

The Power of Preferences STV in Scottish Local Elections

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Foreword



Darren Hughes,
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Much talk of the need for electoral reform focuses on Westminster and the goal of a proportionally elected House of Commons. But while the UK Parliament, and almost all of England's elections, are still held back by First Past the Post, the UK's other nations have made some real strides towards fairer votes.

In our 2021 report *Two Decades of PR* we looked at the impact of 20 years of proportional representation on elections to the Scottish Parliament, Welsh Senedd and London Assembly – revealing the impact that a fairer voting system has on the outcome of these devolved elections. Yet, in Scotland it is not just Holyrood whose elections have benefitted from a move away from Westminster's distorting First Past the Post system.

Since 2007 elections for Scottish councils have been conducted under the Single Transferable Vote (STV) – the gold standard of proportional representation. This May's elections will be the fourth time this system has been used in Scotland and marks 15 years of proportional representation for Scottish Local Government.

To mark this, we commissioned elections expert Professor Sir John Curtice to conduct analysis of the 2017 Scottish Local Election results and also look ahead to what might be in store in 2022. We wanted to see how, after several elections under their belts, the

Photos
Above: Gus Palmer
Left: urtimud.89, Pexels

voters of Scotland have adapted to the power of the Single Transferable Vote.

The results show an electorate that has embraced this new form of voting – ranking their preferences instead of being forced by a winner takes all system to take a gamble on one option, which they often view as the least worst.

This report shows how Scottish voters are choosing to make the most of the power of preferences when they vote for their local councils. In 2017, 85.8% of ballots contained more than one preference while the number of ballots which contained three or more preferences stood at 60.7% – a steady growth since the first STV election in Scotland where just 54% did so.

One of the benefits of this use of preferences is that voters are able to express their support for more than one party. Under First Past the Post voters have as many or as few votes as there are candidates, meaning that voters are left unable to express a ‘second preference’ choice once they’ve backed their preferred candidates.

In Scotland around seven in ten Conservative, Labour and SNP supporters chose to use their transferable vote to express preferences for other parties or independent candidates once they had voted for all the candidates of their party of choice. With Liberal Democrat voters it was even higher, with just one in five choosing to back the party and the party alone.

And the increased use of preferences is important. In 2017 we saw just 38.5% of candidates elected on first preferences alone – down five points from 2012, showing the growing influence of those second, third or even fourth preferences on the outcome of Scottish local elections. Professor Curtice’s analysis found that 101 seats (or 8% of all seats) in 2017 were eventually won by candidates who were not in a winning position after the first round.

These data show how, under STV, voters are able to shape the outcome of an election to make it far more reflective of their views and preferences than under FPTP. Indeed, the report emphasises how Scottish

council elections held under STV have seen outcomes far more proportional than those seen in Scotland at the last three Westminster elections, held under First Past the Post.

It’s too early to tell if these trends will continue into 2022, or if the increasing polarisation of Scottish politics along Nationalist/Unionist lines will impact the results but what this analysis does show is that, after 15 years of fairer votes, the people of Scotland have embraced the power of the Single Transferable Vote.

With local authorities in Wales now also able to make the change to STV, the results in Scotland offer a powerful example of the benefits of adopting a fairer system. It’s now up to councils in Wales to take up that opportunity and continue the progress towards ensuring that voters throughout the UK benefit from fairer voting systems at every election.

Introduction

Scotland goes to the polls once again on May 5th. This time the ballot is for all 1,226 seats on the country's 32 local authorities. The election will be conducted using – for only the fourth time – the Single Transferable Vote (STV) system of proportional representation, a system that allows voters to rank candidates 1,2,3 rather than just indicate a first preference. This report provides a guide to these elections. It outlines how the STV system works, the performances of the parties at the previous local elections in 2017, and how voters have behaved previously under the system. It then considers the prospects for the parties this time around – and indicates how their eventual fortunes could be affected by how voters decide to use the opportunity to express multiple preferences.

1

The System

The Single Transferable Vote

STV is a preferential voting system which produces results that are approximately proportional to votes cast. Apart from local elections in Scotland, it is also used in all elections in Northern Ireland other than in those for the province's MPs, while local councils in Wales have been given the power to switch to the system in future if they wish. Outside the UK, STV is used in all elections in the Irish Republic, Malta, the Australian Senate, in some state and local elections in Australia, and some local elections in New Zealand. These are, of course, all countries with strong links to the UK, where the system was first widely promoted in the middle of the 19th century by Thomas Hare.

Voters are invited to place candidates in order of preference, 1,2,3 etc. They may rank as many or as few candidates as they wish. Candidates may stand under a party label, while parties are at liberty to nominate more than one candidate if they so wish. However, voters are not under any obligation to take cognisance of the party labels. A voter might give their first preference to one of two candidates standing for party A, but then give their second preference to a candidate for party B, their third preference to a candidate for party C, while only giving the second of the two candidates representing party A their fourth

preference. Equally, however, a voter can, if they so wish, give their first preference to one of the candidates for party A, their second preference to the other candidate nominated by party A, and not express a preference for any other candidates at all. The order in which such voters place the candidates may, however, also be influenced by the order in which they appear on the ballot paper, with those higher up tending to do better than party colleagues further down (Curtice, 2012; Curtice and Marsh, 2014; Bochel and Denver, 2017).

The counting process is rather more complicated. First, the total number of first preference votes given to each candidate is tallied. At this point the quota of votes a candidate needs to win in order to secure election is calculated. This figure is the total number of votes cast divided by one more than the total number of candidates to be elected, plus one. Because in Scotland most wards elect either three or four members, this means that the quota is usually $1/4$, i.e. 25%, of the vote +1, or $1/5$, i.e., 20%, of the vote +1. The logic here is that if three candidates have one more than 25% of the vote, it is impossible for any other candidate to match that score, while similarly only four candidates can secure one more than 20%.

Any candidate whose tally of first preference votes equals or exceeds the quota is automatically elected. However, typically, fewer than the total number of candidates to be elected will secure that many first preferences. As a result, a process then begins whereby votes are transferred between candidates in accordance with voters' second and subsequent preferences until the required number of candidates have been duly elected.

The first stage in that process is the redistribution of any surpluses, that is, votes above the quota needed for election obtained by candidates elected via first preferences alone. This is done by examining the second preferences expressed by all that candidate's

Example

If a candidate won 5,000 first preferences but the quota was only 4,000, each vote would be transferred at a value of .20. Any subsequent transfers of these votes at later stages of the count would also be at the value of .20.

first preference voters and transferring them accordingly – but at a diminished value.

If, after any surpluses have been redistributed, the number of candidates that have reached the quota is still fewer than the number of candidates to be elected, the candidate with the fewest preferences (at that stage in the count) is eliminated and all their votes redistributed in accordance with the next preference expressed on the relevant ballot papers. This process of gradual elimination (and, when appropriate, the redistribution of surplus votes) continues until the requisite number of candidates have reached the quota. However, during the course of this process some votes are likely to become non-transferable because the voter has not expressed any further preferences. As a result, it may be the case that even though only two candidates are left in the count, neither has reached the quota. In that event, the candidate with more votes is allocated the last seat.

The complexity of this system of transfers, and especially the fact that votes may be transferred at fractional values, means that conducting a STV count by hand can be a long and difficult process. However, in Scotland the task of tallying and transferring votes is undertaken by scanning all ballot papers and deploying appropriate computer software to undertake the necessary transfers. Thus, once all the ballot papers have been scanned the outcome of the election can be determined relatively quickly.

STV produces results that are approximately proportional to votes cast because each voter only has one (albeit transferable) vote, while multiple seats are allocated in accordance with success in achieving a quota that is typically far less than half the vote. Of course, the more seats there are to be allocated, the closer the match between votes and seats is likely to be – and the fact that most wards only elect three or four members acts as a constraint on the proportionality of the system as implemented in Scotland's local council elections.

Example

If in a four seat ward, candidates standing for party A win 45% of the first preference vote, those representing party B 25%, and party C 30%, then it is almost bound to be the case that party A will win 2 seats (or 50%), and parties B and C 1 seat (25%) each.

Changes for 2022

Since the introduction of STV in 2007, all local elections in Scotland have been held in wards that elect either three or four councillors. However, legislation passed by the Scottish Parliament in 2018 made provision for the creation of one and two-member wards in the six council areas that include inhabited islands (thereby making it possible to give islands more distinctive representation), while further legislation passed in 2020 allowed Boundaries Scotland, the non-partisan commission that draws up ward boundaries, to recommend wards of between two and five members in any council area. The legislation on island areas also required Boundaries Scotland to redraw in advance of this year's election the ward boundaries for the six council areas that contain inhabited islands.

In the event, the commission's recommendations for both Argyll & Bute and Highland councils were rejected by the Scottish Parliament over concerns about a proposed reduction in the representation of some rural areas. In the case of Argyll & Bute this was the second time in a row that its proposals had been rejected. However, in the other four councils with inhabited islands, Comhairle nan Eilean Siar, North Ayrshire, Orkney, and Shetland, new ward boundaries will be in place for this year's election. As a result, the island of Arran will form a single seat ward, while there are six two-member wards on Comhairle nan Eilean Siar, and one on Shetland. At the same time, there will be three five-member wards on the North Ayrshire mainland.

A one-member ward election is not a proportional election at all (it is, in effect, an election under the Alternative Vote system rather than STV), while the degree of proportionality provided by a two-member contest is inevitably severely constrained. As, however, elections on the islands are dominated by independent candidates, the degree of proportionality may be

thought a less of an issue. In contrast, five-member wards increase the likely proportionality of the system. However, the impact of the wider discretion given to Boundaries Scotland to create wards of between two and five members will only become apparent at the next local elections in 2027, by which time the wards of many of Scotland's councils should have been redrawn under the new rules. The degree of proportionality afforded by the STV system in Scotland's local elections might well depend on how that discretion is used.

The reviews that are being implemented result in a reduction of two seats on Comhairle nan Eilean Siar, but an increase of one on Shetland. Consequently, the total number of councillors to be elected across Scotland as a whole is one less than in 2017 – 1,226. There is also one extra ward, making a total of 355.



Party Performance

The previous round of local elections, whose outcome is summarised at Table 1, was held on 4 May 2017. Following the announcement on 18 April 2017 that a UK general election was to be held on 8 June, the local ballot in effect marked the beginning of a Westminster election campaign. This may help explain why, at 46%, the turnout was well up on that recorded in 2012, when, for the first time since the advent of devolution in 1999, the local elections were not held on the same day as a Scottish Parliament election. That said, the turnout in 2017 was similar to that recorded at local elections held before 1999 under First Past the Post. For example, at the last such election, in 1995 (which was the first election for the existing set of unitary councils), turnout was 44.9%. It thus may be the relatively low turnout in 2012 that was the exceptional outcome.

The 2017 election witnessed a substantial rise in Conservative support (as compared with the previous election in 2012) and a decline in Labour's popularity, with the result that the Conservatives became (albeit marginally) the second largest party in Scottish local government. This was by far the Conservatives' best – and Labour's worst – performance since the introduction of the current system of Scottish local

government in 1995, though in large part it reflected these two parties’ fortunes in the previous year’s Scottish Parliament election (see Table 9 below). Both the Liberal Democrats and the SNP, in contrast, largely stood still. For the SNP, winning somewhat less than a third of the first preference vote appeared to be a rather modest performance, given that the party had won 50% of the vote in the 2015 UK general election and 46.5% of the constituency vote in the previous year’s Scottish Parliament election.

Table 1. Overall Result of the 2017 Local Elections

n/c = no change

Independents include candidates with no description and those standing under the banner of a local independent group.

The election was uncontested in three wards, one in each of Argyll & Bute, Orkney and Shetland.

In 25 councils, the 2017 election was contested on new ward boundaries, as a result of which the total number of seats increased by four.

A majority of the seats on Comhairle nan Eilean Siar, Orkney, and Shetland were won by Independents. On no other council did any one party or group secure an overall majority.

	1st Preference Votes	% 1st preference vote	Change in % since 2012	Seats	Change in seats since 2012
Conservative	478,073	25.3	+12	276	+161
Labour	380,957	20.2	-11.2	262	-132
Liberal Democrat	130,243	6.9	+0.3	67	-4
SNP	610,454	32.3	n/c	431	+6
Green	77,682	4.1	+1.8	19	+5
Independents	196,438	10.4	-1.7	168	-32
Other	15,811	0.8	-1.1	4	n/c
Turnout					
Valid Votes	1,889,658	46%	+6.9		

The Greens enjoyed a modest increase in their share of the vote, though this largely reflected a substantial increase in the number of candidates that they fielded (see further below). There was some decline in support for Independent candidates, though at 10.4%, their share of the first preference vote was still higher than that recorded at any of the elections at which First Past the Post was used to elect the current set of local councils. Although at 168 the number of Independents elected was lower than at any election since 1995, for the most part the introduction of STV, which, while broadly proportional asks voters to vote for individual candidates, has not substantially undermined the ability of Independent candidates to obtain support and secure election.

Nomination Strategies

Under STV, parties do not attempt to contest every seat that is being elected in a ward. If they do so they put themselves at risk of fragmenting their support across their candidates, such that they are more likely to be eliminated relatively early in the count before they can benefit from the lower placed transfers of voters who have backed other parties or an independent candidate. Rather, apart perhaps from a party’s possible wish ideally to give as many of its supporters as possible the chance to vote for it by nominating at least one candidate in each ward, a party has to bear in mind its strength locally in deciding how many candidates to nominate in a ward.

Table 2, which analyses the nomination strategies of the parties in 2017 and how they compared with the position in 2012, suggests that neither Labour nor the Conservatives fully anticipated their eventual electoral performance. Although Labour did nominate 44 fewer candidates than in 2012, it was still almost as likely to nominate two or three candidates in a ward as it was to put forward one. In contrast, the Conservatives only nominated multiple candidates in 41 of the 337 wards that they contested (while the party’s total tally of 380 candidates did little more than match the 379 it nominated in 2007). Indeed, it is clear that the Conservatives nominated too few candidates in some wards. There were six instances where the party nominated one candidate whose first preference vote represented more than two quotas, a tally which should have been sufficient to secure the election of two candidates, while there were another four wards where the single candidate secured 1.85 times the quota and where, as a result, the party might also have been able to secure the election of a second candidate.

Table 2 Number of candidates nominated by each party in 2017 (and change since 2012)

n/c = no change

Figures in brackets show change since 2012.

Note that the total number of wards increased by one from 353 to 354.

Source: ERS Datasets of 2012 and 2017 Results.

	No. of wards in which stood stated no. of candidates					
	None	1	2	3	More than 3	Total Candidates
Conservatives	17 [-5]	296 [-7]	39 [+14]	2 [-1]	-	380 [+18]
Labour	49 [+6]	160 [+20]	142 [-9]	3 [-14]	-	453 [-44]
Liberal Democrats	119 [-4]	223 [+9]	12 [-3]	- [-1]	-	247 [n/c]
SNP	14 [+7]	80 [-20]	233 [+8]	27 [+6]	-	627 [+14]
Greens	136 [-131]	218 [+132]	- [n/c]	- [n/c]	-	218 [+132]
Independents	119 [+16]	107 [-6]	61 [+19]	35 [+4]	32 [n/c]	499 [+34]
Others	236 [-40]	91 [-23]	24 [-6]	3 [-2]	- [-5]	148 [-78]

Unsurprisingly, given that it had become by far the most popular party in Scotland, the SNP fielded the most candidates. It was also unique among the parties in nominating multiple candidates in most wards – though this only resulted in a modest increase in the number of candidates. But one party that did change its nomination strategy substantially was the Greens, who contested well over half of all wards for the first time. In contrast, the number of candidates representing other parties fell by a third, and, at 148, was only just over half the 288 such candidates that had been nominated when STV was first used in 2007. This reflects a wider tendency in Scottish politics for party support to be concentrated among the five parties tabulated separately in Tables 1 and 2 – the proportion of the Holyrood list vote given to other parties fell from 10.7% in 2007 to 4.5% in 2016 – thereby making it increasingly unattractive for smaller parties to try and contest local elections where, as noted earlier, the share of the vote required to secure election is relatively high for a proportional system.

Even so, the net effect of the above changes in the pattern of nominations was that overall, voters had slightly more choice than in 2012 but a little less than in

2007 (Curtice, 2012). A total of 2,572 candidates stood in 2017, up 76 on 2012 but 34 fewer than in 2007. The increase on 2012 occurred primarily in three-member wards, where on average 6.7 candidates stood, up 0.4 on 2012, and the same as in 2007. Meanwhile, in four-member wards an average of 7.9 candidates stood, the same as in 2012 but 0.3 down on 2007.



3

How Voters Used The System

Spoilt Ballots

One feature of STV is that the proportion of voters who register an invalid vote is somewhat greater than it is under First Past the Post. This continued to be the case in 2017. A total of 37,491 ballot papers were rejected at the count, representing 1.95% of all votes cast. This represented an increase on the 1.71% registered in 2012 and 1.83% in 2007 – and contrasts with a figure of 0.77% at the last local elections held under First Past the Post in 2003 (Bochel and Denver, 2007) and with figures of 0.41% and 0.17% on the constituency and list ballots of the 2016 Scottish Parliament election (Electoral Commission, 2016). The proportion of ballots that are rejected under STV in Scotland is, however, higher than in Northern Ireland, where 1.3% and 1.2% of voting papers were rejected in the Assembly elections of 2016 and 2017 respectively, while in the 2019 local elections in Northern Ireland only 1.4% were rejected (Electoral Office for Northern Ireland, 2016; 2017; 2019). While some people will have deliberately ‘spoilt’ their ballot paper, this comparison suggests there is still room for improvement in enhancing Scottish voters’ understanding of how to cast a valid vote.

Moreover, within Scotland the level of invalid votes varies considerably from one local authority to

Photo: Artur Kraft,
Unsplash

another. In Glasgow, on average 3.4% of votes were rejected in each ward in 2017, as were 3.0% in West Dunbartonshire. This compares with averages of just 0.8% on Orkney and 1.1% on Shetland. As was also the case in 2012, there was a clear tendency for invalid votes to be higher in wards with more candidates. In wards where no more than seven candidates were standing, 1.6% of votes were rejected. The figure was 2.0% in wards with seven or eight candidates and 2.4% in those with nine or more. This pattern would appear consistent with the fact that by far the most common reason for ballot papers being rejected was that voters had indicated more than one first preference on their ballot paper (Bochel and Denver, 2017), a mistake that would seem more likely the more candidates there are on the ballot paper.

Using Preferences

But to what extent do voters use the opportunities afforded by the STV system to place candidates in rank order? For while they can express as many ranked preferences as there are candidates standing locally, they can, if they wish, simply express a first preference for one candidate – but doing so carries the risk that their vote does not contribute to the election of any candidate.

Most voters do express multiple preferences. In 2017 85.8% of valid ballot papers contained at least two preferences, similar to the 86.3% figure in 2012 (Curtice, 2012), and for the second time was well up on the 78% that did so in 2007 (Denver et al., 2009). Meanwhile, there was actually a notable increase in 2017 in the proportion of papers that contained three or more preferences – as many as 60.7% did so, up on 55.8% in 2012 (and 54% in 2007). Even in those wards where no party stood as many as three candidates, the proportion who cast at least three preferences – at least one of which must have been for a candidate standing for a party other than that of their first preference candidate – stood in 2017 at 59.2%. In short, a clear majority of voters gave a preference to more than one

party (or to a party and an independent). Meanwhile, although the proportion casting four preferences was, at 28.8%, much lower, it was still up on the 23.0% that did so in 2012 (though down a point on 2007).

As in 2012, voters were more likely to cast three or more preferences the more candidates that were standing locally (see Table 3). Indeed, between those wards with the least and those with the most candidates, there was as much as a 20-point difference in the proportion doing so. The overall increase between 2012 and 2017 in the proportion expressing three or more preferences was then in part stimulated by the increase in the number of candidates standing. However, Table 3 shows that the proportion expressing three or more preferences increased across the board irrespective of the number of candidates standing, suggesting that voters were rather more willing to express multiple preferences irrespective of the range of the choice that was before them locally.

Table 3 Percentage of Ballot Papers Containing At Least 3 Preferences by Number of Candidates Standing, 2017 (and change since 2012)

Source: ERS datasets of 2012 and 2017 results

Number of candidates standing in ward	Mean % containing at least 3 preferences, 2017	Change in % since 2012
4	44.4	+2.9
5	53.7	+5.7
6	56.7	+5.3
7	60.0	+3.1
8	62.9	+3.3
9	64.9	+3.8
10	67.4	+2.7
11 or more	68.6	+3.3

Pattern of Transfers

But if voters were more willing to express multiple preferences, how did they use those preferences? Here we need to distinguish between two situations. The first is where a party’s candidate is eliminated from the count (either by virtue of being elected and thus having surplus votes to be distributed or being at the bottom of the count) but another candidate from the same party is still in the count. In the case of these ‘non-terminal transfers’ we are interested in the extent to which the

next preference of those voters who had backed the eliminated candidate was for that candidate's colleague, thereby suggesting that the voters were primarily expressing a party preference. The second situation in which we are interested is what happens when the last of a party's candidates is eliminated and thus a 'terminal transfer' takes place. Here we ask to what extent do those who supported the eliminated candidate express a lower preference for a candidate of another party, and if so, to which party do they transfer?

Table 4 shows for both 2012 and 2017 the extent to which, in the event of a non-terminal transfer, voters' next preference was for a candidate of the same party. In these circumstances, most – but by no means all – voters remained 'loyal' to the same party in their next preference. However, in 2017 SNP supporters were more loyal than those of any other party, and were also more loyal than they had been in 2012. Labour supporters were also relatively loyal – around four in five of them gave their next preference to another Labour candidate, much as was the case in 2012. Those backing a Conservative or Liberal Democrat candidate who was eliminated were rather less loyal at both elections, though Conservative supporters were somewhat more loyal in 2017 than in 2012, while the opposite was true of the Liberal Democrats. This contrast in the loyalty of different parties' supporters may well be an indication that rather more of the support given to Conservative and especially Liberal Democrat candidates was for them as individuals rather than simply as representatives of their party.

Table 4 Average Loyalty Rate by Party in the Event of Non-Terminal Transfer, 2012 and 2017

Source: ERS Databases of 2012 and 2017 Local Election Results

Party of Eliminated Candidate	Mean % vote transferred to candidate of same party	
	2017	2012
Conservative	72.9	67.6
Labour	79.2	77.9
Liberal Democrat	57.9	66.7
SNP	85.8	78.7

But what did each party's voters do after they had given a preference to all of the candidates of their preferred party? To what extent did they give a preference to a candidate from a different party, and if so which party were they most likely to back? Table 5 addresses these questions by looking at what happened in 2017 when the 'first terminal transfer' occurred during the counting process. By a 'first terminal transfer' we mean what happened when a Conservative, Labour, Liberal Democrat or SNP candidate was eliminated from the count, no other candidate from the same party was left in the count, and at least one candidate from all the other aforementioned parties was still in the count. (We look separately below at what happened when Green candidates were eliminated.) By definition this means our analysis is confined to those wards that were contested by all four of these parties, but doing so gives an indication of voters' next preference when the widest possible range of options was still before them – though in some instances an independent, Green or other party candidate will have still been in the count and on other occasions not.

Table 5 Average First Terminal Transfer Rates 2017

Note Oth/Ind includes Greens

Source: ERS Database of 2017 Local Election Results

Transferred from:	Mean % vote transferred to:					
	Con	Lab	Lib Dem	SNP	Oth/Ind	Not transferred
Conservative	-	17.7	27.7	2.9	18.4	33.4
Labour	11.9	-	25.6	13.9	19.0	29.6
Liberal Democrat	21.6	26.4	-	11.5	21.7	19.0
SNP	2.1	13.0	8.9	-	46.3	28.6

The table contains some striking patterns. First only around three in ten Conservative, Labour and SNP supporters did not express another preference at this point, while in the case of the Liberal Democrats the proportion was less than one in five – a further apparent indication of the lower level of partisanship among those backing Liberal Democrat candidates. In line with our earlier evidence on the number of voters

casting at least three preferences, the proportion of Labour and SNP voters whose vote could not be transferred to another candidate was well down on what it had been in 2012, when 48% of Labour supporters and 44% of their SNP counterparts did not express a further preference (Curtice, 2012: Table 3.3). SNP and Labour supporters might still have mostly been partisan in backing all their party's candidates above those of any other party, but, nevertheless, in 2017 they demonstrated a markedly greater willingness to give a lower preference to a candidate from a different party.

The pattern of the transfers that were made in 2017 differed significantly from that in 2012 too. No less than 46% of SNP supporters gave a lower preference to an 'other' party or independent candidate, well up on the 18% who did so in 2012. Doubtless this reflects the much wider availability of Green candidates at an election that was taking place in the wake of the 2014 independence referendum when the Greens had joined the SNP in calling for a 'Yes' vote. In contrast, just 24% of SNP supporters gave their next preference to one of the three main unionist parties, well down on the 38% who did so in 2012. Meanwhile, although Labour voters were more likely to express some kind of next preference than they had been in 2012, the proportion who gave that preference to a SNP candidate (14%) was actually slightly down on the equivalent figure in 2012 (16.5%). Rather, Labour voters were much more likely than they had been in 2012 to give their next preference to either a Liberal Democrat or Conservative candidate – in both cases the proportion doing so was around double what it had been in 2012.

In short, there are signs that the pattern of transfers in 2017 reflected more sharply than it had done in 2012 the division between those parties that backed independence and those that opposed it. Much the same is true of Conservative supporters. The 3% who voted next for a SNP candidate was even lower than the

8% who did so in 2012. Meanwhile, at 18%, the proportion who gave their next preference to a Labour candidate was more than twice the proportion who did so in 2012 (8%), albeit that the Liberal Democrats were still the party to which Conservative supporters were most inclined to back next. Meanwhile Liberal Democrat supporters were even less likely than in 2012 to give their next preference to a SNP candidate (19% did so in 2012), while nearly half (48%) opted to back a Conservative or Labour candidate, up from 42% in 2012.

The greater willingness of SNP voters in 2017 to give a lower preference to a Green candidate was reciprocated by those who backed the Greens. When a Green candidate was eliminated from a count – and Conservative, Labour, Liberal Democrat and SNP candidates were all still in the count – as many as 43.3% of them gave their next preference to a SNP candidate, well up on the 18% who did so in 2012. In contrast, not only did the proportion who did not express another preference fall from 20.4% to 12.7%, but there were also slight falls in the proportion whose next preference was for the Liberal Democrats (from 19.9% to 17.1%), Labour (19.2% to 16.3%) and the Conservatives (5.1% to 4.1%), as well as a more marked drop in the proportion voting for an independent or other candidate (17.0% to 6.4%). All in all, just one in three Green supporters gave their next preference to a candidate representing one of the three main unionist parties, well down on the 44% who did so in 2012.

The contrast between the pattern of transfers in 2017 and that in 2012 indicates that how voters use their lower preferences may well be affected by current political circumstances and the perceived relationships between the parties. In 2017 voters' preferences were more likely than they had been in 2012 to reflect where the parties stood on the constitutional question – a finding to which we will return in considering the prospects for this year's election.

Alphabetic Voting

Still, while some voters appear to have been more willing in 2017 to give a preference to more than one party, we have also seen that partisanship also appears to have shaped how many voters completed their ballot paper. One issue that arises is whether partisan voters have a clear view as to which of their first preference party's candidates they like most. If they do not, then when faced with more than one candidate from their preferred party they may simply rank them in the order in which they appear on the ballot paper. Such 'alphabetic voting' was found to be much in evidence in 2007 and 2012, as evidenced by the fact that candidates higher up the ballot paper were more likely to be elected (Curtice, 2012; Curtice and Marsh, 2014; Bochel and Denver, 2017).

If voters were uninfluenced by the order in which candidates' names appear on the ballot paper, then when a party nominated two candidates in a ward the candidate listed first on the ballot paper should secure the more votes half the time, while the candidate listed second should do so half the time. However, across the 426 instances where a party nominated two candidates in a ward, the candidate placed higher on the ballot paper secured more first preference votes on 336 occasions, or 79% of the time. This is very similar to the 80% figure recorded in 2012. On average the higher placed candidate won 10.2% more of the first preference vote, again similar to the equivalent figure in 2012. Meanwhile, in the more limited instances (32) where a party nominated three candidates, on 20 occasions (63%) the candidate placed highest on the ballot paper won most first preference votes, while the second highest candidate won most first preference votes on seven occasions (19%) and the third placed in five instances (16%).

However, as in 2012, incumbent councillors standing for re-election who were placed lower down the ballot paper did have some success in overcoming

this pattern. In those instances where a party nominated two candidates, just over half (51%) of the 90 lower placed candidates who won more first places were incumbent councillors, though this was down on the equivalent figure of 78% in 2012. Meanwhile, where a party nominated three candidates, all but one of the 12 lower placed candidates who secured more first preference votes than the highest placed candidate was an incumbent councillor. However, for the most part it seems that many a local government candidate is still failing to get themselves sufficiently well-known to the electorate to ensure that voters take account of more than the party label under which they are standing.



4

Votes into Seats

Proportionality

As we noted earlier, the use of three and four-member wards in Scottish local elections potentially constrains the degree of proportionality that the STV system is likely to deliver. The extent to which the outcome was proportional across each council area in 2017 is shown in Table 6. This shows for each party on each council, the difference between its share of seats and its share of the first preference vote. A positive number means that a party won a larger share of the seats than it did of the vote, while a negative number indicates that it won a smaller share. In the far-right hand column, we show a simple index of the overall degree of disproportionality (Loosemore and Hanby, 1971). It is the sum of all the individual party entries in that row, but ignoring the signs and dividing by two. The higher the score, the more disproportional the result.

Photo: Polina Kholodova,
Pexels

Council	Con	Lab	Lib Dem	SNP	Green	Ind	Oth	Overall Deviation from Proportionality
Aberdeen	-0.2	2.3	-6.3	9.8	-2.2	-2.9	-0.4	12.1
Aberdeenshire	-7.2	-3.0	5.6	1.8	-0.5	3.4	-0.1	10.8
Angus	-5.3	-5.4	2.5	1	-	7.2	-	10.6
Argyll and Bute	-0.1	-4.1	5.9	2.9	-1.8	-2.6	-0.1	8.8
Clackmannanshire	2.8	0	-3.1	7.3	-6.5	-0.5	-	10.2
Dumfries and Galloway	0	7.9	0	4.9	-1.8	-10.7	-0.2	12.7
Dundee	-6.9	10.7	-4.4	7	-2.5	-1.9	-2.1	17.8
East Ayrshire	-5.5	3	-	5.2	-1.6	-1.8	0.7	8.9
East Dunbartonshire	2.5	-4.9	12.1	2.7	-4.7	-7.6	-	17.2
East Lothian	4.4	7.8	-4.8	-0.7	-4.5	-2.2	-0.2	12.2
East Renfrewshire	0.6	4.8	-2.2	3.5	-1.4	-4.9	-0.4	8.9
Edinburgh	0.8	0.7	-4.1	3.2	0.3	-0.7	-0.2	5.0
Falkirk	-1.2	6.9	-	1.2	-3.6	-3.2	-0.1	8.1
Fife	-0.9	7.7	-3.7	5.1	-3.4	-4.4	-0.3	12.7
Glasgow	-5.2	6.3	-2.9	4.9	-0.5	-1.3	-1.3	11.2
Highland	-2.1	-2.8	0.7	4.8	-1.8	1.8	-0.4	7.2
Inverclyde	-8.6	9.4	-1.4	-0.9	-	1.5	-0.1	10.9
Midlothian	5	8.7	-2.0	2.7	-6.9	-7.5	-	16.4
Moray	-5.3	-0.5	-1.2	3	-2.6	6.6	-	9.6
Na h-Eileanan an Iar	-0.1	-	-	3.4	-	-3.3	-	3.4
North Ayrshire	-2.3	7.3	-	-1.9	-0.9	-0.8	-1.3	7.3
North Lanarkshire	-2.9	8.6	-	4.4	-1.3	-4.9	-3.9	13.0
Orkney Islands	-	-	-	-	-	2.5	-2.5	2.5
Perth and Kinross	1.6	-2.7	-2.4	6.3	-3.4	0.8	-0.1	8.7
Renfrewshire	-2.4	2	-1.8	6.6	-3.3	-0.7	-0.4	8.6
Scottish Borders	2.5	-2.8	-2.3	5.1	-2.2	-0.2	-	7.5
Shetland Islands	-1	-	-	4.5	-	-3.5	-	4.5
South Ayrshire	-0.5	2.7	-	2	-0.6	-3.5	-	4.7
South Lanarkshire	-2.4	4.9	-3.6	5.9	-2.9	-2.5	-0.8	11.5
Stirling	2	1.2	-3.3	4.3	-2.2	-2	-	7.5
West Dunbartonshire	-3.4	2.8	-0.4	5.4	-0.3	-0.8	-3.2	8.2
West Lothian	-2	7.3	-2.6	2.1	-2.7	-1.9	-0.2	9.4
Average	-1.4	3.0	-1.1	3.8	-2.4	-1.6	-0.8	9.6

Table 6 Deviation from Proportionality by Council, 2017

'-' no candidates

On Shetland, the one SNP candidate who was elected stood in an uncontested ward.

Source: ERS Database of 2017 results

All but three of the entries for the SNP are positive, indicating that the party usually won a larger share of the seats than it did of the first preference vote. Most proportional systems tend to treat larger parties somewhat more generously than smaller parties, and this will certainly be the case where the number of seats to be elected in each ward is relatively small. However,

even though the Conservatives won a larger share of the first preference vote than Labour across Scotland as a whole, the party's share of the seats was less than its share of the vote in 21 councils, whereas Labour won more than its proportionate share on 20 councils. In part the explanation will be that, as we noted earlier, in some instances the Conservatives nominated fewer candidates than the number of seats the party was capable of winning, while Table 5 above shows that Labour and SNP supporters were less likely to give a lower preference to a Conservative candidate than they were to any of their opponents, thereby putting the party at a disadvantage in the battle for the last seat in a ward, when transfers can sometimes make a difference to the outcome (see further below).

Meanwhile as we would anticipate given their size, the Liberal Democrats secured less than their proportionate share of seats in all but five of the 23 councils where they contested at least some of the wards. However, the party that was treated most harshly by the system was the Greens, who secured less than their proportionate share everywhere they stood apart from Edinburgh, where the party is strongest. It is a reminder that for even the one party that has become a permanent fixture at Holyrood despite not having Westminster representation before 1999, the STV system used in Scotland's local elections has not made it easy for it to make a breakthrough.

The highest overall level of disproportionality in 2017 was in Dundee, just as it was in 2012. There the STV system rewarded both Labour and the SNP substantially. Outside the island councils where Independent candidates predominate, the most proportional outcome was in Edinburgh, one of the most evenly contested councils in Scotland and where uniquely all five of Scotland's largest parties have significant representation. On average across all of Scotland's local councils, the level of disproportionality stood at 9.6, almost exactly the same as in 2012 (9.7)

(Curtice, 2012: Table 4.1). It is also similar to the level of disproportionality in the 2021 Scottish Parliament election of 2021 (held using an Additional Member system), though somewhat higher than the equivalent figure of 8.2 for the 2016 contest. It is far below the average figure of 34.5 for the outcome in Scotland of the last three Westminster elections held using First Past the Post.

The Impact of Transfers

Under STV, one of the reasons why the outcome in seats may not be proportional to first preference vote is that some parties are more successful than others at securing the lower preferences of voters, thereby potentially enabling some of their candidates to secure election even though they were not among the top candidates in their wards on first preferences alone. Such popularity is, of course, something that STV is designed to reward, and to that extent any disproportionality that this process creates may still be regarded as being consistent with a ‘fair’ outcome.

Table 7 provides a first indication of the potential importance of transfers in determining who is elected. It shows the number and proportion of candidates that were elected on the basis of first preference votes alone (because those votes matched or exceeded the quota). Overall, only 38.5% of candidates were elected that way in 2017, five points down on the equivalent figure in 2012, and slightly below the 40% who were so elected in 2007 (Curtice, 2012). Transfers thus had an influence on the eventual outcome in seats to a rather greater extent than before.

Table 7 Candidates Elected on First Preferences by Party, 2017 and 2012

Source: ERS Dataset of 2017 results

	Elected on 1st prefs/Total Elected	% successful candidates elected on 1st prefs	% elected on 1st prefs in 2012
Conservative	170/276	61.6	40
Labour	76/262	29	50.5
Liberal Democrat	19/67	28.4	28.2
SNP	149/431	34.6	43.5
Green	4/19	21.1	7.1
Independents	51/168	30.4	39.5
Others	3/4	75	50
Total	472/1227	38.5	43.5

However, it will be noted that while many fewer SNP and (especially) Labour candidates won election on first preference votes alone (both compared with 2007 as well as 2012), more than three in five of those Conservative candidates who were elected secured their success on the basis of first preference votes alone – compared with only two in five in 2012 and 2007. In part at least, this is a reflection of what proved to be a rather conservative nomination strategy by the party, which, despite the marked increase in its popularity, only presented multiple candidates in 41 wards (see Table 2). But it could, of course, also be a reflection of the party’s relative lack of success (see Table 5) in securing the lower preferences of other parties’ first preference supporters.

Table 8 provides an indication of the impact of lower preferences by analysing the extent to which parties failed to secure the election of candidates who were in a winning position in their ward on the first preference vote and the extent to which they were successful in getting elected candidates who were not in a winning position on the first preference vote. Overall, as many as 101 seats (or 8% of all seats) were won by candidates who were not initially in a winning position, well up on the 68 seats in 2012 and 73 in 2007 (Curtice, 2012). Here then is further evidence of the relative importance of transfers in the 2017 election.

Table 8 Candidates Not in a Winning Position on First Preference who secured Election by Party, 2017

Source: ERS Dataset of 2017 Results

	Elected though not in top 3/4	Not elected even though in top 3/4	Net gain/loss	Net gain/loss 2012
Conservative	6	40	-34	-15
Labour	35	11	+24	+13
Liberal Democrat	10	3	+7	+1
SNP	20	38	-18	-10
Green	2	2	0	0
Independents	25	5	+20	+13
Other	0	1	-1	-2

As we might by now have anticipated, the Conservatives lost a significant number of seats through their failure to secure enough lower preferences to take their candidate over the line. Overall, the party suffered a net loss of 34 seats in this way. The SNP also made a net loss of 18 seats, more than in 2012, and an outcome that is consistent with the fact that fewer voters gave the SNP a lower preference after having voted for one of the three main unionist parties (see Table 5). In short, the increased tendency in 2017 for the pattern of transfers to reflect the parties' position on the constitutional question, proved to be relatively costly for those parties that were most clearly aligned on that question – for they, above all, now found it more difficult to secure lower preferences from voters on the other side of the constitutional fault line. In contrast, Labour profited more than it had ever done before from the pattern of lower preferences, while the Liberal Democrats profited rather more than they had done five years previously.

5

Prospects for 2022

The Strength of The Parties

The seemingly rather modest performance by the SNP in the 2017 local elections, was followed by what was widely regarded as a disappointing result in the Westminster general election the following month, when the party's share of the vote fell from the 50% it had secured in 2015 to just 37% (see Table 9). However, more recent elections have seen the SNP perform at a level closer to what they enjoyed in 2015, with 45% of the vote in the 2019 Westminster election and 48% in the 2021 Holyrood constituency vote. If those more recent performances are emulated, the party should make an advance on its tally of five years ago.

On the other hand, the Conservatives' success in coming second in the 2017 local elections has been repeated at every election since – though the party was only narrowly ahead of Labour on the constituency ballot in last year's Holyrood election. Over the last five years it has thus seemingly established itself as the principal political voice of unionism in Scotland – and it would represent something of a political upheaval if the party were to fail to retain that position in the local elections in May.

Table 9 Votes won at Elections in Scotland 2017-21

Note: First figure for 2021 is for the Scottish Parliament constituency vote, the second for the regional list vote.

	2017 Locals	2017 General	2019	2021
Conservative	25.3	28.6	25.1	21.9/23.5
Labour	20.2	27.1	18.6	21.6/17.9
Liberal Democrat	6.9	6.8	9.5	6.9/5.1
SNP	32.3	36.9	45.0	47.7/40.3
Greens	4.1	0.2	1.0	1.3/8.1
Others	11.2	0.5	0.7	0.6/5.1

Yet recent polling suggests that the Conservatives' position as the second largest party in Scottish politics could well be under threat. As Table 10 shows, the party's standing in recent polls is ten points adrift of where it stood prior to the 2017 local elections, and leaves the party trailing Labour by three points. Given the strength of their performance five years ago, it was always likely that the Conservatives would be on the defensive in this May's elections, and the relative weakness of the party's current standing in the polls has seemingly not made the party's task any easier.

Table 10 Vote Intentions Now and Prior to the 2017 Local Elections

Now: Average Holyrood constituency vote intention in 4 polls; Savanta ComRes, 14-18.1, 24-28.2 & 10-16.3; Survation 24-28.3.

2017 Average Westminster vote intention in 3 polls; Panelbase 18-21.4; Survation 18-21.4; YouGov 24-27.4.

Figure for Greens taken from nearest equivalent list vote intention polls.

	Now %	2017 %
Conservative	20	30
Labour	23	16
Liberal Democrat	8	7
SNP	47	43
Greens	[13]	[12]

In contrast, the polls suggest that the SNP are still as popular as they were in 2019 and 2021, and, thus, somewhat stronger than they were in the polls conducted before the 2017 local elections (polls that, in the event, overestimated the SNP's position). The party, which once again is contesting well over 90% of all the wards (337), might thus be expected to improve on its performance in 2017. However, one potential uncertainty will be how well the Greens perform. As is discussed further below, much of the party's support on the Holyrood list vote comes from voters who backed the SNP on the constituency ballot – some of whom may be willing to give the Greens their first preference

in the 239 wards (two-thirds of the total) where the party is standing this time around.

That said, although the Greens are currently performing relatively well in the polls, their position now is not markedly stronger than it was before the 2017 local elections. Indeed, two polls of voting intentions for the local elections, one taken in October, the other in March, put the Greens on just 4% and 3% of the first preference vote respectively, while they put the SNP on 45% and 44%. In any event, it seems unlikely that the Alba Party that Alex Salmond now heads will be able to make much of a dent into the SNP tally – the party, which is contesting only 111 (31%) wards, has scored just 2% and 1% respectively in the two polls of local election vote intention.

Meanwhile, the more recent of these polls put Labour on 23%, five points ahead of the Conservatives on 18%, thereby providing further evidence that the Conservatives' position as Scotland's second largest party may well be under challenge – though, as in 2017, Labour is contesting somewhat fewer wards (302) than the Conservatives (333).

Polarisation

We have already noted that in expressing their second and subsequent preferences, voters were less likely in 2017 than in 2012 to give a lower preference to a party that takes a different view in the independence debate from that of their first preference party. The pattern of voting in this year's Scottish Parliament election suggests that this pattern may be even stronger in 2022 than it was five years ago.

Table 11 compares the relationship between how people said they would vote now in an independence referendum and the party they backed in the 2017 Westminster general election (held just a few weeks after the local elections) with the relationship between independence preference and party support in the 2021 Scottish Parliament election. We can see that in 2017

most people voted in line with their attitude towards the constitutional question – three-quarters of Yes supporters voted for the SNP, while 86% of No supporters voted for one of the three main unionist parties. However, at last year’s Holyrood election, no less than 89% of Yes supporters voted for the SNP on the constituency ballot, while 87% of No supporters supported a unionist party. The two camps in the independence debate had now diverged into two almost completely separate camps.

Table 11 Vote Choice by Current Independence Preference 2017 and 2021 (%)

Data for 2017 are for vote in Westminster general election; data for 2021 are for the constituency ballot in the Scottish Parliament election.

Sources: 2017: Scottish Social Attitudes survey; 2021: British Election Study Internet Panel wave 21

Current Independence Preference	2017		2021	
	Yes	No	Yes	No
Conservative	3	39	0	42
Labour	18	36	5	34
Liberal Democrat	2	11	2	11
SNP	75	12	89	10

The outcome of the list ballot in 2021 was no different. As many as 93% of Yes supporters backed one of the SNP (65%), the Greens (25%) or Alba (5%). Meanwhile, 85% of No supporters voted for the Conservatives (49%), Labour (25%), the Liberal Democrats (8%) or one of the pro-unionist lists. Only 3% of No supporters backed the Greens, which means that party’s vote was as rooted in pro-independence supporters as that of the SNP. No less than 22% of those who voted SNP on the constituency ballot voted for the Greens on the list – compared with just 7% of Liberal Democrat constituency voters, 5% of Labour ones, and hardly any Conservative supporters at all. Similarly, small proportions of Conservative (1%), Labour (5%) and Liberal Democrat (5%) constituency voters voted for the SNP on the list, while just 3% of SNP constituency voters switched to one of the three main unionist parties.

This further polarisation suggests that the proportion of SNP and Green supporters who give lower preferences to a candidate standing for a unionist

party may well be even lower than it was in 2017. Equally, even fewer of those backing one of the unionist parties may be willing to give a lower preference to a candidate from a pro-independence party, such as the SNP, Greens or Alba, than did so five years ago. But what are the implications of this development for the parties’ strategies and prospects in this year’s ballot?

Implications

We have uncovered two seemingly contradictory ways in which people behaved differently in the 2017 local elections from how they had done in the first two ballots held under STV. On the one hand, voters were more likely to cast multiple preferences than previously, and in so doing to rank candidates from more than one party. Moreover, lower preferences influenced the outcome in seats to a greater extent than before. On the other hand, voters were less likely than previously to express preferences across the constitutional fault line that divides Scottish politics. Independence supporters were less likely to give a lower preference to a unionist candidate, while backers of the Union were less likely to give a lower preference to a pro-independence candidate. Meanwhile, the pattern of voting behaviour in last year’s Holyrood election suggests that this polarisation of Yes and No supporters may well be even more marked in this year’s local ballot.

Given that the Scottish Government wishes to hold another independence referendum, one of the prisms through which May’s local election will be interpreted – as was the outcome of last year’s Holyrood contest – will be the signals it conveys about the popular strength of the Yes and No camps. The polls continue to suggest that they are roughly of a similar size. Equally, the current polls suggest that collectively unionist and pro-independence parties could well secure fairly similar shares of the first preference vote. In these

circumstances, which camp secures most seats may well depend on the parties' abilities to win lower preferences, which consequently could take on even greater significance than before.

This is especially true of the unionist camp, whose voters are fragmented across two larger parties and one smaller one. If the unionist parties are to maximise their collective performance they will need to take advantage the apparent greater willingness of voters to express preferences for the candidates of more than one party. But achieving that implies a willingness by the parties to recommend that their first preference voters should give a lower preference to the candidates of other pro-Union parties. Yet, hitherto, this has largely been a step too far for Scotland's political parties. More immediately, the fact that there appears to be a battle for the position of Scotland's largest unionist party might well militate against such co-operation as the Conservatives and Labour seek to secure an advantage over the other, leaving the unionist camp at a potential disadvantage.

The pro-independence vote, in contrast, is largely concentrated behind the SNP. Moreover, thanks to a relatively disappointing performance five years ago the party would seem to have a potential opportunity to increase its seat tally – and thereby give the impression that there is momentum behind support for independence – on the basis of first preference votes alone. However, given that they are likely only rarely to secure a full quota on first preference votes alone, the Greens' prospects of winning seats could well depend on their ability to secure transfers from eliminated SNP candidates. Meanwhile, as we noted earlier, some of those who vote for the SNP on the Holyrood constituency ballot might prefer to give a first preference to the Greens, and the SNP may have to depend on their lower preferences instead. And perhaps securing such transfers will prove easier for the parties of the pro-independence camp. The Greens'

decision last autumn to enter the SNP-led Scottish Government may have already sent a signal to supporters of these two parties that encourages them to give lower preferences to each other's candidates, thereby potentially giving them a collective advantage over the unionist parties.

Either way, the outcome in May will not just turn on the distribution of first preferences. It will also depend on how voters do – or do not – use the opportunity afforded by the STV ballot paper to express more than one choice – and on what the parties do or do not do to encourage them to do so.

References

- Bochel, H. and Denver, D. (2007), *Scottish Council Elections 2007: Results and Statistics*, Lincoln: Policy Studies Research Centre
- Bochel, H. and Denver, D. (2017), *Report on Scottish Council Elections 2017*, London: Electoral Commission. Available at https://www.electoralcommission.org.uk/sites/default/files/pdf_file/2017-Scottish-Council-elections-Report.pdf
- Curtice, J. (2012), *2012 Scottish Local Government Elections*, London: Electoral Reform Society. Available at <https://www.electoral-reform.org.uk/latest-news-and-research/publications/2012-scottish-local-elections/>
- Curtice, J. and Marsh, M. (2014) 'Confused or Competent? How Voters Use the STV Ballot Paper', *Electoral Studies*, 34 (1): 146-158.
- Denver, D., Clark, A. and Bennie, L. (2009), 'Voter reactions to a preferential ballot: the 2007 Scottish local elections', *Journal of Elections, Public Opinion and Parties*, 19 (3), 265-82.
- Electoral Commission (2016), *The May 2016 Scottish Parliament Election*. London: Electoral Commission. Available at https://www.electoralcommission.org.uk/sites/default/files/pdf_file/2016-Scottish-Parliament-election-report.pdf.pdf
- Electoral Office for Northern Ireland (2016), *NI Assembly Election 5 May 2016: Rejected Ballot Statistics*. Available at <https://www.eoni.org.uk/getmedia/fde0e742-277a-4dd1-b86a-d87f6db89f36/NI-Assembly-Election-2016-Summary-of-Rejected-Ballot-Paper-Statements>
- Electoral Office for Northern Ireland (2017), *NI Assembly Election 2 March 2017: Rejected Ballot Statistics*. Available at <https://www.eoni.org.uk/getmedia/251c14fd-1921-4685-b42d-aaac1c7f1190/NI-Assembly-Election-2017-Summary-of-Rejected-Ballot-Paper-Statements>
- Electoral Office for Northern Ireland (2019), *Local Council Elections 2 May 2019: Rejected Ballot Statistics*. Available at <https://www.eoni.org.uk/Elections/Election-results-and-statistics/Election-results-and-statistics-2003-onwards/Elections-2019>
- Loosemore, J. and Hanby V. (1971), 'The theoretical limits of maximum disproportion: some analytic expressions for electoral systems', *British Journal of Political Science*, 1 (4): 467-77.

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