politician is more likely to pursue policies preferred by working-class voters. The political platforms of political parties on the ideological left and right may embody the left-right preference divide among social classes in the population and recruit more politicians from their respective social classes (Lipset and Rokkan 1967; Krouwel 2012; Appendix Section W1 provides an extended literature review and a descriptive empirical analysis of the Swedish context).

² We follow the literature and use the terms “working-class” and “worker” interchangeably.

of local councilors, 28% of local party leaders, and 15% of MPs. There is little variation over time in this pattern, and it does not differ according to the politician's sex at birth.

A comparison of political parties adds relevant insights. All parties have declining shares of workers on higher career steps, but this decline starts at higher shares in Left-leaning parties (the Social Democrats and the Left Party) and in Sweden's radical right party (the Sweden Democrats). Once we compare parties' shares of workers to the share of workers among their *voters*, the Social Democrats no longer performs better than the center-right parties. This party plays a complex role in working-class representation. While having brought more than half of all working-class parliamentarians into office during our 50-year study period, it is also responsible for more than half the "missing" workers needed to align parties' proportions of working-class parliamentarians to their proportions of working-class voters.

We combine Norris and Lovenduski's (1995) supply-and-demand model with Carnes and Lupu's (2023a) outline of explanations for workers' under-representation to delineate potential explanations for the declining proportion of workers. Three aspects of our data permit more detailed evaluations of these explanations compared to previous research. It allows us to compare previously un-studied types of individual resources and competencies between workers and non-workers. Second, our panel data for politicians' career promotions lets us produce the first estimates (to our knowledge) of workers' promotion disadvantages for each rung of the career ladder and test if gaps in observable competencies can explain these disparities (following methods previously used in sociology to study discriminatory promotion for women, e.g., Cotter et al. 2001). Third, our data provides a way to determine if politicians have organizational ties to labor unions – and test if workers who have such ties are more likely to advance.

Some explanations of workers' disappearance find little support in our analysis. For example, voters do not appear to prefer non-workers when casting their preference votes. In addition, we find that workers are less motivated than members of other classes to enter politics, but are just as ambitious as their peers to move up the ranks after entry. We find no evidence of gaps in attitudes or personality traits highlighted by previous research as important for political office: public service motivation, honesty, and work effort.

Other explanations of workers' disappearance have found more support. Workers' jobs are less flexible in time and space, and this pattern has some explanatory power for their lower promotion probabilities. We find gaps to workers' disadvantage on all career steps in terms of

high school grades, cognitive test scores collected during the military draft, and an earnings-based measurement of productivity in the private labor market. Because large promotion gaps remain after holding these competence measurements constant, we conclude that parties are much less likely to promote workers conditional on their observable qualifications – a phenomenon we call a *class ceiling*. Extending the analysis to study organizational ties with labor unions indicates that these ties are critical for workers' entry and lower-level advancement into left-leaning parties.

Our focus on a single country warrants a brief discussion of scope conditions. Our results are relevant to other contexts for three reasons. First, Sweden's multiparty system with closed-list proportional representation is the most common electoral system in the world. Second, its local-to-national political career pipeline is also relevant in other countries (discussed further in Appendix Section W2). Third, Sweden's share of working-class parliamentarians is small compared to the share of workers in labor market but, at the same time, one of the largest in the OECD (Carnes and Lupu 2022). This makes the Swedish case relevant to identify factors that keep workers out of politics, as well as potential ingredients for (relative) success.

Some features of the Swedish case might make our results for the negative role of political parties a lower bound. These features might include, for instance, the presence of strong social democratic parties with historical roots in organized labor (Aylott 2003; Sojourner 2013; Feigenbaum et al. 2018; Fourinaies 2021) and a relatively low importance of elite education as a qualification for higher office in Swedish parties in general (Nordvall and Fridolfsson 2019). Other features might make our results for the relatively small importance of *individual* resources a lower bound. Most importantly, individual economic resources might be more important for workers' political exclusion in other countries where election campaigns are not publicly financed (Hemingway 2020; Carnes 2018, but see, e.g., Katz and Mair 1995; Carnes and Lupu 2022 for an opposing view on campaign finance and social class).

Our paper advances the literature on workers' political under-representation by providing the most detailed case study to date. Its description of where in the candidate pipeline workers disappear provides valuable guidance for future research and interventions to improve representation. Our analysis reveals a large career disadvantage for politicians with a working-class occupation compared to previous findings of a much more equal playing field based on the social class of politicians' *parents* (Dal Bó et al. 2017).

Our largest contribution is that we test multiple explanations of workers' relative career performance. Some of these explanations have been examined previously. We corroborate previous findings that voter preferences are not an important explanation (e.g., Carnes and Lupu 2016; Wüest and Pontusson 2022; recently reviewed by Albaugh 2020; Carnes and Lupu 2023a) and contribute to the mixed findings about candidates' political ambitions (e.g., Allen and Cuts 2018; Carnes and Lupu 2023b; reviewed by Carnes and Lupu 2023a).

Explanations rooted in parties' promotion processes are largely un-tested. Some "smoking guns" in the literature include Norris and Lovenduski's (1995) finding that the British Labour Party has a higher share of workers among its applicants than among its politicians, suggesting a negative selection bias, and Carnes' (2016) finding that the share of workers in U.S. state legislatures cannot be explained by the qualifications of the working-class population in the state. In contrast with these papers, we compare workers' and non-workers career progression and whether any promotion disadvantage for workers can be explained by observable qualifications.

Our analysis of labor unions builds on previous work establishing positive correlations between unionization of the labor market and workers in political office role (Sojourner 2013; Feigenbaum et al. 2019; Carnes 2016; Carnes and Lupu 2022), as well as previous studies of unions' influence over candidate nominations in some parties (Aylott 2003; Høyer 2015; Fourinaies 2021). While this literature concentrates on levels of workers at specific career steps, we analyze the career developments of politicians with or without organizational ties to unions. Taken together, our paper advances the understanding of the mechanisms behind workers' political exclusion by showing that parties play a central role in workers' failure to advance and that labor unions play a positive, albeit restricted, role in overcoming this disadvantage.

2. Data

Our analysis draws on three types of data: politician data, administrative data for the whole Swedish population, and survey data.

Politician data. Before each election, Swedish political parties are required by law to submit their ballot papers to the government with the personal identification (ID) code of every candidate. We digitize this information to generate a list of all nominated politicians in all municipal and national elections between 1973 and 2018, including their political party and list rank. We link this list via each politician's ID code to Swedish Electoral Agency data on (i) whether a candidate was elected and (ii) how many preference votes they received. These

political variables have little or no missing data. We exclude local politicians from parties not represented in parliament (~4% of the data).

Administrative data. We further link the list of politicians to administrative data on individual traits. This data combines individual-year panels for more recent decades with census data at 5-year intervals for 1970–1990. It includes all permanent residents in the country over 18 years of age.

Most administrative variables come from census data (prior to 1991) and from the longitudinal integrated database for health insurance and labor market studies (after 1991). These variables come from different government records, such as tax records, education records, birth records, and employer surveys. They include each permanent resident's demographic traits, education level, and various traits of the job that constitutes their largest source of labor income in each year.

Occupation data for the person's main job comes from the censuses in (1970–1990) and the Swedish occupational register (2001–2018). Note here the 10-year gap in data availability for the 90s. Census data has complete coverage of the labor force, while the register data does not. The variable in the register data assembles information from a mandatory government survey administered each year to firms and workplaces, industry-specific surveys managed by employer organizations, and other smaller data sources.³ Compiling these sources results in coverage of the entire public sector and all large firms, most medium-sized firms, and a subset small firms, self-employed people, and individuals on short temporary contracts.

Two datasets provide additional information for our measurements of cognitive skills. One provides high school grade point averages (GPAs) for all graduates after 1973. The other provides scores from cognitive tests administered as part of Sweden's mandatory military draft for men born between 1951 and 1979. A third measurement of ability relies on the earnings data from tax records mentioned above (Besley et al. 2017). For our measurement of organizational ties to labor unions, we use an itemized dataset for all labor incomes above 10 USD. We describe each measurement in more detail below and provide additional information in Appendix Section W3.

Survey data. We use data on the share of workers who voted for each party in the 1970–2018 national elections from the Swedish Election Survey. We use the national and Western regional

³ For more information on the occupational register, see <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/labour-market/wages-salaries-and-labour-costs/salary-structures-whole-economy/>.

version of the Society, Opinion and Media Survey (SOM) to measure ambitions and political preferences in the population. We employ data on ambitions among local politicians from the 2012 Local and Regional Councils Survey (KOLFU, Karlsson and Gilljam 2014) and added new questions to the 2017 wave of this survey (Karlsson 2017) to measure certain aspects of competence. Response rates among local councilors were 80% in 2012 and 67% in 2017.

We use two nationally representative surveys collected by the Swedish government. The Swedish Work Environment survey is a biannual survey that measures work conditions (about 165,000 respondents in total between 1991 and 2019) and the Swedish Labor Force Survey tracks the business cycle in the labor market (about 8.4 million individual-quarter observations between 1987 and 2019). Appendix Section W3 provides more details about all the surveys used in this paper.

3. Defining workers and the political career ladder

We define the working class as a combination of two categories from the Erikson-Goldthorpe-Portocarero (EGP) class scheme: “non-skilled manual workers” and “skilled manual workers” (Erikson et al. 1979). Construction and manufacturing represent the most common working-class jobs for men according to this definition, and nursing assistant and childcare jobs for women. Non-workers mainly include white-collar professionals, small and large business owners, clerical workers, and managers. The EGP scheme builds on Weber’s theory that labor market positions are determinants of social mobility and, in turn, political preferences.⁴ We consider the working-class variable as capturing this socialization mechanism as well as mechanisms that operate via correlations between occupation categories, income and wealth, education level, and traits of a person’s parental household.⁵

Our main dataset consists of pooled cross-sections of population data—within which we can identify politicians—in each election year from 1973 to 2018 except one. We drop all data for the 1998 election from all analyses in the paper due to the lack of occupation data between 1991 and 2001. For all other years, we employ the following procedure to classify more than 87% of eligible voters and politicians on each career rung as either workers or non-workers.

⁴ Smallenbroek et al. (2022) validate the EGP scheme and its update, known as ESEC, in data from 31 European countries with respect to its gender neutrality and theoretical criteria of occupational advantages.

⁵ Restrictions on social mobility mean that most children remain in the same social class as their parents, which makes it difficult for any study to separate political socialization in the household from socialization in the workplace later in life. The same is true for correlations among occupation, income, education, and other factors that shape a person’s political ideology.

To categorize individuals, we use the occupation in the election year (or in the most recent census year) for employed people aged 18–65 and for municipal politicians except the mayor.⁶ For four other groups we use a backward-tracking method of searching occupation data to find the most recent employment experience: (i) mayors or parliamentarians whose political position is a full-time job, (ii) people who are not working due to situations like ill health or unemployment, (iii) working-age people with missing data on the occupation variable (23% of the sample), and (iv) people over the Swedish general retirement age of 65. We count college and university students as non-workers due to their likely future in white-collar occupations. We apply this categorization to the administrative data and our main politician survey, KOLFU 2017. Other surveys offer alternative class measurements of, mainly, self-defined social class (details in Web Appendix Section W3).

Survey data validates our categorization by showing that 75% of the people we categorize as workers also self-report being “working class.” This share is below 25% in the other five EGP categories (statistics in Appendix Table W4). Our definition correctly classifies 81% of workers and non-workers according to their self-identified class.

Defining the political career ladder. We propose a simplified political career ladder with four steps that range from the local to the national level (Figure 1). Sweden has 290 municipalities, each with an elected assembly of 31–101 councilors. Municipal party systems mirror the national level and strictly local parties hold less than 5% of all council seats. The municipal branches of the national parties make highly autonomous personnel decisions.

In our first career step, ordinary citizens (L5) start by being nominated as candidates in local politics (approximately 50,000 people in each election). In the next step they go from being an unsuccessful nominated candidate (L4) to winning an unpaid local elected seat (L3) (approximately 13,000 people). The third step consists of advancing to the top political position in their local political party, the local party leader who is ranked first on the ballot paper (L2).⁷ This person nearly always holds the top appointment afforded the party by its vote share, such as the chair of the council board if the party is the largest in the governing majority. The fourth step is advancing to one of the 349 seats in parliament (L1).

⁶ We use the occupation-based EGP classification provided by Statistics Sweden for the Census data (every fifth year between 1970 and 1990) and code occupations to the EGP scheme between 2001 and 2019 using code publicly provided by Martin Hällsten (Stockholm University).

⁷ To make the position of local party leader meaningful, we only include those who lead a party with at least five elected councilors.

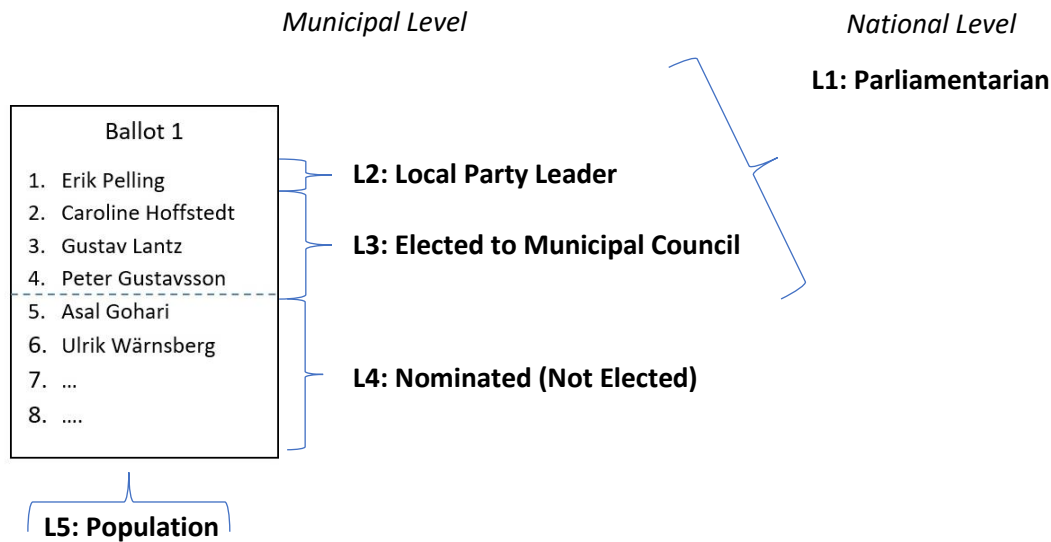


Figure 1. Stylized career ladder from municipal to national political office.

Our stylized career ladder simplifies the complexities of politicians' career paths and abstracts from some steps. We lack data on party membership and exclude Sweden's 21 regional assemblies⁸ and unsuccessful nominations to parliament. Robustness test replicate the results for an alternative career ladder including post-election appointment in local government (e.g., Folke and Rickne 2016). We validate the model by calculations showing that about two thirds of politicians on each career step arrived on that step from the one below. Appendix section W2 discusses the international relevance of local-to-national career paths in politics.

Procedures for career advancement. Decisions about who appears where on a party's ballots relate to political promotions (e.g., Buisseret et al. 2022; for detailed descriptions of the institutions summarized in this subsection, see Johansson 1999; Widenstjerna 2020; Fransson 2018). These decision processes look similar across political parties and at both the local and national levels. Election committees populated by prominent party members play a key role in collecting nominations and organizing the ranking procedure. They often use advisory internal primaries to help determine which candidates have support from party members and rank order the list before its formal approval in an at-large meeting.

⁸ Sweden's administrative structure has an hourglass form, with more power allocated to the bottom (municipalities) and top (parliament) levels. Regional assemblies are responsible for health care and infrastructure and have just 1,000 councilors compared to nearly 14,000 at the municipal level. Less than 5% of new parliamentarians have only regional-level political experience.

An individual's political career usually progresses within a single party and municipality. Swedish parties have strong seniority principles, and politicians are generally only removed from the ballot if they significantly misbehave. Appendix Figure W4 demonstrates how additional periods as an elected municipal councilor is strongly associated with becoming a local party leader or parliamentarian among both workers and non-workers. While seniority is important for political promotions, some politicians enter at higher career steps. Such direct entry is not more common for non-workers. Labor unions occupy a specific organizational position within the Social Democratic party and its candidate nomination procedure, which we discuss in more detail below.

4. Theoretical perspectives on workers' political entry and careers

Norris and Lovenduski's (1995) supply-and-demand model outlines three key actors that jointly determine upward advancement in politics: voters demonstrate support for politicians by casting their votes, individual politicians have career-relevant resources, and parties select from among willing candidates. Carnes and Lupu (2023a) build on this model to produce a more detailed set of explanations for workers' under-representation, including the roles of political ambition and labor unions. We combine these frameworks with sociology research on discriminatory promotions for organizational minorities (Cotter et al. 2001) to outline a set of explanations for workers' lower probability of political advancement.

Voters. Voters may have negative views about workers' competence or perceive them as too ideologically leftist or unlikely to understand the problems they face in their own lives. Such negative views may depress workers' vote counts and explain their political exclusion. Evidence from previous research has largely rejected this conjecture. Empirical studies using methods ranging from observational studies to conjoint survey experiments have found little or no evidence of negative voter bias (recently reviewed by Albaugh 2020; Carnes and Lupu 2023a; for a specific example from this literature, see Carnes and Lupu 2016).

Individual resources. Working-class politicians may have lower levels of resources that generally increase the likelihood of political career advancement. As in most organizations, people who are more ambitious and possess competencies for a specific job are more likely to be promoted. We consider three such resources – political ambition, attitudes and personality traits, cognitive skills, and time.

Workers might have less *political ambition* if the white-collar dominance in politics leads to negative beliefs about their career success (Lawless and Fox 2010; Gulzar 2021) or fit with

the political vocation (as Bos et al. 2022 argue in the case of gender). The same white-collar over-representation might also result in fewer social contacts with politicians or party organizers, leading to less exposure to role models and a lower likelihood of receiving personal encouragement (Aggeborn and Andersson 2022). Prior research offers mixed findings about workers' political ambitions (reviewed by Carnes and Lupu 2023b, see also Allen and Cuts 2018). A possible reason for this might be that some studies use data for all people eligible to hold office (e.g., Allen and Cuts 2018), while others restrict their data to people with certain skills or who have been actively encouraged to run (Carnes and Lupu 2023b).

Besley (2007) outlines types of competencies relevant for political office. One type describes *attitudes and personality traits*, such as public service motivation, honesty, and work effort. Another type describes a person's *cognitive skills*, or innate "ability" as the term is used in the economics literature. These traits broadly overlap with those that citizens and party leaders often say they want in a politician (Berg et al. 2015; Carnes 2018; Carnes and Lupu 2023b).

There is little reason to believe that working-class politicians would have lower levels of desirable attitudes or personality traits. Cognitive ability is a trickier question. A higher payoff from tertiary education among high-ability people will produce sorting by ability into tertiary education and an over-representation of high-ability people in white-collar occupations. However, ability-based selection into tertiary education has been exposed as imperfect at best, since structural life circumstances fundamentally determine these choices (e.g., Lynch et al. 1998; Chetty et al. 2016).

We do not define advanced degrees or white-collar jobs as political competence. Prior research has established that parliamentarians from different social classes display similar levels of policy efficacy and influence (Eriksson and Josefsson 2019). Nor is there consistent evidence that highly educated politicians produce better results than their less educated colleagues (see, e.g., Besley et al. 2011; Carnes and Lupu 2015b; Meriläinen 2022; recently reviewed by Gallego and Curto, forthcoming). While tertiary education degrees and occupations might train a person in skills relevant for politics, such as reading and writing complex documents, oral presentation, or knowledge of legal affairs, budgeting, or management, these could (arguably) be learned just as well on the political job and/or in other arenas such as labor unions. We return to this issue in the sensitivity analysis.

The *time* demands of political participation put time-constrained individuals at a participation disadvantage (Brady et al. 1995). Politics requires the flexibility to invest time in meetings and activities on evenings and weekends, as well as intense work around elections. Because political careers usually start alongside a person's regular job as a "third shift" (Wylie 2018), jobs that are more inflexible in time or space may be harder to combine with these political career investments.

Political parties. Sociology research defines a *glass ceiling* as a combination of two main empirical patterns that together imply discrimination against women in job promotions. The share of women should decline on higher positions in organizations and observable job-qualifications should fail to explain women's promotion disadvantage (Cotter et al. 2001; applied to politics by Folke and Rickne 2016). We apply this concept to the working class and change the label to a *class ceiling*.⁹

Empirical research on party selectors' bias against workers is rare (for exceptions, see Norris and Lovenduski 1995; Carnes 2016). Theory lets us outline at least four types of relevant negative beliefs, however. Selectors might have negative beliefs about workers popularity with voters, for example if they use information shortcuts to equate a lower share of workers in politics with a lower level of electability (Norris and Lovenduski 1995; Carnes 2018). A second type of negative belief might be that workers' ideologies stray too far from the electorate. These beliefs might arise, for example, if selectors over-estimate the electorate's alignment with white-collar interests (e.g., Broockman and Skovron 2018).

Beliefs about appropriate qualifications constitute a third relevant type. These beliefs might be "classed" so that notions of "merit" and "fit" limit workers' career advancement (Friedman and Laurison 2020). Party elites may overestimate the value of tertiary education or degrees from specific elite universities. They may also underestimate the importance of life experiences resulting in overlapping issue priorities, values, and policy objectives by social class – perhaps leading them to downplay candidate ideology as a qualification for political office (Norris and Lovenduski 1995; Widenstjerna 2020).

A fourth and more subtle kind of negative belief might stem from psychological processes and human interactions based on social identity. Because social class is a form of social identity, it delineates social circles in which people form positive opinions about their "in group" and

⁹ Our usage of this label differs from other research on upward mobility by people with a working-class *parental background* in high-paying occupations (Friedman and Laurison 2020).

negative opinions about their “out group” (e.g., Tajfel 1978; Tajfel and Turner 2004; Kraus and Keltner 2013). This might result in negative presumptions about workers’ competence among selectors, who are less likely to be working-class. Consistent with this theory, Rehmert (2022) finds that highly educated party selectors prefer highly educated candidates, while less educated selectors do not.¹⁰

Negative beliefs about workers among party selectors may affect decisions on nominations and promotions. They may also affect other career-relevant party decisions during the election period, such as how to assign different tasks and roles, or who to feature in the media or in political campaigns. Negative beliefs might extend to groups outside of politics in ways that affect working-class politicians’ work environments and chances to build qualifications. They might exist, for example, among bureaucrats, the media, or un-elected party officials. Overcoming negative beliefs might be challenging. For example, a separation of social circles by social class might not only reduce workers’ chances to build contact capital with various groups important for career progression (Niklasson 2005), but also mechanically limit their chances to signal their competence to these groups.

Labor unions. Organized labor may affect workers’ political inclusion via broad-based unionization in the labor market, running training schools for political candidates, or economic and in-kind support to political campaigns. We focus on paid positions in blue-collar labor unions, for example as a union representative. These positions build ideological and political knowledge as well as practical skills in leadership and negotiation, which are helpful in a political career.

Some labor parties have strong historical roots in the labor movement and various formalized organizational linkages, some of which still allow unions to directly influence political nominations (Aylott 2003; Høyer 2015; Fourniaies 2021). These ties allow unions to help affiliated workers get elected.

The Swedish Social Democratic Party was created from the labor movement in 1889 and became the coordinating entity between the movement’s political and union arms. Aylott (2003) describes labor unions’ influence over candidate nominations over time. For a long time, union sections and workplace-based union clubs were affiliated with local parties as “units,” putting them on the same footing as units for women, youth, or neighborhoods in local and national candidate nominations. Each municipal branch was also mandated to establish a union

committee. A strong norm developed for having people with union backgrounds on electoral ballots, having these people come from different unions, and including union representatives on nomination committees. This influence diminished, but remained significant, after the practice of affiliating whole union sections ended in the 1990s.¹¹ Blue-collar unions have also maintained representation in the party's executive committee, and there is continued collaboration to organize courses in political work methods and ideology.

5. Workers' numerical representation throughout the career trajectory

The left-hand side of Figure 2 depicts the share of workers at each career level in Swedish politics. These shares are largely constant over time and display fewer workers at higher levels. From 1973 to 2018, workers averaged 50% of the population, but 34% of nominated local politicians, 28% of municipal councilors, 17% of municipal list-leaders, and 13% of parliamentarians. The right-hand side of the figure displays under-representation in the percent of the population share, i.e., dividing the difference between the share of workers at a specific career level in the population by their share in the population. According to this metric, workers are underrepresented by 34% among nominated local politicians, 48% among elected councilors, 70% among local party leaders, and 75% among parliamentarians.

We replicate the result of a gradual decline in the share of workers across career levels for four alternative definitions of the working-class in Web Appendix Figures W5 and W6. Alternatives are: (1) the ISCO-based definition by Carnes and Lupu (2022), (2) having below tertiary education, (3) having below median labor earnings, (4) using the person's most common worker or non-worker category across all observable years on our main variable, or (5) using the observations closest in time to the age of occupational maturity at age 37 (Bihagen et al. 2022).

¹¹ A 2019 survey by the party found that about half of the municipal party branches had a union committee (Socialdemokraterna 2019).

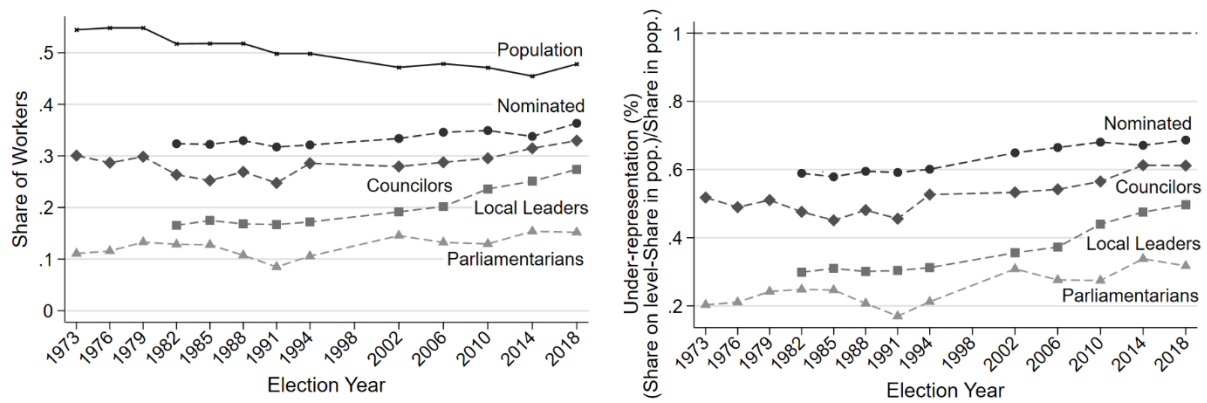


Figure 2. Workers' numerical representation across the career ladder.

Notes: A working-class person is defined based on their primary occupation in a working-class job according to the EGP class scheme. The population includes all permanent residents over 18 years old. A local leader is the top-ranked politician on a municipal electoral ballot. The data on municipal politicians is restricted to parties represented in parliament. In the right-hand side graph, the share of workers in the population is measured at the municipal level for municipal positions and at the national level for parliament. $N(\text{population})=59,760,437$; $N(\text{nominated})=397,511$; $N(\text{municipal councilors})=159,743$; $N(\text{local party leader})=7,125$; $N(\text{parliamentarian})=4,068$.

Splitting the analysis by sex at birth shows no sizeable difference in the share of workers among male and female politicians at different levels (see Figure 3). This contradicts the idea that a woman politician would need more education or more professional experience to counteract a negative bias against them among party selectors (Durose et al. 2011).

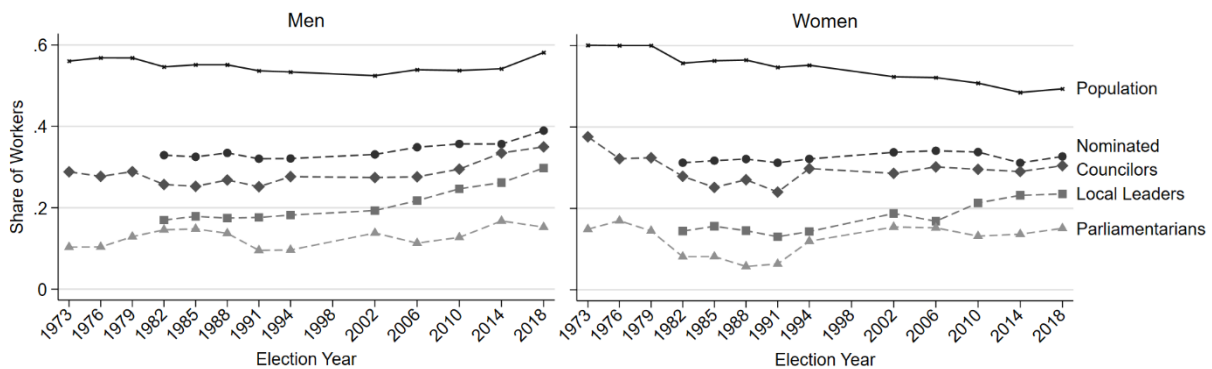


Figure 3. Workers' numerical representation by sex at birth.

Notes: The figure re-produces the left side of Figure 2 according to sex at birth.

We split the analysis by political party in Figure 4. This analysis pools all elections and plots the share of workers at each rung of the career ladder in each party relative to the share of workers in the population (top) and relative to the share of workers among that party's voters (bottom, measurement details in the figure note).¹² Extended descriptions in the

¹² National and local elections are held concurrently in Sweden. Turnout between 1973 and 2018 was 80–90% for parliamentary elections and 75–90% for municipal elections (www.scb.se).

Appendix show party-by-year developments (Figure W7) and replicate the results in Figure 4 for an alternative career ladder that includes appointments to local executive positions (Figures W8 and W9).

The share of worker declines at all career steps in all parties, except for parliamentarians in Left Party. In left-ideological parties and the radical right, these declines start from a higher level, which echoes findings from other countries where these party families have more politicians from the working class (e.g., Norris and Lovenduski 1995; Durose et al. 2011; Hemingway 2020; Matthews and Kerevel 2022). Benchmarking representation against the share of workers in each party's own electorate partly changes this picture. The Social Democrats now perform no better than center-left parties in terms of representing workers (calculations in Table W5 of the Web Appendix). The best performer on this metric is the Sweden Democrats, Sweden's radical right party that entered parliament in 2010 and became the second-largest party in 2022 (see Dal Bó et al. 2023 for a detailed description of the labor market and family backgrounds of this party's politicians).

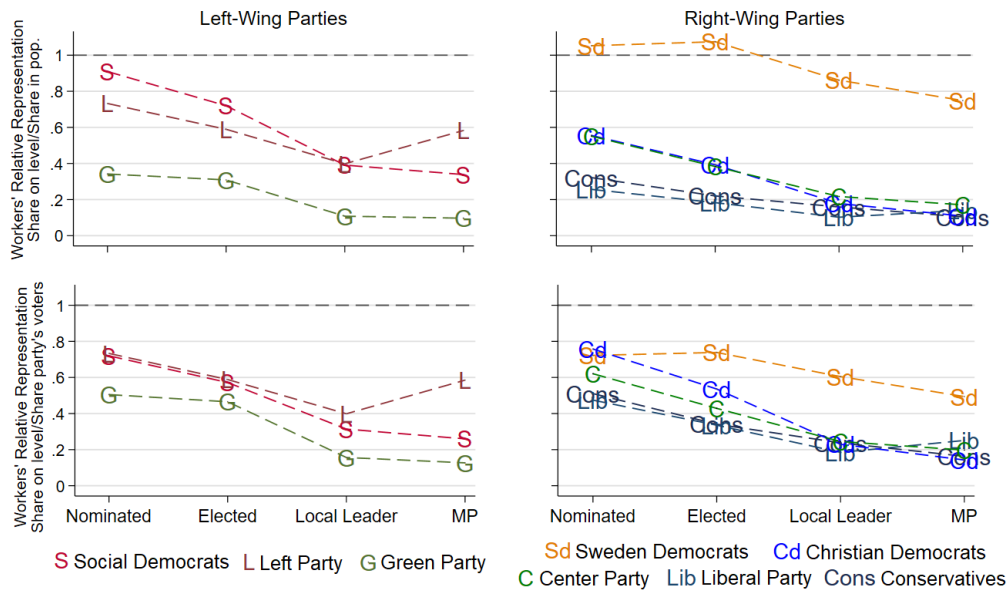


Figure 4. Numerical representation by party and career step.

Notes: Pooled cross-sectional data for elections from 1973 to 2018. Data voter composition over time is data from Swedish National Election Survey reported in Hedberg (2020). We use these together with administrative data to impute the expected share of the party's voters who are workers. The share of workers among the voters of party p in election t and municipality m is given by $W_{ptm} = (Vs_{pt}^W * Pop_{mt}^W) / (Vs_{pt}^W * Pop_{mt}^W + Vs_{pt}^{NW} * Pop_{mt}^{NW})$, where Vs_{pt}^W and Vs_{pt}^{NW} are national-level vote shares among workers and non-workers, and Pop_{mt}^W and Pop_{mt}^{NW} are population shares. We divide the share of workers at each career level and in each party by these numbers for each municipality and election, and report averages of these fractions in the figure. The calculation for MPs follows the same method at the national level.

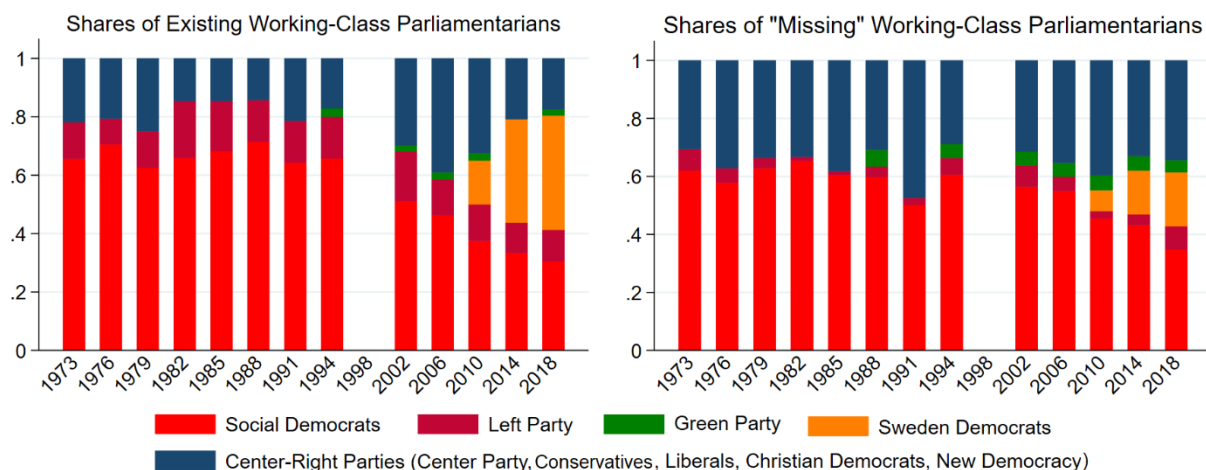


Figure 5. Party composition of existing and “missing” working-class parliamentarians.

Notes: Shares of missing workers are calculated relative to a situation where each party’s share of working-class parliamentarians equates its share of working-class voters. See notes to Figure 4 for a description of how the share among voters is calculated.

Figure 5 displays the extent to which different parties contribute to existing workers (left) and “missing” workers (right) in parliament. Missing workers are those who would be in office if each party’s share of working-class politicians would correspond to its share of working-class voters. The graph highlights that the Social Democratic Party has by far the largest share of working-class parliamentarians but also the largest share of missing workers. Figure 5 also documents the decline of social democracy and the rise of the radical right Sweden Democrats in the most recent elections. This party now accounts for a growing share of existing *and* missing workers, while the Social Democrats’ share of both has sharply declined.

6. Why are workers less likely to enter politics and advance?

Preference votes. Sweden introduced one optional preference-vote per voter in 2002. About one in three voters cast this optional vote, and mostly for top-ranked politicians on the ballot, replicating a pattern commonly seen in preference voting due to voters’ limited attention spans (Blom-Hansen et al. 2016 review this literature). While if voting behavior combined with the high vote threshold for winning a seat makes preference votes unimportant for this outcome, parties use vote counts to guide future promotions (Folke et al. 2016). Individual campaigns for preference votes are limited in size. About two thirds of local ballots list the occupation of the politician next to their name (data collected by the authors).

Our analysis proceeds in two steps. The first step obtains a measurement of preference votes that isolates voter preferences from parties’ list-rank decisions and the mechanical tendency to vote for highly ranked candidates. We regress votes on dummy variables for each

list rank, predict the residuals at the individual level and transform these residuals from to a z-score. The second step regresses this measurement on a dummy variable for being a worker and fixed effects for all combinations of municipality, party, and election. The analysis returns a coefficient on the worker dummy close to zero: smaller than 0.05 standard deviations when running the regression for either all local politicians or elected councilors only (details in Appendix Table W6). Workers do not under-perform (or over-perform) compared to non-workers in terms of how their votes deviate from the typical preference vote result for a politician on their list-rank. Including socio-demographic controls do not change this finding. In sum, we find no evidence that voters prefer non-workers to workers when casting their preference votes.

Individual-level resources. We use survey data to test whether workers have lower political ambitions than non-workers. The Western Sweden SOM survey asks about nascent ambition with the question “Would you consider taking on a political appointment in the municipality for the party you sympathize with?”.¹³ We create a dummy variable that takes the value 1 for affirmative responses and 0 for negative ones. The 2012 KOLFU survey asks local councilors how long they want to remain in office, a good proxy for progressive ambition due to strong seniority principles (see e.g., Folke and Rieke 2016). The note to Figure 6 provides details on variable creation and sample sizes. We lack data on ambitions for the final career step to national office.

We estimate the gap between workers and non-workers by regressing each variable for ambition on a dummy variable for being a worker. Figure 5 plots these gaps with 95% confidence intervals. One regression specification includes fixed effects to narrow the comparison by geographic region, time point, and party, and the other adds controls for age, global region of birth, sex at birth, and a dummy for being a full-time student (details in figure note).

Workers in the population have a lower average level of nascent political ambition than non-workers. They are 5–7 percentage points less likely to state a willingness to become a local politician, which corresponds to 24–33% of the population average on this measure.¹⁴ This

¹³ In Swedish: Skulle du kunna tänka dig att åta dig ett politiskt uppdrag i kommunen för det parti som du sympatiserar med?

¹⁴ Additional comparisons indicate that workers are about 40% less likely to self-report a serious interest in politics and 40% less likely to report being friends or acquaintances with at least one local politician (estimates in Appendix Figure W10).

result contrasts with those for progressive ambitions, where workers have, if anything, a higher level among both local councilors and local party leaders.

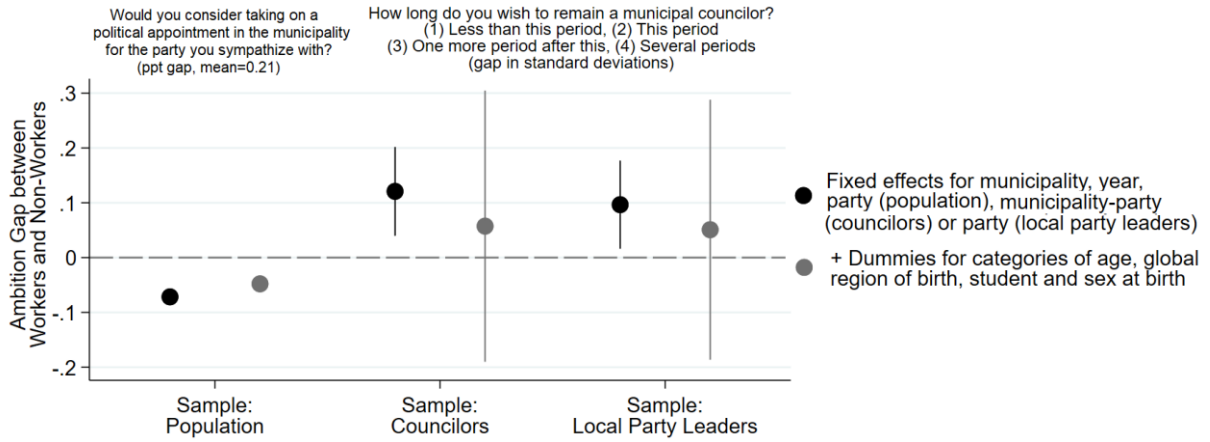


Figure 5. Gaps in political ambition between workers and non-workers.

Notes: The figure shows estimated coefficients from a regression of self-rated political ambition on a binary indicator for having a working-class occupation. Black and gray markers show estimates from two regression specifications (see legend) and vertical lines denote 95% confidence intervals. Demographic controls include a dummy variable for female sex at birth, dummies for five age categories, two dummies for being born in Europe (excluding Sweden) and outside of Europe, and a dummy for being a full-time student. Pooled annual survey cross-sections come from the Regional SOM survey in Western Sweden in 1995–2003. Data on politicians’ ambition levels come from the 2012 KOLFU survey (Karlsson and Gilljam 2014). Working class is self-reported on a list of class categories (details in Appendix subsection W3). N(population)=18,325. N(Councilors)=5,425; N(Local party leaders)=840.

Figure 6 shows estimated gaps for four measures of attitudes and personality traits (summarized below with details in Appendix Section W3). The first is self-reported *public service motivation* measured using an index based on a battery of questions about private versus altruistic motives (the Perry Score developed by Kim et al. 2012). The second measure is an *index of morality* contained within the HEXACO personality inventory developed by social psychologists (the Honesty-Humility Score, Lee and Ashton 2004).

The third and fourth measurements are based on self-reported levels of effort in their current political position. We use survey data to calculate politicians’ *hours of political work per week* conditional on the number of formally remunerated hours by virtue of their political position(s) in the local government structure. We measure *campaign work* as their self-reported share of the local party’s political campaigns in which they participated during the last year. Both measurements are standardized to z-scores.

For each competence proxy, we compare workers and non-workers at different career levels. We find no substantively meaningful gaps in attitudes and personality traits. The sample of municipal councilors contains some negative coefficients that indicate a gap to workers’

disadvantage, but their small sizes (less than 0.1 standard deviations) classify them as substantively unimportant according to the standard *Cohen's d* categorization (Cohen et al. 1988).

The results for cognitive skills exhibit medium-sized gaps to workers' disadvantage. Looking at the population of men born in 1959–1979 for whom we have cognitive test scores, workers have a 0.3–0.2 lower average score at all three lower career levels. We find a similar-sized disadvantage of 0.3 standard deviations for high school grades, which we measure as standardized within-cohort percentiles of the GPA distribution.

The third competence measure is derived from the assumption that ability is priced in the labor market. We use an earnings regression for all employed permanent residents to benchmark yearly deviations in each person's annual earnings relative to their peers of the same sex, age, municipality of residence, education level, and industrial sector (Besley et al. 2017, further details in Appendix Section W3). We call the standardized residual from this equation the Earnings Score. Workers' disadvantage in this variable is relatively small, ranging from 0.25 standard deviations in the population to 0.1 for local party leaders.

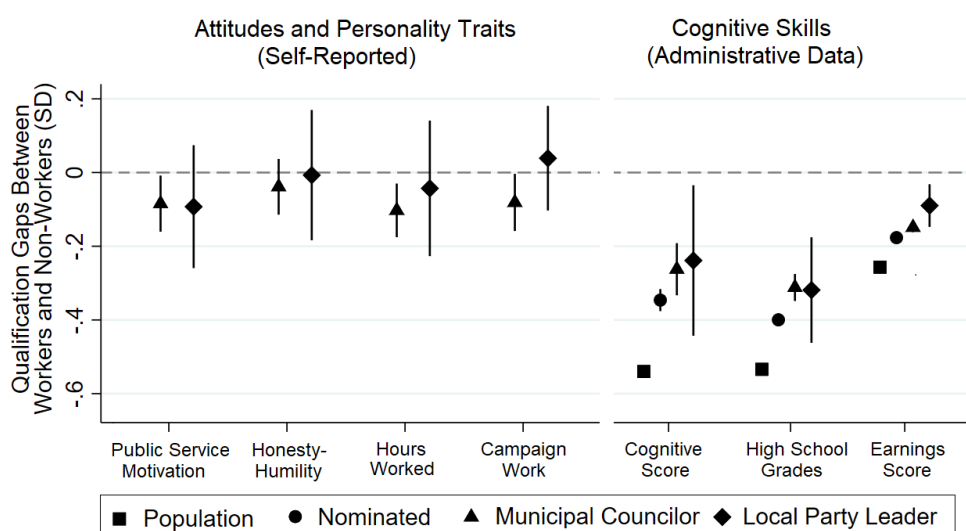


Figure 7. Gaps in political competence between workers and non-workers.

Notes: The figure shows estimated coefficients from a regression of competence measurements (listed on the X-axis) on a dummy variable for being a worker. See note for Figure 6 for list of demographic controls). Fixed effects vary across the samples as follows. Population: municipality-year; Nominated and councilors: municipality-year-party; Local party leaders in administrative data: municipality, party, and year; Local party leaders in survey data: party. High school grades are standardized within-cohort percentiles for graduates in 1973–2018; Leadership scores from military draft tests taken by male cohorts in 1953–1979; the Earnings Score is an earnings-based competence measure calculated using data for the entire Swedish workforce. Data on attitudes and personality traits is from the 2017 KOLFU survey (Karlsson 2017) and details on all measurements and the survey are presented in Appendix Section W3. N(KOLFU local councilors)=4,638; N(KOLFU local party leader)=1,009.

For all three measurements of cognitive skills, the gaps between workers and non-workers are half as large among politicians as they are for the entire Swedish voting-age population. This suggests that the selection of workers into politics is more positive than for non-workers, which replicates Dal Bó et al.'s (2017) results for parental social class. The remaining gaps offer a potential explanation of why political parties are less likely to promote workers to higher positions, which we formally test in the next section.

We use the nationally representative survey data to create four binary indicators for inflexible work conditions. They take a value of 1 for respondents who (1) have no schedule flexibility, (2) work non-daytime hours, (3) have split shift work¹⁵, and (4) cannot work from home. We pool all cross-sections of available survey data and calculate averages of each indicator across 4-digit occupations. We then take the average of these four averages in each occupation and match this average to our main dataset. The final index of inflexibility is a z-score of this occupation-level variable in the full dataset. Appendix Subsection W2 and Table W3 provides more data and measurement details.

As expected, workers have more inflexible occupations. In the average worker's occupation, 60% reported having no schedule flexibility compared to 25% of non-workers. These gaps are even wider for the other indicators: 34% vs. 12% for non-daytime work, 11% vs. 3% for split-shift work, and 91% vs. 63% for having no opportunities to work from home. The difference in the combined inflexibility index is 1.44 standard deviations. If occupation flexibility is related to promotion opportunities in politics, this could be a very important explanatory factor for workers' lower likelihood of promotion. The large gap comes with the empirical challenge of multicollinearity, however. The correlation coefficient between the flexibility index and the worker dummy is 0.7.

Political parties. We test whether workers have a lower average probability of promotion from one career step to the next by estimating:

$$Y_{it} = \alpha_{pmt} + \beta W_i + D_{it} + E_{it} + Q_{it} + e_{it} \quad (1)$$

where Y_{it} is a dummy variable for promotion to a higher adjacent career position in election t . It takes a value of 1 for politicians who advance in t , and 0 for those who do not advance. One reason for not advancing is leaving politics, an event that is not more common among workers than non-workers (we return to this issue below). We run regression (1) separately for entry as

¹⁵ Multiple working periods on the same day separated by a long unpaid break.

a nominated politician, promotion to councilor, local party leader, and parliamentarian. In each case, the sample includes everyone who held the lower adjacent position in the previous election. We cluster the standard errors at the individual level.

The main variable of interest in Equation (1) the dummy variable for being a worker, W_i . Its estimated coefficient β captures workers' relative probability of being promoted in percentage points. We do not report this metric but instead divide the estimated coefficient by the average of the outcome variable. The resulting number represents the gap in promotion probability measured as a percent: -0.5 equates to a 50% smaller likelihood of promotion among workers than non-workers.

We always include fixed effects for combinations of party-municipality-election when estimating Equation (1). These dummies restrict the statistical comparisons of workers and non-workers, which are averaged in the coefficient β , to politicians running for the same party, in the same municipality, and in the same election. Adding a vector of dummies for socio-demographic traits D_{it} further nets out promotion gaps between social classes stemming from the potentially correlated identities and inequalities associated with age, sex at birth, global birth region, or being a full-time student. To make the promotion ladder meaningful, we restrict the sample to municipal-level parties with at least five elected councilors.

We add dummy variables E_{it} to denote the politician's number of previous election periods as a municipal councilor to hold constant political seniority in the estimations of promotions to the two highest career rungs. The strong seniority principles in Swedish parties make seniority a basic qualification for promotion, comparable to job or sector tenure in a Mincer-style earnings regression for the private labor market (Mincer 1974, for politics, see e.g., Hirano and Snyder 2013). Controlling for this qualification puts our estimation closer to the ideal of holding observable qualifications constant when comparing workers to non-workers.

Seniority differs from our other competence measures in an important way. A gap in this qualification can be a direct consequence of the class ceiling, in which case including this control will account for some of the phenomenon we seek to quantify. Small gaps in seniority between workers and non-workers limit this concern, however, and we include the control variable while recognizing its potential endogeneity.¹⁶

¹⁶ Among local councilors in the main estimation sample (Column 2 in Table 1), the average number of previous periods in that office is 1.55 for workers and 1.84 for non-workers. Among local party leaders it is 3.09 for

The variable vector Q_{it} contains the three competence variables. A lack of data overlap prevents us from adding all three at once. Table 1 starts with a specification including the fixed effects for socio-demographics only in Column 1, adds dummies for seniority in Column 2 and then adds the Earnings Score variable in Column 3. The next specification re-estimates the basic specification in the data sample with non-missing high school grades in Column 4 and adds the two variables for grades and Earnings score in Column 5. Columns 6 and 7 do the same for the cognitive score. Estimating a version of Equation (1) without the worker dummy shows that all three measurements correlate positively and strongly with the likelihood for political promotion (Appendix Table W7).

All estimated promotion gaps are large, negative, and statistically significant at conventional levels. The estimates in Column (1) indicate that workers are 50% less likely to enter politics as a local candidate, 40% less likely to move to the level of councilor, 30% less likely to become a local party leader, and 60% less likely to go from elected municipal office to parliament. Holding politicians' seniority at the local level constant in Column (2) reduces the disadvantage in party leadership somewhat and shrinks the disadvantage in parliamentary promotions by 15% (from 60% to 50%).

Comparing the estimates in Columns 2 and 3 illustrates that the Earnings Score measure of competence explains very little of the workers' promotion disadvantages. The same is true for combining the Earnings Score and high school grades (comparing columns 4 and 5); together, these explain one-third of the disadvantage in becoming party leader. It explains less of the other gaps, however, and even after including these controls, workers' disadvantage in that promotion remains large at 30%.

We add the index of inflexible work conditions to the career regression to see if this variable explains' workers lower chances of promotion (results in Web Appendix Table W9). Perhaps surprisingly, the regression coefficient on the index is near zero for lower-level promotions and small for higher levels. Including the control nevertheless reduces the estimated promotion disadvantage by about a quarter for the three higher promotions. Time constraints imposed by the occupation appear to partly explain the promotion gap, although the strong

workers and 1.17 for non-workers, and among parliamentarians the average worker has 2.24 periods in office as a municipal councilor and the average non-worker has 2.37 periods. We exclude elections before 1982 in this calculation due to time truncation.

correlation between the worker dummy and the inflexibility index inflates standard error and prevents us from drawing clear conclusions about the exact importance of this variable.

Table 1. Gaps in promotion probabilities between workers and non-workers.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
DV: Entry from Population to Nominated = 1							
Worker = 1	-0.543*** (0.005)		-0.563*** (0.005)	-0.414*** (0.009)	-0.380*** (0.010)	-0.647*** (0.014)	-0.510*** (0.015)
Observations	44,630,774		43,178,534	17,045,663	16,812,712	8,159,313	8,143,817
DV: Promotion from Nominated to Elected=1							
Worker = 1	-0.393*** (0.020)		-0.342*** (0.021)	-0.322*** (0.041)	-0.223*** (0.041)	-0.426*** (0.047)	-0.288*** (0.047)
Observations	131,679		131,283	39,593	39,437	27,896	27,861
DV: Promotion from Elected to Local Party Leader = 1							
Worker = 1	-0.355*** (0.032)	-0.329*** (0.031)	-0.305*** (0.031)	-0.524*** (0.088)	-0.478*** (0.088)	-0.516*** (0.116)	-0.459*** (0.117)
Observations	53,464	53,464	53,308	12,887	12,840	7,971	7,954
DV: Promotion from Municipal Councilor to Parliamentarian = 1							
Worker = 1	-0.689*** (0.094)	-0.587*** (0.093)	-0.555*** (0.092)	-1.148*** (0.283)	-1.031*** (0.282)	-1.137*** (0.372)	-1.044*** (0.370)
Observations	62,762	62,762	62,586	15,625	15,569	10,035	10,010
F.E.s for party-muni- year	x	x	x	x	x	x	x
F.E.s for socio-demographic traits	x	x	x	x	x	x	x
Seniority		x	x	x	x	x	x
Earnings Score			x		x		x
Grade Sample				x	x		
Grades					x		
Cognitive Score Sample						x	x
Cognitive Score							x

Notes: The table reports gaps in promotion probabilities between workers and non-workers across adjacent rungs on the political career ladder. OLS squares estimates in percentage points are rescaled by the mean of the outcome variable so that -0.5 in the table equals a 50% lower promotion probability. See note for Figure 6 for list of demographic fixed effects. Tables W8A-D reproduces the table with control variable estimates. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

We end this section by addressing some potential concerns about our promotion analysis. One concern might be the existence of other important career pathway(s) with substantially different chances for workers. However, the similar proportions of workers among politicians who enter parliament from the local level (11%) or directly at the national (13%) makes it unlikely that our results would change by including “careerists” without local experience (e.g., O’Grady 2019; Durose et al. 2011).

A second concern might be that attending tertiary education delivers key competencies for political office. Appendix Table W10 runs two variants of the basic promotion regression in Table 1 of Column 2 to address this point. One adds dummy variables for seven levels of education, and the other excludes individuals with a college or university degree. Of the eight estimated promotion gaps across these two variants, the largest reduction in the size of workers' promotion disadvantage compared to the main analysis is 30%. The large remaining gaps makes it unlikely that a lack of skills learned in tertiary education is a main explanation for workers' promotion disadvantage.

Third, we might be concerned that voluntary exits drive workers' lower promotion probabilities. The small gaps in political seniority and self-stated progressive political ambitions contradict this idea. Estimating gaps in re-nomination and re-election provides additional evidence (results in Appendix Table W11). Workers are somewhat less likely to be re-elected to the municipal council, but this is mainly due to lower ballot ranks. There is no gap in the likelihood to be re-nominated, which further contradicts that voluntary exits play an important role.

Labor unions. We create a dummy variable to denote having an organizational tie to a blue-collar labor union. It takes a value of 1 for people with some experience in full- or part-time union employment, including paid positions as a union representative, and 0 otherwise (details in Appendix sub-section W3.6). Union ties become observable in 1985 and, as before, we cannot observe social class in the 90s. We therefore conduct the analysis of union links from 2002 onward. Our measurement identifies 5% of the population aged 18 or over in the five election-year cross-sections between 2002 and 2018 as having an organizational tie to a blue-collar labor union.

The share of politicians with union ties differs strongly between political parties and by the politician's social class (see Figure 8). Ties are most common in the Social Democrats, especially among workers in parliament. Ties are also relatively common in the Left Party, which lacks official collaborations with specific unions but actively encourages union-party collaborations and union influence over candidate nominations (Left Party 2022). The near-total absence of union ties among Sweden Democrat politicians is un-surprising given this party's antagonistic relationship with organized labor.

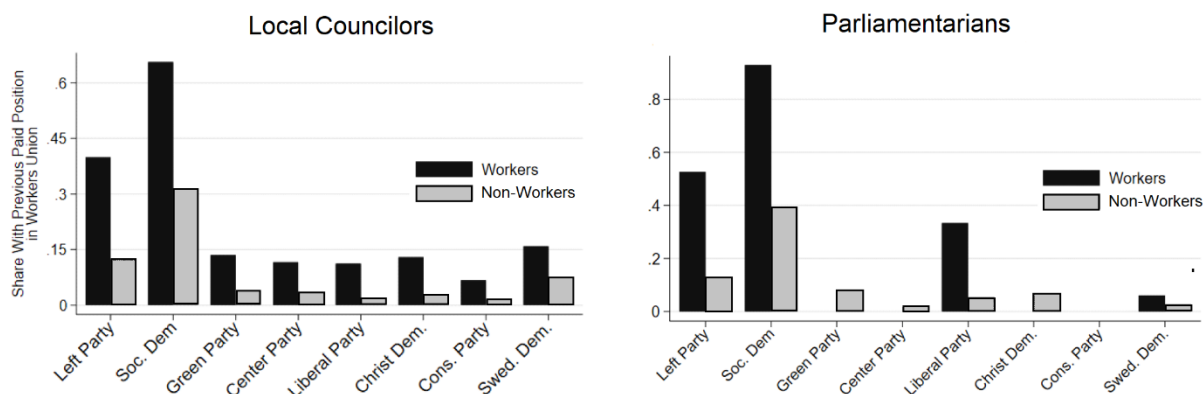


Figure 8. Proportion of politicians with organizational ties to blue-collar labor unions.

Notes: An organizational tie is defined as having held a paid position (>10 USD) in a blue-collar union at any time since 1985. Pooled data for elected politicians in 2002–2018. N(Local Councilors)=60,217; N(Parliamentarians)=1,557.

We compare the promotion probabilities of workers with or without organizational ties to non-workers. This amounts to splitting the worker dummy in regression Equation (1) into two dummies, one for workers who have a tie to a blue-collar labor union and one for workers who do not. The large disparities in organizational ties across parties motivates us to run this analysis separately for left-leaning parties and other parties. Because we are mainly interested in testing whether organizational ties help workers overcome the class ceiling, we include controls for seniority and cognitive skills (the Earnings Score variable) in these specifications.

Organizational ties to blue-collar labor unions help workers overcome their promotion disadvantage in politics, but only to lower-level political positions in left-leaning parties. In these parties, workers with union ties are *more* likely than non-workers to enter politics, and equally likely as non-workers to become an elected local councilor (Column 1 in Table 2). Workers without union ties have the familiar disadvantages in both steps. The advantage of having a union tie disappears for the two higher career rungs in left-leaning parties: we instead see similar-sized disadvantages for workers with or without union ties. While the two estimates have similar magnitudes for promotion to parliament, low statistical precision warrants some caution in this interpretation.

In center-right parties, workers with and without union ties have similar-sized promotion disadvantages at lower levels. At higher levels, those with a union tie have, if anything, a greater disadvantage – nearly twice as large as that for workers without ties.

Table 2. Gaps in promotion probabilities by politicians' organizational ties to labor unions.

	Sample: Social Democrats and Left Party	Sample: The Other Parties
	(1)	(2)
Population to Nominated		
Worker without union tie = 1	-0.740*** (0.014)	-0.537*** (0.007)
Worker with union tie = 1	4.162*** (0.032)	-0.463*** (0.016)
Observations	28,014,994	28,014,994
Nominated to Elected		
Worker without union tie = 1	-0.476*** (0.054)	-0.418*** (0.041)
Worker with union tie = 1	-0.050 (0.043)	-0.303*** (0.091)
Observations	27,226	31,697
Elected to Local Party Leader		
Worker without union tie = 1	-0.267*** (0.079)	-0.287*** (0.110)
Worker with union tie = 1	-0.204*** (0.066)	-0.563** (0.271)
Observations	12,989	10,669
Municipal Councilor to Parliament		
Worker without union tie = 1	-0.416* (0.236)	-1.069*** (0.329)
Worker with union tie = 1	-0.321 (0.201)	-1.808** (0.829)
Observations	14,691	12,683
F.E.s for party-municipality-year	x	x
F.E.s for sociodemographic traits	x	x
Seniority	x	x
Earnings Score	x	x

Notes: The table reports estimates for Equation (1) after splitting the working-class dummy variable into two dummies for workers with vs. without organizational ties to labor unions. Standard errors clustered at the individual level in parentheses. See the note to Table 1 for the recalculation of the estimates to values in percent and the specification of control variables. Table W12 reproduces the table with control variable estimates. *** p<0.01, ** p<0.05, * p<0.1

7. Discussion and conclusion

Our paper traces the careers of almost 80,000 politicians over a 50-year period to document how working-class individuals gradually leak out of each segment of the political career pipeline. The main explanation for why this happens relates to parties' internal promotion processes; other explanations are less important. Voters do not prefer non-workers, and workers do not lack progressive career ambitions or the types of attitudes and work ethics believed to constitute "soft" competence for political office. While workers score lower on "hard" competence measures like high school grades or cognitive tests taken at a young age, these differences explain only a small fraction of workers' lower chances of promotion. This result

underpins our main conclusion about biased promotion processes—a class ceiling in party organizations that prevents workers from reaching parliament.

Our analysis suggests that lower time-space flexibility in working-class occupations may contribute to workers' under-representation in politics by encroaching on their time investments. Further exploring this potential explanation for workers' under-representation is a promising avenue for future research. A related avenue might be to investigate the compatibility of different occupations with a political career in terms of allowing people to switch back and forth between the two sectors over longer time horizons (Iversen and Rosenbluth 2010).

Our results indicate that policy efforts to boost workers' numerical representation need to be multifaceted and target both lower and upper rungs on the career ladder. A one-sided focus on encouraging workers to *enter* politics will likely fall short due to disadvantages further up the career ladder, just as a one-sided focus on promotion to parliament will likely prove inadequate because disadvantages at lower levels restrict the candidate pool at the top. The results strongly suggest that political parties should be front and center in efforts to improve representation. These efforts could focus on parties with large working-class electorates. In Sweden, the Social Democratic Party contributes a large share of the “missing” workers in parliament; center-right parties are less problematic because, although they promote few workers to parliament, workers do not vote for these parties in any significant numbers.

How do our results extend beyond Sweden? A particularly useful insight might concern the role of the party system. Sweden's relatively high level of worker representation in parliament (Carnes and Lupu 2023a) appears to be explained in large part by its large labor party being strongly embedded in the labor movement. Over the past 50 years, this party has contributed the lion's share of the country's working-class parliamentarians. The rise of the radical right in the last decade offers a dramatic and interesting shift – the rapid growth of a party with a strong working-class presence among voters and politicians despite an antagonistic relationship with organized labor. Future research might study the implications of this shift for various traits of working-class politicians (building on research on competence, ideology, etc., Dal Bó et al. 2023; Micozzi 2018). Another worthwhile topic might be whether workers' changing party choices from labor to radical-right parties are based in an elitist skew among labor parties' personnel (as broadly argued by, e.g., Kuziemko et al. 2022).

Studies of workers' career paths in other countries need to adapt the operationalization of the career ladder to the relevant structure in those contexts. While local-to-national careers are

common in many countries, subnational and national careers sometimes represent “different worlds” (Stolz 2003). Pure national-level career paths might represent a greater relative challenge for workers in other contexts, especially if universities play a more important role in such “careerist” pathways (Durose et al. 2011; O’Grady 2019). Studies in other countries might also need to adapt the set of individual resources analyzed. For example, economic means are relevant when campaigns are expensive and financed by the politicians themselves. How political parties allocate campaign funds and other campaign-related resources is also an obvious point of interest in majoritarian and open-list proportional representation systems. Where politicians’ families are part of their election campaigns, spousal support could be an individual resource that differs by social class.

Lingering doubts regarding our conclusion about the *class ceiling* might stem from workers’ decisions to leave politics or our ability to quantify all relevant qualifications that might differ between the two groups. Two results are worth highlighting in this regard. Our analysis showed small or zero gaps in re-election and renomination, which suggests that a failure to advance in political parties, rather than voluntary exits, accounts for workers’ promotion disadvantage. Second, we found a large promotion disadvantage for workers even after dropping everyone with a tertiary degree from the analysis. This strongly contradicts the assumption that a lack of skills or qualifications learned in tertiary education explains why workers are absent from parliaments in Sweden and elsewhere.

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Web Appendix

The Class Ceiling in Politics

W1. The “so what?” question of preference representation

There is a strong social justice argument for numerical political representation by social class. Instrumental arguments include potential positive impacts on substantial and symbolic representation. As discussed in the paper’s introduction, if there are more workers in political office, this may shift the output of the political system toward working-class citizens’ preferences and improve perceptions of the democratic system’s legitimacy.

Theories about democratic governance in multiparty systems assume that political preferences differ by social class (Lipset and Rokkan 1967; Kitschelt 1994). The party system embodies this left–right ideological divide in parties’ political platforms – and, according to the “mass party” model, in the selection of their politicians.

A very large research literature documents systematic differences in left–right political ideology and preferences by social class (examples include Lipset 1959; McCall and Manza 2011; Svallfors et al. 2012). The literature on politicians’ ideology and preferences is also relatively large. US members of Congress from the working class vote more liberal and less conservative than those with experience in white-collar occupations and businesspeople on economic issues (Carnes 2012). Bartels finds that U.S. senators’ roll-call voting is more congruent with high-income residents’ opinions (Bartels 2009). Carnes and Lupu (2015) establish that Argentinian legislators from working-class backgrounds propose and co-sponsor bills that are more leftist on labor, economic, and redistributive issues. Papers that can estimate a causal effect of a politician’s social class on political outcomes are rarer. One exception is Hemingway (2022), who finds that Finnish municipal councilors with a working-class background increase social spending more than those with a background in business. Another is O’Grady’s (2019) analysis of working-class legislators’ policy influence within the British Labor Party.

We provide descriptive evidence that aligns with the notion that having political representatives with a working-class background increases workers’ substantive political representation. We conceptualize substantive representation by social class as parties channeling different proportions of social classes into political office and choosing policies that

match these classes' preferences along the left–right political divide. This conceptualization is consistent with one observation at the individual level and three observations at the party level.

At the individual level, we should observe that working-class voters and politicians have more leftist political preferences than those from other social classes. At the party level, we should observe that parties with more working-class voters also have more working-class politicians, and that these parties have more leftist political positions than other parties.

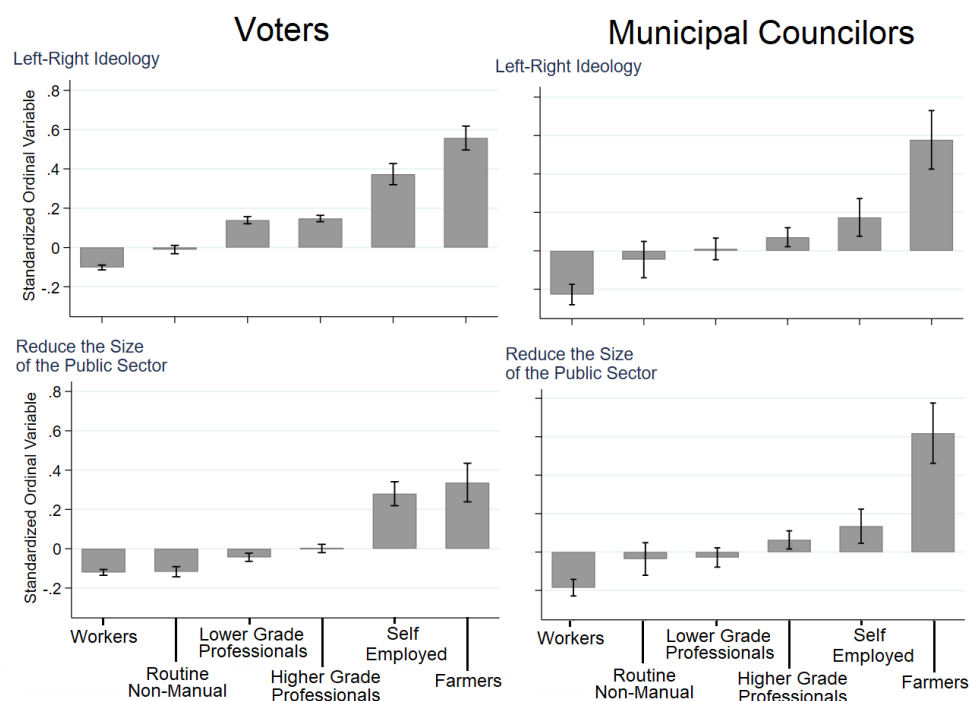


Figure W1. Means of political ideology and preferences by social class.

Notes: The figure shows the means with 95% standard errors for left–right ideology and preferences for reducing the size of the public sector among voters and municipal councilors by social class. Ideology and preferences are standardized ordinal variables. Left–right ideology is based on answers to the question “People sometimes say that political opinions can be placed on a scale from left to right. Where would you place yourself on a scale like that?” (1) Clearly to the left, (2) Somewhat to the left, (3) Neither to the left nor to the right, (4) Somewhat to the right, of (5) Clearly to the right. The preference question asks “Below is a number of proposals which have formed part of the political debate. What is your opinion on each one of them? – Reduce the size of the public sector”: (1) A very bad proposal, (2) A pretty bad proposal, (3) Neither a good nor a bad proposal, (4) A pretty good proposal, (5) A very good proposal. N(Voters, left–right ideology)=57,510, N(Voters, welfare state reduction)=34,311; N(Councilors, left–right ideology)=4,964; N(Councilors, welfare state reduction)=6,214. Appendix Section W3 defines social classes in both surveys.

We follow Carnes’s (2012) empirical study by selecting left–right political ideology and preferences about domestic economic policies as the focus of the analysis, and showing variation in these measurements across many social classes. Left–right ideology is available in both our voter survey (SOM 2005–2020) and our politician survey (KOLFU 2017), and in answers to a question about whether the size of the welfare state should be reduced (SOM 2005–2013 and KOLFU 2017). We standardize the ordinal categorical score for each of these survey

questions. Figure W1 displays averages by social class among voters and municipal councilors after applying the same sample restrictions as in the main analysis of these two surveys. It illustrates that workers have the lowest value on both variables, i.e., of the six class categories, they are most leftist and most negative on reducing the size of the welfare state.

The paper's main analysis establishes that parties with more working-class voters also have more working-class politicians. Shares of both are higher in left-leaning parties (Left Party and Social Democrats) and in the radical right (the Sweden Democrats) compared to center-right parties (Appendix Table W5 and Appendix Figure W7).

The third piece of evidence links each party's share of workers to their average ideological positions. Figure W2 plots averages of the ideology and preference variables by party among voters and councilors against the share of workers in the corresponding group (voters or politicians). With the exception of the Sweden Democrats, parties with higher shares of workers have much more leftist views on average. This party has the highest share of workers but a political ideology that is nearly on par with Sweden's center-right parties.

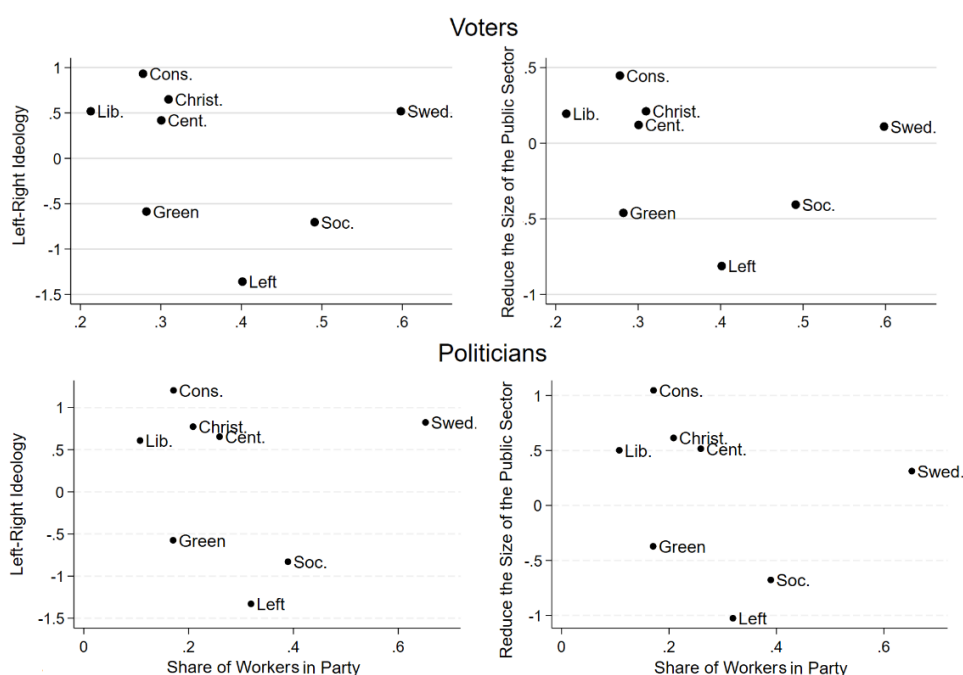


Figure W2. Share of workers in parties and average left–right ideology and preferences.

Notes: The figure shows party-level averages for the share of workers among voters (top) and politicians (bottom), and voters' and politicians' left-right ideology and preferences for the size of the public sector. Pooled data on voters from the national SOM surveys and cross-sectional data on municipal councilors from the 2017 KOLFU survey. Sample sizes and variable definitions appear in the notes to figure W1.

A more demanding test of substantive representation might require that the preferences of working-class politicians differ from those of other (non-worker) politicians in their party. This

would indicate that increasing the share of working-class politicians within a party shifts its platform to the left. This dynamic approach might not be true if the political system is in a “steady state” in which parties’ long-standing political platforms change slowly and different parties attract people from different social classes whose ideology mostly aligns with these pre-existing and slow-changing platforms. In this situation, dramatic disagreement by social class within political parties may not appear even if social classes were fundamental in platform development.

Table W1. Ideology and economic preferences relative to the working class.

	Sample: Citizens			Sample: Elected Municipal Councilors		
	DV: Left–Right Ideology (SD)			DV: Reduce the Size of the Public Sector (SD)		
	(1)	(2)	(3)	(4)	(5)	(6)
Reference=Workers						
Routine Non-Manual=1	0.09***	0.13***	0.03**	0.18***	0.13**	0.02
Lower-Grade Professionals=1	0.24***	0.26***	0.06***	0.24***	0.13***	0.02
Higher-Grade Professionals=1	0.25***	0.27***	0.06***	0.30***	0.16***	0.02
Self-employed=1	0.48***	0.48***	0.12***	0.40***	0.30***	0.02
Farmers=1	0.66***	0.63***	0.14***	0.81***	0.79***	-0.00
Observations	63,416	27,862	25,813	4,964	4,859	4,858
	DV: Left–Right Ideology (SD)			DV: Reduce the Size of the Public Sector (SD)		
Reference=Workers						
Routine Non-Manual=1	0.00	0.11***	0.04*	0.15***	0.14***	0.03
Lower-Grade Professionals=1	0.08***	0.14***	0.02	0.16***	0.10**	-0.00
Higher-Grade Professionals=1	0.12***	0.23***	0.08***	0.25***	0.14***	0.00
Self-employed=1	0.40***	0.40***	0.19***	0.32***	0.24***	-0.00
Farmers=1	0.46***	0.43***	0.17**	0.80***	0.71***	0.09
	34,311	15,039	14,109	6,214	6,081	6,080
F.E.s for Sex, Age, Education		Yes	Yes		Yes	Yes
F.E.s for Municipality and Year		Yes	Yes		Yes	Yes
F.E.s for Party			Yes			Yes

Notes: Ordinary least squares (OLS) regression results from regressing the dependent variables on dummy variables for each social class and the control variables listed in the bottom of the table. Pooled data on voters from the national SOM surveys and cross-sectional data on municipal councilors from the 2017 KOLFU survey. Sample sizes and variable definitions appear in the notes to figure W1.

We regress the ideology and preference variables on dummies for each social class from Figure W1 and leave out the working class to make it the reference. The coefficients reported in Table W1 exhibit positive differentials between workers and non-workers: non-workers are more rightist in their political ideology and more positive about reducing the size of the welfare state. Adding demographic control variables and municipality and time fixed effects does not change this pattern. Once we control for political party, however, all gaps between social classes disappear in the sample of politicians and decline to less than half their size in the sample of

voters. We conclude that class divides in Swedish politics are largely incorporated into the political party system, at least among politicians.

W2. External validity of local-to-national political careers

Our stylized career model assumes that political careers progress from the subnational to the national level. This section discusses the international relevance of this assumption. Table W2 presents a simple diagnostic from previous studies – the proportion of parliamentarians with experience in subnational elected office before entering parliament.

In most countries for which we were able to locate statistics, most parliamentarians have a background as an elected politician at the subnational level. Proportions are above two-thirds in the Nordic countries, Brazil and France, and around 50% in Spain, Italy, Mexico, and Germany.

Other relevant studies use alternative conceptions of career paths. For example, Durose et al. (2011) observe that the “traditional” career path to parliament in the UK goes from local party involvement and local elected office to national office. They also note that a different pathway via university and national political organizations has become more important over time. Korom (2022) produces a thick description of positions listed on Austrian parliamentarians’ CVs for cohorts starting in the mid-1940s to today for the two largest parties. About 20–25% of parliamentarians report experience as a mayor on their CV, 10% report experience in regional government, 15–25% in state parliaments, 30–40% in municipal councils, and 5–10% in city councils.

Another relevant observation from previous research is that the subnational level offers a separate career path that ends there. It is certainly true in the Swedish case that the position of mayor of a municipality is often more politically important than a backbench position in parliament. Local careers may be more insulated from the national level in federal systems, but this varies from country to country (Stolz 2003). Across six countries, the proportion of parliamentarians who previously held elected office at the regional level ranges from 6% in Canada to 68% in Switzerland. Although our paper focuses on explaining workers’ absence from parliament, our results also speak to workers’ likelihood of obtaining top positions in the local political hierarchy. This is especially true for the alternative definition of the career ladder that includes post-election appointments to positions in the local government, including the equivalent of Mayor (Appendix Figures W8 and W9).

Table W2. Proportion of parliamentarians who previously held subnational political office.

Country	Elected body	Time	Proportion with prior subnational office	Variable	References	Data source (publicly available)
Italy	House and Senate	2013	42%	Previously elected to municipal, provincial, or regional office after 1987	Profeta and Woodhouse (2022), Baltrunaite et al. (2014)	Administrative data (No)
France	Parliament	2007,	88.4%	Elected to any subnational elected office before entering parliament	Rainbow Murray, book manuscript, title TBD.	French parliament's website, politicians' personal webpages, Wikipedia, and news reports
		2012	88.1%			
		2017	69%			
Mexico	Chamber of Deputies and Senate	1997–2018	53.42%	Elected to any local office (city councilor, mayor, state legislator or governor) before entering parliament	Kerevel (2015)	Biographical information reported by politicians to Legislative Information System (a)
Finland	Parliament	1999–2019	75%	Contemporaneously holding a municipal council seat and a parliamentary seat	von Schoultz (2019)	Electoral administrative data
Norway	Parliament		>80%	Elected as a local councilor, regional councilor, or mayor prior to entering parliament	Cirone et al. 2021	Parliamentarians' biographies (b)
Spain	Congress	2004–2008	0.44	Prior elected position in municipal government	Carozzi and Gago (2023)	Information from politicians' public profiles on the websites of the Senate/Congress, public information from Google and LinkedIn
Spain	Congress	2019–2022	0.43			
Spain	Senate	2019–2022	0.64			
Brazil	National congress	1996–2010	86%	Held a subnational elected position the election period before entry into parliament.	De Magalhães and Hirvonen (2015)	National Electoral Office
Germany	Parliament	1998–2014	39%	Held local executive position before entering parliament	Ohmura et al. (2018)	Biographies (No)
Germany	Parliament		3.4%	Held local legislative office before entering parliament		
Germany	Parliament		11.8%	Held land legislative office before entering parliament		

(a) <http://sil.gobernacion.gob.mx/portal>(b) <https://www.jon.fiva.no/data.htm>

Section W3. Data sources and variable creation

1. Attitudes and personality traits

1A. Public service motivation

We use the Perry score, which is based on a battery of questions about private vs. altruistic motives (Kim et al. 2012). The survey question asks: “How well do the following statements describe your views?” The response options are: (1) Disagree strongly, (2) Disagree a little, (3) Neither agree nor disagree, (4) Agree a little, (5) Agree strongly. The items are:

- I admire people who initiate or are involved in activities to aid my community.
- It is important to contribute to activities tackling social problems.
- Meaningful public service is very important to me.
- It is important for me to contribute to the common good.
- I think equal opportunities for citizens are very important.
- It is important that citizens can rely on the continuous provision of public services.
- It is fundamental that the interests of future generations are taken into account.
- To act ethically is essential for public servants.
- I feel sympathetic to the fight for the underprivileged.
- I empathize with other people who face difficulties.
- I get very upset when I see other people being treated unfairly.
- Considering the welfare of others is very important.
- I am prepared to make sacrifices for the good of society.
- I believe in putting civic duty before self.
- I am willing to risk personal loss in order to help society.
- I would agree to a good plan to make a better life for the poor, even if it costs me money.

1B. Honesty-humility

We use the HEXACO module of questions developed by social psychologists Lee and Ashton (2004) to construct an index for morality (the Honesty-Humility score). The survey question reads: “Below you will find a series of statements about you. Please read each statement and decide how much you agree or disagree with that statement. Answer every one of them, even if you are not completely sure of your response.” Each response is graded on the following scale: (1) Disagree strongly, (2) Disagree a little, (3) Neither agree nor disagree, (4) Agree a little, (5) Agree strongly. Response items are:

- I wouldn't use flattery to get a raise or promotion, even if I thought it would succeed.
- If I knew that I could never get caught, I would be willing to steal a million dollars.
- Having a lot of money is not especially important to me.
- I think that I am entitled to more respect than the average person is.
- If I want something from someone, I will laugh at that person's worst jokes.
- I would never accept a bribe, even if it were very large.

- I would get a lot of pleasure from owning expensive luxury goods.
- I want people to know that I am an important person of high status.
- I wouldn't pretend to like someone just to get that person to do favors for me.
- I'd be tempted to use counterfeit money, if I were sure I could get away with it.

1C. Hours worked

The survey question about hours worked asked the politician to approximate the number of hours spent on their “political engagement/job/position” in a “normal work week.” Because politicians hold different paid political appointments in the local government structure and these affect their workload in a mechanical manner, we measure hours worked conditional on their hours of paid political work. Statistics Sweden collects this information in a mandatory survey (*Förtroendemannauundersökningen*). We link the two datasets via the anonymized personal ID codes and run a regression of self-reported hours worked on dummy variables for each value (i.e., fixed effects) of the variable measuring the number of paid hours per week. We take the residual from this regression to measure hours worked relative to the number of paid work hours. In the final step, we transform the residual into a z-score.

1D. Campaign work

To measure participation in campaign work we must consider the large differences across parties and municipalities in how much parties campaign. We therefore ask in the KOLFU survey: “About how many political campaigns among citizens has your party carried out in your municipality?” and “How many of these did you participate in?” Our measure of campaign work is the self-stated number of campaigns the individual participated in divided by the number of campaigns the party carried out. We then transform this fraction into a z-score.

2. Cognitive skills

2A. Cognitive score

Military enlistment was mandatory for men born in 1953–1979. The 2-day enlistment process included an evaluation of each individual's cognitive abilities. Men generally enlisted in the year they graduated from high school. The cognitive evaluation was a written test assessing ability in problem solving, induction capacity, and numerical, verbal, spatial, and technology comprehension (Ståhlberg-Carlstedt and Sköld 1981). According to army expert Berit Carlstedt (2000), the Swedish enlistment test is a good measure of general intelligence. Others, such as the U.S. Armed Forces Qualification Test, focus more on “crystallized” intelligence, that is, teachable skills. We recalculate the cognitive test scores to a (stanine) scale such that a 5 is

reserved for the middle 20 percentiles of the test population, while 6, 7, and 8 are given to the next 17, 12, and 7 percentiles, and the top score of 9 to the uppermost 4 percentiles (scoring below 5 is symmetric).

2B. High school grades

Swedish high schools are required to submit all grades to the government reporting system. This data is available for cohorts graduating in 1973–2018. The 1973–1996 cohorts were graded on a scale of 1–5 in each subject. Since 1996, the grades have been Fail (U), Pass (G), Pass with distinction (VG), or Pass with special distinction (MVG). We standardize grades to z-scores by cohort and transform the standardized variable into a rank variable ranging from the 1st to the 100th percentile for easier interpretation.

2C. Earnings score

If ability is priced in the market, it shows up in earnings. Earnings may also reflect a number of other personal characteristics, however, such as education, choice of employment, or the time and place of employment. To obtain a measure of relative earning power that more likely reflects personal ability, we construct an earnings score following the approach of Besley et al. (2017). These authors use the residuals from a Mincer equation, defined over a large set of socio-economic characteristics. We estimate the Mincer equation year by year in the following form:

$$y_{i,t,m} = f(\text{age}_{i,t}, \text{edu}_{i,t}, \text{ind}_{i,t}, \text{sex}_i) + \alpha_{m,t,s} + \varepsilon_{i,m,t} \quad (\text{A1})$$

where the dependent variable $y_{i,t,m}$ is the annual earnings of person i in municipality m in year t . The independent variables are two sets of fixed effects. The first is a fixed effect for each possible combination of the variables $\text{age}_{i,t}$ (a set of binary indicators over 5-year intervals), $\text{edu}_{i,t}$ (a binary indicator for tertiary education), $\text{ind}_{i,t}$ (a set of 15 binary indicators for industry codes),¹⁷ and sex_i (a binary indicator for sex at birth). The regression also includes municipality fixed effects by sex at birth, $\alpha_{m,t,s}$, to capture systematic earnings differences

¹⁷ These are the same as the European NACE code and international ICIC code, namely: “agriculture, hunting and forestry,” “fishing,” “mining and quarrying,” “manufacturing,” “electricity, gas and water supply,” “construction,” “wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods,” “hotels and restaurants,” “transport, storage and communication,” “financial intermediation,” “real estate, renting and business activities,” “public administration and defense; compulsory social security,” “education,” “health and social work,” and “other community, social and personal service activities.” Two categories, “activities of households” and “extra-territorial organization and bodies,” have fewer than 30 individual-year observations. We therefore add the former to “other community, social and personal service activities,” and the latter to “public administration and defense; compulsory social security.”

across regions or urban vs. rural areas. This flexible specification allows for different age-earnings profiles across industry sectors and education levels. We run regression A1 for each year between 1970 and 2019. We predict the individual-level residuals from these regressions and standardize that variable within each year to a Z-score. We calculate each individual's average of these standardized residuals for all available years, standardize these averages into a new z-score and label this final variable the *Earnings Score*.

To minimize measurement error and endogeneity, we drop observations for full-time politicians, both while they are in office and after leaving office.

We rely on five sources of data. Between 1979 and 1974 we obtain industry codes from the nearest census year and from 1975 to 1989 we obtain them from the income and taxation database (IoT). Between 1970 and 1989 we obtain earnings data from the IoT register and education from the census data. Between 1990 and 2019 we get all three variables from *the longitudinal integrated database for health insurance and labour market studies* (LISA) database. Birth year and sex at birth always come from the population register. We obtain the municipality of residence from the census data between 1970 and 1978, from IoT between 1979 and 1989, and from the geography database between 1990 and 2019.

3. Inflexible occupations

To measure traits of occupations, we use the Swedish Work Environment Survey, the Swedish government's biannual survey that provides statistics on physical and psychosocial work conditions and how they have changed over time. It contains 100+ questions about work environment traits, as well as a 4-digit occupation code. The data is stratified by age, sex at birth, occupation, industry, and social class, which ensures that it is representative of the employed Swedish population (shown by, e.g., Folke and Rickne 2022). The survey supplements the Labour Force Survey (AKU) and is administered to a representative sample of the Swedish labor force. Each wave has 7,000–15,000 respondents. These respondents are entirely anonymous, and Statistics Sweden does not inform employers that their workers have been sampled. Workers are thus unlikely to feel pressured to self-report a certain way, reducing the likelihood of social desirability bias in responses. Table W3 lists the questions used to measure inflexible work conditions and how we code our variables.

Table W3. Creation of dummies for inflexible work conditions.

Question	Response categories	Our coding
Do you generally have opportunities to set your own work times?	1=Yes, I have schedule flexibility (defined as schedule without pre-specified start or end times) 2= Yes, I have a relatively free schedule 3=No, I generally cannot affect my own work times	Dummy for schedule inflexibility 1=3 0=1 or 2 Available for 1995–2019
Do you have split work shifts, i.e., scheduled shifts with an unpaid break of several hours in the middle?	1=Yes 2=No	Dummy for split-shift work 1=1 2=0 Available for 2015–2019
What fraction of your regular work hours do you usually work from home?	1=All my time or the great majority of my time 2=3–4 days per week 3=1–2 days per week 4=A couple of hours per week 5=I do not work from home	Dummy for no work from home 1=5 0=1–4 Available for 1995–2019
What type of work hours do you usually have? Do you have....(mark only one answer)	1. Daytime work (between about 0600 and 1800) 2. Evening work (between about 1800 and 2200) 3. Nighttime work (between about 2200 and 0600) 4. Shift work, two shifts 5. Shift work, three shifts 6. Work according to varying schedule	Dummy for shift work 1=1 0=2–6 Available for 1991–2003

4. Alternative measures of social class

4A. Class measured at age 37

The dummy for being a worker in the main analysis measures this status in each election year or as close as possible to that year. This alternative variable instead uses class measured as close as possible to the age of 37. We limit the sample to people for whom we can observe class between the ages of 35 and 40 and who were not full-time politicians at this age. For this sample, we use the class observation closest in age to 37, moving out from this value to each side (lower and higher values) within the 35–40 interval. The measurement’s theoretical foundation is the idea that a person’s occupational position in the labor market “matures” with age (Bihagen et al. 2022). Jobs held in one’s youth are worse approximations of social class than jobs held when an individual is in their late 30s.

4B. Most common class

For this variable we take all years between the ages of 18 and 65 for which we can observe an individual's class, excluding years in which they are employed full time as a politician. If an individual is classified as a worker (or non-worker) in more than half of these years, we define them as such. This alternative variable aims to correct for a potential situation in which occupations that a person holds while serving as a politician are unrepresentative of their labor market background.

4C. Low education

Swedish universities, colleges, and schools report education records to Statistics Sweden, which includes them in the LISA dataset. These statistics include an annual variable for each person's highest level of education. Information from immigrants is collected through surveys, and their education levels are categorized into a Swedish standard. We define someone as a worker if they have no tertiary education.

4D. Below-median income

We use a measure of annual earned income, constructed from individual tax records (there is no joint family taxation) including all earned income sources from wages and business ownership. Between 1968 and 1989 we obtain this data from the IoT data base and from the LISA database between 1990 and 2019. In each election year we take the full adult population (i.e., those aged 18–65) and define those that have an annual earned income below the median as a worker. We exclude those who have reached retirement age from this analysis.

4E. ISCO-based measurement

Following Carnes and Lupu (2022, Appendix B) we code ISCO 08 categories as follows. We count as working-class jobs 1-digit ISCO categories 4 (clerical support workers), 5 (service and sales workers), 7 (craft and related trades workers), 8 (plant and machine operators and assemblers), and 9 (elementary occupations). Carnes and Lupu count some unspecified sub-categories of category 6 (skilled farm workers) as workers. We select the following sub-categories: 9210 (agricultural laborers), 611 (Market gardeners and crop growers), and 614 (forestry and related workers). We cannot link the Swedish occupation code to the ISCO code before 1985, which limits the time span that we can study with this alternative definition.

5. Survey datasets

5A. *Swedish national election studies*

We do not use the raw data from the Swedish nation election studies, but instead rely on the aggregate statistics provided by Hedberg (2020). He defines the class variable based on self-reported occupation in all years except 2018, when self-reported class is used. While we do not have access to the exact coding scheme, the groupings identified in the text as underpinning the working-class definition are identical to the 7-category EGP classification used in our main analysis.¹⁸

5B. *National Society, Opinion and Media survey (SOM)*¹⁹

These annual population surveys are carried out by the SOM Institute in the University of Gothenburg's Department of Government. The sample for the national survey is a **random selection** of people aged 16–85 listed as living in Sweden drawn from the national tax agency register. Selected individuals receive information about the survey, as well as the survey itself, by standard mail to their home. Reminders are sent by mail and sometimes by text message. The survey can be completed on paper or online by logging onto a digital platform using a code provided with the survey.

The net response rate for the national SOM surveys is usually around 50%. Given that respondents do not self-select into the survey and occasionally cannot even be reached at their official addresses, the 50% response rate is high from an international perspective.

The national SOM survey is mainly financed by means of collaboration. Researchers from all across the country, as well as public organizations and Swedish authorities, collaborate to include research questions in addition to the SOM Institute's own. This process optimizes the data collection process without burdening the Swedish population with many different surveys.

The SOM survey contains occupation codes according to the classification scheme used by the official government statistics, which allows us to apply the same classification of EGP categories. It also contains a categorization of self-reported social class. This question asks the person to mark the option that best fits their “previous or current occupation type” and has the following options:

¹⁸ For more information about the surveys, see: <https://www.scb.se/en/finding-statistics/statistics-by-subject-area/democracy/general-elections/referenda-election-study/produktrelaterat/more-information/facts-about-the-election-study/>.

¹⁹ This subsection reports information from <https://www.gu.se/en/som-institute/the-som-surveys/method>. For more details, see Falk et al. (2021).

1. White-collar worker
2. White-collar worker with personnel responsibilities
3. White-collar worker with company management responsibilities
4. Blue-collar worker
5. Blue-collar worker with personnel responsibilities
6. Self-employed
7. Farmer with no employees
8. Farmer with one or more employees
9. Business owner with no employees
10. Business owner with 1–9 employees
11. Business owner with 10 or employees
12. Never worked

5C. The Regional SOM survey in Western Sweden²⁰

This annual survey is sent to a random sample of the population living in Western Sweden. It is carried out by the SOM Institute together with the regional authority of Västra Götaland. The method is largely the same as for the national SOM survey: a postal survey is sent to respondents with information on how to respond by mail or online. The age range is slightly wider than the national SOM survey, 16–90. Social class is measured as in the national SOM survey (5A).

5D. The Swedish local and regional council survey 2012 (KOLFU)

Gothenburg University sent this survey to all municipal and regional councilors in 2012 (Karlsson and Gilljam 2014). The response rate was 80%. We drop regional politicians and politicians from parties not represented in parliament. Social class was self-reported in response to the question “Apart from your political appointment, what is your main occupation?” with the following options:

1. White-collar worker
2. White-collar worker with personnel responsibilities
3. White-collar worker with company management responsibilities
4. Blue-collar worker
5. Blue-collar worker with personnel responsibilities
6. Farmer with no employees
7. Farmer with one or more employees
8. Business owner with no employees
9. Business owner with 1–9 employees
10. Business owner with 10 or employees
11. Home maker
12. Retiree
13. Retiree with disability insurance
14. Student

²⁰ Methodological details (in Swedish) in report 2023:5 of the SOM-institute (Den västsvenska SOM-undersökningen 2022 - En metodöversikt).

15. Unemployed

Retirement is a separate category, which prevents us from including retired people in the analysis. We also exclude those who answered stay-at-home spouse, early retirement, unemployed, or “other.” About one-fourth (24%) of elected local councilors in the remaining sample define themselves as working class (categories 4 and 5).

5E. The Swedish local and regional council survey (KOLFU 2017)

Gothenburg university conducted this survey using the same method as KOLFU 2012; they obtained a response rate of 67%. We link this wave of the survey to the administrative data using scrambled personal ID codes, which allows us to use the exact same definition of social class as in the paper’s main analysis.

5F. The Swedish work environment survey (AMU)

See Section W3.3 below.

5G. The Swedish labor force survey (AKU)

Statistics Sweden administers the monthly Swedish workforce survey (AKU) to a representative sample of the population aged 15–74. This is the official survey used to collect information about the development of the country’s labor market, for example to calculate the official unemployment rate. It typically has 10,000–15,000 respondents each month.

6. Union ties

We obtain our dummy variable for union ties by combining itemized data from tax records with survey data on union membership. We use the industry code to identify all payments from labor unions (blue- or white collar) in tax records for all payments above 10 USD in each calendar year (1985–2019). We then identify blue-collar unions by matching the (anonymized) individual ID-code for these pay recipients to survey data on union membership (the Swedish Labor Force Survey). We define an employing organization as a blue-collar union if at least 80% of its pay recipients self-report blue-collar union membership (and conditional on $N > 10$ in the survey data for that specific organization).

Tables and Figures

Table W4. Proportion of people who self-define as working class across EGP categories.

EGP Code		% Self-defined workers
11	Unskilled manual workers	74
21	Skilled manual workers	82
36	Routine non-manual workers	36
46	Lower grade professionals	22
56	Higher grade professionals	15
79	Self-employed	15
89	Farmers	18

Notes: The table reports the proportion of respondents who self-report as working class in 16 pooled yearly cross-sections of the Society, Opinion, and Media (SOM) survey, collected and kept by the University of Gothenburg (<https://www.gu.se/som-institutet>) (N=61,221).

Table W5. Share of workers among parties' voters.

	Social Democrats	Left Party	Green Party	Center Party	Liberal Party	Christian Democrats	Conservative Party	Sweden Democrats
1970	0.74	0.70		0.48	0.33	0.58	0.17	
1973	0.76	0.81		0.41	0.32	0.58	0.17	
1976	0.72	0.64		0.46	0.30	0.65	0.18	
1979	0.74	0.50		0.45	0.37	0.36	0.22	
1982	0.70	0.49	0.26	0.42	0.28	0.42	0.25	
1985	0.70	0.50	0.33	0.45	0.34	0.27	0.28	
1988	0.68	0.47	0.43	0.46	0.29	0.41	0.22	
1991	0.65	0.47	0.40	0.51	0.24	0.43	0.32	
1994	0.64	0.60	0.41	0.44	0.21	0.41	0.25	
2002	0.60	0.54	0.38	0.48	0.27	0.34	0.25	
2006	0.64	0.49	0.35	0.39	0.34	0.37	0.28	0.81
2010	0.63	0.42	0.29	0.41	0.28	0.38	0.36	0.74
2014	0.58	0.44	0.23	0.35	0.17	0.21	0.40	0.70
2018	0.59	0.56	0.40	0.41	0.31	0.46	0.33	0.68
Average	0.67	0.54	0.35	0.44	0.29	0.42	0.26	0.73

Notes: Shares of workers among each party's voters in each election are reported by Hedberg (2020) using data from the Swedish National Election Survey. This data contains our definition of workers from the EGP class scheme, to which we add students as non-workers. We combine the survey data with administrative data on the share of workers in the population in an election year to impute the expected share of the party's voters who are workers. The share of workers among the voters of party p in election t is given by $W_{ptm} = (Vs_{pt}^W * Pop_t^W) / (Vs_{pt}^W * Pop_t^W + Vs_{pt}^{NW} * Pop_t^{NW})$, where Vs_{pt}^W and Vs_{pt}^{NW} are national-level vote shares among workers and non-workers, and Pop_t^W and Pop_t^{NW} are population shares.

Table W6. Difference in preference votes between workers and non-workers.

DV: Residualized preference votes in standard deviations	(1) Sample: Nominated local politicians	(2) Sample: Nominated local politicians	(3) Sample: Elected local councilors	(4) Sample: Elected local councilors
Worker = 1	-0.029*** (0.003)	-0.046*** (0.003)	0.004 (0.014)	-0.041*** (0.014)
Dummies for categories of age, and global region of birth, as well as for sex at birth, and being a student in tertiary education		x		x
Observations	178,979	178,979	57,342	57,342
R-squared	0.398	0.405	0.413	0.427

Notes: Preference votes are measured as standardized residuals from a regression of the politician's number of preference votes on dummies for each list rank. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table W7. Validation of competence variables from administrative data.

	DV: Promotion from Nominated to Elected=1 (1)	DV: Promotion from Elected to Local Party Leader=1 (2)	DV: Promotion from Municipal Councilor to Parliamentarian=1 (3)
Seniority (# of prior terms In the local council)		0.115*** (0.010)	0.365*** (0.027)
Observations	115,885	47,339	55,098
Grades (SD)	0.186*** (0.019)	0.120*** (0.046)	0.575*** (0.153)
Observations	34,414	10,807	12,845
Cognitive Score (SD)	0.282*** (0.024)	0.127* (0.068)	0.457** (0.207)
Observations	22,947	6,178	7,578
Earnings Score (SD)	0.313*** (0.011)	0.213*** (0.020)	0.364*** (0.057)
F.E.s for party- muni- year	x	x	x
F.E.s for socio- demographic traits	x	x	x
Observations	115,499	47,169	54,914

Notes: The table reports the relationship between promotion probabilities and our qualification measures across adjacent rungs of the political career ladder. Ordinary least squares estimates in percentage points are rescaled by the mean of the outcome variable so that 0.5 in the table equals a 50% higher promotion probability from a 1 unit increase in the qualification measure. Fixed effects for socio-demographic traits are dummies for five categories of age, two categories of global region of birth, one dummy variable for female sex at birth, and one dummy for being a full-time student in tertiary education. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table W8A. Gaps in promotion probabilities from population to nominated between workers and non-workers, with control variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Worker = 1	-0.543*** (0.005)		-0.563*** (0.005)	-0.414*** (0.009)	-0.380*** (0.010)	-0.647*** (0.014)	-0.510*** (0.015)
Earnings Score			-0.027*** (0.003)		-0.137*** (0.006)		-0.275*** (0.011)
Grades					0.113*** (0.004)		
Cognitive Score							0.138*** (0.004)
Student	-0.124*** (0.013)		-0.086*** (0.014)	-0.014 (0.016)	-0.033* (0.017)	0.206*** (0.046)	0.087* (0.047)
Age below 30	0.252*** (0.018)		0.253*** (0.018)	-0.237** (0.096)	-0.239** (0.096)	-0.099 (0.086)	-0.045 (0.087)
Age 30-39	0.419*** (0.018)		0.419*** (0.018)	-0.099 (0.096)	-0.090 (0.096)	0.251*** (0.084)	0.295*** (0.084)
Age 40-49	0.478*** (0.018)		0.477*** (0.018)	-0.163* (0.096)	-0.149 (0.096)	0.165** (0.083)	0.198** (0.083)
Age 50-64	0.197*** (0.018)		0.197*** (0.018)	-0.278*** (0.096)	-0.263*** (0.096)	0.008 (0.083)	0.026 (0.083)
Age Above 60	-0.312*** (0.017)		-0.276*** (0.018)	-0.254** (0.116)	-0.315*** (0.116)	0.138 (0.096)	0.129 (0.096)
Woman	-0.202*** (0.005)		-0.213*** (0.005)	-0.204*** (0.008)	-0.238*** (0.008)	0.571*** (0.155)	0.550*** (0.155)
Non-Nordic	-0.032*** (0.009)		-0.013 (0.010)	0.187*** (0.030)	0.222*** (0.030)	0.322*** (0.068)	0.394*** (0.068)
Non-OECD	0.127*** (0.014)		0.152*** (0.015)	0.043 (0.038)	0.050 (0.039)	0.028 (0.094)	0.094 (0.094)
Observations	44,630,774		43,178,534	17,045,663	16,812,712	8,159,313	8,143,817
F.E.s for party-muni- year	x	x	x	x	x	x	x
Grade Sample				x	x		
Cognitive Score Sample					x	x	

Notes: The table reproduces the results for Table 1, but includes the full set of control variables. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table W8B. Gaps in promotion probabilities from nominated to elected as councilor between workers and non-workers, with control variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Worker = 1	-0.393*** (0.020)		-0.342*** (0.021)	-0.322*** (0.041)	-0.223*** (0.041)	-0.426*** (0.047)	-0.288*** (0.047)
Earnings Score			0.333*** (0.012)		0.407*** (0.024)		0.355*** (0.030)
Grades					0.130*** (0.020)		
Cognitive Score							0.131*** (0.013)
Student	-0.449*** (0.053)		-0.310*** (0.054)	-0.441*** (0.068)	-0.305*** (0.068)	-0.433*** (0.120)	-0.346*** (0.120)
Age below 30	0.709*** (0.063)		0.675*** (0.063)	0.329 (0.501)	0.175 (0.518)	0.737 (0.524)	0.780* (0.473)
Age 30-39	0.808*** (0.059)		0.810*** (0.059)	0.437 (0.501)	0.337 (0.517)	0.680 (0.519)	0.741 (0.468)
Age 40-49	0.783*** (0.058)		0.801*** (0.058)	0.380 (0.500)	0.311 (0.517)	0.694 (0.518)	0.755 (0.466)
Age 50-64	0.381*** (0.057)		0.403*** (0.057)	0.222 (0.501)	0.158 (0.517)	0.443 (0.516)	0.497 (0.464)
Age Above 60	-0.412*** (0.057)		-0.422*** (0.057)	-0.517 (0.562)	-0.560 (0.576)		
Woman	0.196*** (0.019)		0.193*** (0.019)	0.209*** (0.038)	0.155*** (0.038)	0.617 (0.454)	0.516 (0.460)
Non-Nordic	-0.129** (0.054)		-0.039 (0.054)	0.023 (0.150)	0.097 (0.150)	0.336 (0.271)	0.508* (0.275)
Non-OECD	-0.111 (0.082)		-0.016 (0.082)	-0.287 (0.204)	-0.190 (0.205)	-0.775** (0.385)	-0.552 (0.388)
Observations	131,679		131,283	39,593	39,437	27,896	27,861
F.E.s for party-muni- year	x	x	x	x	x	x	x
F.E.s for Seniority		x	x	x	x	x	x
Grade Sample				x	x		
Cognitive Score Sample					x	x	

Notes: The table reproduces the results for Table 1, but includes the full set of control variables. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table W8C. Gaps in promotion probabilities from elected as councilor to local party leader between workers and non-workers, with control variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Worker = 1	-0.355*** (0.032)	-0.329*** (0.031)	-0.305*** (0.031)	-0.524*** (0.088)	-0.478*** (0.088)	-0.516*** (0.116)	-0.459*** (0.117)
Earnings Score			0.199*** (0.021)		0.296*** (0.061)		0.261*** (0.093)
Grades					0.078* (0.042)		
Cognitive Score							0.061* (0.033)
Student	-0.341*** (0.099)	-0.290*** (0.099)	-0.241** (0.098)	-0.264 (0.162)	-0.196 (0.164)	-1.150*** (0.360)	-0.925*** (0.350)
Age below 30	0.620*** (0.096)	0.905*** (0.098)	0.882*** (0.099)	1.177 (0.944)	1.138 (0.933)	1.395** (0.625)	1.487** (0.637)
Age 30-39	0.904*** (0.089)	1.125*** (0.091)	1.121*** (0.092)	1.525 (0.932)	1.518* (0.920)	1.219** (0.580)	1.305** (0.592)
Age 40-49	0.777*** (0.083)	0.930*** (0.084)	0.942*** (0.084)	1.338 (0.928)	1.354 (0.916)	0.910 (0.571)	1.001* (0.583)
Age 50-64	0.425*** (0.079)	0.488*** (0.079)	0.500*** (0.080)	0.785 (0.928)	0.807 (0.916)	0.466 (0.556)	0.551 (0.567)
Age Above 60	-0.174** (0.082)	-0.174** (0.083)	-0.181** (0.083)	-0.063 (1.023)	-0.058 (1.011)		
Woman	-0.232*** (0.028)	-0.201*** (0.028)	-0.208*** (0.028)	-0.240*** (0.076)	-0.281*** (0.077)	0.677 (0.843)	0.683 (0.840)
Non-Nordic	-0.127 (0.092)	-0.090 (0.092)	-0.048 (0.092)	0.124 (0.278)	0.216 (0.281)	0.173 (0.490)	0.318 (0.502)
Non-OECD	-0.418*** (0.117)	-0.385*** (0.116)	-0.331*** (0.117)	-0.502 (0.347)	-0.444 (0.348)	-0.212 (0.838)	-0.129 (0.861)
Observations	53,464	53,464	53,308	12,887	12,840	7,971	7,954
F.E.s for party-muni- year	x	x	x	x	x	x	x
F.E.s for Seniority		x	x	x	x	x	x
Grade Sample				x	x		
Cognitive Score Sample					x	x	

Notes: The table reproduces the results for Table 1, but includes the full set of control variables. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table W8D. Gaps in promotion probabilities from elected as councilor to parliamentary leader between workers and non-workers, with control variables.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Worker = 1	-0.689*** (0.094)	-0.587*** (0.093)	-0.555*** (0.092)	-1.148*** (0.283)	-1.031*** (0.282)	-1.137*** (0.372)	-1.044*** (0.370)
Earnings Score			0.292*** (0.073)		0.223 (0.261)		0.190 (0.362)
Grades					0.446*** (0.156)		
Cognitive Score							0.141 (0.112)
Student	-0.610 (0.498)	-0.409 (0.496)	-0.303 (0.494)	-0.338 (0.800)	-0.232 (0.789)	1.310 (2.479)	1.739 (2.467)
Age below 30	2.127*** (0.327)	3.079*** (0.346)	2.981*** (0.341)	4.743** (2.374)	4.953** (2.347)	4.183*** (1.306)	4.380*** (1.350)
Age 30-39	1.788*** (0.204)	2.495*** (0.225)	2.455*** (0.222)	3.676 (2.352)	3.996* (2.328)	2.578*** (0.704)	2.785*** (0.747)
Age 40-49	1.558*** (0.171)	2.022*** (0.189)	2.004*** (0.186)	3.191 (2.347)	3.524 (2.322)	2.093*** (0.589)	2.296*** (0.606)
Age 50-64	0.572*** (0.138)	0.748*** (0.142)	0.730*** (0.138)	2.523 (2.321)	2.873 (2.295)	0.040 (0.481)	0.251 (0.508)
Age Above 60	-0.147 (0.139)	-0.131 (0.139)	-0.189 (0.135)	1.674 (2.275)	1.773 (2.256)		
Woman	0.059 (0.102)	0.175* (0.102)	0.161 (0.102)	0.115 (0.296)	-0.032 (0.296)	1.387 (2.959)	1.378 (2.955)
Non-Nordic	0.005 (0.441)	0.142 (0.439)	0.200 (0.441)	1.113 (1.744)	1.379 (1.739)	5.837 (3.549)	6.105* (3.555)
Non-OECD	0.101 (0.735)	0.233 (0.734)	0.172 (0.730)	0.540 (2.416)	0.099 (2.412)	-3.742 (4.973)	-3.587 (5.007)
Observations	62,762	62,762	62,586	15,625	15,569	10,035	10,010
F.E.s for party-muni- year	x	x	x	x	x	x	x
F.E.s for Seniority		x	x	x	x	x	x
Grade Sample				x	x		
Cognitive Score Sample					x	x	

Notes: The table reproduces the results for Table 1, but includes the full set of control variables. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table W9. Sensitivity analysis for occupation inflexibility.

	(1)	(2)
Population to Nominated		
Worker=1	-0.475*** (0.006)	-0.479*** (0.009)
Occupation Inflexibility (SD)		0.003 (0.005)
Observations	24,333,371	24,333,371
Nominated to Elected		
Worker=1	-0.370*** (0.030)	-0.241*** (0.042)
Occupation Inflexibility (SD)		-0.080*** (0.020)
Observations	55,004	55,004
Elected to Local Party Leader		
Worker=1	-0.275*** (0.051)	-0.165** (0.075)
Occupation Inflexibility (SD)		-0.065* (0.034)
Observations	22,500	22,500
Municipal Councilor to Parliament		
Worker=1	-0.602*** (0.157)	-0.462* (0.246)
Occupation Inflexibility (SD)		-0.082 (0.121)
Observations	26,177	26,177
Sample with non-missing data for occupation	x	x
F.E.s for party-municipality-year	x	x
F.E.s for socio-demographic traits	x	x

Notes: Data for elections in 1982–2018. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. See the notes under Table 1 for more details.

Table W10. Sensitivity analysis for tertiary education.

	(1)	(2)	(3)
Population to Nominated			
Worker=1	-0.554*** (0.005)	-0.256*** (0.006)	-0.377*** (0.006)
Observations	43,524,005	43,524,005	30,623,300
Nominated to Elected			
Worker=1	-0.393*** (0.021)	-0.256*** (0.022)	-0.288*** (0.025)
Observations	130,986	130,986	83,047
Elected to Local Party Leader			
Worker=1	-0.330*** (0.032)	-0.245*** (0.034)	-0.275*** (0.036)
Observations	53,347	53,347	31,080
Municipal Councilor to Parliament			
Worker=1	-0.589*** (0.093)	-0.495*** (0.098)	-0.463*** (0.106)
Observations	62,607	62,607	36,374
Sample with non-missing data for education	x	x	x
F.E.s for party-municipality-year	x	x	x
F.E.s for socio-demographic traits	x	x	x
Education-level fixed effects		x	
Sample without university education			x

Notes: Data for elections in 1982–2018. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. See the notes under Table 1 for more details.

Table W11. Gaps in renomination and re-election.

Sample: DV:	Nominated or Elected in t		Sample: Elected in t			
	Renominated in t+1=1		Re-elected in t+1=1		Renominated in t+1=1	
	(1)	(2)	(3)	(4)	(5)	(6)
Worker=1	-0.042*** (0.004)	-0.023*** (0.004)	-0.064*** (0.008)	-0.051*** (0.008)	0.003 (0.006)	0.004 (0.006)
F.E.s for party-muni-year	x	x	x	x	x	x
F.E.s for socio-demographic traits	x	x	x	x	x	x
Observations	192,063	192,063	63,457	63,457	63,457	63,457

Notes: Data for elections in 1982–2018. Robust standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1. See the notes under Table 1 for more details.

Table W12. Gaps in promotion probabilities by politicians' organizational ties to labor unions, with control variable estimates.

	Population to Nominated		Nominated to Municipal councilor		Municipal Councilor to Local Party Leader		Municipal Councilor to Parliamentarian	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Worker without union tie = 1	-0.717*** (0.013)	-0.556*** (0.006)	-0.492*** (0.049)	-0.384*** (0.037)	-0.260*** (0.075)	-0.391*** (0.099)	-0.563** (0.221)	-1.029*** (0.282)
Worker with union tie = 1	4.130*** (0.029)	-0.478*** (0.015)	-0.050 (0.040)	-0.278*** (0.081)	-0.209*** (0.061)	-0.583** (0.250)	-0.495*** (0.183)	-1.575** (0.720)
Earnings Score	-0.011 (0.007)	-0.099*** (0.004)	0.459*** (0.026)	0.282*** (0.018)	0.218*** (0.042)	0.205*** (0.048)	0.597*** (0.123)	0.049 (0.136)
Student	-0.272*** (0.031)	-0.179*** (0.016)	-0.268** (0.111)	-0.352*** (0.088)	-0.356 (0.222)	-0.119 (0.276)	-1.758*** (0.638)	0.037 (0.789)
Age bel. 30	0.697*** (0.048)	0.176*** (0.025)	0.860*** (0.131)	0.409*** (0.108)	0.848*** (0.191)	0.964*** (0.258)	3.010*** (0.566)	3.755*** (0.746)
Age 30-39	0.654*** (0.048)	0.197*** (0.024)	0.865*** (0.122)	0.630*** (0.102)	1.192*** (0.162)	1.456*** (0.227)	2.365*** (0.482)	3.366*** (0.657)
Age 40-49	0.583*** (0.048)	0.191*** (0.024)	0.739*** (0.119)	0.649*** (0.099)	0.817*** (0.153)	1.295*** (0.218)	1.897*** (0.458)	2.728*** (0.630)
Age 50-64	0.265*** (0.047)	0.055** (0.024)	0.371*** (0.117)	0.328*** (0.098)	0.363** (0.147)	0.638*** (0.210)	0.598 (0.439)	0.820 (0.608)
Age Ab. 60	-0.311*** (0.047)	-0.260*** (0.024)	-0.508*** (0.123)	-0.501*** (0.100)	-0.075 (0.158)	-0.194 (0.221)	0.079 (0.472)	-0.355 (0.640)
Woman	0.043*** (0.011)	-0.238*** (0.006)	0.141*** (0.034)	0.153*** (0.030)	-0.171*** (0.047)	-0.262*** (0.070)	0.038 (0.141)	0.313 (0.201)
Non-Nordic	0.298*** (0.026)	-0.028** (0.014)	0.191** (0.089)	-0.102 (0.082)	-0.076 (0.146)	-0.075 (0.224)	0.008 (0.442)	0.672 (0.659)
Non-OECD	0.487*** (0.036)	0.037** (0.018)	-0.093 (0.117)	-0.002 (0.129)	-0.243 (0.208)	-0.377 (0.373)	0.298 (0.627)	0.244 (1.104)
Observations	32,466,900	32,466,900	31,958	39,044	15,291	13,394	17,549	16,195
F.E.s for party-muni- year	x	x	x	x	x	x	x	x
F.E.s for Seniority	x	x	x	x	x	x	x	x

Notes: The table reproduces the results for Table 2, but includes the full set of control variables. Standard errors clustered at the individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

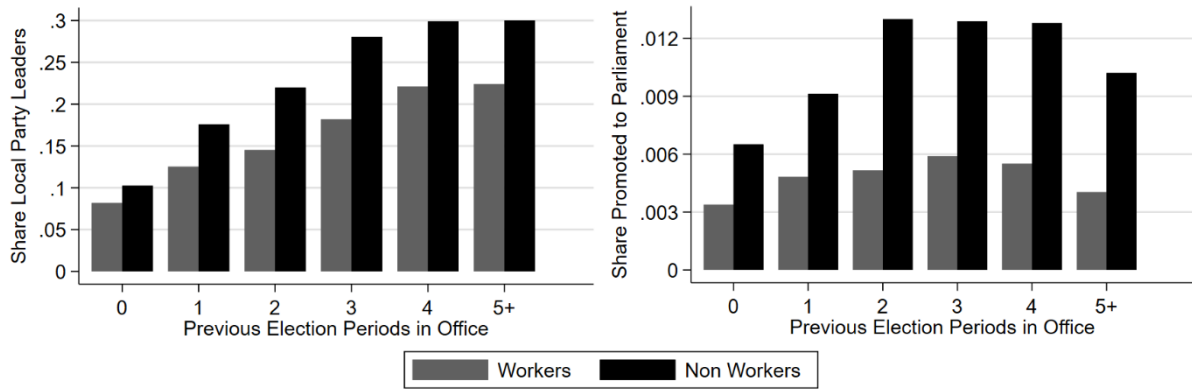


Figure W4. Political seniority and promotions.

Notes: The figures indicate the probability of being the local party leader (left) or being promoted to parliament from the municipal council (right) as a function of the number of terms the individual has been elected to the council. Those with zero previous periods in office were elected for the first time. The sample is restricted to elections held in 1982 or later.

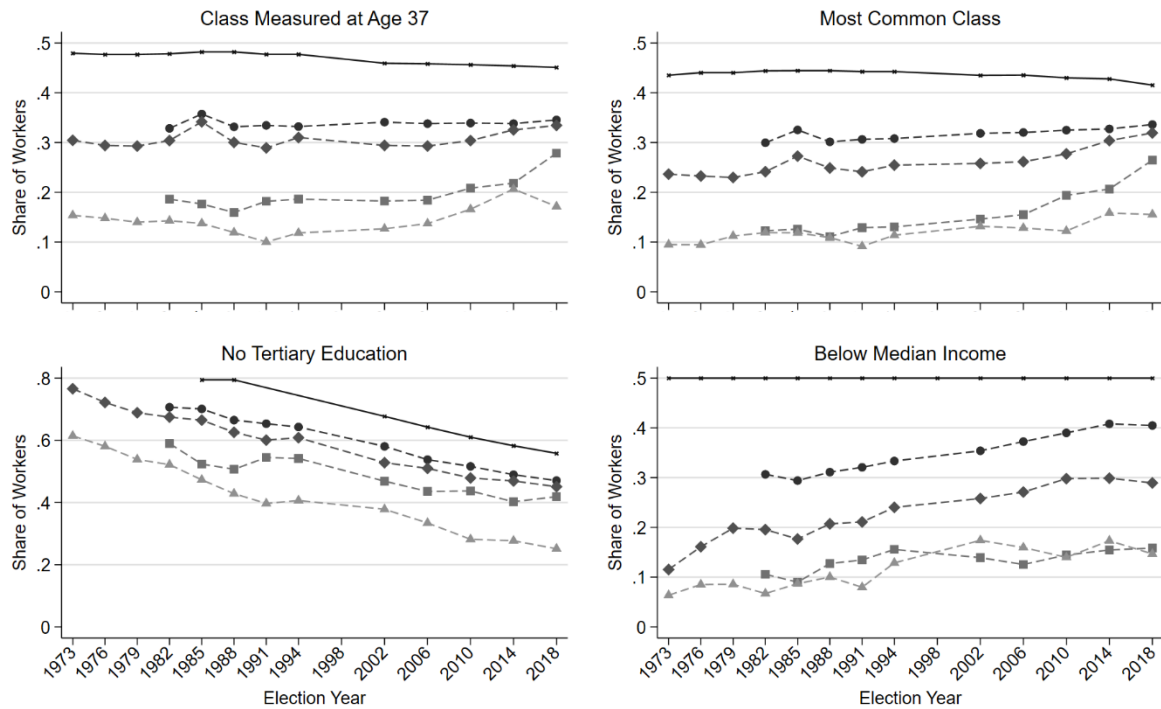


Figure W5. Workers' numerical political representation for alternative working-class definitions.

Notes: The figure displays four versions of the analysis in Figure 2. Definitions of working class are listed at the top of each graph. "Most common class" is the most common value for all years in which we can observe the person's binary indicator of being working class or not.

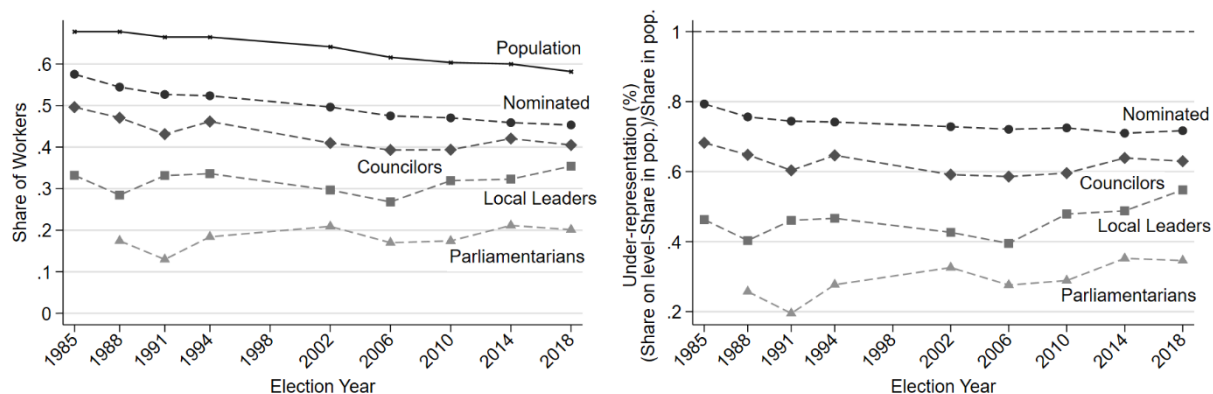


Figure W6. Workers' numerical political representation for an ISCO-based working-class definition.

Notes: The figure displays an alternative version of the analysis in Figure 1. The definition of the working-class follows the description in Carnes and Lupu 2022, Appendix B. N(population)=39,034,888; N(nominated)=352,939; N(municipal councilors)=109,584; N(local party leader)=6,722; N(parliamentarian)=2,899.

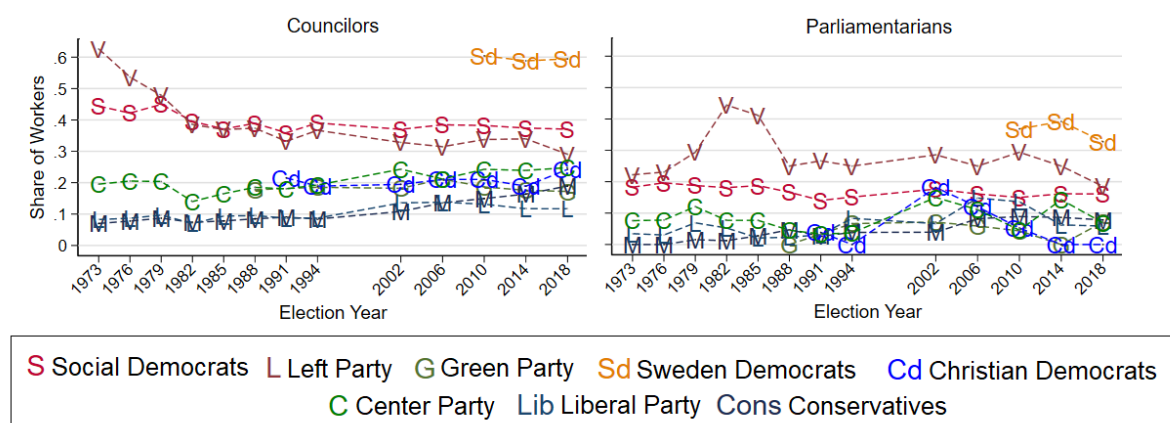


Figure W7. Share of workers among municipal councilors and parliamentarians by political party.

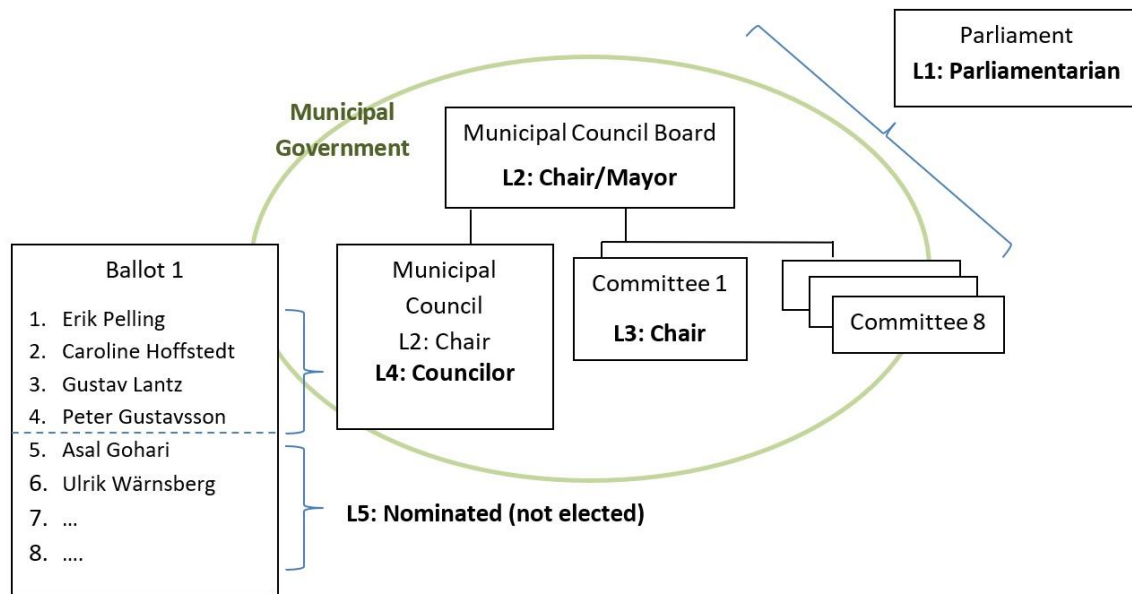


Figure W8. Alternative career ladder including post-election appointments in the local government.

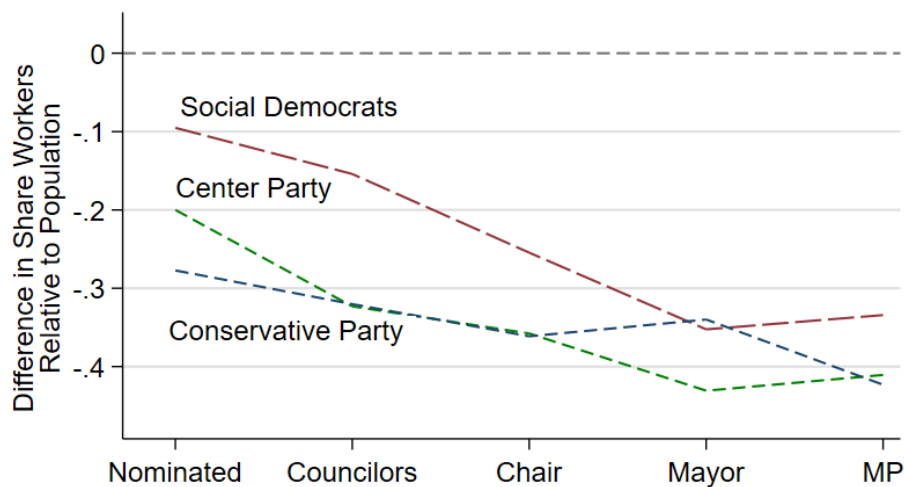


Figure W9. Representation of workers on an alternative career ladder (see Figure W8).

Note: The figure shows the relative representation of workers in positions in an alternative career ladder that includes post-election appointments at the municipal level. The appointment data is collected by Statistics Sweden via a mandatory survey, available for research from 2006 onward. The sample is restricted to the 2006–2018 elections and political parties that appointed the mayor in a specific municipality and election. The population share of workers is measured at the municipal level for all local positions and the plot shows averages across municipalities of these municipality-level representation numbers. For MPs, the population share of workers is measured in at the national level. See Folke and Rickne (2016) for a detailed description of the alternative local career ladder.

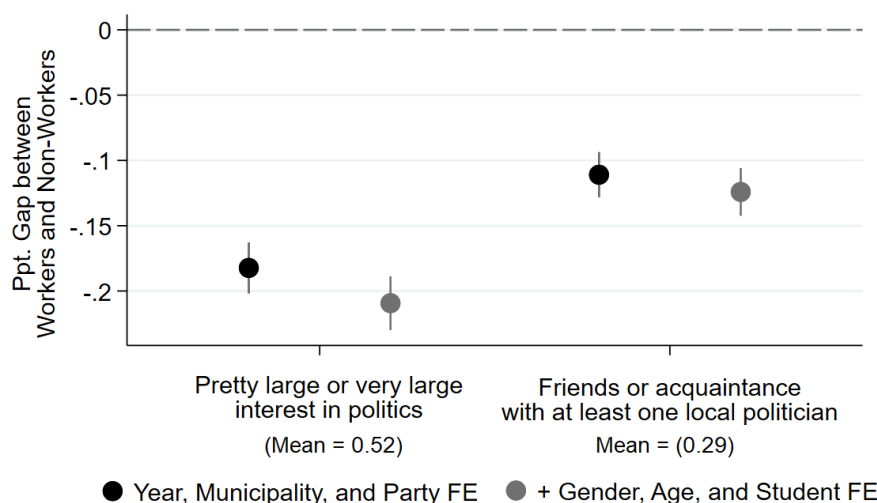


Figure W10. Gaps in political interest and friendship with local politician.

Notes: The figure shows percentage-point gaps between workers and non-workers estimated with OLS regressions. Interest in politics is a dummy variable for self-reporting a “pretty large” or “very large” interest in politics, and 0 otherwise. Friendship or acquaintance is a dummy variable for responding affirmatively to the question “are you friends or acquaintances with at least one local politician?” Age controls are five dummies for age categories. The data is pooled cross-sections of the Regional SOM survey in Western Sweden in 1996–2003. Social class is self-reported (see Appendix Subsection W3). $N(\text{interest})=18,234$; $N(\text{friend})=18,387$.

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