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# (Un)representative democracy: where are all the female candidates?

Written by Mario Cortina Borja on 25 April 2015. Posted in Politics

In a representative democracy, we – the people – elect officials to represent us and to make decisions on our behalf. But can a democracy be truly 'representative' if does not ensure a fair distribution of all population groups across government and legislative institutions?

Women, in particular, are underrepresented in the governments and legislatures of many countries. Data from the UN Economic Commission for Europe on gender balance in parliaments (displayed in the interactive chart below) shows that although some progress has been made in the UK (with the percentage of female MPs increasing from 6.3% in 1990 to 22% in 2010), it currently ranks 19th among the 52 countries included in the study. By contrast, in the three countries at the top of the list – Sweden, Iceland and Finland – more than 40% of MPs are female. In a wider contex, the UK is ranked 56th out of 141 countries in terms of female representation in parliament.

Gender balance for different occupations or public life positions (%) - Members of parliament - Female [?] Countries [?]
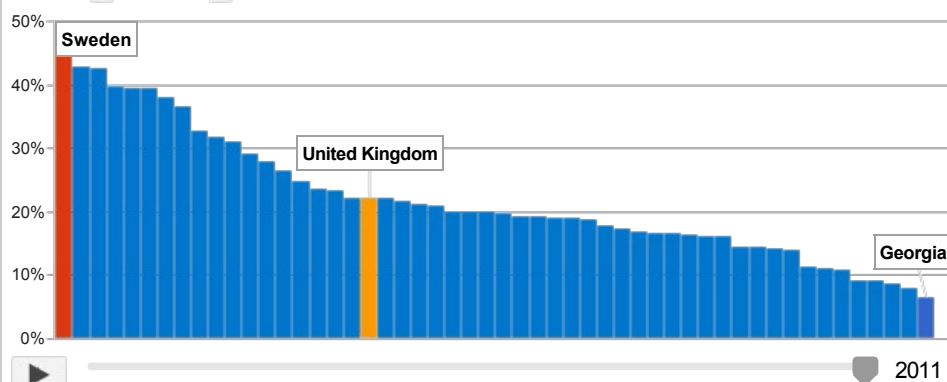
Data from UN Economic Commission for Europe (UNECE) - Powered by Google™   Explore data

A partial explanation for the UK's poor showing is given here by Chris Terry, from the Electoral Reform Society. He argues that the first-past-the-post system used to elect MPs favours politicians representing safe seats who remain in parliament for a long time. As many such seats are held by men, this limits the opportunities for women to enter parliament - until those MPs decide to retire, that is.

The Fawcett Society, a UK campaign group, says: 'Ensuring that women have equal access to power and are equally represented in our democracy is a matter of both social justice and democratic legitimacy. Women have a right to participate in decisions that affect our lives.'

But women aren't only underrepresented in the UK parliament; they are underrepresented in parliamentary elections too. With voters heading to the polls next week we analysed data (available here) on the 3923 candidates from 115 political parties standing for election in the 650 UK constituencies.[1] Of these parties, 46% have candidates in only one constituency, and 71% in at most five. Only five parties have candidates in at least 500 constituencies: the Green Party (540), the UK Independence Party (UKIP, 623), and the Conservative, Labour and Liberal Democrat parties (631 each).

Of the 3923 candidates, 1025 (26.1%) are female. In Table 1, we rank the parties fielding 15 or more candidates according to their percentage of female candidates. Note that the table omits 151 candidates from parties labelled "Independent", of whom 24 (19%) are female.

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Party	Female	Male	Total	% Female
Scottish Green Party	13	18	31	41.90%
Alliance Party of Northern Ireland	7	11	18	38.90%
Green Party*	204	336	540	37.80%
Conservative and Unionist Party	6	10	16	37.50%
Scottish Nationalist Party	21	38	59	35.60%
Labour Party*	215	416	631	34.10%
Sinn Féin	6	12	18	33.30%
Social Democratic Labour Party	5	13	18	27.80%
Christian Peoples Alliance	5	14	19	26.30%
Trade Unionist and Socialist Coalition	35	98	133	26.30%
Liberal Democrat Party*	165	466	631	26.10%
Conservative Party*	163	468	631	25.80%
English Democrats	8	24	32	25.00%
Plaid Cymru	10	30	40	25.00%
Ulster Unionist Party	3	12	15	20.00%
Cannabis is Safer than Alcohol	4	24	28	14.30%
UK Independence Party*	77	546	623	12.40%
Official Monster Raving Loony Party	1	18	19	5.30%
Democratic Unionist Party	0	16	16	0.00%

Table 1: Gender distribution in parties with at least 15 candidates

Focusing on the five largest parties (with asterisks in Table 1), the Liberal Democrats and the Conservative Party are close to the average, while UKIP is only half that, and the Green Party and the Labour Party exceed 30%.

There are 102 constituencies (16%) where all candidates are male, and precisely none where all are female. In 45 constituencies (7%) there are more female than male candidates, and in 34 the genders are balanced. Female candidates exceed males fourfold in just six constituencies, of which three are in Derbyshire.

I found only small differences in the percentage of female candidates among the four UK countries: England and Scotland match the national average (26.1%), while Northern Ireland is slightly lower (25.2%) and Wales slightly higher (27.1%). The nine official regions of England have greater variability: Greater London leads with 30% female candidates, Yorkshire and the Humber, North West, East and West Midlands are all close to the national average of 26.1%; North East, South East, and South West are slightly lower at around 24.5%, and East of England is the lowest with 21.5%.

Of the candidates standing in the 2015 election from the 13 parties represented in the last parliament (Conservative, Labour, Lib Dem, DUP, SNP, Sinn Féin, Plaid Cymru, SDLP, UKIP, Alliance, Green Party, Respect, and Speaker), 27.0% were female, against 21.8% from the 102 other parties.

There is reason to hope that the next parliament will see increased representation for women. Figure 1 uses data from here and here to compare the percentages of female candidates and female MPs in UK general elections from 1954 to 2015. It highlights the sharp increase in the percentage of female MPs between 1979 (3%) and today (22%), as well as the shrinking gap between candidates and MPs, which peaked in 1992 with a 10 percentage point difference. Since 1997 the gap has been much narrower, and in 2010 there were proportionally more female MPs than candidates.
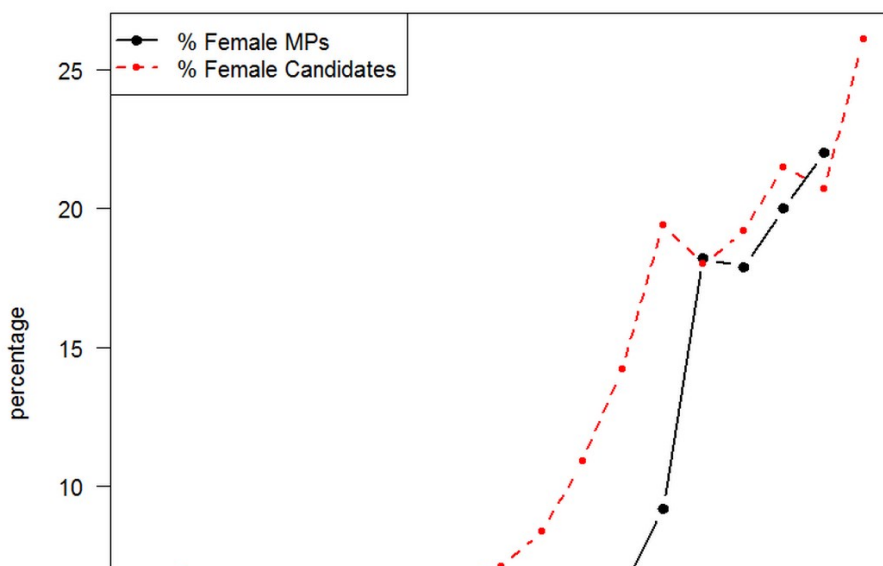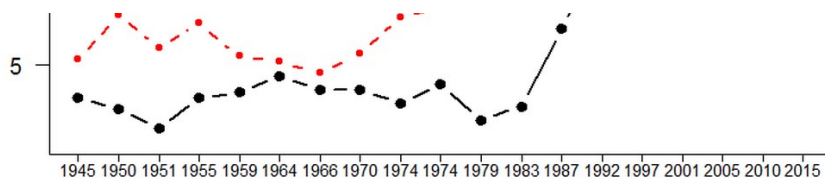
Figure 1: Percentages of female MPs and female candidates in UK general elections 1945-2015

Do these trends tell us anything about the likely percentage of female MPs in the next parliament? To explore this question we fitted an ARIMA model[2] of order (0, 2, 1) to the percentages of female MPs returned from the last 18 general elections, and it yielded a forecast for the 2015 parliament of 26.5%, with a 90% prediction interval of 20% to 33%. Another projection, from the Electoral Reform Society (available here), forecasts 29.5%.

Clearly, equal representation for women in parliament remains a long way off – but just how long? A crude forward projection using our fitted ARIMA model predicts that, all things being equal, it will take at least 10 more general elections (i.e. around 50 years) before women MPs hit the 50% mark.

Footnotes

1. 533 are in England, 59 in Scotland, 40 in Wales and 18 in Northern Ireland.

2. This is a time series Autoregressive Integrated Moving Average model. The order of the model, (0,2,1) was chosen to minimise the Bayesian Information Criterion using function auto.arima from the R package forecast. The model's components imply no linear dependence on the previous values of each time point, that the model is fitted to the differences of the first differences of each time point to achieve stationarity, and that it includes a moving average process of order 1 describing local changes. This ARIMA model is equivalent to a linear exponential smoothing model.

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