# A gender-generation gap in political representation? The contingent impact of preference voting in Norwegian municipal elections 

## Signe Bock Segaard \& Jo Saglie

To cite this article: Signe Bock Segaard \& Jo Saglie (2020): A gender-generation gap in political representation? The contingent impact of preference voting in Norwegian municipal elections, Local Government Studies, DOI: 10.1080/03003930.2020.1797691

To link to this article: https://doi.org/10.1080/03003930.2020.1797691


View supplementary material

Published online: 02 Aug 2020.

Submit your article to this journal

Article views: 130

View related articles

View Crossmark data ${ }^{\text {® }}$

[^0]
# A gender-generation gap in political representation? The contingent impact of preference voting in Norwegian municipal elections 

Signe Bock Segaard (1) and Jo Saglie<br>Institute for Social Research, Oslo, Norway


#### Abstract

The article analyses the impact of preference votes on the gender balance in municipal councils in Norway, and to what extent this impact varies with candidates' age, party and local context. We compare actual representation with a hypothetical closed-list outcome. The analyses show that both local political representation and the impact of preference votes are characterised by a gender-generation gap. Older women are underrepresented, while young women are represented on equal terms with young men. Young female candidates benefit from preference voting in larger municipalities, whereas the older generation of women loses out in both large and small municipalities. In conclusion, we argue that an intersectionality approach should pay more attention to variables other than ethnicity, including age and local context. Moreover, research on gender and political representation should take into account a gender-generation perspective.


KEYWORDS Gender; local elections; Norway; political representation; preference voting

## Introduction

Although women's representation has increased, a gender gap persists: men are generally overrepresented in popularly elected assemblies at different levels and in different contexts. However, this general picture may cover considerable variation between groups. The existing literature on gender and political representation tends to focus on the basic dichotomy - men versus women. Admittedly, there is a growing body of literature on intersectional identities (Severs, Celis, and Erzeel 2016), but these studies tend to focus on the intersection of gender and ethnicity. In this article, we aim to add three other politically relevant distinctions to this emerging field as we investigate how generation, party affiliation and local context interact with

[^1]gender. We focus on these three variables, since they can explain variation within a country. Furthermore, our aim is to analyse how preference voting contributes to this variation.

First, the lack of research on the interplay between gender and generation is noteworthy, not least in light of Pippa Norris' (1993, 130-131) observation regarding political preferences: '[i]t is found that rather than a simple "gender gap" it is more useful to talk about a "gender-generation gap"', simply because younger and older women are divided in their preferences. In this article, we apply Norris' concept of a 'gender-generation gap' to the question of political representation of younger and older men and women: Does the seemingly persistent gender inequality at the aggregate level cover differences between younger and older generations?

Second, party affiliation should be taken into consideration as previous research has shown that party ideology, to some degree, influences candidate selection and thereby political representation (Kittilson 2013). The third distinction, local context, is motivated by the fact that the representation literature tends to focus on the national level, while ignoring sub-national variations (but see Sundström and Wängnerud 2018; Kjaer, Dittmar, and Carrol 2018). However, sub-national variations can be substantial. Our case country, Norway, is one of the most gender equal countries in the world (World Economic Forum 2020), as well as being among the European countries with the highest intra-state variation in local gender representation at the municipal level (Sundström and Wängnerud 2018).

Moreover, our aim is to explore the contingent impact of preference votes: whether preference votes affect representation differently, depending on generation, party and local context. Obviously, factors determined at the national level - as the electoral system is in Norway - cannot explain such differences. National factors may nevertheless work differently in different contexts. There is no clear conclusion in the literature regarding what effect ballot structure, and preference voting in particular, has on either gender or generation representation (Bergh and Hellevik 2013; Krook and SchwindtBayer 2013; Kjaer and Krook 2019). The opportunities for two sets of actors to influence the election of representatives are nevertheless shaped by the electoral system. These are the parties that select and rank candidates (if ranked lists are used) and the voters who cast preference votes (in open-list systems). These two groups are central in demand-side explanations of political recruitment (Norris and Lovenduski 1993, 1995).

Crucial for our purpose, the Norwegian local electoral system allows for both party and voter influence over the election of individual candidates. On the one hand, parties can give priority to a number of candidates. On the other hand, it is an open-list system with extensive preference voting rights.

Although an open-list system gives voters more influence, the actual effect of preference votes on political representation is uncertain. The effect will
depend on what the voters prefer but also on whether voter preferences deviate from the candidate lists offered by the parties. The latter depends, in turn, on what the selectorate prefers and on the supply of candidates. This article explores such effects by combining a gender-generation approach and a contextual perspective. We ask two research questions: 1) Do preference votes have a gender-generation impact on political representation? 2) To what extent does this impact vary between political parties and municipalities?

Conducting a register-based study of all 58093 candidates of the 2015 municipal elections in Norway, we are able to analyse the representation of men and women in different age groups, different political parties and municipalities of different sizes. Following Gendźwiłł and Marcinkiewicz (2019), we use inversions to measure the impact of preference votes: we compare actual representation with a hypothetical closed-list outcome where list position alone is decisive.

The article first reviews the literature on electoral systems and representation, followed by a presentation of the Norwegian case, where some empirical expectations are developed and the electoral system is described. The research design and data are then presented. After the analyses, a final section discusses the main findings and their implications.

## Electoral systems and gender balance

## Gender inequality: age, party and municipal size

To meet the call for 'greater attention to diversity among women' (Krook and Schwindt-Bayer 2013, 568, 555; see also Childs and Lovenduski 2013, 497), this article adds a gender-generation perspective on representation by exploring to what extent the gender gap varies between different age groups. In spite of concern regarding sub-groups, empirical contributions to the literature on gender and electoral politics generally do not include the interaction between gender and other demographic categories, for instance, generation, class or ethnicity, as main questions. That is to say, intersectionality is rarely incorporated (but see Stockemer and Sundström 2019). An important exception is research on ethnicity and women's political participation (Cooper 2015; Severs, Celis, and Erzeel 2016; Celis and Erzeel 2017). The intersectionality approach is often related to an outgroup perspective, concerned with representation inequalities and whether intersectional identities create double barriers or complementarity advantage (Celis and Erzeel 2017). One conclusion is that young (minority) women are in a privileged position in regard to representation (Stockemer and Sundström 2019; Celis and Erzeel 2017).

The impact of the internal culture and ideology of political parties is another topic in the literature on women's representation (Kittilson 2013).

Here the main observation is that right-wing parties generally pay less attention to gender equality compared to centrist and left-wing parties (Kjaer and Krook 2019).

Regarding more general cultural and socioeconomic factors, the focus of international research has - at least until recently - been on cross-country variations. Countries are often seen as following a modernisation process from traditional to post-industrial societies, which includes changing cultural attitudes and increasing support for gender equality (e.g. Inglehart and Norris 2003). The consequence is that 'variation in women's representation within and between subnational units is rarely studied' (Sundström and Wängnerud 2018, 118). Moreover, this has resulted in general conclusions missing the complexity of the empirical cases. For instance, the Scandinavian countries, especially Sweden and Norway, are often grouped together as a unified model characterised by a high degree of gender equality (for instance, Navarro and Medir 2016, 117). It is correct that at the national level, looking at averages, Norway and Sweden look very alike with regard to gender balance, but Sundström and Wängnerud $(2018,124)$ found considerable subnational differences: intra-state variation is high in Norway and low in Sweden. This difference still needs to be explained, but the greater variation in municipal size in Norway might be relevant.

This raises the issue of how municipal context and in particular size affects the composition of the municipal council. Municipal size may affect the representation of men and women, for institutional as well as cultural reasons. First, there is an almost mechanical effect of size as such. District magnitude or party magnitude has been shown to affect women's representation at the national level (for an overview, see Krook and Schwindt-Bayer 2013, 562-563). Likewise, in the context of local politics, smaller municipalities have fewer municipal councillors and therefore smaller party groups often consisting of a single councillor. In large municipalities, with larger party groups, it is easier to find room for a broad spectre of representatives.

Second, as Denters et al. $(2014,76)$ note, 'community size is often considered to affect people's social embeddedness' and constitute 'a key dimension of urbanity'. Accordingly, municipal size can also be seen as a proxy for different structural and cultural factors that influence group representation on the municipal council, such as urbanisation (Wide 2012). In small (i.e. rural) municipalities, traditional gender values may be more widespread, and labour market and education opportunities differ from what urban centres can offer (Sundström and Wängnerud 2018).

## The impact of preference voting

Following Norris and Lovenduski (1993, 1995), much of the literature on political representation distinguishes between supply-side and demand-
side explanations. Supply-side explanations suggest that the outcome reflects the supply of potential candidates, their motivations and political resources, whereas the demand-side underlines the impact of selectors (parties) and voters. The focus on these two demand-side actors has encouraged a blame game debate of elite versus voter bias with regard to gender representation (Kjaer and Krook 2019). This article contributes to this debate by focusing on the significance of ballot structure - open versus closed lists for descriptive representation.

Research on the impact of electoral systems on gender representation has in recent years not only distinguished between PR and majoritarian systems but also included other explanatory factors such as district and party magnitude, gender quotas and ballot structure (Krook and Schwindt-Bayer 2013, 564; see also Gendźwiłł and Żółtak 2019; Sundström and Stockemer 2015; Bergh and Hellevik 2013; Kjaer, Dittmar, and Carroll 2018). The empirical conclusions on whether female candidates benefit or suffer from preference voting are not clear, although much research emphasises that '[t]he overwhelming conclusion is that party and not voter discrimination plays the main role in sustaining women's underrepresentation' (Kjaer and Krook 2019, 446; see also Darcy, Welch, and Clark 1994, 149; Navarro and Medir 2016, 563). For Denmark, Kjaer and Krook $(2019,449)$ find that at the aggregate level in local elections, parties have 'a negative impact and voters a positive impact on the election of women'. However, they underline that the negative impact of parties is not due to gender discrimination but 'the central role of incumbency' and '[b]ecause incumbents tend to be male' $(2019,451)$.

Still, other contributions to the literature contradict the 'overwhelming conclusion' cited above. Thames and Williams $(2010,1593)$ conclude that '[p]arty-centered systems that feature weak incentives for personal votes encourage women's representation in comparison to candidate-centered systems that feature strong incentives for personal votes' (see also Navarro and Medir 2016; Krook and Schwindt-Bayer 2013; Gendźwiłł and Marcinkiewicz 2019). Moreover, even the empirical findings within the Scandinavian context are inconclusive. For years, research has shown that preference votes have a negative impact on the share of women on Norwegian municipal councils (Bergh, Bjørklund, and Hellevik 2010; Bergh and Hellevik 2013).

## A contingent impact of preference voting?

Men and women in different age groups may benefit differently from preference voting for three reasons. Two arguments concern differences between generations, rather than age as such. First, research has for decades highlighted political experience as one of the most important qualifications - and more important than gender - when voters and local party branches vote for
candidates in elections and rank the candidates in electoral lists (Stockemer and Sundström 2019; Kjaer and Krook 2019; Gendźwiłł and Żółtak 2019). Consequently, political experience - what Gendźwiłł and Żółtak (2019) call electoral capital - has been a factor used to explain gender inequality in local representation: male local politicians have traditionally been more visible and had more political experience, but '[s]eeing that women are becoming more visible in local politics, they are competing on more equal terms with men' (Bergh, Bjørklund, and Hellevik 2010, 120). There may be a generational difference in the gender distribution of electoral capital: older women may have less political experience than older men and therefore get fewer preference votes. Such differences are less likely among younger candidates.

Second, another argument is based on generational differences between voters due to different forms and levels of exposure to ideas of gender equality (Jennings 2006). The younger generation of voters, which is less marked by traditional gender roles, may be less likely to prefer male candidates. Therefore, younger female candidates may benefit if young voters cast preference votes for young candidates.

Third, attitudes to youth and old age may vary. Elderly politicians are highly esteemed in some countries, whereas recruitment of young candidates is emphasised in other countries (including Norway). In the latter case, we expect elderly women to be the group most likely to face a double barrier and be most disadvantaged by preference votes.

With regard to parties, countervailing mechanisms may make the potential effects of preference voting unpredictable. On the one hand, right-wing voters may (as mentioned earlier) be less concerned about supporting female candidates. On the other hand, if the centre-left parties have already prioritised women in the candidate selection process and produced a genderbalanced list, their voters may feel less need to vote for women.

As discussed above, both cultural and institutional aspects of municipal size can be linked to unequal representation. Cultural predispositions in small municipalities may result in fewer votes for female candidates but may also lead to fewer female candidates, making the effect of preference votes less certain. However, the smaller size of local councils in small municipalities gives less room for diversity. The fact that party groups are littler in smaller local councils may in addition make the gender balance more vulnerable. A small number of votes can cause a sizeable change in women's representation - measured by their per cent of council seats.

## The Norwegian case

Ranked second in the Global Gender Gap Index 2020 (World Economic Forum 2020), Norway, together with the other Nordic countries, stands out as a leader in gender equality and has held that position for decades (Teigen
and Skjeie 2017; Matland and Studlar 1996, 715-716). This concern for gender equality and the prevention of discrimination is regulated not only by the Equality and Anti-Discrimination Act but by acts and regulations in almost all policy fields. However, the field of politics, and local politics in particular, is not strongly regulated by law, but norms of equality and non-discrimination can nevertheless be said to be prevailing in these areas as well. Since 1993, women have held approximately $40 \%$ of the seats in the national parliament ( $41 \%$ after the 2017 election). At the local level, women had $39 \%$ of the municipal council seats and constituted $28 \%$ and $43 \%$ of all mayors and deputy mayors, respectively, after the 2015 elections (Statistics Norway 2018, 27).

Both the young and the old are underrepresented in Norwegian politics. The underrepresentation of the young, however, attracts more attention, due to widespread concern about the low turnout and lack of political engagement among the young. This has led to trials where the voting age was reduced to 16 in selected municipalities (Ødegård, Bergh, and Saglie 2020).

Norwegian local party branches generally try to produce balanced lists with regard to gender, age, geography and other characteristics in order to attract a broad range of voters. Local branches report that it is difficult to recruit candidates, but these difficulties seem to be general rather than gender-specific (Segaard and Saglie 2019). The Election Act does not require any form of gender quotas for electoral lists, but most parties have some kind of internal gender quota rules. The pattern found in other countries, where right-wing parties generally pay less attention to gender equality, is nevertheless also found in Norway (Segaard and Saglie 2019).

There is considerable variation in the size of Norwegian municipalities from 200 to 658390 inhabitants (Statistics Norway 2016). Of the municipalities, $52 \%$ have less than 5000 inhabitants, and only 11 municipalities have more than 60000 inhabitants. It is difficult to separate size as such from urbanisation, since small municipalities (in terms of population) are generally rural in Norway. Consequently, we will not distinguish between these two aspects here.

The share of female municipal councillors also varies considerably between municipalities - from 18\% to 68\% after the 2015 elections (Statistics Norway 2020). In line with much international research (see Kjaer, Dittmar, and Carroll 2018; Krook and Schwindt-Bayer 2013 for overviews), earlier Norwegian studies have shown that women, the old and the young get a smaller share of the seats in smaller municipalities (Folkestad, Saglie, and Segaard 2016, 22; Bjørklund and Segaard 2017, 230). Furthermore, small municipalities often have an ageing population and a surplus of men because young women move to urban areas (and thereby larger municipalities) to a greater extent to pursue higher education (Statistics Norway 2018). EggeHoveid (2013, 14-15) emphasises that such demographical changes can impair gender equality in small municipalities, since a large share of women
on the local council is strongly correlated with a high education level among citizens (Berglund 2005, 40). Conversely, the influx of young women seeking higher education in the cities may lead to more equal representation in larger municipalities. Norwegian authorities are concerned about these local variations and have, in the last decades, funded several research projects and campaigns aimed at promoting more gender-balanced municipal councils (Halsaa 2019).

## The electoral system: open lists

Municipal elections in Norway are held simultaneously in all municipalities every four years, with the same electoral system everywhere. Proportional representation, which is generally regarded as conducive to gender balance (Norris 2006; Childs and Lovenduski 2013), is used. The whole municipality is a single multi-member district. The municipal council itself decides its number of seats, but there is a nationally determined minimum number - ranging from 11 seats in the smallest municipalities to 43 in the largest.

As the Norwegian local electoral system is an open-list system, it gives both the parties and the voters influence over the distribution of seats within each party (van der Kolk 2007; Bergh, Bjørklund, and Hellevik 2010; Matland and Lilliefeldt 2014; Langsæther, Gjerløw, and Søyland 2019). Voters first choose a party list, and they may then cast preference votes for one or more candidates. They can vote for an unlimited number of individual candidates on their chosen party list and, moreover, for a limited number of candidates from other lists. ${ }^{1}$ Voters are not obliged to cast a preference vote, but preference voting has been steadily increasing. Of those who voted in the 2015 elections, 47\% also cast one or more preference votes (Mjelde and Saglie 2017, 24-26).

Parties do not only rank their candidates. They are also allowed to give priority to a limited number of their top candidates. ${ }^{2}$ When a party's council seats are allocated to candidates on the list, these prioritised candidates get a substantial head start: Each prioritised candidate gets a number that corresponds to $25 \%$ of the votes for the party list added to his/her number of preference votes. For example, if a prioritised candidate receives 100 preference votes (including those from voters who voted for other parties) and the party list receives 1000 votes, this candidate will have 350 votes when the party's seats are allocated ( $100+[1000 * 0.25]$ ).

Some party lists win more (or as many) seats than their number of prioritised candidates. In these cases, a seat is as good as secured for prioritised candidates. Other party lists win fewer (or as many) seats than their number of prioritised candidates. In these cases, non-prioritised candidates are almost guaranteed not to get elected. For the remaining candidates, preference votes are decisive.

Highly ranked candidates are much more likely to get elected, even if we disregard those groups that are secured election and those who are guaranteed not to win a seat (Hellevik and Bergh 2005, 69-70; Christensen et al. 2008, 121-123). Voters tend to vote for highly ranked candidates, partly because parties place their most popular and well-known candidates at the top of their lists. The Norwegian local electoral system nevertheless gives the voters considerable potential influence. In the most recent elections, about $23-25 \%$ of the councillors were elected because of preference votes, i.e. they would not have been elected if the list order had been decisive (Bergh, Bjørklund, and Hellevik 2010, 113-114; Matland and Lilliefeldt 2014). Coordinated campaigns across party lines, where voters are asked to vote for candidates with a specific position on a local issue, have in some cases had substantial influence (Kvelland 2015; Halsaa 2019).

## Research design and data ${ }^{3}$

To investigate to what extent female candidates of municipal elections in Norway are punished or rewarded by personal votes, depending on their age, party affiliation and the local context, we conducted a register-based study using a complete dataset for all candidates of the 2015 Norwegian municipal elections. The data included information about gender, age, position on the ballot, political party, elected/not elected, municipality, municipal size and the number of elected candidates from the party. A total of 58093 candidates $-42.6 \%$ female and $57.4 \%$ male - from 428 municipalities were included in the database. ${ }^{4}$ As the following analyses are based on the whole population of candidates, and not a sample, they do not include significance testing.

The analyses mainly focused on the youngest and oldest candidates whom we define as the 18-29 (11.2\% of the candidates) and 67+ (15.2\%) age groups, respectively. ${ }^{5}$ Due to the general understanding of local politics 'as a training field early in a political career' (Kjaer 2019, 54), we restrict the youngest group to people below 30 who are often in the process of marrying and settling down. The group of people aged 67+ has reached the retiring age in Norway. Both the youngest and the oldest groups represent generations that are particularly affected by local politics in Norway as the municipalities are responsible for childcare, schools and elderly care.

Of the candidates, 10593 (18.2\%) were finally elected to the 428 Norwegian municipal councils. While $42.6 \%$ of the candidates were women, $41.5 \%$ of the prioritised candidates and $39.0 \%$ of the elected municipal councillors were women.

Regarding age, the youngest and oldest candidates were both better represented on the party lists than among elected local councillors. Both groups constituted slightly more than $10 \%$ of all candidates but slightly less than $10 \%$ of all elected candidates. This difference is nevertheless largest for
the oldest category. The youngest generation did better in the election than in the competition for prioritised list positions. Such a pattern applies to both young women and young men. The picture is somehow different in the older generation. In general, the older generation was slightly better represented among the prioritised candidates than among the elected candidates, but this overall picture veils a gender difference: older men were marginally better represented in the group of elected candidates than in the group of prioritised candidates, whereas the case was the opposite and the difference in per cent somewhat more distinct for older women. This fact shows the relevance of a gender-generation perspective.

Moreover, the data show that a slightly positive relationship between municipal size and female representation covers a difference between generations: It is far more pronounced for the youngest age group. The young women's shares of elected candidates in municipalities with more than 60 000 and 20 000-60 000 inhabitants are $11.9 \%$ and $6.3 \%$, respectively, which are clearly above the national average of $4.8 \%$. In contrast, the older generation of female councillors constitutes $2.6 \%$ and $2.0 \%$ of the elected candidates, respectively, in these two municipality categories, which are just slightly more than the national average of $1.8 \%$. That is to say that the gender-generation gap in actual representation depends on municipal size.

In the following analyses, we look at the impact of preference votes on women's representation. Our focus is not on gender alone but on the interactions between gender, age, party and municipal size. To present these interactions in an accessible way, we compare sub-groups in figures.

## Analysis and results: the impact of preference voting

To evaluate the effect of the open-list ballot structure on gender and generation representation, we estimated what Gendźwiłł and Marcinkiewicz (2019) call inversions. We calculated what the composition of the municipal councils would have been like with closed lists, where the voters cannot alter the candidate ranking decided by the political parties. The hypothetical closed-list seat allocation was then compared with the actual seat allocation. This comparison indicates how much power the voters have over the election of local representatives.

The seat allocation in a hypothetical closed-list system, as well as the differences compared to the actual outcome, are presented in Table 1. Here, we see the share of men and women among the elected candidates in a closed-list system, in total and in different age groups, calculated on the basis of the grand total. Positive differences mean that the group benefits from preference voting, i.e. that there are more positive inversions than negative ones.

In line with previous Norwegian studies (Bergh, Bjørklund, and Hellevik 2010; Bergh and Hellevik 2013), the main result is that men benefit and women suffer from preference votes. There would have been $4.2 \%$ more

Table 1. Elected candidates in a hypothetical closed-list system by gender and age (\% of grand total) and differences compared to actual results.

|  | 18-29 |  | 30-66 |  | 67+ |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | Difference ${ }^{\text {a }}$ | \% | Difference ${ }^{\text {a }}$ | \% | Difference ${ }^{\text {a }}$ | \% | Difference ${ }^{\text {a }}$ |
| Female | 5.4 | -0.6 | 35.8 | -3.4 | 2.1 | -0.3 | 43.2 | -4.2 |
| Male | 4.6 | -0.1 | 46.7 | 3.6 | 5.5 | 0.8 | 56.8 | 4.2 |
| Total | 10.0 | -0.7 | 82.5 | 0.2 | 7.6 | 0.5 | 100.0 | 0.0 |

${ }^{\mathrm{a}} \mathrm{A}$ positive difference means that the group benefits from preference voting, compared to in a hypothetical closed-list system.
$N=10593$
women on Norwegian municipal councils if the 2015 election had been held under a closed-list system. This reflects the outcome in a majority of the municipalities, although there was considerable variation. Female candidates benefited from preference votes in $15 \%$ of the municipalities and suffered in $64 \%$, while preference votes did not affect the gender balance in the remaining $21 \%$ of the municipalities.

A closed-list system would have brought the share of women among the councillors up to $43.2 \%$ - above the $40 \%$ level which is often regarded as a milestone in Norwegian gender equality policy. All three age groups of women lose out as a result of preference votes, whereas the middle-aged and oldest groups of men - but not the youngest - benefit.

In Table 2, we have calculated the share of female representatives within each age group. The oldest women suffer more than the younger ones from preference voting. Closed lists would have increased the share of women among the oldest councillors by 5.4 percentage points, whereas the corresponding figure among the youngest councillors is 2.1 . It should also be noted that women constitute a slight majority of young councillors, regardless of ballot structure, while women, in any case, are strongly underrepresented in the oldest age group.

Table 3 shows that the gendered effect of preference voting is found in almost all political parties. There are clear party differences regarding gender balance, both in the actual results and the hypothetical closed-list results.

Table 2. Per cent women among elected candidates within age groups, by ballot structure.

|  | Open lists <br> (actual result) | Closed lists <br> (hypothetical result) | Difference in female share <br> (percentage points) |
| :--- | :---: | :---: | :---: |
| $18-29$ | 51.7 | 53.8 | -2.1 |
| $30-66$ | 39.2 | 43.4 | -4.2 |
| $67+$ | 22.2 | 27.6 | -5.4 |
| Total | 39.0 | 43.2 | -4.2 |

N 18-29: 985 (open list) 1055 (closed list)
N 30-66: 8757 (open list) 8735 (closed list)
N 67+: 851 (open list) 803 (closed list)
N total: 10593 (open list and closed list)

Table 3. Per cent women among elected candidates, by party ${ }^{a}$ and ballot structure.

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female <br> share |  |
| :--- | :---: | :---: | :---: | ---: |
| (percentage points) |  |  |  |  |$\quad \mathrm{N}$

${ }^{\text {a }}$ Sorted along the left-right dimension

However, preference votes have an almost uniform impact. The only party in which preference voting has an overall positive effect on female representation is the Green Party, with 2.6 percentage points more elected women in total because of preference voting.

So far, the analyses show that there is a gender-generation gap in elections of Norwegian municipal councils when comparing the shares with the ideal of 50/50 parity. While women are underrepresented, this applies especially to older women. Moreover, bearing in mind that women constitute $55 \%$ of the $67+$ cohort compared with $49 \%$ of the two other cohorts, the representation gap of the 67+ group is de facto higher. This would also have been the case with closed lists, but preference voting makes this imbalance even larger. Furthermore, the negative effect of preference voting is found in almost all parties, regardless of party ideology.

We now turn to the questions of whether the gender-generation effect of preference voting varies between political parties and municipalities. Figure 1 shows how the effect of preference voting on women's representation varies by age group within each party. The columns in the figure correspond to the differences in the right-hand column of Table 2. A negative sign means that women suffer from preference votes, while men benefit. The figure shows that the gender-generation effect indeed varies between parties. The gap is particularly pronounced in the Socialist Left Party where preference voting reduces the share of female candidates in the oldest group by 18.1 percentage points, while women in the youngest group benefit by 3.7 percentage points. Three parties in the centre - the Greens, the Christian Democrats and the Liberals - are also affected by a gender-generation effect. However, in these parties the positive effect of preference voting for young women is stronger and the negative effect on the oldest women weaker. In the remaining parties, the gender-generation gap is weak or absent, and there is no clear pattern that separates parties with different ideologies.

Figure 1. Differences between open and (hypothetical) closed lists ${ }^{a}$ in the percentage of women among elected candidates within different
combinations of parties and age groups. Percentage points.
${ }^{a}$ A positive difference means that the group benefits from preference voting, compared to in a hypothetical closed-list system. See the supplemental online material for details.
Figure 2. Difference between open and (hypothetical) closed lists ${ }^{\text {a }}$ in the percentage of women among elected candidates within different combinations of age groups and municipal sizes. Percentage points.
${ }^{\mathrm{a}}$ A positive difference means that the group benefits from preference voting, compared to in a hypothetical closed-list system.

In Figure 2, we turn to how the effect of preference voting on women's representation varies by municipal size and age group. As in Figure 1, the columns correspond to the right-hand column of Table 2. The figure shows that the gender-generation effect of the ballot structure varies with municipal size, though not in a linear way. Young women in large municipalities stand out: they are not punished by the voters, but benefit from preference voting.

In short, there is a clear gender effect in municipalities with less than 10 000 inhabitants. Here, women in all age groups suffer from open lists. In contrast, the interaction between gender and generation is evident in large municipalities, especially those with a population above 20000.

Figure 2 also shows that older women lose seats because of preference votes (while older men benefit), regardless of municipal size. The effect is nevertheless biggest in the largest municipalities, where the share of women among the oldest councillors after the 2015 election would have been 8.2 percentage points higher under a closed-list system, where the parties' ranking would have been decisive. In contrast, the share of women among the youngest councillors in the largest municipalities (population above 20 000) has increased by more than two percentage points due to preference voting. In smaller municipalities, preference voting affects young female candidates negatively.

## Discussion and conclusion

By using a complete dataset that includes all the 58093 candidates of the 2015 Norwegian municipal elections, this article has looked into gender balance in municipal councils in one of the most gender-equal countries in the world. Our analyses illustrate the necessity of distinguishing between younger and older candidates in studies of the gendered effect of ballot structures.

First, we found a clear impact of preference votes on gender representation in Norwegian local elections. Men benefit from preference votes, even though the impact is not very strong. This seems to contrast with findings from other countries, where parties are blamed for the uneven gender balance in representation (Karpowitz, Monson, and Preece 2017; Childs and Lovenduski 2013; Kittilson 2013). With an overall 42.6-57.4\% gender distribution on the local party lists, men are clearly overrepresented among the candidates. A gender bias within the selectorate may contribute to this, but the overrepresentation is quite small from a comparative perspective. Thus, the starting point - the situation before preference votes are counted - is quite different in Norway, even though there is considerable party variation. Many parties have made an effort to recruit both female and male candidates, while other parties present unbalanced lists. However, regardless of whether
the starting point is gender balanced or unbalanced, female candidates suffer from the open-list system in all parties except the Greens.

The fact that women would have been better represented without preference votes may indicate that there is more gender bias among the voters than in the parties. However, the impact of preference votes is not necessarily an intentional attempt to elect fewer women. It might be that Norwegian parties, striving to achieve gender balance, place women with less electoral capital high on the lists. Voters may then prefer lower-placed male candidates with more political experience and thus - perhaps unintentionally - decrease female representation. If this is the case, this aspect of our findings may not be generalised to other countries. It may rather reflect a strong emphasis on gender equality within Norwegian parties.

Many earlier studies have described the gender gap in political representation, but the question of whether this gap looks different in different age groups is rarely discussed. The analyses of the entire population of candidates in the 2015 Norwegian municipal elections clearly show that political representation in local councils is not just gendered - more men than women - but characterised by a gender-generation gap. The youngest generation stands out: women constitute a slightly higher share of the elected representatives than men of the same age. In the older generations the picture is the opposite; moreover, the gender gap is pronounced in favour of men.

Furthermore, the gender-generation gap on Norwegian local councils depends on municipal size. Both the younger and the older generations of women constitute a larger share of the local councils in larger municipalities compared to in smaller units. However, the younger generation of female politicians benefits much more from living in a large municipality than the older generation, and the variation in representation depending on municipal size is much greater for younger women than for older ones.

The answer to our first research question was in line with our expectations: Preference voting increases the gender-generation gap in political representation at the local level compared to elections based on a closed-list system. This means that older women suffer from preference voting to a greater degree than younger candidates. Both the youngest and the older generation of female candidates seem to be disadvantaged by preference votes.

In terms of our second research question, our expectations were less specific. We found that the gender-generation gap varies with municipal size. The youngest generation of women politicians benefits from preference voting in municipalities with more than 20000 inhabitants, whereas the older generation of women lose out significantly in the largest municipalities. In small municipalities with less than 10000 inhabitants, the young as well as the older generation of women are disadvantaged. Thus, preference voting seems to increase intra-state variation.

There is also some variation between parties but without any clear pattern. Even though the level of gender equality varies with party ideology, preference voting does not seem to affect the gender-generation gap in a systematic way.

In short, we find a pronounced gender-generation gap: the oldest generation of female politicians is particularly disadvantaged, and the youngest is advantaged by preference votes in the larger municipalities. This may indicate a generational effect: in the older generations, there are presumably larger gender differences regarding political experience or electoral capital more generally. ${ }^{6}$ Competition on more equal terms seems to primarily be the case for the youngest generation of women - especially in the larger municipalities, where there are more young women with higher education among the potential candidates. An interpretation might be that young women have a complementary advantage being female and young. These two outgroup features may not threaten, but rather complement, the traditional middle-aged and older male candidates who benefit from much political experience (Stockemer and Sundström 2019, 379, 382; Celis and Erzeel 2017, 58). In contrast, older women indeed seem to face a double barrier: in general, they have less political experience than men of the same age and their age group is not a concern in the debate on representation.

To what extent the gender balance of municipal councils will change in the future depends on whether the gender-generation gap in our analyses is caused by a life-cycle or generation effect. We cannot separate these two potential effects with data from a single year, but a generational effect seems more likely: a new generation has emerged, where young women make themselves just as visible as young men do, take political experience with them and use it in the years to come as they continue their political careers (Stockemer and Sundström 2019, 382). If the young generation today is less gendered compared with older generations, we can expect more genderbalanced municipal councils in the future. Such trends are indeed evident in other spheres of Nordic societies and corresponding policies: education, the labour market and the family (Teigen and Skjeie 2017). The choice of education and career and the distribution of work within the family is less marked by gender inequality in younger generations compared to in older ones. Moreover, a similar pattern can be found in electoral turnout in Norway, which is higher among young women than young men, while older women have a lower turnout than men of the same age (Bergh 2015). Why not expect a similar development in political representation?

These conclusions suggest two lessons for future research. First, an intersectionality approach should pay more attention to variables other than ethnicity, including age and intra-state context. Second, research on gender and political representation should take into account a gender-generation perspective. Generational replacement may lead to more gender equality in political representation, but these processes - and their timings - will
probably vary between countries, and different electoral systems will affect the outcome. Comparative studies of the gender-generation gap in countries with different levels of gender equality and different electoral systems would therefore be particularly useful.

## Notes

1. A voter can cast panachage votes for a number of candidates that correspond to a quarter of the council seats, but five panachage votes are always allowed irrespective of council size.
2. The maximum number of prioritised candidates varies from 4 to 10 , depending on the number of council seats.
3. For descriptive statistics and more detailed information on data, please see the supplemental online material.
4. The candidate database is produced by Statistics Norway.
5. The $18-29$ and $67+$ age groups constitute $20.5 \%$ and $18.2 \%$ of the electorate, respectively (Statistics Norway table 10211).
6. Unfortunately, information on incumbency was not included in our dataset.

## Acknowledgments

Previous versions were presented at the Nordic Local Government Research Conference, Aarhus, 30 November-2 December 2018, and the ECPR Joint Sessions of Workshops, Mons, 8-12 April 2019. We would like to thank the workshop participants and the reviewers for their valuable comments.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Funding

The study is funded by the Research Council of Norway [grants no. 249687 and 294597].

## Notes on contributors

Signe Bock Segaard is a senior research fellow at the Institute for Social Research, Oslo, Norway. Her research interests include local democracy, elections, representation, and voter behaviour. She is currently - together with Jo Saglie - project leader for the Norwegian Local Election Studies of 2019 and 2023.

Jo Saglie is a research professor at the Institute for Social Research, Oslo, Norway. His research interests include party organisations, local elections and local democracy, and the politics and representation of indigenous peoples. He is currently directing the Norwegian Local Election Study (with Signe Bock Segaard) and the Norwegian Sámi Parliament Election Study.

## ORCID

Signe Bock Segaard (iD http://orcid.org/0000-0003-0010-4910

## References

Bergh, J. 2015. "Generasjon Utøya? Politisk Deltakelse Og Engasjement Blant Ungdom." In Valg Og Velgere, edited by B. Aardal and J. Bergh, 180-200. Oslo: Cappelen Damm Akademisk.
Bergh, J., and O. Hellevik. 2013. "The Effects of Preferential Voting - Representation of Women and Minorities in Norwegian Municipal Elections." Paper Presented at the ECPR Joint Sessions of Workshops, Mainz, Germany, March 11-16.
Bergh, J., T. Bjørklund, and O. Hellevik. 2010. "Personutvelgingen I Norske Valg." Norsk Statsvitenskapelig Tidsskrift 26 (2): 105-131.
Berglund, F. 2005. Likestilte Politikere? Report 2005: 18. Oslo: NIBR.
Bjørklund, T., and S. B. Segaard. 2017. "Representasjon Av Eldre I Lokalpolitikken: Partiversus Velgerinnflytelse Ved Valget I 2015." In Lokalvalget 2015 - Et Valg I Kommunereformens Tegn? edited by J. Saglie and D. A. Christensen, 223-242. Oslo: Abstrakt.
Celis, K., and S. Erzeel. 2017. "The Complementarity Advantage: Parties, Representativeness and Newcomers' Access to Power." Parliamentary Affairs 70 (1): 43-61. doi:10.1093/pa/gsv043.

Childs, S., and J. Lovenduski. 2013. "Political Representation." In The Oxford Handbook of Gender and Politics, edited by G. Waylen, K. Celis, J. Kantola, and S. Laurel Weldon, 489-513. Oxford: Oxford University Press. doi:10.1093/oxfordhb/ 9780199751457.001.0001.

Christensen, D. A., T. Midtbø, H.-E. Ringkjøb, and J. Aars. 2008. To Valg Med Ny Personvalgordning. Kontinuitet Eller Endring? Report 9-2008. Bergen: Uni Rokkansenteret.
Cooper, B. 2015. "Intersectionality." In The Oxford Handbook of Feminist Theory, edited by L. Disch and M. Hawkesworth. Oxford Handbooks Online. doi:10.1093/oxfordhb/ 9780199328581.013.20.

Darcy, R., S. Welch, and J. Clark. 1994. Women, Elections, \& Representation. Lincoln: University of Nebraska Press.
Denters, B., M. Goldsmith, A. Ladner, P. E. Mouritzen, and L. E. Rose. 2014. Size and Local Democracy. Cheltenham: Edward Elgar Publishing Limited. doi:10.4337/ 9781783478248.

Egge-Hoveid, K. 2013. "Indikatorer for Kjønnslikestilling I Kommunene. Likestilling Avhengig Av Hvor Vi Bor." Samfunnsspeilet 27 (3): 10-16.
Folkestad, B., J. Saglie, and S. B. Segaard. 2016. Kvinner I Lokalpolitikk 2015 Report 2016: 08. Oslo: Institute for Social Research.

Gendźwiłł, A., and K. Marcinkiewicz. 2019. "Interventionism of Voters: District Size, Level of Government, and the Use of Preference Votes." Acta Politica 54 (1): 1-21. doi:10.1057/s41269-017-0069-6.
Gendźwiłł, A., and T. Żółtak. 2019. "Do Parties and Voters Counteract Quota Regulations? the Impact of Legislative Gender Quotas on Ballot Ranking and Preference Voting in Poland." Politics \& Gender. doi:10.1017/S1743923X18000880.
Halsaa, B. 2019. "Kampanjer for Kvinner I Kommunepolitikken." Tidsskrift for Kjønnsforskning 43 (3): 158-176. doi:10.18261/.1891-1781-2019-03-03.

Hellevik, O., and J. Bergh. 2005. "Personutvelgingen. Ny Ordning - Uendret Resultat." In Lokalvalg Og Lokalt Folkestyre, edited by J. Saglie and T. Bjørklund, 58-82. Oslo: Gyldendal Akademisk.
Inglehart, R., and P. Norris. 2003. Rising Tide. Gender Equality and Cultural Change around the World. Cambridge: Cambridge University Press.
Jennings, M. K. 2006. "The Gender Gap in Attitudes and Beliefs about the Place of Women in American Political Life: A Longitudinal, Cross-Generational Analysis." Politics \& Gender 2: 193-219.
Karpowitz, C. F., J. Quin Monson, and J. R. Preece. 2017. "How to Elect More Women: Gender and Candidate Success in a Field Experiment." American Journal of Political Science 61 (4): 927-943. doi:10.1111/ajps. 12300.
Kittilson, M. C. 2013. "Party Politics." In The Oxford Handbook of Gender and Politics, edited by G. Waylen, K. Celis, J. Kantola, and S. Laurel Weldon, 536-553. Oxford: Oxford University Press. doi:10.1093/oxfordhb/9780199751457.001.0001.
Kjaer, U. 2019. "Patterns of Inter-Level Gender Gaps in Women's Descriptive Representation." Lex Localis - Journal of Local Self-Government 17 (1): 53-70. doi:10.4335/17.1.53-70(2019).
Kjaer, U., K. Dittmar, and S. J. Carroll. 2018. "Council Size Matters: Filling Blanks in Women's Municipal Representation in New Jersey." State and Local Government Review 50 (4): 215-229. doi:10.1177/0160323X18824387.
Kjaer, U., and M. L. Krook. 2019. "The Blame Game: Analyzing Gender Bias in Danish Local Elections." Politics, Groups, and Identities 7 (2): 444-455. doi:10.1080/ 21565503.2018.1564057.

Krook, M. L., and L. Schwindt-Bayer. 2013. "Electoral Institutions." In The Oxford Handbook of Gender and Politics, edited by G. Waylen, K. Celis, J. Kantola, and S. Laurel Weldon, 554-578. Oxford: Oxford University Press. doi:10.1093/oxfordhb/ 9780199751457.001.0001.

Kvelland, E. 2015. "Når Aksjonskanalen Møter Valgkanalen: Politisk Deltakelse I Lokalvalg." Tidsskrift for Samfunnsforskning 56 (2): 159-179.
Langsæther, P. E., H. Gjerløw, and M. G. Søyland. 2019. "Is All PR Good PR? How the Content of Media Exposure Affects Candidate Popularity." Electoral Studies 57: 143-152. doi:10.1016/j.electstud.2018.11.009.
Matland, R. E., and E. Lilliefeldt. 2014. "The Effect of Preferential Voting on Women's Representation." In Representation: The Case of Women, edited by M. EscobarLemmon and M. Taylor-Robinson, 79-102. Oxford: Oxford University Press.
Matland, R. E., and D. T. Studlar. 1996. "The Contagion of Women Candidates in Single-member District and Proportional Representation Electoral Systems: Canada and Norway." The Journal of Politics 58 (3): 707-733. doi:10.2307/2960439.
Mjelde, H. L., and J. Saglie. 2017. "Velgeratferd: Tilbakegang for Regjeringspartiene Og Rekordstor Personstemmegivning." In Lokalvalget 2015 - Et Valg I Kommunereformens Tegn? edited by J. Saglie and D. A. Christensen, 21-41. Oslo: Abstrakt.
Navarro, C., and L. Medir. 2016. "Patterns of Gender Representation in Councils at the Second Tier of Local Government: Assessing the Gender Gap in an Unexplored Institutional Setting." In Policy Making at the Second Tier of Local Government in Europe, edited by X. Bertrana, B. Egner, and H. Heinelt, 111-132. London: Routledge.
Norris, P. 1993. "The Gender-generation Gap in British Elections." British Elections and Parties Yearbook 3: 129-142. doi:10.1080/13689889308412927.
Norris, P. 2006. "The Impact of Electoral Reform on Women's Representation." Acta Politica 41 (2): 197-231. doi:10.1057/palgrave.ap.5500151.

Norris, P., and J. Lovenduski. 1993. "'If Only More Candidates Came Forward': Supplyside Explanations of Candidate Selection in Britain." British Journal of Political Science 23 (3): 373-408. doi:10.1017/S0007123400006657.
Norris, P., and J. Lovenduski. 1995. Political Recruitment: Gender, Race and Class in the British Parliament. Cambridge: Cambridge University Press.
Ødegård, G., J. Bergh, and J. Saglie. 2020. "Why Did Young Norwegians Mobilize: External Events or Early Enfranchisement?" In Lowering the Voting Age to 16: Learning from Real Experiences to Inform the Debate, edited by J. Eichhorn and J. Bergh, 189-210. Cham: Palgrave.

Segaard, S. B., and J. Saglie. 2019. "Lav Kvinnerepresentasjon Som Demokratisk Problem." Tidsskrift for Kjønnsforskning 43 (3): 141-157. doi:10.18261/.1891-1781-2019-03-02.
Severs, E., K. Celis, and S. Erzeel. 2016. "Power, Privilege and Disadvantage: Intersectionality Theory and Political Representation." Politics 36 (4): 346-354. doi:10.1177/0263395716630987.
Statistics Norway. 2016. 05212: Folkemengde, Etter Kjønn Og Tettbygd/spredtbygd Strøk (K) by 01.01.2016. Oslo: Statistics Norway. https://www.ssb.no/statbank/table/05212

Statistics Norway. 2018. Women and Men in Norway. Oslo: Statistics Norway.
Statistics Norway. 2020. 01182: Kommunestyrevalget. Representanter, Etter Kjønn Og Parti/valgliste (K) 1979-2019. Oslo: Statistics Norway. Online: https://www.ssb.no/ statbank/table/01182/(2020.06.18)
Stockemer, D., and A. Sundström. 2019. "Do Young Female Candidates Face Double Barriers or an Outgroup Advantage?" European Journal of Political Research 58 (1): 373-384. doi:10.1111/1475-6765.12280.
Sundström, A., and L. Wängnerud. 2018. "Women's Empowerment at the Local Level." In Measuring Women's Political Empowerment across the Globe, edited by A. C. Alexander, C. Bolzendahl, and F. Jalalzai, 117-137. Cham: Palgrave Macmillan.

Sundström, A., and D. Stockemer. 2015. "What Determines Women's Political Representation at the Local Level? A Fine-grained Analysis of the European Regions." International Journal of Comparative Sociology 56 (3-4): 254-274. doi:10.1177/0020715215595691.
Teigen, M., and H. Skjeie. 2017. "The Nordic Gender Equality Model." In The Nordic Models in Political Science, edited by O. Knutsen, 125-147. Bergen: Fagbokforlaget.
Thames, F. C., and M. S. Williams. 2010. "Incentives for Personal Votes and Women's Representation in Legislatures." Comparative Political Studies 43 (12): 1575-1600. doi:10.1177/0010414010374017.
van der Kolk, H. 2007. "Local Electoral Systems in Western Europe." Local Government Studies 33 (2): 159-180. doi:10.1080/03003930701198524.
Wide, J. 2012. "Kvinnorepresentationen I Norges Kommuner - Vad Förklarar Den Rumsliga Variationen?" Tidsskrift for Samfunnsforskning 53 (3): 317-347.
World Economic Forum. 2020. The Global Gender Gap Report 2020. Switzerland: World Economic Forum. http://www3.weforum.org/docs/WEF_GGGR_2020.pdf

## Supplemental online material

Article:

## A gender-generation gap in political representation?

The contingent impact of preference voting in Norwegian municipal elections

Descriptive Statistics - Age of candidate by 2015.12.31

|  | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All candidates | $\begin{gathered} 58093 \\ (100 \%) \end{gathered}$ | 18 | 101 | 49.75 | 15.160 |
| Male candidates | $\begin{gathered} 33350 \\ (57.4 \%) \end{gathered}$ | 18 | 101 | 51.14 | 14.949 |
| Female candidates | $\begin{gathered} 24743 \\ (42.6 \%) \end{gathered}$ | 18 | 93 | 47.89 | 15.241 |

Age profile. Female candidates, male candidates and all candidates by age, within each municipality category (population size). Per cent

|  | Municipal size (population) |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <2500 | 2501-5000 | 5001-10000 | $\begin{aligned} & 10001- \\ & 20000 \end{aligned}$ | $\begin{aligned} & \text { 20001- } \\ & 60000 \end{aligned}$ | > 60000 |  |
| Female |  |  |  |  |  |  |  |
| 18-29 | 15.1 | 13.5 | 12.6 | 12.0 | 13.2 | 18.2 | 13.6 |
| 30-66 | 76.3 | 74.7 | 75.6 | 73.6 | 71.4 | 65.1 | 73.4 |
| 67+ | 8.5 | 11.7 | 11.8 | 14.5 | 15.4 | 16.8 | 12.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Male |  |  |  |  |  |  |  |
| 18-29 | 10.0 | 8.5 | 8.4 | 9.2 | 9.3 | 14.0 | 9.4 |
| 30-66 | 76.7 | 75.2 | 75.6 | 73.7 | 71.3 | 66.9 | 73.8 |
| 67+ | 13.3 | 16.3 | 16.0 | 17.2 | 19.4 | 19.1 | 16.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| All |  |  |  |  |  |  |  |
| 18-29 | 12.2 | 10.6 | 10.2 | 10.4 | 10.9 | 15.8 | 11.2 |
| 30-66 | 76.5 | 75.0 | 75.6 | 73.6 | 71.3 | 66.1 | 73.6 |
| 67+ | 11.3 | 14.4 | 14.3 | 16.0 | 17.7 | 18.1 | 15.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| $\begin{aligned} & N_{\text {female }} / N_{\text {male }} / \\ & N_{\text {total }} \end{aligned}$ | $\begin{aligned} & \text { 3762/5093/ } \\ & 8835 \end{aligned}$ | $\begin{aligned} & 4414 / 5976 / \\ & 10390 \end{aligned}$ | $\begin{aligned} & \text { 4935/6755/ } \\ & 11690 \end{aligned}$ | $\begin{aligned} & \text { 4714/6293/ } \\ & 11007 \end{aligned}$ | $\begin{aligned} & \text { 4706/6479/ } \\ & 11185 \end{aligned}$ | $\begin{aligned} & 2212 / 2774 / \\ & 4986 \end{aligned}$ | $\begin{aligned} & \text { 24743/33350/ } \\ & 58093 \end{aligned}$ |

Elected candidates, prioritised candidates and all candidates by gender and age. Per cent of grand total

|  |  | 18-29 | 30-66 | 67+ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Elected candidates (open-list system) | Female | 4.8 | 32.4 | 1.8 | 39.0 |
|  | Male | 4.5 | 50.3 | 6.2 | 61.0 |
|  | Total | 9.3 | 82.7 | 8.0 | 100.0 |
| Prioritised candidates | Female | 4.4 | 34.8 | 2.4 | 41.5 |
|  | Male | 3.9 | 48.4 | 6.1 | 58.5 |
|  | Total | 8.3 | 83.3 | 8.5 | 100.0 |
| All candidates | Female | 5.8 | 31.3 | 5.5 | 42.6 |
|  | Male | 5.4 | 42.3 | 9.6 | 57.4 |
|  | Total | 11.2 | 73.6 | 15.2 | 100.0 |

N elected candidates: 10 593; prioritised candidates: 6 523; all candidates: 58093

Open list: Per cent women among elected candidates within each municipality category (in total, and distributed on age groups).

|  | <2500 | $\begin{gathered} 2501- \\ 5000 \end{gathered}$ | $\begin{aligned} & 5001- \\ & 10000 \end{aligned}$ | $\begin{gathered} 10001- \\ 20000 \end{gathered}$ | $\begin{gathered} 20001- \\ 60000 \end{gathered}$ | >60000 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18-29 | 4.1 | 3.6 | 3.7 | 4.5 | 6.3 | 11.9 | 4.8 |
| 30-66 | 32.2 | 33.0 | 32.0 | 32.6 | 33.6 | 28.6 | 32.4 |
| 67+ | 1.3 | 1.3 | 1.9 | 2.2 | 2.0 | 2.6 | 1.8 |
| Total | 37.6 | 37.9 | 37.5 | 39.3 | 41.9 | 43.2 | 39.0 |
| $N$ <br> (all elected - women and men) | 2091 | 1997 | 2252 | 1836 | 1813 | 604 | 10593 |

Open list: Per cent women among elected candidates within each municipality category and by age groups.

|  | <2500 | 2501-5000 | 5001-10000 | $\begin{gathered} 10001- \\ 20000 \end{gathered}$ | $\begin{aligned} & \text { 20001- } \\ & 600000 \end{aligned}$ | >60000 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18-29 | 51.5 | 56.7 | 45.4 | 46.3 | 52.3 | 63.7 | 51.7 |
| 30-66 | 37.5 | 38.6 | 37.9 | 40.2 | 42.6 | 39.8 | 39.2 |
| 67+ | 21.4 | 15.9 | 25.0 | 24.1 | 22.2 | 28.6 | 22.2 |
| Total | 37.6 | 37.9 | 37.5 | 39.3 | 41.9 | 43.2 | 39.0 |
| N 18-29 | 167 | 127 | 183 | 177 | 218 | 113 | 985 |
| N 30-66 | 1793 | 1706 | 1901 | 1489 | 1433 | 435 | 8757 |
| N 67+ | 131 | 164 | 168 | 170 | 162 | 56 | 851 |
| $N$ Total | 2091 | 1997 | 2252 | 1836 | 1813 | 604 | 10593 |

Closed list: Per cent women among elected candidates within each municipality category and by age groups.
$\left.\begin{array}{|lcccccccc|}\hline<\mathbf{2 5 0 0} & \mathbf{2 5 0 1 - 5 0 0 0} & \mathbf{5 0 0 1 - 1 0 0 0 0} & \mathbf{1 0 0 0 1 -} & \mathbf{2 0 0 0 1 -} \\ \mathbf{6 0 0 0 0}\end{array}\right)$

Key figures for the difference between open and (hypothetical) closed lists ${ }^{1}$ in percentage of women among the elected candidates at the 2015 municipal election. Municipal-level data.

| Mean difference | -4.5 |
| :--- | ---: |
| Maximum positive difference | 18.2 |
| Maximum negative difference | -27.3 |
| Per cent municipalities with a difference above +10 | 2.6 |
| Per cent municipalities with a difference between $\mathbf{0}$ and +10 | 12.6 |
| Per cent municipalities with a difference equal to 0 | 20.6 |
| Per cent municipalities with a difference between -10 and 0 | 44.4 |
| Per cent municipalities with a difference below $\mathbf{- 1 0}$ | 19.9 |

${ }^{1}$ A positive difference means that women benefits from preference voting, compared to a hypothetical closed list system. N: 428 municipalities

Difference between open and (hypothetical) closed lists ${ }^{1}$ in percentage of women among elected candidates within different combinations of age groups and municipal sizes. Percentage points

|  | <2500 | 2501-5000 | 5001-10000 | $\begin{gathered} 10001- \\ 20000 \end{gathered}$ | $\begin{aligned} & 20001- \\ & 60000 \end{aligned}$ | >60000 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18-29 | -5.1 | -3.0 | -7.6 | -0.3 | 2.5 | 2.1 | -2.1 |
| 30-66 | -5.8 | -3.6 | -5.0 | -3.3 | -3.2 | -2.3 | -4.2 |
| 67+ | -4.9 | -6.3 | -5.7 | -6.2 | -3.4 | -8.2 | -5.4 |
| Total | -6.0 | -4.0 | -5.6 | -3.5 | -2.5 | -2.0 | -4.2 |

${ }^{1}$ A positive difference means that the group benefits from preference voting, compared to a hypothetical closed list system.

Red Party (R): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group |
| :--- | :---: | :---: | :---: |
| (percentage points) |  |  |  |

N 18-29: 9 (open list) 12 (closed list)
N 30-66: 62 (open list) 60 (closed list)
N 67+: 9 (open list) 8 (closed list)
N total: 80

Socialist Left Party (SV): Per cent women among elected candidates within age group by ballot structure
$\left.\begin{array}{|lccc|}\hline & \begin{array}{c}\text { Open lists } \\ \text { (actual } \\ \text { result) }\end{array} & \begin{array}{c}\text { Closed lists } \\ \text { (hypothetical } \\ \text { result) }\end{array} & \begin{array}{c}\text { Difference in female share within age } \\ \text { group }\end{array} \\ \text { (percentage points) }\end{array}\right]$ 3.7

N 18-29: 29 (open-list) 25 (closed-list)
N 30-66: 304 (open-list) 314 (closed-list)
N 67+: 24 (open-list) 18 (closed-list)
N total: 357

Labour Party (Ap): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group |
| :--- | :---: | :---: | :---: |
| (percentage points) |  |  |  |

N 18-29: 382 (open list) 369 (closed list)
N 30-66: 2795 (open list) 2821 (closed list)
N 67+: 265 (open list) 252 (closed list)
N total: 3442

Centre Party (Sp): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group |
| :--- | :---: | :---: | :---: |
| (percentage points) |  |  |  |

N 18-29: 168 (open list) 211 (closed list)
N 30-66: 1502 (open list) 1462 (closed list)
N 67+: 103 (open list) 100 (closed list)
N total: 1773

Green Party (MdG): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group <br> (percentage points) |
| :--- | :---: | :---: | :---: |
| $\mathbf{1 8 - 2 9}$ | 56 | 43.5 | 12.5 |
| $\mathbf{3 0 - 6 6}$ | 44.1 | 42.3 | 1.8 |
| $67+$ | 16.7 | 23.1 | -6.4 |
| Total | $\mathbf{4 4}$ | $\mathbf{4 1 . 4}$ | $\mathbf{2 . 6}$ |

N 18-29: 25 (open list) 23 (closed list)
N 30-66: 195 (open list) 196 (closed list)
N 67+: 12 (open list) 13 (closed list)
N total: 232

Christian Democratic Party (KrF): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group |
| :--- | :---: | :---: | :---: |
| (percentage points) |  |  |  |

N 18-29: 34 (open list) 44 (closed list)
N 30-66: 528 (open list) 520 (closed list)
N 67+: 61 (open list) 59 (closed list)
N total: 623

Liberal Party (V): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group |
| :--- | :---: | :---: | :---: |
| (percentage points) |  |  |  |

N 18-29: 37 (open list) 40 (closed list)
N 30-66: 464 (open list) 466 (closed list)
N 67+: 40 (open list) 35 (closed list)
N total: 541

Conservative Party (H): Per cent women among elected candidates within age group by ballot structure

|  | Open lists (actual result) | Closed lists (hypothetical result) | Difference in female share within age group (percentage points) |
| :---: | :---: | :---: | :---: |
| 18-29 | 47.1 | 47.1 | 0.0 |
| 30-66 | 36.2 | 41.8 | -5.6 |
| 67+ | 22.5 | 30.1 | -7.6 |
| Total | 35.9 | 41.4 | -5.5 |

N 18-29: 172 (open list) 189 (closed list)
N 30-66: 1612 (open list) 1601 (closed list)
N 67+: 169 (open list) 163 (closed list)
N total: 1953

Progress Party (FrP): Per cent women among elected candidates within age group by ballot structure

|  | Open lists <br> (actual <br> result) | Closed lists <br> (hypothetical <br> result) | Difference in female share within age <br> group |
| :--- | :---: | :---: | :---: |
| (percentage points) |  |  |  |

N 18-29: 90 (open list) 93 (closed list)
N 30-66: 707 (open list) 712 (closed list)
N 67+: 92 (open list) 84 (closed list)
N total: 889


[^0]:    rand

[^1]:    CONTACT Signe Bock Segaard sbs@socialresearch.no Institute for Social Research, Oslo 0208, Norway
    This article has been republished with minor changes. These changes do not impact the academic content of the article.

    Supplemental data for this article can be accessed here.

