Political (Over)Representation of Public Sector Employees and the Double-Motive Hypothesis: Evidence from Norwegian Register Data (2007-2019)

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Abstract

Countries have widely diverging regulations regarding the eligibility of public sector employees for political office, and the stringency of such regulations remains fiercely debated. Building on a demand and supply model of political selection, this article contributes to such debates by studying whether and how the incentives of public employees as *both* consumers *and* producers of public services (their 'double motive') affects their descriptive political representation. Our analysis employs population-wide individual-level register data covering four Norwegian local elections between 2007 and 2019 (N>13 million observations). Using predominantly individual-level panel regression models, we find that public employees are strongly overrepresented on election lists and have a higher probability of election (conditional on running). Looking at underlying mechanisms, we provide evidence consistent with the 'double motive' of public employees inducing their self-selection into standing for elected office (at higher-ranked ballot positions). Demand-side effects deriving from party and voter selection receive more limited empirical support.

Key words: Descriptive representation, bureaucracy, eligibility, institutions, Norway.

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1. Introduction

Should public sector employees be allowed to stand for election and enter elected assemblies during their employment as civil servants? This question lies at the heart of long-standing debates in public administration scholarship (Garand et al. 1991) as well as among election observers (OSCE 2017). Fundamental disagreement on the issue is reflected in widely diverging institutional frameworks around the world. Some countries – including the US and UK – impose strict statutory limitations. Supporters of such restrictive systems maintain that public assemblies may employees entering elected impede recruitment/promotion of bureaucrats and can lead to a politicisation of the bureaucracy (Jacobsen 1960; Moe 2006; Dahlström and Lapuente 2018; Colonnelli et al. 2020). Other countries – including Norway and Spain – have very permissive rules (Miller 2010; Braendle and Stutzer 2016). Proponents of such permissive systems argue that public employees tend to have characteristics that are beneficial for public decision-making in the interest of the common good (Taylor 2010; Stazyk and Davis 2015).

We contribute to this persistent debate by studying the incentives of public employees to stand for election, and how this affects their subsequent level of political representation. Analysing the sources of such descriptive political representation is important due to "the substantive or policy effects that may be produced" by increased representation (Lim 2006: 193; Chattopadhyay and Duflo 2004; Clayton and Zetterberg 2018). Hyytinen et al. (2018), for instance, show that higher public sector representation in Finnish local councils leads to higher local public spending because elected civil servants can exploit an informational advantage to enact higher spending on (certain) public services. 1 This potentially self-serving relation between descriptive and substantive representation (in the sense of Pitkin 1967) due to the "political power of bureaucrats" (Moe 2006: 6) has implications for the optimal stringency of eligibility constraints. If public employees remain politically under-represented when restrictions are few, there is no need to limit their entry into politics. If, instead, they become over-represented, statutory limitations could be considered. Yet, the optimal design of such (in)compatibility regimes would then need to reflect whether over-representation arises due to the selection strategies of parties and voters, or are linked to individuals' motives and selfselection (we return to this below).

¹ Similar results are obtained by Braendle and Stutzer (2016) at the national level.

While a large scholarship studies the descriptive representativeness of elected assemblies, this literature concentrates on traits such as gender (Baskaran and Hessami 2018), ethnicity (Hughes 2011), education (Dal Bó and Finan 2018), or place of residence (Childs and Cowley 2011). Even though professional background is an important part of one's identity (Hogg and Terry 2000; Aschhoff and Vogel 2019), the political representation of public employees has not received scholarly scrutiny. We address this research gap by investigating the nature and drivers of public employees' political representation. Theoretically, we build on the demand and supply model of political selection (Norris and Lovenduski 1993; Gulzar 2021), which maintains that the political representation of distinct demographic groups is affected by party selection, voter selection, and individual self-selection. On the *demand* side, parties and voters may care about individuals' occupational background because it acts as a signalling tool for policy preferences (Besley 2005; Aldrich 2011; Thomsen 2014). On the *supply* side, we argue that public employees may have stronger incentives to seek out political positions, because they are both consumers and producers of public goods and services.³ As we set out in more detail below, a first implication of this 'double motive' hypothesis is that public employees become over-represented (on high-ranked positions) on election lists and among elected representatives. A second implication is that changing employment sector or job location affects individuals' self-selection into politics by adding (or removing) an additional 'motive' to stand for election.⁴

We empirically scrutinize these theoretical propositions using population-wide individual-level register data covering Norwegian local elections in 2007, 2011, 2015 and 2019, a survey among municipal council representatives as well as several waves of the Norwegian Local Election Surveys. Norway provides an interesting empirical setting since legislation allows most public employees – defined as individuals active in the central, county or local public sector – to be members of political assemblies while working as civil servants. At the local government level, for instance, even public employees in positions of power (such as school principals and heads

² A limited number of studies investigates the political representation of specific occupations, such as businessmen (Gehlbach et al. 2010) or lawyers (Matter and Stutzer 2015; Bonica 2020).

³ Since elected officials in the legislative branch of government act as principals to civil servants in the executive branch, public employees holding elected office also gain a third role as *supervisors* of public good provision (Braendle and Stutzer 2016). Public employees' decisions as legislators may thereby affect their own role in the executive branch, which could add a third motive to seek out political positions (Moe 2006).

⁴ Naturally, individual-level incentives are only part of the rationale for (or against) strict incompatibility regimes, since they become problematic mainly in combination with conflicts of interest (Niskanen 1971) and influence over policy outcomes (i.e. power).

of fire departments) can stand for election to local councils despite these services being core local government responsibilities.

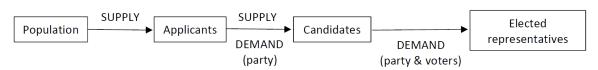
Our main findings indicate that public employees are politically overrepresented at the local government level (relative to their share in the local population). The extent of overrepresentation is larger among elected council members compared to election candidates, which suggests that public employees on average have a higher probability of election conditional on standing for election. Investigating the underlying mechanisms, we uncover mixed evidence for the impact of party- and voter selection. However, our results are consistent with key implications of our 'double motive' hypothesis. For instance, we show that changing to a public sector job makes individuals more likely to become politically active. The same is true when public employees change work location from outside to inside their home municipality. These results strongly suggest "that their elevated participation reflects their personal stakes" (West 2012: 120; see also Moe 2006; Bhatti and Hansen 2013). This highlights an important role for the self-selection of public employees into standing for elected office (at higher ballot positions) and their subsequent political over-representation.

2. Theoretical framework

The demand and supply model of political selection (Norris and Lovenduski 1993; Gulzar 2021) aims to describe the mechanisms behind the political representation of demographic groups (based on gender, race and class in the original formulation of the model). It draws attention to the role of political parties and voters on the *demand* side of the political selection process, as well as to the "applicants wishing to pursue a political career" on the *supply* side (Norris and Lovenduski 1993: 380; Gulzar 2021). We build on this theoretical framework to argue that the political representation of public sector employees in theory can be driven by individual *self*-selection, *party* selection and *voter* selection. As illustrated in Figure 1, the relative importance of these demand- and supply-side factors differs across the various stages of the political selection process (Norris and Lovenduski 1993; Gilardi 2015; Bjarnegård and Zetterberg 2019). Individual supply-side factors are likely to dominate in the first stage of the process: i.e. when moving from the population pool to the set of applicants willing to stand for political office. When citizens decide to enter the pool of potential candidates, their self-selection into politics defines the choice-set of parties. Individual supply-side factors also play a role alongside partisan demand-side factors when developing the list of candidates presented on the party

ballot (see below). Yet, demand-side factors are expected to prevail at the final stage of the process: i.e. when candidates are facing voters on Election Day.

Figure 1. Stylized political selection model



We start by considering civil servants' potential *self*-selection into political office on the supply side of the model. The decision for any person within the eligible population to stand for election depends – among other factors – on the expected benefits from achieving public office.5 These benefits relate to the level and composition of public good provision, and we argue that they consist of both consumer- and producer-related utility. The consumer-related utility from public goods is the benefit one obtains from the consumption of public goods, and is independent of one's occupational sector. That is, public- and private-sector employees on average are expected to gain equally from consuming a given public good (such as public healthcare, education or infrastructure). The producer-related utility, however, is positive only for individuals employed in the provision of public goods and services. It includes the (in)direct benefits from well-staffed agencies and public sector work conditions (Moe 2006), from the fulfilment of individuals' public service motivation (Perry et al. 2010; Wright and Grant 2010) as well as from any influence over public policy decisions (though not necessarily to one's own advantage, which can arise only under very specific conditions). Moreover, public employees may have superior information about policy issues (Niskanen 1971; Braendle and Stutzer 2016), which benefits their (expected) producer utility by increasing their bargaining power and their probability of influencing public policy (Hyytinen et al. 2018).

Public employees therefore benefit from influencing politics as both consumers and producers of public goods, which we argue provides them with a 'double motive' to stand for election. Individuals who work in the private sector (or who do not work at all) derive utility from public good provision only as consumers. Other factors being held constant, this double-motive proposition entails that public employees are more likely to self-select into running for political

⁵ Naturally, the costs of achieving and holding public office are likewise important. These include, for instance, the time costs related to electoral campaigns, public and party-group consultations, as well as preparations for

and participation in council meetings. Hyytinen et al. (2018) suggest that these costs may be sector-specific. In our Norwegian setting, this is very likely to be true since public employees benefit from paid leave to participate in political meetings, while private sector employees do not.

office (i.e. to become 'applicants' in Figure 1). Several testable predictions immediately follow from this line of argument. The <u>first prediction</u> is that due to their 'double motive', public employees are more likely than other groups in the eligible population to self-select into politics — thus becoming overrepresented on election lists. Since the probability of election and influencing policy is a decreasing function of list rank, bublic employees' double motive also gives them a higher incentive to target positions near or at the top of the ballot. A <u>second prediction</u> therefore is that public sector overrepresentation on election lists will be stronger among high-ranked compared to low-ranked candidates. As a direct corollary to this second prediction, we furthermore expect public employees to have a higher probability of election, conditional on standing for election (i.e. by virtue of their higher list ranks). This is our <u>third prediction</u>, and would imply that public employees' overrepresentation among elected representatives exceeds that for election lists (unless voter selection effects counteract this positional advantage on Election Day, see Figure 1 as well as section 6.2 below).

These predictions derive from a purely supply-side argumentation. Yet, political parties in practice play an important role in the allocation of ballot ranks in the second stage of the political selection process (i.e. when moving from 'applicants' to 'candidates' in Figure 1). This reflects parties' position as gatekeepers to public office (Gallagher and Marsh 1988; Fiva and Røhr 2018; Asquer et al. 2019). As alliances of groups with more or less diverse policy interests (McCarty and Schickler 2018), political parties might thereby screen, select and promote candidates on the basis of their background characteristics (including occupational sector). Crucially, however, anecdotal evidence shows that politicians can influence ballot ranks through lobbying and intra-party negotiations (or disputes) in the 'secret garden' of politics (Gallagher and Marsh 1988; Christensen et al. 2008). Moreover, since party size is known to induce a "centralization of the decision-making process" (Panebianco 1988: 185),

⁶ While list rank position may have a different effect on the probability of election and the probability of influencing policy once elected, the key issue is that being ranked higher up the ballot positively impacts upon both probabilities (or, more accurately, their joint probability). Certain individuals might want to feature on a party list even at low ranks to ascend the party hierarchy in the longer term or because they gain some intrinsic utility from being involved in politics. Still, this is inconsequential for our main analyses since we rely on *within*-individual changes (thus accounting for any fixed individual-level factors).

⁷ Suppose, for instance, that parties seek to attract voter support by presenting ballot lists that mirror the characteristics of their core supporters (Dancygier et al. 2021; Schönhage 2021). Left-wing parties would then be expected to enlist larger shares of candidates with a public sector background compared to parties on the right. Note that this 'supply' of candidates with certain characteristics to voters requires parties to 'demand' such characteristics from potential candidates.

Examples, in Norwegian, include https://www.vg.no/nyheter/innenriks/i/41mJya/tybring-gjedde-seiler-opp-som-toppkandidat-i-oslo, https://www.fvn.no/nyheter/lokalt/i/rggQ4w/groevan-ute-av-krfs-liste, https://www.vg.no/nyheter/innenriks/i/dlkB6j/solvik-olsen-sa-nei-til-stortingsplass-kan-aapne-for-helgheim.

this scope for turning party offers down or engaging in a negotiation over list placements may be inversely related to the level of applicant supply. While a shortage of candidates – which is quite common particularly at the local government level – allows greater scope for self-selection, party leaders can be more selective when there is strong competition for list positions. Either way, these limits to party selection highlight at least some role for individuals' preferences, choices and bargaining power in the candidate nomination and list ranking process. The double motive of public employees thereby makes them more likely to accept (when offered) or bargain for (when not offered) higher list ranks. Hence, public employees' increased presence and higher average ranking on party lists will reflect a combination of demand and supply effects, and additional information is required empirically to separate both effects.

From this perspective, it is important to observe that the production utility from public service provision may differ across public employees. Moe (2006), Bhatti and Hansen (2013) and Geys and Sørensen (2021), for instance, argue that local public employees who work inside their municipality of residence (where they can vote and stand for election) face distinct political incentives compared to those working outside their municipality of residence. That is, when local public employees working in their municipality of residence achieve political office, they can "influence their job security and work conditions more (...) than employees living and working in different municipalities" (Bhatti and Hansen 2013: 617). This implies that public employees' 'double motive' is greater when working in their municipality of residence. Moves between working outside/inside the municipality of residence – keeping constant occupational sector – thus generate changes in one's 'double motive'. We can exploit this to identify selfselection effects among public employees since such moves are unlikely to matter for party selection strategies based on candidates' occupational sector. Our fourth prediction therefore is that moving employment into (outside) the municipality of residence increases (decreases) individual i's self-selection into standing for public office. 9 Note, however, that this effect depends on the level of government under consideration. For instance, moving employment across municipalities within a county leaves public employees' 'double motive' unaffected for county-level public goods, but not for municipality-level public goods. Consequently, such moves would affect decisions about municipal council elections, but not county council elections (which we exploit below).

⁹ To the extent that public employment within one's municipality of residence also reduces information costs (Bhatti and Hansen 2013), this would further strengthen this prediction.

Before moving onto our empirical analysis, we should note that there could be many reasons aside from their double motive making civil servants more likely to stand for election. These include flexible work hours, public sector socialization or public service motivation. Crucially, such alternative pathways should remain fixed under individual-level shifts within the public sector, such as when moving public sector jobs from outside to inside the home municipality (Moe 2006; West 2012; Geys and Sørensen 2021). Moreover, public service motivation – as well as other motives to stand for election unrelated to public good provision (e.g., intrinsic utility from involvement in politics or holding political office) – is often considered a fixed individual-level trait (Perry et al. 2010; Wright and Grant 2010). While some studies suggest that public service motivation can be activated or crowded out under certain circumstances, evidence from longitudinal and experimental research designs uncovers at best minimal changes in the short term (Bellé 2013; Kjeldsen and Jacobsen 2013; Kjeldsen 2014; Vogel and Kroll 2016; Jensen et al. 2017; Chen et al. 2021). As our empirical analysis is based on withinindividual changes over a fairly short period of time (more details below), this implies that fixed individual traits – as well as features of public employment that are independent of work location – should not affect our ability to identify any double motive effects.

3. Legal and institutional setting

Following an amalgamation wave prior to the 2019 local elections, the local government level in Norway consists of 356 municipalities (down from 422) and 11 counties (down from 19). Municipalities and counties are separate public authorities managed by independently elected municipal and county councils, respectively. Each municipality and each county constitutes its own electoral district, where council elections are held every fourth year within the first two weeks of September. In both county and municipal elections, political parties or independent groups present voters with candidate lists containing a minimum of seven candidates. The Election Act requires candidate lists to contain candidates' first and last names as well as their year of birth. Parties can also add candidates' occupation and/or place of residence. If doing so, this information must be included for all candidates on the list.

Candidate lists – including candidate ranks and so-called 'cumulated' candidates ¹⁰ – are prepared by parties' local nomination committees and finalized at a nomination meeting

¹⁰ Political parties and groups can mark a limited number of 'cumulated' candidates. These receive a 25 percent bonus in terms of their number of personal votes, which makes them much more likely to become elected. We analyse these decisions later in section 6.1.

commonly restricted to party members. This nomination process usually proceeds in four steps. First, the local nomination committee receives applications from interested party members and also itself probes whether potential candidates agree to stand for election. ¹¹ Second, the committee develops a ranked list of candidates. Third, candidates accept or reject their proposed list position, and the committee submits a (potentially modified) proposal for the local party convention. Finally, the local party convention votes on the committee's list as well as alternative candidate proposals. This process implies that party elites need not have full control over the list composition (and ranking) since candidate influence is possible in the first, third and fourth stages of the process (Gallagher and Marsh 1988; Panebianco 1988; Christensen et al. 2008). Moreover, declining party membership led to reduced participation in nomination processes, so about three quarters of the nomination committee members end up on (high-ranked) positions on the ballots (Christensen et al. 2008:78; Ringkjøb and Aars 2010). ¹²

During local elections, voters can vote for a party list, give personal preference votes for one or more candidates, and – in the case of municipal elections – add candidates from other parties or groups to their preferred list. A proportional representation system then determines seat allocation across parties using a modified Sainte-Laguë method, while candidates' personal preference votes determine who gets awarded a council seat within each party or group. The elected council members subsequently select an executive board of minimum five individuals from among its members. This board's composition is proportional to the partisan composition of the council, and is a key decision-making body in Norwegian local politics (Geys and Sørensen 2019).

All Norwegian nationals are automatically included in the Population Register and are qualified to vote when aged 18 years or older (with very few exceptions). Crucial to our analysis, any person qualified for casting a vote in the election is generally also eligible for holding political office. Only a limited set of top civil servants is disqualified. This includes top administrators in the municipal and county governments, the (deputy) chief executive, the council secretaries

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¹¹ The committee typically asks elected council members first, followed by former list candidates, other party members, and, finally, acquaintances. Political experience is the main criterion, and is particularly important for the top-ranked positions. While candidate gender is important irrespective of list rank, representativeness along other dimensions (such as ethnicity) matters more at lower ranks (Ringkjøb and Aars 2010: 12).

¹² Election Surveys conducted every fourth year in the 1965-1981 period show party membership hovering around 16-17% of the adult population. This has declined to about 6% of the adult population today, with only 2% reporting that they are active party members. The Norwegian Inhabitants Survey (*Innbyggerundersøkelsen*; Statistics Norway 2020) indicates that 6.1% of private sector employees are party members, compared to 6.9% of public sector employees.

and the person responsible for the accounts or audits. The (assistant) county governor likewise cannot be an elected council member as this position includes the responsibility to control the legality of municipality and county decisions. All other public employees are eligible, even if they work for the municipal/county authority or hold managerial functions in local public institutions (such as school principals or heads of nursing institutions). Section A in the Online Appendix provides an extract from the Local Government Act with more details about the exact legislative framework.

In the words of Braendle and Stutzer (2016), the Norwegian institutional framework represents a 'soft incompatibility' regime. Their comparative analysis of 76 countries' legal frameworks uncovers 28 soft incompatibility regimes, while seven (41) countries take a less (more) restrictive approach. Norway thus is by no means exceptional in terms of its policy regarding the political eligibility of civil servants, which benefits the generalizability of our findings to other countries with similar frameworks (e.g., Austria, Canada, Israel, Spain and Switzerland). Naturally, Norway is more exceptional in other respects – such as its oil wealth, welfare state size, and gender equality – and we return to this in our concluding discussion.

4. Data sources

4.1 Population-wide register data

Our main source of information relates to Norwegian population-wide individual-level register data covering the four local elections held between 2007 and 2019. This dataset includes the entire population entitled to vote and stand for election, and has been matched with official election outcomes. As such, the dataset not only shows who was elected into the municipal and county councils, but also who did (not) stand for election. Table 1 presents an overview for each election year. This indicates that roughly 1.5% (0.2%) of the Norwegian eligible population is included on a candidate list for municipal (county) elections, and on average one fifth (one tenth) of these achieve elected office. Although not shown in Table 1, about 8% of candidates in municipal elections are also candidates in county elections, while 15% of elected municipal council members are also members of county councils (both offices can be combined). This implies that the vast majority of county council candidates (73%) and representatives (89%) are politically active also at the municipality level.

Table 1. Electors, candidates and representatives

		2007	2011	2015	2019
Municipal	Not candidates	3,050,172	3,389,245	3,776,160	3,975,605
Council	Candidates not elected	51,536	47,874	47,472	44,827
Elections	Candidates elected	10,892	10,689	10,597	9,333
	All	3,112,600	3,447,808	3,834,166	4,029,765
County	Not candidates	3,105,713	3,441,046	3,827,143	4,023,561
Council	Candidates not elected	6,156	6,039	6,313	5,629
Elections	Candidates elected	731	723	710	575
	All	3,112,600	3,447,808	3,834,166	4,029,765

Notes. The table displays the distribution of the complete Norwegian eligible population depending on their status as not running for office, election candidates (elected) or election candidates (not elected). Candidates may run for the municipal council elections only, the county council elections only, or both. The data includes the entire electorate in the 2007, 2011, 2015 and 2019 local elections.

Given our interest in public employees, a critical aspect of our dataset relates to individuals' occupational sector. Our register data thereby provide important advantages compared to studies using self-reported occupation. Assignment of individuals to occupational sectors is not only more accurate and precise, but relies on the same institutional classification for citizens, candidates and elected representatives (facilitating comparisons within and across groups). The institutional classification by Statistics Norway follows international conventions: e.g., US System of National Accounts (SNA93) or European System of National Accounts (ESA95). This definition allows us to identify employees working for the central, county and municipal governments, which we study separately throughout the analysis. We thereby exclude individuals working for corporations owned by public authorities since they generally do not have civil servant status. Individuals *not* working for central, county and municipal governments are defined as private sector employees, which covers self-employed individuals as well as non-profit employees. Finally, people not classified by occupational sector are considered as not employed (including students, retirees, and people on social security benefits such as unemployment support or disability payments).

In Table 2, we display the distribution of individuals across occupational sectors depending on their status as election candidates (columns 1, 3 and 5) or elected council members (column 2, 4 and 6). We look at municipal and county councils separately (columns 1 and 2 versus columns 5 and 6) as well as jointly (columns 3 and 4). Additionally, column 7 displays the occupational sector for the remainder of the eligible population not standing for election. Starting with

column 7, we see that nearly 50% of the electorate works in the private sector, 23% in various parts of the public sector and 28% is not employed (as defined above). The top row of Table 2 illustrates that people who are not employed are underrepresented among election candidates as well as elected council members. Private sector employees are well represented among municipal election candidates and council members, but underrepresented when it comes to county council elections (both on election lists and even more among elected council members). In sharp contrast, public employees working for the county and municipal governments are overrepresented among local election candidates. This overrepresentation increases further among elected council members. For instance, municipal public employees account for 13.3% of the electorate, 22% of the candidates on municipal election lists and 28.5% of elected municipal councillors. Similarly, 1.3% of the population works for the county governments, but they account for 6.7% of candidates on county election lists (combining columns 3 and 5), and 9.8% of elected county councillors (combining columns 4 and 6). A graphical representation is provided in Figure A.1 in the Online Appendix.

Table 2. Occupational sector, eligible population, candidates and elected councillors

	Municipa	Municipal council		Municipal and county		council	Eligible
	On	ıly	council c	ombined	on	population	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All	Elected	All	Elected	All	Elected	Not candidates
	candidates	politicians	candidates	politicians	candidates	politicians	
Not employed	18.4	8.8	17.1	8.4	21.6	6.0	28.1
Private sector	48.3	50.0	41.6	43.1	39.8	33.9	49.2
Central gvt.	8.4	9.5	10.5	10.1	8.8	9.0	8.2
County gvt.	2.9	3.1	6.1	7.1	8.3	31.4	1.3
Municipal gvt.	22.0	28.5	24.7	31.3	21.6	19.7	13.3
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	207,120	33,117	19,208	8,185	7,137	1,032	13,199,142

Notes. The table displays the percentage distributions across occupational sectors for election candidates, elected politicians and the eligible population not running for office. Candidates may run for the municipal council elections only, the county council elections only, or both. The data includes the entire electorate in the 2007-2019 local elections. 'Not employed' includes all persons with no defined occupation (such as unemployed, students, and retirees), while 'private sector' is defined as employees not working for central, county or municipal governments.

4.2 Type of work, residence and other background information

Throughout the analysis, we are especially interested in comparing individuals performing the same type of work across the public and private sectors. We operationalize individuals' type of work using the four-digit ISCO classification (International Standard Classification of

Occupations) employed by Statistics Norway, which is included in our dataset for all public as well as private sector employees.

For all individuals in the dataset, we also have access to a set of background characteristics, including age, gender, education (defined in five levels: primary school, secondary education, tertiary vocational education, lower-level higher education and higher-level higher education), immigration background, and so on. This includes information about their municipalities of residence and employment. We can therefore determine whether or not it concerns the same municipality. While individuals are legally allowed work in *any* municipality as a public sector employee – including municipalities where one is not a resident – individuals are entitled to vote and stand for election in local elections *only* in their municipality of residence.

4.3 Other datasets

Beside the detailed individual-level register data, we exploit four further sources of information. First, we have the complete candidate lists as presented on Election Day. For all candidates in Norwegian local elections since 2003, we observe the party list name, candidates' rank on the list, their preference votes and status as 'cumulated' candidates as well as whether the list contains information about candidates' occupational background and/or place of residence (Fiva et al. 2020b). Second, we obtained information about municipality characteristics including population size and composition as well as local public expenditures from Fiva et al. (2020a). Third, we have access to a survey conducted in 2015 among all members of the municipal councils. This includes data on, for instance, party affiliation, occupation, policy preferences and left-right self-placement. Finally, we rely on data from five Norwegian Local Election Surveys conducted between 1999 and 2015, which allow analysing the determinants of local voting behaviour (https://nsd.no/nsddata/serier/norske_valgundersokelser.html). We return to more detailed discussions on the relevant variables taken from these various sources when relying on them in the analysis.

5. Occupational background and self-selection into public office

We start our analysis of the political overrepresentation of public employees (as observed in Table 2) by evaluating the role of public employees' *self*-selection into (standing for) public office. Our longitudinal individual-level register data allow us to exploit <u>shifts</u> in individuals'

occupation (i.e. moving between the public and private sectors) as well as shifts in place of residence (i.e., moving place of work to/from the municipality of residence). As discussed in section 2, such changes affect individuals' self-selection into politics by adding (or removing) an additional 'motive' to stand for election (see also Moe 2006; West 2012; Geys and Sørensen 2021). Moreover, from an empirical perspective, exploiting *changes* in occupational affiliation or work location at the individual level offers the key benefit that we do not have to rely on comparison *across* similarly situated public employees for our main inferences. Such a cross-sectional approach would risk biased inferences whenever people differ in both observable – such as tenure – and unobservable – such as political preferences – characteristics. Nevertheless, since we observe occupational affiliation in four-year intervals (given the fixed local election cycle), our research design assesses the impact of occupational shifts over a relatively short service length. As this could cause downward pressure on our estimates (e.g., if a four-year period is too brief to develop socialization effects), it is important to keep in mind when interpreting our results.

Table A.1 in the Online Appendix shows the number of individuals in our sample shifting occupational sectors between two subsequent local elections. This highlights that 74-80% of employees in any given sector do not switch, while 13% of local public employees (municipalities and counties) switch to the private sector (N \approx 99.000 individuals) and 4% of private sector employees shift to the local public sector (N \approx 185.000 individuals). Table A.2 in the Online Appendix shows the number of individuals shifting work-place location between two subsequent local elections. This illustrates that 11% of individuals initially working in their municipality of residence move to a work-place outside their municipality of residence (N \approx 554.000 individuals), whereas 25% of those initially working outside their municipality of residence shift to a work-place inside their municipality of residence (N \approx 774.000 individuals). Hence, in both cases we can rely on a substantial number of observations to identify the effects of interest even when using individual-level fixed effects.

5.1 Occupational sector and list rank

Our theoretical argumentation in section 2 implies that public employees' double motive makes them more likely to stand for election and place larger value on positions towards the top of the ballot. To evaluate this, we estimate regression models with individuals' list rank as the dependent variable. The main independent variables are indicator variables for individuals'

occupational sector (i.e. not employed, central government, county government, municipal government; private sector as omitted reference category). All models include fixed effects for election years, municipalities, political parties and type of work (using 42 occupation types differentiated at the 2-digit level in ISCO), as well as additional controls for individuals' age, sex, immigration background (6 categories) and education level (5 categories). Models in even columns are extended with individual-level fixed effects. This implies deriving inferences only from variation over time *within* individuals (e.g. a given individual shifting employment from the private sector to the public sector), and provides a very stringent test of our theoretical propositions. Throughout this analysis, we restrict our sample to all electoral candidates since no list ranks exist for individuals not standing for election. As such, we analyse whether public employees are more likely to be located on higher list ranks (with lower numbers!) *conditional on standing for election*. The results are summarized in Columns (1)-(4) of Table 3.

Table 3. Occupational sector, list ranks and elected candidates

		List ra	nk		Elected candidate				
	Municipal		County e	elections	Municipal			County elections	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Not employed	0.1143	0.6561	-1.6738	-1.0794	-0.0760	-0.0281	-0.0518	-0.0161	
1 2	(0.000)	(0.000)	(0.000)	(0.125)	(0.000)	(0.000)	(0.000)	(0.444)	
Central gvt.	-0.1286	0.1119	0.2237	-0.6422	0.0223	0.0063	0.0186	-0.0114	
	(0.255)	(0.637)	(0.547)	(0.481)	(0.000)	(0.462)	(0.034)	(0.548)	
County gvt.	-0.8299	-0.2190	-6.9037	-3.6460	0.0505	0.0143	0.3178	0.1590	
	(0.000)	(0.601)	(0.000)	(0.003)	(0.000)	(0.219)	(0.000)	(0.000)	
Municipal gvt.	-1.4032	-0.7777	0.3246	-0.1692	0.0682	0.0327	0.0180	0.0044	
	(0.000)	(0.000)	(0.278)	(0.765)	(0.000)	(0.000)	(0.027)	(0.757)	
Observations	224,947	148,134	26,178	13,457	224,947	148,134	26,178	13,457	
R-squared	0.209	0.723	0.116	0.655	0.068	0.723	0.135	0.740	
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES	
Year FE	X	X	X	X	X	X	X	X	
Municipality FE	X	X	X	X	X	X	X	X	
Type of work FE	X	X	X	X	X	X	X	X	
Party list FE	X	X	X	X	X	X	X	X	
Individual FE		X		X		X		X	

Notes. The table displays regression estimates using as dependent variables a candidate's list rank (columns 1-4) and a dummy variable equal to 1 for elected candidates (columns 5-8). The analyses include data for the all candidates standing for local elections in the 2007, 2011, 2015 and 2019 local elections. Columns (1), (2), (5) and (6) display estimates for municipal council elections, while columns (3), (4), (7) and (8) show estimates for county council elections. The estimates indicate effects for occupational sector, using private sector employees as reference group. All models include fixed effects for election years, municipalities, political parties and type of work (using 42 occupation types differentiated at the 2-digit level in ISCO). Individual controls include individuals' age, sex, immigration background (6 categories) and education level (5 categories) in uneven columns, and individuals' education level (5 categories) in even columns. Exact p-values based on standard errors clustered by municipality (or county) in brackets.

The results indicate that public employees are ranked significantly higher on candidate lists in both municipal and county elections compared to private sector employees. This is particularly true for municipal (county) employees during municipal (county) council elections. This pattern is consistent with the idea that municipal (county) employees should be more interested in influencing public good provision in the municipal (county) council elections (Moe 2006). These results persist when controlling for individual-level fixed effects in even columns. The point estimates suggest that shifting employment from the private sector to the municipal public sector causes an improvement in one's list rank by 0.8 to 1.4 positions in municipal council elections. Shifting employment to the county public sector causes an increase of on average 3.6 to 6.9 positions on county council candidate lists. Overall, these findings are consistent with political self-selection among public employees inducing increased overrepresentation among high-ranked compared to low-ranked candidates (we study the potential demand-side effects of party decisions on candidate selection in section 6 below).

As mentioned, a direct corollary of public employees' higher list ranks is that their likelihood of achieving elected office should increase – conditional on being an electoral candidate. This is confirmed in columns (5)-(8), where we estimate the same regression models as before except that the dependent variable now is a dummy equal to 1 for elected candidates (0 otherwise). In column (6), we see that shifting employment from the private sector to the municipal public sector causes an increase in one's probability of election by three percentage points in municipal elections. Column (8) shows that the impact of shifting employment to the county authorities is again much larger (nearly 16 percentage points). These effects decline substantially in size (as well as statistical significance) when we directly control for candidates' list rank in these regressions (see Table A.3 in the Online Appendix). This confirms that the increased election probability of public employees found in columns (5)-(8) is predominantly due to their higher list ranks observed in columns (1)-(4).

5.2 Occupational sector and the likelihood of standing for election

Turning now to our main theoretical prediction - i.e. public employees' double motive makes them more likely to stand for election - we test whether moving from private to public sector

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¹³ Throughout the analysis we estimate linear probability models whenever we have a binary dependent variable. Using binary response models – either probit or logit – does not affect our main inferences. This is consistent with the fact that linear probability model usually provide a very good approximation of the marginal effects from probit/logit models (Angrist and Pischke 2008).

employment increases individual *i*'s self-selection into standing for public office. For this analysis, we extend our dataset to the entire Norwegian electorate. We estimate a linear probability model where an indicator variable equal to 1 for individuals standing for election (0 otherwise) is the response variable. The explanatory variables are the same as in Table 3 (except for the party list fixed effects, which are excluded as we cannot observe party affiliation for those not standing for election). As before, we estimate the model separately for municipal and county council elections, and include a full set of individual-level fixed effects. The latter means that we estimate public employment effects as a consequence of *the same individuals* shifting between sectors. The results are presented in columns (1) and (2) of Table 4.

Table 4. Occupational sector and candidates for local elections

	Municipal elections		Municipal elections	County elections
	(1)	(2)	(3)	(4)
Not employed	-0.0024	-0.0006	-0.0003	-0.0005
	(0.000)	(0.001)	(0.090)	(0.001)
Central gvt.	-0.0010	-0.0002	-0.0001	0.0000
	(0.002)	(0.843)	(0.790)	(0.888)
County gvt.	0.0047	0.0044	0.0029	0.0049
	(0.000)	(0.000)	(0.030)	(0.002)
Municipal gvt.	0.0031	0.0009	0.0011	0.0006
	(0.000)	(0.000)	(0.013)	(0.006)
<u>Interaction terms</u> :				
Home*Private	-	-	0.0029	0.0001
			(0.000)	(0.264)
Home*Central gvt.	-	-	0.0015	0.0000
			(0.043)	(0.976)
Home*County gvt.	-	-	0.0058	-0.0008
			(0.001)	(0.024)
Home*Municipal gvt.	-	-	0.0052	-0.0008
			(0.000)	(0.563)
Observations	12,839,039	12,839,039	12,839,039	12,839,039
R-squared	0.578	0.486	0.578	0.486
Individual controls	YES	YES	YES	YES
Year FE	X	X	X	X
Municipality FE	X	X	X	X
Type of work FE	X	X	X	X
Individual FE	X	X	X	X

Notes. The table displays regression estimates using a dummy variable for election candidate as response variable. The analyses include data for the entire eligible population in the 2007, 2011, 2015 and 2019 local elections. Columns (1) and (3) analyse likelihood of standing for election to the municipal council elections, while Columns (2) and (4) investigate probability of standing for election to the county and municipal council elections. The estimates indicate in Columns (1) and (2) indicate effects of institutional sector, using private sector employees as reference group. In Columns (3) and (4), the baseline effects indicate the effects of institutional

sector conditional on the person working *outside* the municipality of residence, while the interaction effects indicate the additional effect of institutional sector for persons working *inside* the home municipality. Private sector employment is used as the reference group. All models include fixed effects for election years, municipalities, political parties and type of work (using 42 occupation types differentiated at the 2-digit level in ISCO). Individual controls relate to individuals' education level (5 categories). Exact p-values based on standard errors clustered by municipality (or county) in brackets.

The findings indicate that a given individual *i*'s shift in employment from the private sector to the municipal public sector increases the probability of being a candidate in municipal council election with 0.0031. As the overall probability of standing for election among the eligible population is 0.0168, this suggests a 17% increase compared to this baseline probability. Shifting work to the county public sector produces a similar (and substantively somewhat larger) increase in the probability of standing for election. Column (2) displays corresponding estimates for the probability of standing for county council elections (which effectively often implies running in *both* municipal and county council elections; see above). The share of the eligible population standing for the county council elections is about 0.0020. Compared to this baseline probability, the estimated effects in Column (2) suggest that shifting employment to the county public sector roughly triples the probability of standing in county council elections.

Taken together, self-selection into standing for public office thus appears to be significantly higher among local public employees. Interestingly, shifting employment to the central government or losing one's employment both are associated with a small negative effect. This might reflect the more stringent time constraints of national civil servants, and a shift of focus to more immediate personal concerns among newly unemployed individuals, respectively. In both cases, their distinct time constraints may interfere with any desire to stand for office at the local government level.

5.3 Occupational sector, place of work and the likelihood of standing for election

The analysis thus far implicitly assumes that work-related utility from public good provision is independent of working inside or outside one's municipality of residence. This is unlikely to hold because working in one's municipality of residence may make political representation more interesting (Moe 2006; West 2012; Bhatti and Hansen 2013; Geys and Sørensen 2021). To accommodate this possibility, we augment the regression model with a set of interactions between individuals' occupational sector and an indicator variable equal to 1 when the individual works inside the municipality of residence (0 otherwise). This specification allows

us to exploit the different incentives of local government employees working inside/outside their municipality of residence in a more demanding test of the double motive hypothesis. We expect that moving to a municipal (or county) public sector position within one's municipality increases the probability to stand for election in municipal elections, whereas no similar effect should arise with respect to county council elections (see section 2).

The results are brought together in columns (3) and (4) of Table 4. In column (3), all coefficients for the interaction terms are positive, and are substantively largest when focusing on individuals working for the municipal or county government. Moving employment to one's municipality of residence – while keeping fixed one's occupational sector – increases the probability of standing for election in municipal council elections by approximately 37% compared to the baseline probability of candidacy in such elections (i.e., 0.0168). As expected, no similar effect is observed when looking at the county council elections in column (4). These county-level findings can be interpreted as placebo estimates since moving employment across municipalities within a county does not change one's role in county-level public good provision. As such, it does not affect individuals' producer-related utility from such public goods, and should not impact upon their self-selection into political office (as confirmed by our results).

5.4 Occupational sector and information about public policies

As mentioned, the decision of public employees to stand for election may be affected by superior information on policy issues (Niskanen 1971; Braendle and Stutzer 2016). This decreases their costs of running for election as well as augments their probability of influencing public policy (Hyytinen et al. 2018). As superior information is hard to operationalize, we take two complementary approaches to address the potential role of information.

First, we differentiate between individuals shifting employment from the private sector *into* and *out of* the (local) public sector. Shifting *into* the local public sector leads individuals to gain more information about public policies. This information gain may arise passively as part of their new position (in which case it should largely disappear when people move out of the public sector). Yet, consistent with our double-motive hypothesis, it might also arise because individuals actively seek out more information due to a stronger interest in local government policy when working in the public sector (in which case the information gain may be more persistent). Moving *out of* the local public sector thus may only lead to a partial loss of

information, which would suggest an asymmetry in the effect of cross-sectoral employment shifts. Table A.4 in the Online Appendix confirms this proposition. We find that individuals moving from the private sector *into* the local public sector are always significantly more likely to stand for election and obtain elected office. Those moving in the opposite direction show substantially weaker coefficient estimates. As argued above, this asymmetry is consistent with information acquisition acting as a mediating variable between public employees' double motive and their decision to run for elected office.

Second, a large-scale survey among almost 3000 municipal council members in 2015 included the following question: "To what extent do you consider it difficult to understand the issues you handle in the municipal council?" Responses were coded "easy", "difficult" or "uncertain". This constitutes a proxy for respondents' (self-perceived) competence for discussing and deciding upon public policies. Table A.5 in the Online Appendix displays the results classified by occupational sector as well as work-place inside/outside the municipality of residence. We find no indication that public employees consistently perceive topics addressed within the municipal council to be *easier* compared to other respondents. Yet, they appear *less uncertain* about their (in)ability to understand local policy issues, particularly when local council members work in their municipality of residence. This again suggests that superior information may play some role for the self-selection of public employees into standing for elected office.

6. Political parties, voters and candidates' occupational background

The results in section 5 are consistent with individual-level factors driving the self-selection and subsequent over-representation of public employees in politics. Still, as discussed in our theoretical framework, political overrepresentation of public employees could also reflect that parties or voters prioritize candidates with (qualities associated with) specific occupational backgrounds. In this section, we assess such party (section 6.1) or voter (section 6.2) effects.

6.1 Political parties and ballot information on candidate occupations

Political parties can have several reasons to target public employees and place them towards the top of candidate lists. Such actions constitute a rational strategy if *either* voters care about candidates' occupational background (see section 6.2 below) *or* the prioritization of such candidate profiles bolsters the credibility of parties' election promises (Besley 2005; Aldrich

2011; Thomsen 2014). When candidate occupation acts as such a signalling tool, parties are incentivized to highlight this information to voters whenever possible during the campaign and, if allowed, on the ballot. In Norway, the Election Law provides the opportunity for parties to include information on place of residence and/or occupation on the ballot. Hence, we can test whether parties exploit candidates' occupations as a signalling tool by looking at the presence of this information on candidate lists. Each municipal election in the 2003-2019 period includes nearly 3,000 lists, and the five elections combined cover 14,612 lists. The county elections witness about 1,300 lists per election, for a combined total of 6,631 lists over the 2003-2019 period. We checked all these lists for information about candidates' occupational background. Figure 2 displays the findings. It portrays the share of candidate lists including information about occupational backgrounds in municipal (circles) and county (triangles) elections.

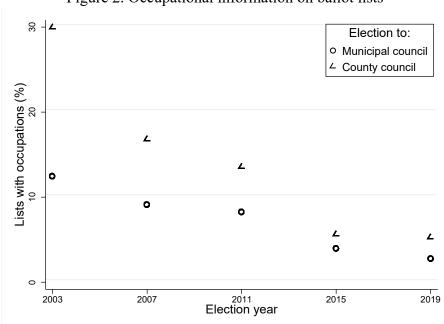


Figure 2. Occupational information on ballot lists

Notes. The diagram shows the percentage of lists containing information on candidates' occupational backgrounds for each local election year (2003-2019). The triangles refer to county council elections, and the circles to municipal council elections. The data source is the Local Candidate Dataset (Fiva et al. 2020b).

The results in Figure 2 suggest a small and rapidly declining share of election lists that includes information on occupational backgrounds. This share has in recent years fallen well below 10% for both types of elections (Figure A.2 in the Online Appendix confirms the same finding across the political spectrum), but it remains somewhat higher in county council elections. This may reflect that county council elections cover a larger geographic area, which reduces voter

knowledge and might increase the need to signal candidates' occupation. Even so, the occupational backgrounds mentioned on the ballot do not necessarily yield information on candidates' public versus private sector affiliation. Some occupations – such as 'farmer' – are typical private sector occupations, whereas others – such as 'teacher' – are predominantly public sector occupations. Similar assignments are less obvious for occupations including 'engineer' or 'advisor'. This lack of precision suggests that candidates' public versus private sector affiliation matters little to parties. If they felt strong incentives to signal the public sector affiliation of candidates, they could – and should – apply more specific occupational descriptions to their ballot sheets.

Parties caring about the occupational background of their candidates should not only display this information prominently on the ballot. They can also give public employees 'cumulated' status on the ballot, which drastically improves their election probability. To test whether parties exploit this possibility, we ran a regression model with a dummy variable equal to 1 for 'cumulated' candidates (0 otherwise) as response variable. The main independent variables are once more indicator variables for individuals' occupational sector. The regression model includes fixed effects for election year, municipality/county (as applicable), and political party interacted with list rank. As such, we compare candidates in the same municipality/county and the same list rank in the same party. The results are summarized in Online Appendix Table A.6. Although the point estimates are statistically significant for municipal employees (in both municipal and county elections) they are substantively very small. Overall, these mixed findings indicate that party selection may play some role in explaining public sector overrepresentation. Yet, taken together the evidence suggests that parties display a relatively weak proclivity to screen, select and promote candidates on the basis of their public-versus-private sector occupational background.

6.2 Voters and preferential voting based on candidates' occupational background

Since local council seats are awarded based on preferential vote tallies (see above), Norway's electoral system allows voters at least some influence on who is elected. In this section, we explore whether voters' preferential votes are cast to the benefit of public employees (despite parties' scant supply of relevant occupational information on election ballots; see Section 6.1). Using detailed information on local election lists as well as local election results, Figure 3 displays the share of elected representatives improving their list rank with at least one position

as a consequence of preferential voting. Rank improvement is defined as the difference between candidates' post-election realized rank (based on personal votes) and their pre-election ballot rank, with a negative difference implying a lower rank position after the election. For instance, an improvement of one rank occurs where candidate c was listed third on the party ballot, but due to her preference votes fills the party's second elected seat.

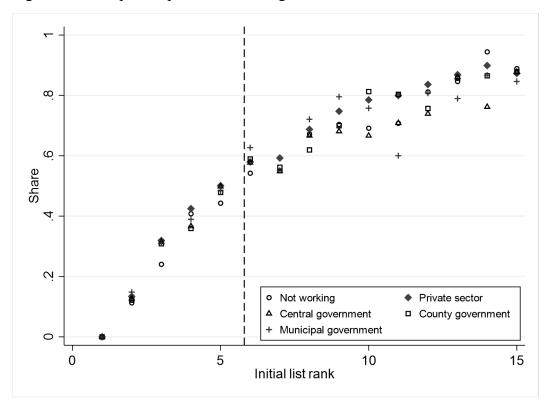


Figure 3. The impact of preferential voting

Notes. The plot displays the share of elected municipal council members getting a lower (=better) list rank based on preference votes compared to their original rank on the party ballot. We show separate percentages depending on candidates' sectoral affiliation. The dashed vertical line indicates average list rank of elected candidates. The graph covers the municipal council elections over the period 2003-2019.

Figure 3 shows that voters' preference votes for individual candidates have only a limited impact on the final rank of high-ranked candidates (reflecting their limited upward potential), but can have substantial importance for lower-ranked candidates. Crucially, Figure 3 also illustrates that voters' preferential ballots do *not* consistently benefit public employees compared to private sector employees or candidates without occupation. Figure A.3 in the Online Appendix confirms this result even when we focus on the subset of lists where parties provide occupational information on the ballot. Since preferential voting patterns thus do not

appear to take into account candidate occupations, these results suggest that voters display no preference for public employees.¹⁴

These findings are further substantiated by data from five Norwegian Local Election Surveys over the period 1999-2015. Figure A.4 in the Online Appendix indicates that voter preferences regarding candidate-specific characteristics are, at best, weak in our Norwegian setting. More specifically, candidate characteristics are found to be much less prominent as determinants of individuals' vote choice for municipal elections than, for instance, 'general trust in the party' and 'local issues'.¹⁵

7. Conclusion

In this article, we argued that public employees have a *double motive* to become politically active because they are both producers and consumers of public goods and services. We investigated several empirical implications of this double-motive hypothesis using detailed individual-level register data covering *all* Norwegian citizens eligible for public office during four local elections (N>13 million observations). Three main findings arose from our analysis. First, we found that public employees occupy a disproportionate share of positions on election lists, as well as seats in elected councils. Second, we observed little to no evidence that this is a consequence of voters' electoral behaviour (in terms of personal vote distributions), but found some evidence consistent with party selection effects. Third, substantively meaningful effects were observed from shifting employment between private and public sectors, as well as from moving one's public employment outside/inside the municipality of residence. Taken together, these findings are consistent with our double motive hypothesis, and suggest an important role for public employees' self-selection into political activities when explaining their political over-representation.

¹⁴ As public employees are much more likely to vote (Jaarsma et al. 1986; Moe 2006; Bednarczuk 2018; Geys and Sørensen 2021), this finding may initially appear surprising since it suggests that civil servants themselves do not necessarily vote for 'one of their own'. One potential explanation is that party choice is more important than the choice of politicians within the party in Norway. Auxiliary analyses of elected representatives ideological self-placement and policy preferences indeed show substantially less heterogeneity *within* than *between* parties.

¹⁵ Campbell and Cowley (2014) provide experimental evidence on the impact of candidate occupation on voter ratings of approachability, experience and effectiveness as well as overall candidate preferences. While their study suggests that occupation – as well as sex, age, education and religion – matters for voters' ratings of candidates, they do not include a treatment for private versus public sector employment (possibly reflecting its assumed irrelevance to voters).

From a bureaucratic politics perspective, our study contributes to the persistent debate on political control of the bureaucracy. Using a principal-agent perspective, much of this literature assumes "goal conflict between politicians and bureaucrats" (Meier and O'Toole 2006: 179) and focuses on instruments of political control – such as appointments, budgets, legislation, and administrative procedures (Waterman et al. 1998; Hustedt and Salomonsen 2017). Our focus on bureaucratic representation in politics draws attention to the potential for blurred lines in terms of who controls who (Moe 2006). While political representation of bureaucratic values and preferences may benefit politician-bureaucrat goal consensus, such representation at the same time creates an important regulatory issue. One could indeed argue that democratically elected bodies should represent only *consumer* (i.e. voter) interests, which is central to the reasoning behind regulations to exclude civil servants from standing for election – such as in the US and UK.

From such a regulatory perspective, however, our analysis offers new insights for the *design* of institutional arrangements that deal with the eligibility of public employees for political office (OSCE 2017). More specifically, our findings forcefully go against imposing a blanket ban, and rather support a case for eligibility restrictions that only affect those who work *and* live (and vote) in the same jurisdiction. The representation of central or county government employees on municipal councils – or even municipal public employees working outside their residential municipality – poses much less of a problem, and thus should not be regulated or restricted. Furthermore, eligibility restrictions are arguably most pressing when public employees display diverging policy preferences, because increased descriptive representation then may induce concerns about a concomitant shift in public policies. This further limits support for imposing blanket restrictions on the eligibility of public sector employees for political office. Institutional arrangements should thus target those most able to influence their own job security and work conditions (which is likely to occur only under very specific conditions).

Several directions for future research arise from our work. First, as mentioned, a (normative) concern with public employees showing higher interest in standing for election at the level of government that employs them (especially when working in their municipality of residence) is that it may reflect self-serving preferences whereby public employees seek public office to sway policies to their professional benefit. An in-depth understanding of the presence and strength of such potential substantive representation by public employees is crucial to say more about whether, when and how public sector overrepresentation matters for the substance of

politics and policy. While some empirical studies suggest that substantive representation by public employees may be an important concern (e.g., Moe 2006; Matter and Stutzer 2015; Hyytinen et al. 2018), ¹⁶ this question requires much more thorough and comprehensive analysis in future research. For instance, we need to understand more about whether, when and how public employees' political representation causes a shift in policy outcomes. Another open question is whether politicians from distinct occupational sectors within any given party differ in terms of their overall ideological orientations or their position on specific local political issues (such as local public policies, public employees' pay, work rules, sick leave). Finally, politically active civil servants may also have more indirect effects on policy outcomes by affecting the stance of their parties. Hence, it would be important to assess whether, and, if so, to what extent civil servants might pull the parties where they enlist further towards the left.

Second, our relatively short time frame does not allow us to explore how shifts in workforce structure affect political representation. There is room for studies that explore the causal effects of shifts in public versus private employment rates – for example, as a consequence of exogenous changes in the municipality structure (e.g. mergers), or due to unexpected restructurings of large private or public sector organizations. Third, while institutional arrangements were fixed within our period of analysis, exploring shifts in eligibility restrictions using historical data or natural experiments would provide an interesting extension. Such settings may exploit varying regulations while keeping electoral preferences constant, which would facilitate the identification of causal effects. Fourth, we study only one country that has a number of distinctive features – such as its oil wealth, welfare state size, gender equality and work conditions in the public sector. While none of these elements is uniquely 'Norwegian', replication of our analysis in different settings – as well as comparative extensions to our work - would be important to investigate the potential moderating role of specific institutional and/or economic arrangements. Finally, from an academic as well as policy perspective, it would be interesting to assess the effects of the electoral setting. One could imagine, for instance, that fiercer competition for top-ranked positions and greater media coverage at the national level affect the opportunities for public employees' self-selection. It remains to be seen whether and how this affects public sector representation in politics.

¹⁶ Recent evidence furthermore indicates that working in the public rather than the private sector has a causal effect on electoral participation (Geys and Sørensen 2021).

Data Availability

The analyses presented in this paper exploit registry data managed by Statistics Norway under the Norwegian Statistics Act. The Act does not allow us to make these data available to other users. Researchers in approved research institutions can apply to Statistics Norway for access to the relevant micro data, cf. https://www.ssb.no/en/omssb/tjenester-og-verktoy/data-til-forskning. Researchers must document sufficient confidentiality under the General Data Protection Regulation (GDPR), and submit a Data Protection Impact Assessment (DPIA). The current analysis merges Statistics Norway micro data with a separate dataset on candidates standing for the local elections. This dataset is available on http://www.jon.fiva.no/data.htm.

The analyses presented in this paper also employ several survey datasets. The Norwegian Local Election Surveys as conducted between 1999 and 2015 can be ordered free of charge for research purposes at https://nsd.no/nsddata/serier/norske-valgundersokelser.html. Norwegian Inhabitants Survey (Innbyggerundersøkelsen) can be ordered free of charge for research purposes at https://www.nsd.no/nsddata/serier/innbyggerundersokelsen.html. Finally, the 2015 survey among members of all municipal councils was part of a research project for the Ministry of Local Government. The legal provisions of the Data Protection Official for Research do not allow us to make these data available to other users. Further information is the available on the homepages of Ministry of Local Government: https://www.regjeringen.no/no/tema/kommuner-og-

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ONLINE APPENDIX

Political (Over)Representation of Public Sector Employees and the Double-Motive Hypothesis: Evidence from Norwegian Register Data (2007-2019)

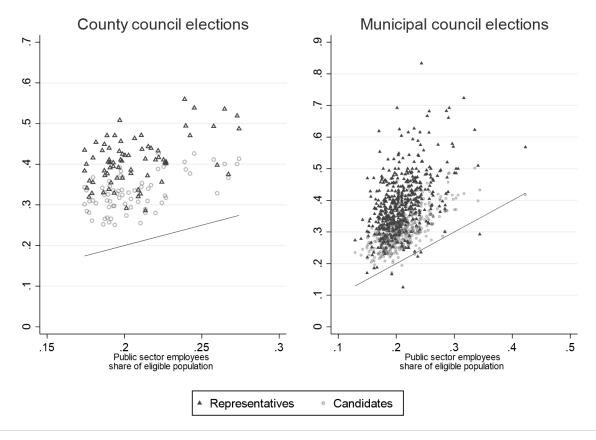
A. Legislative framework and robustness checks

Section 14 of the Local Government Act describes in detail who cannot stand for election in local (i.e. county and municipal) elections. The unofficial translation from the Norwegian original reads as follows:

"Disqualified from election are the county governor, assistant county governor, and any person who in the municipality or county concerned is the chief executive or the latter's deputy, is secretary to the municipal council or county council, is head of a branch of the administration, is responsible for the accounts of the municipality or county, or conducts the audit for the municipality or county authority. Nevertheless, the managers of individual undertakings are not disqualified from election."

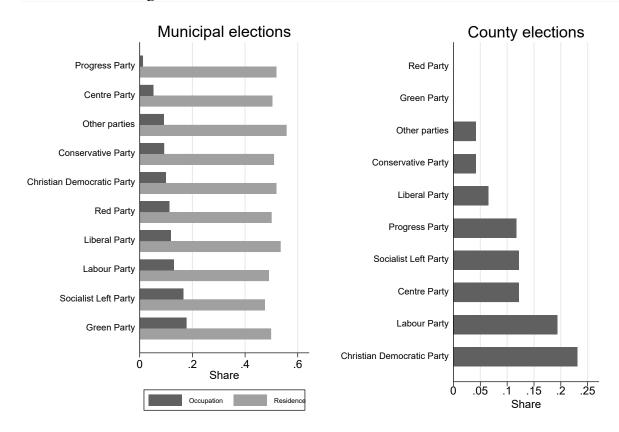
The entire document can be accessed at https://www.regjeringen.no/contentassets/81a7befa78f04d358ace73997145d974/juni 2019 election act updated-01.03.2019.pdf

Figure A.1. Public sector employee representation in local politics (2007-2019)



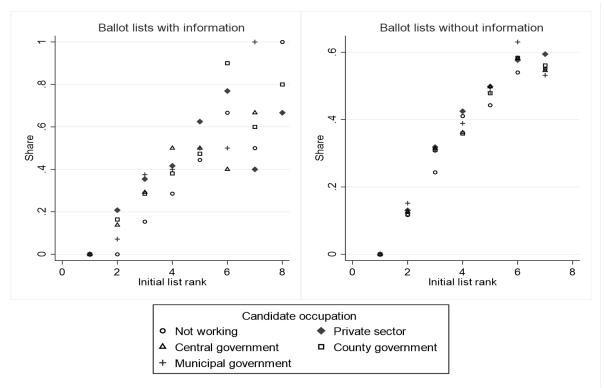
Notes. The vertical axes measure the share of public sector employees among council representatives (triangles) and on election lists (circles), while the horizontal axis indicates the share public sector employees in local electorates. The left diagram covers elections to the county council and the right diagram shows data for municipal councils. The lines reflect situations where the share of public sector employees in the electorate corresponds to its share on election lists and among council members. The plots are based on data for the municipal and county council elections in 2007, 2011, 2015 and 2019.

Figure A.2. Ballot information on candidate characteristics



Notes. The diagrams shows the share of party lists with information on candidates' occupations and residence. The diagrams exploit data on the 2993 lists in the municipal council elections and the 230 lists in the county council elections (2015). In the county council elections, all candidates are identified by their home municipality. In the municipal county elections, the lists offer information on candidates' town or settlement area in the municipality.

Figure A.3. The impact of preferential voting conditional on ballot information



Notes. The plot displays the share of elected municipal council members getting a lower (=better) list rank, conditional on the initial rank. The share is defined by the difference between candidates' realized rank (after personal votes has been taken into account) and candidates' initial rank (as proposed on the ballot list), and a negative difference implies a lower rank position. The plot shows the share of council members with improved rank positions, conditional on sectoral affiliation and conditional on ballot lists including information of candidates' occupations. The graph covers the municipal council elections in 2003-2015.

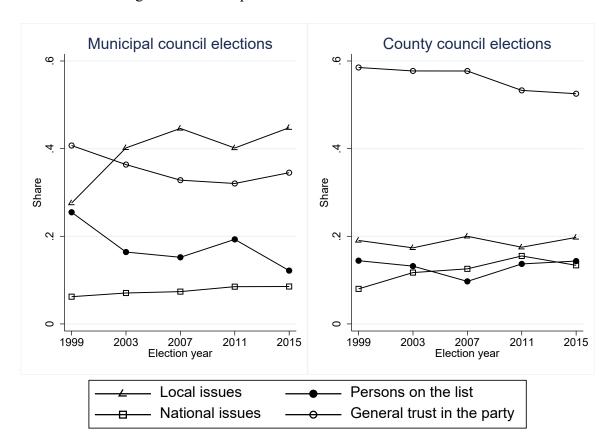


Figure A.4. Voter preferences and candidate characteristics

Notes. The diagrams displays responses to the survey question: "What had the greatest influence on your choice of party or list in the local elections? Local issues, the persons on the list, national issues, or general trust in the party?" Answer options included 'local issues', 'persons on the list', 'national issues', or 'general trust in the party'. Source: Local election surveys 1999-2015.

Table A.1. Shifts between occupational sectors

		Occupationa	l sector (previous	s election year):		
Occupational sector (current election year):	No sector	Private sector	Central government	Municipal government	County government	Total
No sector	1,733,298	680,320	79,305	174,269	18,035	2,685,227
	73.51%	14.03%	10.01%	13.42%	14.13%	28.49%
Private sector	437,076	3,881,932	66,358	91,307	7,699	4,484,372
	18.54%	80.05%	8.38%	7.03%	6.03%	47.58%
Central	58,743	101,448	612,712	33,934	2,213	809,050
government	2.49%	2.09%	77.34%	2.61%	1.73%	8.58%
Municipal	121,019	169,923	30,895	991,504	4,655	1,317,996
government	5.13%	3.50%	3.90%	76.35%	3.65%	13.98%
County	7,886	15,557	3,000	7,690	95,078	129,211
government	0.33%	0.32%	0.38%	0.59%	74.46%	1.37%
Total	2,358,022	4,849,180	792,270	1,298,704	127,680	9,425,856
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Notes. The table displays number (and share) of persons shifting between occupational sectors. The table includes the entire Norwegian population eligible to stand in local elections, conditional on data being available in at least two successive elections in the 2003-2015 period. Each cell shows the absolute number of persons as well as column percentages.

Table A.2. Shifts between work-place locations

Working in residential municipality (previous election year):								
Working in residential municipality (current election year):	No	Yes	Total					
No	2,313,289	553,782	2,867,071					
	74.94%	11.53%	36.33%					
Yes	773,658 25.06%	4,250,692 88.47%	5,024,350 63.67%					
Total	3,086,947 100.00%	4,804,474 100.00%	7,891,421 100.00%					

Notes. The table displays number of persons shifting work location, i.e., to/from the residential municipality and to/from other municipalities. The table includes eligible citizens observed as employees in at least two successive elections in the 2003-2015 period. Each cell shows the absolute number of persons as well as column percentages.

Table A.3. Occupational sector and elected candidates

	Municipa	l elections	County elections		Municipa	l elections	County elections	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Not employed	-0.0760	-0.0281	-0.0518	-0.0161	-0.0636	-0.0150	-0.0636	-0.0019
	(0.000)	(0.000)	(0.000)	(0.444)	(0.000)	(0.004)	(0.000)	(0.923)
Central gvt.	0.0223	0.0063	0.0186	-0.0114	0.0124	0.0071	0.0180	-0.0103
	(0.000)	(0.462)	(0.034)	(0.548)	(0.000)	(0.354)	(0.015)	(0.474)
County gvt.	0.0505	0.0143	0.3178	0.1590	0.0169	0.0078	0.2043	0.0959
	(0.000)	(0.219)	(0.000)	(0.000)	(0.003)	(0.428)	(0.000)	(0.007)
Municipal gvt.	0.0682	0.0327	0.0180	0.0044	0.0248	0.0103	0.0226	0.0117
	(0.000)	(0.000)	(0.027)	(0.757)	(0.000)	(0.052)	(0.003)	(0.381)
List rank	NO	NO	NO	NO	YES	YES	YES	YES
Observations	224,947	148,134	26,178	13,457	224,947	148,134	26,178	13,457
R-squared	0.068	0.723	0.135	0.740	0.330	0.780	0.337	0.740
Individual controls	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	X	X	X	X	X	X	X	X
Municipality FE	X	X	X	X	X	X	X	X
Type of work FE	X	X	X	X	X	X	X	X
Party list FE	X	X	X	X	X	X	X	X
Individual FE		X		X		X		X

Notes. The table displays regression estimates using as dependent variable a dummy variable equal to 1 for elected candidates. The analyses include data for the all candidates standing for local elections in the 2007, 2011, 2015 and 2019 local elections. Columns (1)-(4) replicate Columns (5)-(8) from Table 4 in the main text for reasons of comparison. Columns (5)-(8) in an additional control for individuals' list rank. The estimates indicate effects for occupational sector, using private sector employees as reference group. All models include fixed effects for election years, municipalities, political parties and type of work (using 42 occupation types differentiated at the 2-digit level in ISCO). Individual controls include individuals' age, sex, immigration background (6 categories) and education level (5 categories) in uneven columns, and individuals' education level (5 categories) in even columns. Exact p-values based on standard errors clustered by municipality (or county) in brackets.

Table A.4. Shifts to and from private sector employment

	Electe	ed (=1)	Candida	ate (=1)
	(1)	(2)	(3)	(4)
Shift to/from private sector:				
Private to municipal gov.	0.0785	0.1068	0.0061	0.0042
1 6	(0.000)	(0.002)	(0.000)	(0.003)
Municipal gov. to private	0.0177	0.0712	0.0030	0.0024
	(0.253)	(0.0031)	(0.002)	(0.085)
Private to county gov.	0.0747	0.0459	0.0085	0.0074
, ,	(0.013)	(0.502)	(0.000)	(0.154)
County gov. to private	0.0660	-0.0027	-0.0007	-0.0009
	(0.065)	(0.968)	(0.832)	(0.862)
Private to central gov.	0.0374	0.0192	0.0032	0.0006
Č	(0.060)	(0.669)	(0.000)	(0.692)
Central gov. to private	0.0309	0.0051	0.0060	0.0028
0 1	(0.162)	(0.913)	(0.000)	(0.168)
Private to no employment	0.0074	-0.0045	0.0017	-0.0007
1 ,	(0.406)	(0.749)	(0.000)	(0.097)
No employment to private	0.0344	-	0.0038	-
	(0.003)		(0.000)	
Observations	36,485	5,228	4,263,737	609,765
R-squared	0.7549	0.8030	0.6462	0.6980
Individual FE	X	X	X	X
Year FE	X	X	X	X
Municipality FE	X	X	X	X

Notes. The table shows regression analyses on the likelihood of election conditional on being candidate to the municipal council elections (columns 1 and 2), and on the likelihood of standing for election (columns 3 and 4). The table displays estimates for shifts to and from occupation in the private sector. The samples include only persons who have shifted between the occupational sectors between the local elections in the period 2007-2015. The estimates in column (2) derive from a sample including only candidates shifting to/from the private sector, and the column (4) estimates stems from an analysis of eligible citizens shifting to/from the private sector. The regression models include individual fixed effects as well as fixed effects for election years and municipality. The standard errors are robust and clustered on municipalities. Exact p-values in brackets.

Table A.5. Self-perceived policy competences of local politicians

	Pri	ivate sect	or	Centra	ıl govern	ment	Munici	pal gover	nment		All	
	Home	mun.	Total	Hon	ne mun.	Total	Hon	ne mun.	Total	Hon	ne mun.	Total
	No	Yes		No	Yes		No	Yes		No	Yes	All
Easy	276	150	426	62	75	137	231	87	318	569	312	881
%	24.51	25.08	24.71	25.94	25.34	25.61	25.11	29.90	26.26	24.90	26.33	25.39
Uncertain	667	332	999	137	161	298	515	128	643	1319	621	1940
%	59.24	55.52	57.95	57.32	54.39	55.70	55.98	43.99	53.10	57.72	52.41	55.91
Difficult	183	116	299	40	60	100	174	76	250	397	252	649
%	16.25	19.40	17.34	16.74	20.27	18.69	18.91	26.12	20.64	17.37	21.27	18.70
TOTAL	1126	598	1724	239	296	535	920	291	1211	2285	1185	3470
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Notes. The table displays responses to a survey question asked to members of the municipal councils: "To what extent do you consider it difficult to understand the issues you handle in the municipal council?". The responses were coded "easy", "neither easy nor difficult" and "uncertain/do not know" (both recoded as 'uncertain' here) and "difficult". The responses are classified by occupational sector. Home mun(icipality) indicates whether the representatives work in the residential municipality (Yes) or not (No). The table reports the absolute number of respondents in each category as well as column percentages.

Table A.6. Occupational sector and 'cumulated' candidates

	Municipal elections	County elections
N. E. I. I	0.0050	0.0002
Not Employed	-0.0050	-0.0893
Control Community	(0.000)	(0.00)
Central Government	0.0045	-0.0194
	(0.031)	(0.304)
County Government	0.0060	-0.0117
	(0.001)	(0.552)
Municipal Government	0.0054	0.0884
	(0.056)	(0.000)
Observations	159,832	13,518
R-squared	0.645	0.167
Municipality FE	Yes	Yes
Year FE	Yes	Yes
Party-rank FE	Yes	Yes

Notes. The table displays regression estimates using as dependent variable a dummy variable equal to 1 for party cumulated candidates. The analyses include data for the all candidates standing for local elections in the 2011, 2015 and 2019 local elections. The two regressions include fixed effects for party lists interacted with candidates' list rank, election year and municipality/county. The estimates indicate effects for occupational sector, using private sector employees as reference group. Significance levels: *** p<0.001, ** p<0.01, * p<0.05