The illusion of 1 person 1 vote

All votes are equal – but some are more influential than others

Under First Past The Post- it's where the votes are that counts and not the number

I have for a long time wondered - why do we use a voting system appropriate for just two parties, when we have several on offer? First Past The Post may have been appropriate for electing Whig or Tory back in 1800s, but when multiple parties are involved it gives some indefensible results, such as majorities bearing little relevance to vote share, and sometimes it's so inappropriate that we have to pretend that there are just two parties.

We brits have a tradition of mixing systems, selling fabric by the meter and its width in inches, or petrol in litres and measuring in MPG, so no surprise that we use a binary electoral system (FPTP) when more than two parties are present – while some habits may be irritating and quaint, others have serious consequences.

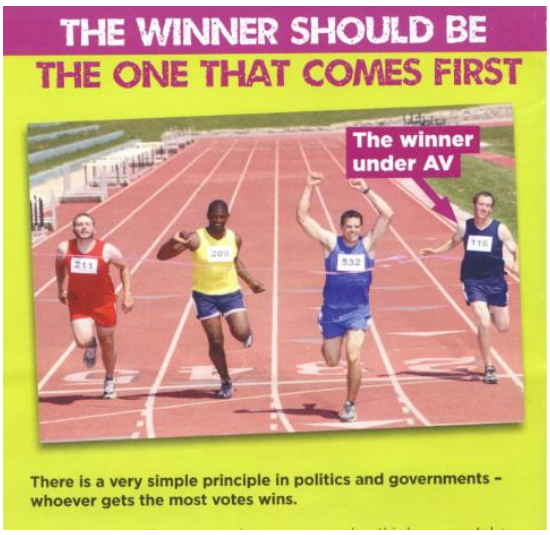
In a simple and fair voting system where two parties are on offer, whoever gets the most votes wins, even if it's by 1 vote, and a result can be as close as 51% to 49%. But if we change the winning criteria from 50/50 to say 45/55 in favour of A, so when A gets 46% and B 54% - A wins and B voters (who are in the in the majority) should get very indignant. And unfortunately this is what we suffer under FPTP when several parties are on offer.

During our elections, constituency votes are counted, all parties are ranked in order of votes and the highest wins. Effectively it can be viewed that the 2nd party's votes establishes the pass criteria or level, it will be less than 50% of total votes, but perhaps 45% or lower depending on the spread of votes over parties C, D etc. – if they weren't there it would be a simple 50/50 competition.

First Past the Post is not the only voting system used in the country: "How long have we used first past the post?" by Doug Cowan, Electoral Reform Society, 2019 (https://www.electoral-reform.org.uk/how-long-have-we-used-first-past-the-post/) gives a good summary of how our voting arrangements evolved over the last few hundred years and for further reading recommends: "Electoral Systems and Electoral Reform in Historical Perspective" by David Klemperer and the Constitution Society (https://consoc.org.uk/publications/electoral-systems-and-electoral-reform-in-historical-perspective/), which provides more historic detail and highlights that we currently use a wide variety of voting systems for various occasions, but still insist on First Past The Post for General Elections, but not for the important elections.

Leadership elections

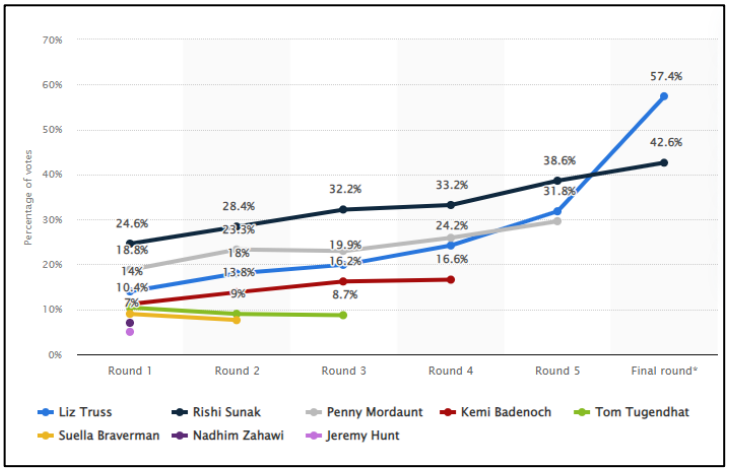
You may recall the 2011 referendum about using the Alternative Vote instead of FPTP, which was ultimately a result of everyone agreeing with Nick Clegg in the run up to the 2011 general election, however, the referendum was as dishonest as the last one on EU membership – see David Klemperer above.



The adjacent flyer is from the Conservative campaign against AV that makes a simple comparison to a race. But the irony is that David Cameron was not the simple winner of the 2005 Conservative Party leadership election, first across the line was David Davis and Cameron was second – what happened to "whoever gets the most votes wins"! But of course leadership elections require more

sophistication than a simple FPTP race, and they require several rounds of voting, or races run; the last in any race-round are eliminated and the race-round is re-run again – Usain Bolt would not be impressed. Finding the appropriate representative is not, or should not be compared to, a simple race.

And of course we all remember the last round of Conservative leadership elections when the government took a 2 month break from governing, amid growing International and National crises, to replace their leader, who had finally run out of luck. Both the subsequent elections followed the above principles with some tweaking of qualifying numbers. A very good summary of the first election is shown below in "Percentage of votes won in the Conservative party leadership elections UK 2022 - Published by Statista Research Department, Sep 5, 2022" .

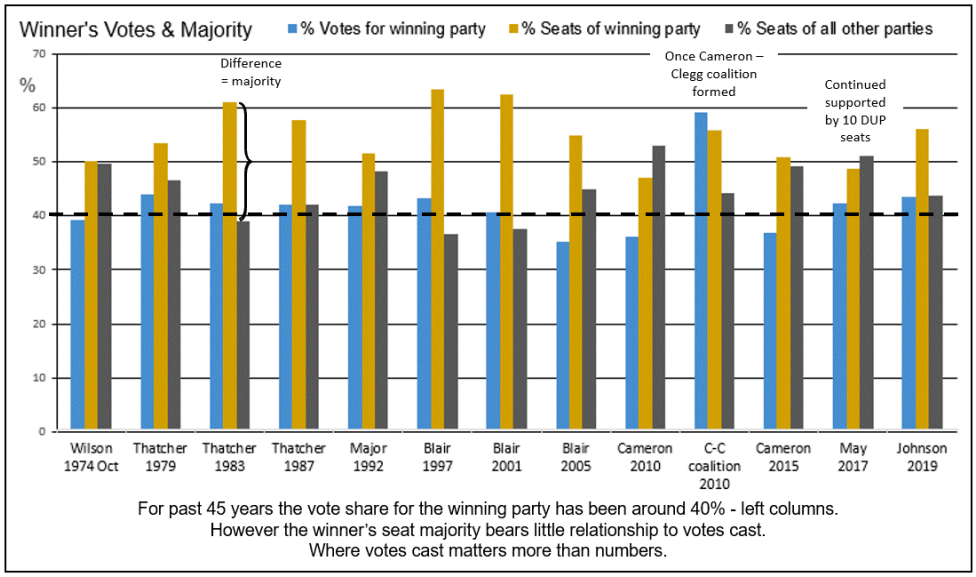


Rishi Sunak was clearly the favourite throughout and Liz Truss was a middle runner, who however made a surprising run to the finish, so much so that a steward's enquiry may have been in order. With hindsight - given the disastrous permanent damage her 45 days as PM did to the county's finances and reputation, which then required yet another leadership election - perhaps there should have been a steward's enquiry. There were also reports that Sunak backers had plotted to get Truss elevated into this position to establish a suitable opponent for the final member choice – if so they got that wrong.

We may never know exactly how Liz Truss briefly became the Prime Minister, but the five rounds of voting, televised debates and hustings gave politicians the opportunity to do what they like best – plot, scheme and manipulate. And that's what we elect them to do, but it should be on our behalf and not their own – which takes us back to First Past the Post.

45 years of election results

Below is a chart of the last 12 elections and shows the vote and seat share of the major party, plus the seat share of all the remaining parties, or individuals.



Each election is represented by 3 columns, the left one is the percentage of votes that the winning party gained, the middle column is the percentage of seats given by those votes, and the right column is the remaining total opposition seat percentage, the difference in seats being the winner's majority. The prime view is the relationship between winning party votes and seats, the right column has been included just to indicate the winning party's majority.

Percentages are used throughout the chart as turnout always varies and therefore absolute vote numbers cannot be compared, likewise the number of parliamentary seats varies slightly over this period making absolute majorities misleading. We normally talk of majorities in absolute numbers of seats, and the difference between the two right columns, multiplied by the number of seats gives the numeric value.

Even after years of improvements to FPTP (see David Klemperer above) it is still inappropriate for use where more than two parties are on offer. Here are just three examples of "unexpected" results shown by the above chart:

1. The percentage of votes cast for Thatcher (or rather her Conservative candidates) in 1987 and May in 2017 was the same at 42%. However, Thatcher gained a 102 seat majority, while May a 16 seat minority, requiring the DUP's 10 seat support.
2. Blair's 1997 landslide victory after Major in 1992 is reported as a 10.2% swing (3rd ever highest) from Conservative to Labour, it also gave Blair a record 177 seat majority. But it was just a 1.3% rise in voter share - the Blair votes were somehow much more influential. A simple reason is Labour stood in 2.1% fewer seats, but further explanations are discussed below.
3. The only government of the last 45 years to represent substantially more than 40% of votes was the coalition of 2010 with 59% of voter support, but this still only gave a 76 seat majority. Otherwise for near half a century governments of various majorities, which have little relevance to vote share, have been elected on just 35% to 44% of votes.

These are a few dramatic examples, but if you view the chart for a while it's difficult to see any relationship between percentage of votes and resulting majority – sorting the chart by votes or seats (as below) only highlights the inconsistency. Intuitively you would think Thatcher and May had different vote shares, or Blair's landslide victory was due to massive vote share, but instead the chart implies: take the same general quantity of votes (35% to 44%), re-shuffle them and hey presto a total different result.

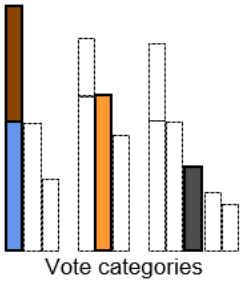
Review of vote to seat relationship

I've spent many hours with Excel and the official electoral results looking for events or relationships to explain the strange results, such as in 2017 May competed with the Scottish National Party who gained 35 seats for a small number of votes, whereas Thatcher in 1987 was against the Liberal and Social Democratic Party Alliance who got just 22 seats for a high number of votes, all thanks to FPTP. These examples don't appear to be directly responsible, but the performance and location of all opposition parties does have a dramatic effect.

Blair's historic acquisition of 418 seats, or 63.4% of them, in 1997 is unquestionably impressive, but the number of votes leading to this victory is strangely not. As in any competition the result is as much about the performance of the losers as that of the winner, and as already mentioned FPTP will skew the level of loser performance. The performance of opposition parties in each constituency sets the 2nd place vote level, or the criteria for wining, and even 1 vote above is an outright win. More than 1 vote is nice and gives more moral authority, or even a safe seat, but each MP in the voting lobbies is one vote, whatever their majority, moral authority or mandate; and regardless of constituency seize from Isle of Wight of 113,021 to Na h-Eileanan an Iar in the Outer Hebrides of 21,106 (2019 figures).

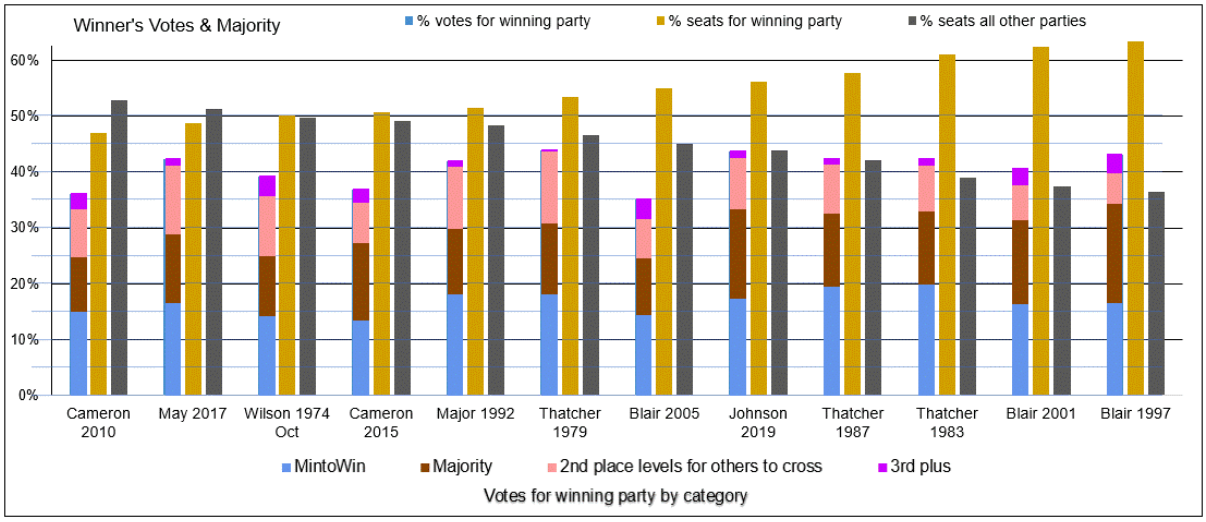
<u>Categorisation of votes and terms</u>

The constituency votes for a party can result in a: 1st place win (just or comfortably), 2nd place loose, or losing to a lower place. The following diagram shows these 4 categories of votes, and here represents the sum of constituency votes of a particular party and their seats won. The party here is the major party resulting from the election, dotted columns are other parties.


Vote categories

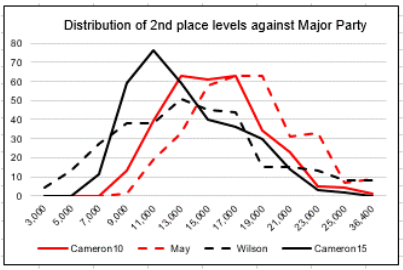
a) Left set – bottom, the absolute minimum votes for 1st places i.e. beating dotted 2nd Place levels by 1 votes, this is the minimum votes to win their seats or MtoW
b) Left set – top, the extra votes above MtoW or total Majorities
c) The middle set - the party's votes making up 2nd Places, which other parties must beat to gain their 1st places. All the 2nd places effectively become the nominal other party of a true FPTP two party system.
d) The right set – the party's votes where they came 3rd or possibly a lower placings. This range also contains many smaller parties and independent candidates who possibly don't get a seat. However, they appear on ballot papers and attract votes - in 2015 it was over 24% of total national vote, or a 95% nFoP see below. This increases the spread away from a true FPTP two party election and thereby reduces the 2nd place level. These are the phantom votes of the pretend two party FPTP election.

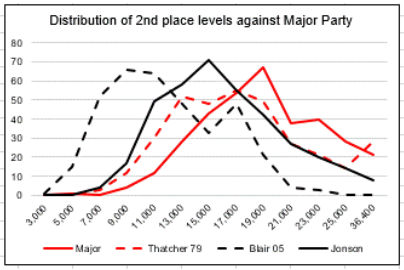
The following version of the Winner's Votes & Majority chart is updated to show vote share by category and is now in order of seats gained, the coalition government has been omitted as it was a result of the 2010 election. The MtoW is the important category as it is key to winning seats, the Majority is nice to have and the other 2 categories just effect the results of other parties. By inspection the relationship between MtoW and seats appears to be even more puzzling.

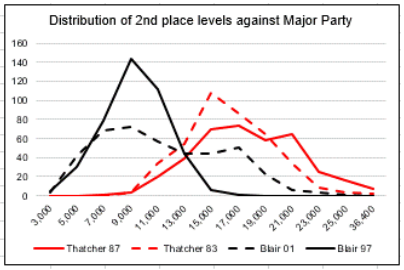


Although it follows that a low MtoW means seats are gained more easily, it doesn't always correlate with larger seat numbers - Blair's successful period has low levels, but Thatcher's 1983 bucks the trend. If the number of seats gained is considered in relation to MtoW, instead of total vote share, it only goes to exaggerate the differences. As previously mentioned, all governments have been elected on 35% to 44% total vote share, but with MtoW it's a smaller range of 13.3% 19.7%.

The above MtoWs are aggregates of constituency results, but seats are won on a constituency basis, and an aggregate may contain many very easy wins offset by few hard ones - there is some evidence of this below e.g. Cameron 2015 and Blair 1997, but again nothing conclusive. The following graphs show breakdowns, or distributions of the MtoWs, for clarity the 12 elections are shown via 3 graphs (3rd has scale change), again in seat order.







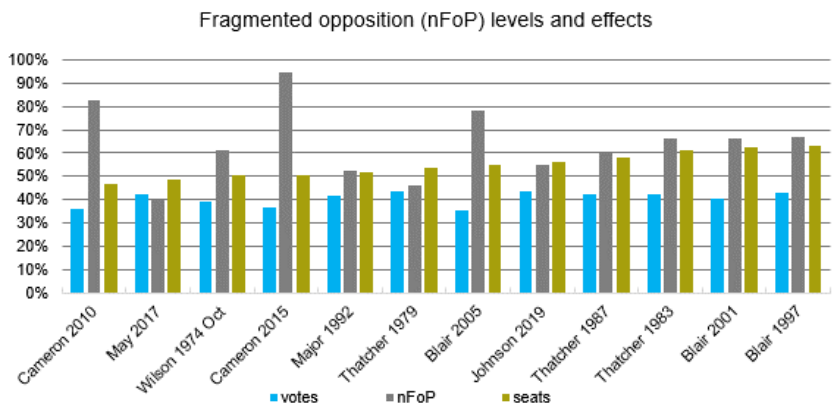
Unfortunately vote categorization and MtoW doesn't explain the relationship between votes and seats, but it has revealed some additional influencing factors, for example: Blair's 1997 record breaking success of 419 seats (63.4%) was probably due to a Goldilocks combination of factors:

- low constituency ambition, Labour only stood in 97% of them.
- good vote share 43.2%
- some fragmentation of National opposition where 4.2% of National Votes went to 37 parties who didn't gain any seats, giving an nFoP (see below) of 67%.
- lowish MtoW of 16.5%
- distribution of MtoW skewed to low end

So was this a massive swing from Conservative to Labour giving the highest majority in 12 years? The votes were high, but lower than Thatcher 1997 and Johnson 2019, but Blair's MtoW was lower than theirs. Or was it a slight move to the left and a gift from Goldilocks and the vagaries of FPTP – she gave Blair a reasonable hand, but did the Bears leave a very salty opposition porridge, and FPTP did the rest.

Measure of fragmentation or nFoP

I tried several measurements of opposition fragmentation, the following appears to work. It measures the election as a whole and is not related to the resulting majority party, hence the n for national and then Fragmentation of Opposition. As above, the number of phantom votes or "3rd plus" places skews the numbers away from the 2nd place, and the measure is the ratio between the two. The chart shows the measure in comparison to seat and vote share – elections in seat gained order. Again not totally consistent, but there are 3 obvious cases (both Cameron's and more dramatically Blair 2005) that suggest a relatively low vote share (all below 40%) led to more seats gained than may be expected. Another 3 examples stand out on the right with the highest seats gained, all are associated with nFoPs above 66%.



Opposition fragmentation and negative feedback*

The 3 elections: Cameron 2010, Cameron 2015, Blair 2005 had exceptional amounts of National Opposition Fragmentation and also suggests a negative feedback mechanism that stabilises the system in favour of the two major parties.

There was much unrest in 2015 and for the Cameron election it led to widespread division of opposition votes, much of it around the UK Independence Party. They obtained a single seat with 19,642 votes against a 2nd place of 16,205 (not unusual from distribution graphs), however their remaining 3.9 million votes (12.6% of national vote) were spread across the country. Of these, 1 million became 2nd places in 22 constituencies, and 2.8 million were 3rd places or above, becoming fragments of opposition. In addition there were the usual fragments of 1 million wishful Green votes outside of Brighton, and 2.3 million LibDem votes beyond their strongholds. This all led to a record low MtoW of 14.3% for Cameron, and although he had a low vote share it was enough to get a small seat majority. The distribution graph also shows a peak skewed to the lower end of MtoWs, and the measure of fragmentation (nFoP) a record high of 95%.

Although in theory this low MtoW reduced the pass level for all parties, only those with the critical mass of constituency vote densities benefited, generally Conservative and Labour, and perhaps the LibDems who won an extra seat after their coalition collapse. However, the fragmented opposition due to UKIP had no influence in the local interest parties of Norther Ireland, it had some influence in Scotland and a bit more in Wales. Note: Northern Ireland general only offers local parties and unlike Scotland and Wales no UKIP candidate stood there; Sinn Fein wins seats, 4 this 2015 year, that are included in the parliamentary majority but they don't attend and hence vote in UK Parliament; the speaker has a constituency and a seat that's also included in the majority, but who too doesn't vote.

There were similar but less dramatic effects in 2005 resulting in a good majority for Blair, and in 2010 giving Cameron a minority (leading to the coalition), but Cameron had a slightly higher vote share than Blair. In 2005 MtoW was 14.3% and nFoP 78.5%; and in 2010 MtoW was 14.8% and nFoP 82.8%.

In general it follows – higher dissent gives lower pass levels for seats – which applies disproportionally to the two major parties. This is a feedback loop that stabilises elections in favour of the major parties. It also complicates the relationship between votes and seats making a simple explanation more difficult.

*Wikipedia - Negative feedback occurs when a function of the output of a mechanism is fed back in a manner that tends to reduce the fluctuations in the output, regardless of changes in the input or other disturbances.

Constituency majority and ignored votes: a pretence and democratic subterfuge

"And the winner is Olivia Blake with a minus 17,467 majority", doesn't sound good, so we pretend it was ". . with a 712 majority". This happened in 2019 at Sheffield, Hallam and at 35% of the constituencies where negative majorities were turned positive.

Parliamentary majorities are described as: the major party's seats minus all opposition seats (i.e. > 50%), however a constituency majority is: the winning candidate minus the second one, all other place votes are ignored (i.e. any %); if this definition was applied to the 2019 parliament Johnson's majority would be 163, as all but Labour seats are ignored.

In parliament the pretence of a FPTP 2 party system is too obvious, but at constituency level the inappropriateness of FPTP for multi-party elections becomes too obvious, so we need to pretend that only 2 parties exist.

This table shows the traditional majorities against 2nd place, compared to a parliamentary style, elections are again in seat order. It can be seen that the majority is not so convincing if all constituency votes are considered and probably why it's traditional to use the simple 1st versus 2nd majority. The embarrassing 3rd 4th etc. and Other votes are ignored.

Parl. Style	-1,732	5,776	2,240	277	2,394	3,250	-1,380	6,563	2,284	1,078	2,720	5,647
2nd place	9,459	12,480	9,804	12,955	11,721	11,663	7,786	13,960	11,410	10,187	9,616	13,245
election averages	2010	2017	1974	2015	1992	1979	2005	2019	1987	1983	2001	1997

And summary statistic of the last 12 elections: 16.6% of national votes set the 2nd place levels against the winning major parties, these 2nd places effectively being the other party of a true 2 party FPTP election; 2.1% of national vote was 3rd plus or the votes that split the opposition and lowered the 2nd place levels. Finally just 29.6% of votes elected the major parties including their majorities, but the critical Minimum to Win (the figure necessary to beat the 2nd places) was just 16.6%, and any figure between 29.6 and 16.6 would have given the same parliamentary results. The residual percentages of national votes relate to the election of opposition parties.

Each win is what counts - even if by one vote, and pretty obvious you might say. However, I would suggest that our "win by one & winner take all" electoral feature, coupled with the "pass mark skewing" feature, both provided by inappropriate use of FPTP, is the cause of nearly half a century of governments with various majorities, which have little relevance to vote share, having been elected on just 35% to 44% of votes. The following model may help to clarify.

The image below is from a simplified Excel model of our FPTP electoral system and reflects the style of information extracted from the official election results. It provides a useful summary and explanation of the figures discussed.

Five parties A to E are shown in an election of just 10 constituencies. Numbers are low for simplicity but could be thousands or more. Each constituency row is in vote order and gives votes for just 4 places and the relevant party is identified, the Other column shows votes cast for smaller parties or individuals who generally do not gain seats, but are still included in vote totals. The 1st party is obviously there by virtue of being above the 2nd (A gains 6 wins), and the 2nd party by virtue of beating the other parties, etc. Four columns give various stats on the constituency including majorities. The breakdown on the right is of A's votes and the categories are as described above in a) to d), the adjacent figures show the vote count for each category. The nFoP figure at bottom right is very high and implies that 2nd place levels are low. The figures here are hypothetical and like reality the actual number of votes that becomes a 2nd place are not dictated by the 3rd 4th Other (the 3rd+) figures, it is just a chance due to spread of votes that they will be lower.

	1st	ID	2nd	ID	3rd	ID	4th	ID	Other	Trad Maj	Parl Maj	1st v const vote	Total const vote	Seats 20	votes
1	13	A	10	B	9	D	8	E	1	3	-15	32%	41	A's cats. v all votes	
2	27	A	26	C	1	B			1	1	-1	49%	55		
3	30	B	23	A	9	C	3	D	2	7	-7	45%	67		
4	30	C	12	B	10	D	9	C	1	18	-2	48%	62		
5	40	B	10	C	5	A	4	D	2	30	19	66%	61		8
6	30	A	9	B	6	C	5	D	1	21	9	59%	51		23
7	12	B	8	D	4	E	3	A	1	4	-4	43%	28		
8	10	A	8	B	7	D	6	C	1	2	-12	31%	32		26
9	11	A	10	B	7	D	2	E	2	1	-10	34%	32		77
10	12	A	8	B	4	D	1	C	1	4	-2	46%	26		
	A's total vote & % of all constituancies											134	29%	455	94%
	Ratio total 3rd, 4th, Other to total 2nd = |nFoP|														

Constituency Examples:

1 - an example of fragmented opposition, 2nd 3rd 4th similar votes, Others are generally low
2 - of organized opposition, tactical voting and / or party cooperation hence no 4th candidate
3 - A comes 2nd and forms "pass mark" for B
4 - A not standing here
5 - A 3rd and not contribute to traditional constituency majority
6 - an easy win & high majority, and 59% of constituency votes
9 - a hard win & low majority, and 34% of constituency votes

Source of information

The House of Commons Library used to provide detail spreadsheet information on both election results and individual constituencies for some elections, but now they provided "General election results from 1918 to 2019" at https://commonslibrary.parliament.uk/research-briefings/cbp-8647/#fullreport. This provides basic election result, but very little on constituencies. This hasn't been a problem here, however to gain any summary information the base results require a lot of extra Excel work. Wikipedia has also been used e.g. 2019 United Kingdom general election - https://en.wikipedia.org/wiki/2019_United_Kingdom_general_election and there is reassuring agreement.

There's also an interesting statement on the House of Commons Library at - https://commonslibrary.parliament.uk/general-election-results-from-1918-to-2019-all-data-now-in-one-place/

"Unlike many other democracies, the UK has no official body that collects and publishes official results straight after an election." It continues with a description of what other countries do and concludes "But the UK's Electoral Commission's remit is more limited when it comes to collecting and publishing results: they are not required to publish detailed results but must produce "a report on the administration of" each "election or referendum"."

The statement continues to explain that there are no standards around constituency data presentation, not even to be machine readable, and it requires teams from the library to process results and compare them with information from news organisations. This was in the August 2019 report, but has anything changed?

Conclusions

Many of us are familiar with the failings of our electoral system and the common plea not to “split the opposition vote”, and the resulting need to vote against the party you don’t want, rather than for the party you do want. If that wasn’t bad enough, there appears to be a feedback bias that stabilises the system in favor of the two major parties. However, some may say that’s a good thing as it brings consistency and stability – but change is then very difficult.

Another finding was the large proportion of votes that are irrelevant to the final result, and results are determined by a few votes in the right place – remember: “any figure between 29.6 and 16.6 would have given the same parliamentary results”. This probably answers my opening question “why do we use a voting system appropriate for just two parties, when we have several on offer”. We can be sure Party HQs have experts in playing our electoral system and know exactly where to apply pressure and resources for favourable results, including trying to change constituency boundaries to favour themselves. It’s a system that supports two parties to gain and retain power, it does not support the voter to democratically elect a representative government.

As to the other question about the relationship between votes and seats, there doesn’t appear to be a simple answer. Goldilocks’ card shuffle and the Bears’ environment favoured Bair in 1997, it was kind to Thatcher in 1987 when her 42% vote share gave her 57.8% of seats, but less so for May in 2017 when her 42% gave just 42.3% seats - just 15.5% difference in seats but that makes all the difference.

Governments obviously strive to gain power as they believe, or should believe, they can improve the life of the population, however sometimes, especially over the last years, the government’s priority appears to be the welfare of the party and not society. Given that a politician’s natural behaviour is to plot, scheme and manipulate, it not surprising they like FPTP, hence the 2011 AV referendum disinformation and promoting FPTP’s simplicity and virtue of single MP representation, but they should be applying their skills for our benefit, not theirs.

A proportional representation voting system would be a step in the right direction for democracy, but we also need: advertising standards of honesty applied to political promotion, properly regulated party funding, a chamber fit for purposes and possibly in the centre of the country. We also need fewer PMs, we have more than India, national politics shouldn’t require MP’s involvement in: pot-holes, bad landlords, help with complex welfare systems and parochial planning fights, other bodies should cover that, national politics should be about the success of the nation and good infrastructure, services and quality of life for all.

But one thing at a time – we should all have a better understanding of the effects of FPTP on our political situation. We deride rigged elections in other countries, we need to wake up, really take back control and be able to elect governments that represent our wishes, and not have governments crafted by those with the power. We need to allow ourselves, to think for ourselves, and be able to cast a truly effective vote.