# Rebalancing First Past The Post voting

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#### **Abstract**

The results of the UK General Election of 2024 resulted in the Labour party gaining 63% of the seats with only 34% of the vote leading to calls for electoral reform. The First Past The Post (FPTP) voting system that delivered this result has been in use since the Middle Ages and was challenged by referendum in 2011 when it beat the Alternative Vote system by 68% to 32%. This paper presents a variation on FPTP in which only the seats with the largest votes are awarded to what would have been the winning party up to the level of their vote share. The remaining seats are then divided based on how many spare votes there are in neighbouring seats.

### 1. Introduction

First Past The Post (FPTP) voting was used to determine the result of the 2024 General Election in the United Kingdom of Great Britain and Northern Ireland. It is debatable whether the Kingdom is United given that the eighteen seats in the latter went to a combination of six local parties and one independent candidate, however this has the advantage that the Northern Ireland results can be split off and studied separately.

FPTP in the UK usually results in single party rule and can thus be seen as decisive. This decisiveness usually comes at the cost of disproportionate representation and wasted votes with smaller parties being kept out of parliament. One advantage to the voter is the shock ejection of disliked politicians in what has become known as a Portillo moment. In the parliament prior to the 2024 General Election the two main parties suffered from factionalism caused by their internal coalitions which, under a different voting system, may have been better catered for by their splitting into multiple parties which then form coalition governments.

A feature of FPTP can be low turnouts in safe seats caused by all sides thinking that their vote won't make a difference. Another is tactical voting where a voter selects an electable candidate rather than their preferred one. This article will discuss variations on FPTP that attempt to minimise these features firstly for the existing results in Northern Ireland and then, with fewer variations, for Great Britain. Obviously any change in voting method should result in changed voter behaviour and thus the reader would be right to be dubious of the results that are presented. The various methods presented here may result in a voter not getting their choice of party locally but in the neighbouring seat or a distant seat.

#### 2. Safe seats

In Northern Ireland, at the 2024 General Election, there were 18 seats with a total of 779840 valid votes resulting in 43324 votes per seat. The data was obtained from that accompanying the governmental report by Cracknell and

Party	Vote share	Seat Share	Difference
Con	0 %	0 %	0 pp
Green	1 %	0 %	-1 pp
DUP	22 %	33 %	11 pp
SF	27 %	47 %	20 pp
SDLP	11 %	13 %	2 pp
UUP	12 %	7 %	-5 pp
APNI	15 %	7 %	-8 pp
TUV	6 %	7 %	0 pp
PBPA	1 %	0 %	-1 pp
Alex Easton	3 %	7 %	4 pp

Table 1. Northern Ireland vote share versus seat share under FPTP

Party	Votes	Safe seats
Sinn Fein	210891	Fermanagh and South Tyrone, Mid Ulster, West Tyrone, Newry and Armagh
DUP	172058	Upper Bann, Belfast East, Strangford
APNI	117191	Lagan Valley
UUP	94779	South Antrim
SDLP	86861	Belfast South and Mid Down, Foyle
TUV	48685	North Antrim

Table 2. Northern Ireland safe seats

Baker [1]. Table 1 compares the numbers of seats and votes obtained under FPTP in which it is seen that under FPTP the significant winners are Sinn Fein and the DUP, whereas the significant losers are the APNI and the UUP.

For the purposes of this analysis a safe seat is defined as one that would have been won under proportional representation. The seats that a party wins are listed in order of the number of votes and that list is truncated so that it is not longer than the number of seats which would have been won under proportional representation. This then results in the 12 safe seats listed in table 2, with the remaining 6 swing seats and spare votes listed in table 3. It is almost certain that an independent cannot have a safe seat and that is born out in the results.

### 3. Allocation of the remaining seats

To determine the allocation of the remaining seats the eligible candidates are identified, unused votes are pulled in from neighbouring seats and the strongest candidate is identified and the corresponding seat allocated. This process is then repeated until all the seats are allocated. Note that in the event of a tie the winner is decided according to the directly cast votes.

Party	Spare votes	Extra seats under FPTP
APNI	73867	
UUP	51455	
DUP	42086	East Antrim, East Londonderry
Sinn Fein	37595	Belfast North, Belfast West, South Down
Alex Easton	20913	North Down
Green	8692	
PBPA	8438	
TUV	5361	
SDLP	213	

Table 3. Remaining seats in Northern Ireland

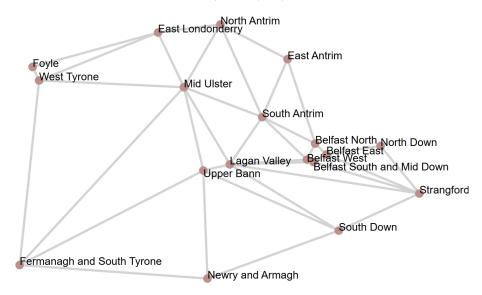


Figure 1. Undirected graph of the Northern Ireland constituencies

Seat	Strong candidates
Belfast North	DUP, SF
Belfast West	SF
East Antrim	DUP, UUP, APNI
East Londonderry	DUP, SF
North Down	APNI, Alex Easton
South Down	SF, SDLP

Table 4. Strong candidates in Northern Ireland

The determination of the neighbouring seats was performed by the creation of an undirected graph by digitising the constituency maps contained in the report by Rallings and Thrasher [2]. The nodes of the graph represent the constituencies and the edges connect those constituencies which share a common boundary as seen in figure 1.

The eligible candidates are selected in one of two ways. Process A selects those with more than zero votes. Process B selects those with at least half the vote count of the strongest candidate in that seat. The resulting candidates for Process B are shown in table 4. Note that Belfast West has only the Sinn Fein candidate due to roughly the equivalent of a quarter of its vote going to each of the DUP, SDLP and PBPA.

The redistribution of votes is done in one of three ways when a winning candidate is identified. The effect being that after all the redistributions each party has a number of votes equal to the total number of votes cast for it minus the average number of votes per seat times its number of winning candidates. Process C selects the winning candidates and reduces their vote count by the average number of votes per seat. i.e. Sends it negative. Process D selects the winning candidate and zeros their vote count then proportionately reduces the other seats. Process E selects the winning candidate and zeros their vote count then, iteratively, removes votes from the weakest seats.

Finally, the connectivity between seats is constructed as a sparse graph in one of two ways. Process F connects those seats that share an edge. Process G connects those seats that share an edge or corner. For Northern Ireland this introduces two extra connections both within Belfast, one linking North and South, the other East and West. This could be further generalised to connect seats linked by bridges, tunnels, ferry routes, etcetera.

The various results from running the calculations for these three sets of processes are given in table 5 and the resulting differences between vote and seat share in table 6.

It should be noted that the independent candidate, Alex Easton, is always eliminated in favour of the APNI. Under FPTP the former won on 20913 votes over the latter parties candidate on 13608 votes.

Seat	FPTP	ACF	ACG	ADF	ADG	AEF	AEG	BCF	BCG	BDF	BDG	BEF	BEG
BN	SF	SF	SF	APNI	APNI	APNI	APNI	SF	SF	DUP	DUP	DUP	DUP
BW	SF	DUP	DUP	UUP	UUP	SF							
EA	DUP												
EL	DUP	DUP	DUP	UUP	UUP	TUV	TUV	DUP	DUP	DUP	DUP	DUP	DUP
ND	Alex	APNI											
SD	SF	UUP	UUP	SDLP	SDLP	UUP	UUP	SDLP	SDLP	SDLP	SDLP	SDLP	SDLP

Table 5. Northern Ireland results under FPTP and the various schemes

Party	FPTP	Pro	ACF	ACG	ADF	ADG	AEF	AEG	BCF	BCG	BDF	BDG	BEF	BEG
Con	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DUP	5	3	6	6	4	4	4	4	5	5	6	6	6	6
SF	7	4	5	5	4	4	5	5	6	6	5	5	5	5
SDLP	2	2	2	2	3	3	2	2	3	3	3	3	3	3
UUP	1	2	2	2	3	3	2	2	1	1	1	1	1	1
APNI	1	2	2	2	3	3	3	3	2	2	2	2	2	2
TUV	1	1	1	1	1	1	2	2	1	1	1	1	1	1
PBPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alex	1	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 6. Number of Northern Ireland seats under FPTP, proportional representation and the various schemes

As shown in table 7 there is no scheme which is clearly closest to proportional representation however all the low scores are associated with process A which corresponds to those candidates with more than zero votes. In that table the sum is the sum of the absolute values of the differences, the actual sum is always positive because some votes go to parties and individuals which aren't listed.

## 4. Great Britain

The undirected graph of constituencies created from the regional maps taken from Rallings and Thrasher [2] were stitched together using information taken from interactive online maps. No stitching occurred across the England-Scotland and England-Wales borders.

Within the official dataset the speaker of the house, Lindsay Hoyle, is not treated as a member of the Labour Party. For the purposes of this analysis the data were modified leading to his seat of Chorley to be classified as a safe

Party	FPTP	ACF	ACG	ADF	ADG	AEF	AEG	BCF	BCG	BDF	BDG	BEF	BEG
Con	0	0	0	0	0	0	0	0	0	0	0	0	0
Green	0	0	0	0	0	0	0	0	0	0	0	0	0
DUP	2	3	3	1	1	1	1	2	2	3	3	3	3
SF	3	1	1	0	0	1	1	2	2	1	1	1	1
SDLP	0	0	0	1	1	0	0	1	1	1	1	1	1
UUP	-1	0	0	1	1	0	0	-1	-1	-1	-1	-1	-1
APNI	-1	0	0	1	1	1	1	0	0	0	0	0	0
TUV	0	0	0	0	0	1	1	0	0	0	0	0	0
PBPA	0	0	0	0	0	0	0	0	0	0	0	0	0
Alex	1	0	0	0	0	0	0	0	0	0	0	0	0
Sum	8	4	4	4	4	4	4	6	6	6	6	6	6

Table 7. Differences of number of Northern Ireland seats versus proportional representation under the various schemes

Party	Votes	FPTP	Proportional	AC	AD	AE	BC	BD	BE
Con	6828372	121	153	186	195	186	175	202	179
Lab	9708716	412	219	266	220	220	300	281	268
LD	3519143	72	79	76	80	77	73	74	72
RUK	4117610	5	92	84	74	93	58	51	89
Green	1935809	4	43	12	44	44	5	5	5
SNP	724758	9	16	9	15	12	16	15	15
Plaid Cymru	194811	4	4	4	5	4	6	5	5
Ayoub Khan	13303	1	0	0	1	0	1	1	1
Adnan Hussain	10518	1	0	0	1	0	1	1	1
Iqbal Mohamed	15641	1	0	0	1	0	1	1	1
Jeremy Corbyn	24120	1	0	0	1	1	1	1	1
Shockat Adam	14739	1	0	1	1	1	1	1	1

Table 8. Number of Great Britain seats under FPTP, proportional representation and the various schemes

Seat	FPTP	AC	AD	AE	BC	BD	BE
Birmingham Perry Barr	Ayoub Khan	RUK	AK	RUK	AK	AK	AK
Blackburn	Adnan Hussain	RUK	AH	RUK	AH	AH	AH
Dewsbury and Batley	Iqbal Mohamed	Lab	IM	Lab	IM	IM	IM
Islington North	Jeremy Corbyn	RUK	JC	JC	JC	JC	JC
Leicester South	Shockat Adam	SA	SA	SA	SA	SA	SA

Table 9. Results in Great Britain seats won by independents under FPTP from the various schemes

Labour seat. The safe Labour seats are listed in Appendix A, the contested Labour and independent seats are listed in Appendix B. The summary of the results of the various schemes is given in table 8.

The five independents – Shockat Adam, Jeremy Corbyn, Adnan Hussain, Ayoub Khan, Iqbal Mohamed – are treated as being separate. As seen in table 9 under the schemes considered Shockat Adam always wins Leicester South which is connected to 3 safe Conservative seats and 1 safe Labour seat. Jeremy Corbyn occasionally loses to Reform UK in Islington North which is connected to 7 safe Labour seats. Adnan Hussain occasionally loses to Reform UK in Blackburn which is connected to 3 safe Labour seats and 1 contested seat. Ayoub Khan occasionally loses to Reform UK in Birmingham Perry Barr which is connected to 2 safe Conservative seats and 4 contested seats. Iqbal Mohamed occasionally loses to Labour in Dewsbury and Batley which is connected to 4 contested seats.

As shown in table 10 the scheme that is clearly closest to proportional representation is scheme AE which corresponds to those candidates with more than zero votes and iteratively removing votes from the weakest seats though whether the electorate would consider their local result to be fair is questionable.

#### 5. Discussion

One aspect of FPTP can be independent candidates, these can appear under the various schemes but aren't guaranteed. Under one of the new schemes it is expected that voters will change their voting behaviour leading to lower vote counts for the candidate that would win under FPTP and thus there could be greater dissatisfaction with the scheme from those who dislike proportional representation.

## Appendix A. GB safe seats

Tooting (29209); Hornsey and Friern Barnet (28535); Lewisham West and East Dulwich (27406); Dulwich and West Norwood (27356); Hove and Portslade (27209); Walthamstow (27172); Sefton Central (26772); Bootle (26729); Liverpool Walton (26032); Beckenham and Penge (25753); Stroud (25607); Lewisham North (25467); Liverpool West Derby (25302); Rushcliffe (25291); Chorley (25238); Mitcham and Morden (25085); Edinburgh South (24976);

Party	FPTP	AC	AD	ΑE	BC	BD	BE
Con	-32	33	42	33	22	49	26
Lab	193	47	1	1	81	62	49
LD	-7	-3	1	-2	-6	-5	-7
RUK	-87	-8	-18	1	-34	-41	-3
Green	-39	-31	1	1	-38	-38	-38
SNP	-7	-7	-1	-4	0	-1	-1
PC	0	0	1	0	2	1	1
Ayoub Khan	1	0	1	0	1	1	1
Adnan Hussain	1	0	1	0	1	1	1
Iqbal Mohamed	1	0	1	0	1	1	1
Jeremy Corbyn	1	0	1	1	1	1	1
Shockat Adam	1	1	1	1	1	1	1
Sum	370	130	70	44	188	202	130

Table 10. Differences of number of Great Britain seats versus proportional representation under the various schemes

Hackney South and Shoreditch (24724); Wallasey (24674); Macclesfield (24672); York Central (24537); Liverpool Garston (24510); Tynemouth (24491); Newcastle upon Tyne North (24440); Hackney North and Stoke Newington (24355); Knowsley (24243); Ellesmere Port and Bromborough (24186); Clapham and Brixton Hill (24166); Putney (24113); Hammersmith and Chiswick (24073); Bristol North West (24058); Greenwich and Woolwich (23999); Hexham (23988); Warwick and Learnington (23975); Sheffield Hallam (23875); Lewisham East (23646); Lothian East (23555); Widnes and Halewood (23484); Hampstead and Highgate (23432); Southgate and Wood Green (23337); Gedling (23278); Leeds North East (23260); Streatham and Croydon North (23232); Warrington South (23201); York Outer (23161); Wirral West (23156); Liverpool Wavertree (23077); Hitchin (23067); Tottenham (23066); Ealing Southall (23000); Battersea (22983); Islington South and Finsbury (22946); Shrewsbury (22932); Filton and Bradley Stoke (22905); Leeds North West (22882); Peckham (22813); Selby (22788); East Kilbride and Strathaven (22682); Stretford and Urmston (22642); High Peak (22533); Birkenhead (22468); Runcorn and Helsby (22358); Ealing Central and Acton (22340); West Lancashire (22305); Cramlington and Killingworth (22274); Chester North and Neston (22258); Erith and Thamesmead (22246); Whitehaven and Workington (22173); East Worthing and Shoreham (22120); Manchester Withington (22066); Calder Valley (22046); East Renfrewshire (21935); Finchley and Golders Green (21857); Stockport (21787); Shipley (21738); Swindon South (21676); Reading Central (21598); Chipping Barnet (21585); Vauxhall and Camberwell Green (21528); Norwich South (21484); Midlothian (21480); Rutherglen (21460); Enfield North (21368); St Helens North (21284); Sheffield Heeley (21230); Newcastle upon Tyne East and Wallsend (21200); Blaydon and Consett (21160); Salford (21132); Corby and East Northamptonshire (21020); Corby and East Northamptonshire (21020); Monmouthshire (21010); Basingstoke (20922); Cardiff North (20849); Crewe and Nantwich (20837); Hertford and Stortford (20808); Edinburgh North and Leith (20805); Altrincham and Sale West (20798); Plymouth Sutton and Devonport (20795); Norwich North (20794); Truro and Falmouth (20783); Leyton and Wanstead (20755); Bristol East (20748); North East Somerset and Hanham (20739); Ealing North (20663); Croydon West (20612); Wythenshawe and Sale East (20596); Edmonton and Winchmore Hill (20520); Worthing West (20519); Gower (20480); Hayes and Harlington (20405); Coventry South (20361); Dunfermline and Dollar (20336); Worsley and Eccles (20277); Milton Keynes Central (20209); Manchester Central (20184); Queen's Park and Maida Vale (20126); Eltham and Chislehurst (20069); Liverpool Riverside (20039); Blyth and Ashington (20030); Brentford and Isleworth (20007); Penrith and Solway (19986); Leigh and Atherton (19971); Welwyn Hatfield (19877); South Ribble (19840); Harrow West (19833); Bathgate and Linlithgow (19774); Aldershot (19764); Coventry North West (19696); Bury North (19625); Cambridge (19614); Morecambe and Lunesdale (19603); Paisley and Renfrewshire South (19583); East Ham (19570); Broxtowe (19561); Broxtowe (19561); Oxford East (19541); Rugby (19533); Canterbury (19531); Nottingham East (19494); Wigan (19401); Brent East (19370); Camborne and Redruth (19360); Wolverhampton West (1931); Milton Keynes North (19318); Chesterfield (19316); Lancaster and Wyre (19315); West Dunbartonshire (19312); Coatbridge and Bellshill (19291); Bury South (19247); Penistone and Stocksbridge (19169); Motherwell, Wishaw and Carluke (19168); Stratford and Bow (19145); North Somerset (19138); Hastings and Rye (19134); City of Durham (19131); Ipswich (19099); Kilmarnock and Loudoun (19055); Bristol North East (19004); Leeds West and Pudsey (18976); Colne Valley (18970); Dover and Deal (18940); Inverclyde and Renfrewshire West (18931); St Helens South and Whiston (18919); Holborn and St Pancras (18884); Congleton (18875); Congleton (18875); Airdrie and Shotts (18871); Portsmouth South (18857); Jarrow and Gateshead East (18856); Sherwood Forest (18841); Houghton and Sunderland South (18837); Colchester (18804); Edinburgh East and Musselburgh (18790); Warrington North (18730); Sheffield South East (18710); Edinburgh South West (18663); Cowdenbeath and Kirkcaldy (1862); Worcester (18622); Glasgow West (18621); Derby North (18619); Barnsley North (18610); Barnsley North (18610); Chelsea and Fulham (18556); Gorton and Denton (18555); Croydon East (18541); Barrow and Furness (18537); Poplar and Limehouse (18535); Stafford (18531); Bristol South (18521); Cumbernauld and Kirkintilloch (18513); Clwyd East (18484); Kingston upon Hull North and Cottingham (18480); Bassetlaw (18476); Lincoln (18470); Banbury (18468); Mid Cheshire (18457); Alyn and Deeside (18395); Newton Aycliffe and Spennymoor (18394); North East Hertfordshire (18358); Falkirk (18343); Bedford (18342); Livingston (18324); Bournemouth East (18316); Coventry East (18308); Rossendale and Darwen (18247); Gateshead Central and Whickham (18245); Exeter (18225); Telford (18212); Earley and Woodley (18209); Earley and Woodley (18209); Makerfield (18202); Ribble Valley (18177); Carlisle (18129); Central Ayrshire (18091); Alloa and Grangemouth (18039); Kettering (18009); Swindon North (17930); Brighton Kemptown and Peacehaven (17893); Kingston upon Hull West and Haltemprice (17875).

The extra seats that Labour picked up being: Aberafan Maesteg (17838); Amber Valley (15746); Ashford (15262); Ashton-under-Lyne (15575); Aylesbury (15081); Ayr, Carrick and Cumnock (14930); Bangor Aberconwy (14008); Barking (16227); Barnsley South (16399); Bermondsey and Old Southwark (16857); Bethnal Green and Stepney (15896); Bexleyheath and Crayford (15717); Birmingham Edgbaston (16599); Birmingham Erdington (14774); Birmingham Hall Green and Moseley (12798); Birmingham Hodge Hill and Solihull North (10655); Birmingham Ladywood (15558); Birmingham Northfield (14929); Birmingham Selly Oak (17371); Birmingham Yardley (11275); Bishop Auckland (17036); Blackley and Middleton South (16864); Blackpool North and Fleetwood (16744); Blackpool South (16916); Blaenau Gwent and Rhymney (16027); Bolsover (17197); Bolton North East (16166); Bolton South and Walkden (15093); Bolton West (17363); Bournemouth West (14365); Bracknell (14783); Bradford East (14098); Bradford South (11833); Bradford West (11724); Brent West (17258); Bridgend (16516); Buckingham and Bletchley (17602); Burnley (12598); Burton and Uttoxeter (16222); Bury St Edmunds and Stowmarket (16745); Caerphilly (14538); Cannock Chase (15671); Cardiff East (15833); Cardiff South and Penarth (17428); Cardiff West (16442); Chatham and Aylesford (13689); Cities of London and Westminster (15302); Clwyd North (14794); Crawley (17453); Dagenham and Rainham (16571); Darlington (16621); Dartford (15392); Derby South (14503); Derbyshire Dales (17759); Doncaster Central (17515); Doncaster East and the Isle of Axholme (15122); Doncaster North (16231); Dudley (12215); Dunstable and Leighton Buzzard (14976); Easington (16774); East Thanet (17054); Erewash (17224); Feltham and Heston (16139); Folkestone and Hythe (15020); Forest of Dean (16373); Gillingham and Rainham (15562); Glasgow East (15543); Glasgow North (14655); Glasgow North East (15639); Glasgow South (17696); Glasgow South West (15552); Glenrothes and Mid Fife (15994); Gloucester (16472); Gravesham (16623); Great Grimsby and Cleethorpes (15336); Halesowen (15023); Halifax (14135); Hamilton and Clyde Valley (21020); Harlow (16313); Hartlepool (16414); Hemel Hempstead (16844); Hendon (15855); Heywood and Middleton North (15069); Huddersfield (15101); Hyndburn (12186); Ilford North (15647); Ilford South (16537); Isle of Wight West (13240); Kensington and Bayswater (17025); Kingston upon Hull East (13047); Leeds Central and Headingley (15853); Leeds East (18610); Leeds South (17117); Leeds South West and Morley (17681); Leicester West (15798); Lichfield (17232); Llanelli (12751); Loughborough (17249); Lowestoft (14464); Luton North (14677); Luton South and South Bedfordshire (13593); Manchester Rusholme (15054); Mansfield (16048); Merthyr Tydfil and Aberdare (15791); Mid and South Pembrokeshire (16505); Mid Derbyshire (17346); Middlesbrough and Thornaby East (16238); Middlesbrough South and East Cleveland (16468); Montgomeryshire and Glyndwr (12709); Na h-Eileanan an Iar (6692); Neath and Swansea East (16797); Newcastle upon Tyne Central and West (18875); Newcastle-under-Lyme (15992); Newport East (16370); Newport West and Islwyn (17409); Normanton and Hemsworth (17275); North Ayrshire and Arran (16821); North Durham (16562); North East Derbyshire (17591); ; North Northumberland (17855); North Warwickshire and Bedworth (14727); North West Cambridgeshire (14785); North West Leicestershire (16871); Northampton North (18209); Northampton South (16890); Nottingham North and Kimberley (16480); Nottingham South (15579); Nuneaton (15216); Oldham East and Saddleworth (14091); Oldham West, Chadderton and Royton (13232); Ossett and Denby Dale (17232); Paisley and Renfrewshire North (19561); Pendle and Clitheroe (16129); Peterborough (13418); Plymouth Moor View (17665); Pontefract, Castleford and Knottingley (17089); Pontypridd (16225); Poole (14168); Portsmouth North (14495); Preston (14006); Rawmarsh and Conisbrough (16612); Reading West and Mid Berkshire (16273); Redcar (15663); Redditch (14810); Rhondda and Ogmore (17118); Rochdale (13027); Rochester and Strood (15403); Rother Valley (16023); Rotherham (16671); Scarborough and Whitby (17758); Scunthorpe (15484); Sheffield Brightside and Hillsborough (16301); Sheffield Central (16569); Sittingbourne and Sheppey (11919); Slough (14666); Smethwick (16858); South Derbyshire (17734); South Dorset (15659); South East Cornwall (15670); South Norfolk (17353); South Shields (15122); South West Norfolk (11847); Southampton Itchen (15782); Southampton Test (15945); Southend East and Rochford (15395); Southend West and Leigh (16739); Southport (17252); Spen Valley (16076); St Austell and Newquay (15958); Stalybridge and Hyde (16320); Stevenage (17698); Stirling and Strathallan (16856); Stockton North (17128); Stoke-on-Trent Central (14950); Stoke-on-Trent North (14579); Stoke-on-Trent South (14221); Stourbridge (15338); Suffolk Coastal (15672); Sunderland Central (16852); Swansea West (14761); Tamworth (15338); Thurrock (16050); Tipton and Wednesbury (11755); Torfaen (15176); Uxbridge and South Ruislip (16599); Vale of Glamorgan (17740); Wakefield and Rothwell (17773); Walsall and Bloxwich (12514); Washington and Gateshead South (17682); Watford (15708); Wellingborough and Rushden (17734); West Bromwich (16872); West Ham and Beckton (16434); Westonsuper-Mare (16310); Wolverhampton North East (14282); Wolverhampton South East (16800); Wrexham (15836); Wycombe (16035).

Appendix B. GB contested seats

Seat	FPTP	AC	AD	AE	ВС	BD	BE
Aberafan Maesteg	Lab	RUK	Green	RUK	Lab	Lab	Lab
Amber Valley	Lab	Lab	Green	RUK	Lab	Con	RUK
Ashford	Lab	Lab	Green	RUK	Lab	RUK	RUK
Ashton-under-Lyne	Lab	Con	Con	Con	RUK	Lab	RUK
Aylesbury	Lab	RUK	RUK	Con	LD	Con	Con
Ayr, Carrick and Cumnock	Lab	Con	Green	Green	Con	Con	Con
Bangor Aberconwy	Lab	RUK	Con	RUK	Lab	Con	Con
Barking	Lab	RUK	Con	Green	Lab	Lab	Lab
Barnsley South	Lab	Con	RUK	RUK	RUK	RUK	RUK
Bermondsey and Old Southwark	Lab	RUK	Con	RUK	Lab	LD	Lab
Bethnal Green and Stepney	Lab	Lab	RUK	Green	Lab	Lab	Lab
Bexleyheath and Crayford	Lab	RUK	RUK	RUK	Con	RUK	RUK
Birmingham Edgbaston	Lab	Con	Green	Green	Lab	Lab	Lab
Birmingham Erdington	Lab	Con	Con	Con	RUK	Lab	RUK
Birmingham Hall Green and Moseley	Lab	Con	Con	Con	Lab	Lab	Lab
Birmingham Hodge Hill and Solihull North	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Birmingham Ladywood	Lab	Green	RUK	Green	Lab	Lab	Lab
Birmingham Northfield	Lab	Con	Con	Green	Con	Con	RUK
Birmingham Perry Barr	AK	RUK	AK	RUK	AK	AK	AK
Birmingham Selly Oak	Lab	LD	Green	Green	Lab	Lab	Lab
Birmingham Yardley	Lab	RUK	RUK	Green	Lab	Lab	Lab
Bishop Auckland	Lab	RUK	LD	Con	RUK	Con	RUK
Blackburn	AH	RUK	AH	RUK	AH	AH	AH
Blackley and Middleton South	Lab	RUK	Con	Con	Lab	Lab	Lab
Blackpool North and Fleetwood	Lab	Lab	Con	RUK	RUK	Con	RUK
Blackpool South	Lab	RUK	Con	RUK	Lab	Lab	RUK
Blaenau Gwent and Rhymney	Lab	Lab	Con	Con	Lab	Lab	Lab
Bolsover	Lab	Lab	Con	Con	Lab	Con	RUK
Bolton North East	Lab	Lab	Con	RUK	Lab	Con	RUK

Bolton South and Walkden	Lab	Lab	RUK	Green	RUK	RUK	RUK
Bolton West	Lab	Con	Con	Green	Con	Con	Con
Bournemouth West	Lab	Lab	Con	Green	Con	Con	Con
Bracknell	Lab	Lab	Con	Green	RUK	Con	Con
Bradford East	Lab	RUK	Con	RUK	Lab	Lab	Lab
Bradford South	Lab	Con	RUK	Con	RUK	RUK	RUK
Bradford West	Lab	Lab	Con	Green	Lab	Lab	Lab
Brent West	Lab	Con	Con	RUK	Con	Con	Con
Bridgend	Lab	LD	Con	Con	Lab	Lab	Lab
Buckingham and Bletchley	Lab	Con	Green	RUK	Con	Con	Con
Burnley	Lab	RUK	RUK	Green	RUK	RUK	RUK
Burton and Uttoxeter	Lab	Green	RUK	RUK	RUK	RUK	RUK
Bury St Edmunds and Stowmarket	Lab	Con	Con	RUK	Con	Con	RUK
Caerphilly	Lab	Con	RUK	RUK	PC	RUK	RUK
Cannock Chase	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Cardiff East	Lab	Con	Con	Con	Lab	Lab	Lab
Cardiff South and Penarth	Lab	RUK	LD	Green	Lab	Lab	Lab
Cardiff West	Lab	Con	PC	Con	PC	PC	PC
Chatham and Aylesford	Lab	RUK	Con	Con	RUK	Con	Con
Cities of London and Westminster	Lab	Con	Green	RUK	Con	Con	Con
Clwyd North	Lab	Con	Con	RUK	Con	Con	Con
Crawley	Lab	RUK	Green	RUK	Con	Con	Con
Dagenham and Rainham	Lab	Green	Con	Green	Lab	Lab	RUK
Darlington Darlington	Lab	Con	RUK	Con	Con	Con	Con
Dartford	Lab	RUK	Green	RUK	RUK	Con	RUK
Derby South	Lab	RUK	LD	RUK	RUK	RUK	RUK
	Lab	Lab	RUK	Con		Con	Con
Derbyshire Dales					Con		IM
Dewsbury and Batley	IM Lab	Lab	IM Com	Lab	IM Lab	IM Lab	
Doncaster Central	Lab	RUK	Con	RUK	Lab	Lab	Lab
Doncaster East and the Isle of Axholme	Lab	Con	RUK	RUK	Con	RUK	RUK
Doncaster North	Lab	Con	Con	Green	Lab	Lab	Lab
Dudley	Lab	LD	RUK	Green	Con	RUK	Con
Dunstable and Leighton Buzzard	Lab	RUK	Con	RUK	RUK	Con	RUK
Easington	Lab	Con	Con	Green	RUK	Lab	RUK
East Thanet	Lab	RUK	Con	Green	RUK	Con	RUK
Erewash	Lab	Con	Con	Con	Con	Con	Con
Feltham and Heston	Lab	RUK	Green	RUK	Lab	Con	Con
Folkestone and Hythe	Lab	Con	RUK	Con	Con	RUK	RUK
Forest of Dean	Lab	Lab	RUK	RUK	Lab	RUK	RUK
Gillingham and Rainham	Lab	Lab	Green	RUK	Lab	Con	RUK
Glasgow East	Lab	RUK	Green	Con	SNP	Lab	Lab
Glasgow North	Lab	RUK	Con	RUK	SNP	Lab	Lab
Glasgow North East	Lab	Lab	LD	SNP	SNP	SNP	SNP
Glasgow South	Lab	Lab	SNP	SNP	Lab	SNP	SNP
Glasgow South West	Lab	RUK	SNP	Green	SNP	SNP	Lab
Glenrothes and Mid Fife	Lab	RUK	SNP	RUK	Lab	SNP	SNP
Gloucester	Lab	Con	Con	RUK	Con	Con	Con
Gravesham	Lab	RUK	Con	RUK	RUK	Con	RUK
Great Grimsby and Cleethorpes	Lab	Lab	RUK	LD	Lab	Con	RUK
Halesowen	Lab	Con	Con	Green	Con	Con	RUK
Halifax	Lab	Con	RUK	Con	Con	RUK	Con
Hamilton and Clyde Valley	Lab	RUK	Con	RUK	SNP	Lab	Lab
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Harlow	Lab	RUK	Con	Green	RUK	Con	RUK
Hartlepool	Lab	Lab	RUK	Con	Lab	RUK	RUK
Hemel Hempstead	Lab	Lab	RUK	RUK	Lab	Con	Con
Hendon	Lab	Lab	Green	Con	Lab	Con	Con
Heywood and Middleton North	Lab	RUK	RUK	Con	RUK	RUK	RUK
Huddersfield	Lab	RUK	RUK	RUK	Green	Green	Green
Hyndburn	Lab	Green	Green	Green	RUK	RUK	RUK
Ilford North	Lab	Lab	RUK	Con	Con	Con	Con
Ilford South	Lab	RUK	RUK	Green	Lab	Lab	Lab
	Lab		RUK	RUK	Con	Con	Con
Isle of Wight West	JC	Green RUK	JC	JC	JC	JC	JC
Islington North Kensington and Bayswater	Lab	Con	RUK		Con	Con	Con
· · ·	Lab	Con	RUK	Con	RUK	Lab	RUK
Kingston upon Hull East				Green			
Leeds Central and Headingley	Lab	Con	RUK	RUK	Lab	Lab	Lab
Leeds East	Lab	RUK	LD	RUK	Lab	Lab	Lab
Leeds South	Lab	Con	Con	Green	Lab	Lab	Lab
Leeds South West and Morley	Lab	RUK	RUK	RUK	Con	Con	Con
Leicester South	SA	SA	SA	SA	SA	SA	SA
Leicester West	Lab	RUK	RUK	Green	Lab	Lab	Lab
Lichfield	Lab	Con	RUK	Con	Con	RUK	RUK
Llanelli	Lab	RUK	Con	RUK	RUK	Lab	RUK
Loughborough	Lab	RUK	RUK	Con	Lab	Con	Con
Lowestoft	Lab	Con	Green	Green	Con	RUK	RUK
Luton North	Lab	RUK	Con	Con	Lab	Lab	Lab
Luton South and South Bedfordshire	Lab	RUK	Green	RUK	Lab	Lab	Lab
Manchester Rusholme	Lab	Con	Con	Con	Lab	Lab	Lab
Mansfield	Lab	Con	Con	Con	Con	Con	RUK
Merthyr Tydfil and Aberdare	Lab	Lab	Con	Green	RUK	Lab	RUK
Mid and South Pembrokeshire	Lab	Lab	Con	Con	Con	Con	Con
Mid Derbyshire	Lab	RUK	Con	Con	Lab	Con	Con
Mid Norfolk	Con	Con	Con	Con	Con	Con	Con
Middlesbrough and Thornaby East	Lab	RUK	Con	RUK	Lab	Lab	Lab
Middlesbrough South and East Cleveland	Lab	Lab	Con	Con	Lab	Con	Con
Montgomeryshire and Glyndwr	Lab	RUK	RUK	RUK	RUK	LD	RUK
Na h-Eileanan an Iar	Lab	Con	SNP	Con	Lab	Lab	Lab
Neath and Swansea East	Lab	RUK	Green	Con	RUK	RUK	RUK
Newcastle upon Tyne Central and West	Lab	Con	RUK	RUK	Lab	Lab	Lab
Newcastle-under-Lyme	Lab	RUK	RUK	Con	Con	RUK	RUK
Newport East	Lab	Con	RUK	RUK	Lab	Lab	Lab
Newport West and Islwyn	Lab	Con	Green	Con	Lab	Lab	Lab
Normanton and Hemsworth	Lab	RUK	Green	RUK	RUK	RUK	RUK
North Ayrshire and Arran	Lab	Con	SNP	Green	SNP	SNP	SNP
North Durham	Lab	RUK	LD	RUK	Lab	Lab	RUK
North East Derbyshire	Lab	Lab	Con	RUK	Lab	Con	Con
North Northumberland	Lab	RUK	Green	Green	Con	Con	Con
North Warwickshire and Bedworth	Lab	Lab	Con	RUK	Con	Con	RUK
North West Cambridgeshire	Lab	Con	RUK	Con	Lab	RUK	Con
North West Leicestershire	Lab	Con	Green	Con	Con	RUK	Con
Northampton North	Lab	Con	Con	Con	Lab	Con	Con
Northampton South	Lab	RUK	RUK	Con	Con	Con	Con
Nottingham North and Kimberley	Lab	Lab	Con	Con	Lab	Lab	Lab
Nottingham South	Lab	Lab	Green	Green	Lab	Lab	Lab
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Nuneaton	Lab	Lab	Green	Con	Con	RUK	RUK
Oldham East and Saddleworth	Lab	RUK	RUK	RUK	RUK	Lab	RUK
Oldham West, Chadderton and Royton	Lab	Lab	Con	Con	RUK	Lab	RUK
Ossett and Denby Dale	Lab	Con	LD	Con	Con	Con	Con
Paisley and Renfrewshire North	Lab	RUK	SNP	SNP	SNP	SNP	SNP
Pendle and Clitheroe	Lab	Con	RUK	Con	Con	RUK	Con
Peterborough	Lab	Lab	Con	RUK	Con	Con	Con
Plymouth Moor View	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Pontefract, Castleford and Knottingley	Lab	Con	RUK	Con	Lab	RUK	RUK
Pontypridd	Lab	Con	LD	RUK	Lab	Lab	Lab
Poole	Lab	Green	Con	RUK	RUK	Con	RUK
Portsmouth North	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Preston	Lab	Con	RUK	RUK	Lab	Lab	Lab
Rawmarsh and Conisbrough	Lab	Lab	RUK	RUK	Lab	RUK	RUK
Reading West and Mid Berkshire	Lab	Lab	RUK	Con	Lab	Con	Con
Redcar	Lab	RUK	RUK	RUK	Con	Con	Con
Redditch	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Rhondda and Ogmore	Lab	Con	RUK	Con	RUK	RUK	RUK
Rochdale	Lab	Lab	RUK	Con	Lab	RUK	RUK
Rochester and Strood	Lab	Con	RUK	LD	RUK	RUK	RUK
Rother Valley	Lab	Con	RUK	LD	Con	Con	Con
Rotherham	Lab	RUK	Green	RUK	RUK	RUK	RUK
Scarborough and Whitby	Lab	RUK	Green	RUK	RUK	Con	RUK
Scunthorpe	Lab	RUK	Con	LD	RUK	Con	RUK
Sheffield Brightside and Hillsborough	Lab	Lab	Con	LD	Lab	Lab	Lab
Sheffield Central	Lab	Lab	Con	Green	Lab	Lab	Lab
Sittingbourne and Sheppey	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Slough	Lab	Con	RUK	RUK	Con	Con	Con
Smethwick	Lab	Lab	RUK	Green	Lab	Lab	Lab
South Derbyshire	Lab	Con	RUK	Con	Con	RUK	Con
South Dorset	Lab	Con	Con	Con	Con	Con	Con
South East Cornwall	Lab	RUK	Green	RUK	RUK	Con	RUK
South Norfolk	Lab	Lab	Green	Con	Lab	Con	Con
South Shields	Lab	RUK	Green	RUK	RUK	Lab	RUK
South West Norfolk	Lab	RUK	Green	RUK	RUK	Con	RUK
Southampton Itchen	Lab	Lab	Con	RUK	Con	Con	Con
Southampton Test	Lab	Con	Con	RUK	Lab	Lab	Lab
Southend East and Rochford	Lab	Green	Green	RUK	Con	Con	Con
Southend West and Leigh	Lab	RUK	Con	RUK	Lab	Con	Con
Southport Southport	Lab	Con	RUK	Con	Con	Con	Con
Spen Valley	Lab	Con	Green	RUK	Con	Con	RUK
St Austell and Newquay	Lab	RUK	Green	RUK	RUK	Con	RUK
St Austein and Newquay Stalybridge and Hyde	Lab		Con	Green	Lab	Lab	Lab
	Lab	Con RUK	Con		Lab	Con	Con
Stevenage Sticking and Streethallon				Green RUK			
Stirling and Strathallan	Lab	Con	Green		Con	Con	SNP
Stockton North	Lab	RUK	Con	Green	RUK	Lab	RUK
Stoke-on-Trent Central	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Stoke-on-Trent North	Lab	Lab	RUK	Con	Lab	RUK	RUK
Stoke-on-Trent South	Lab	RUK	RUK	RUK	RUK	RUK	RUK
Stourbridge	Lab	Con	Con	Con	Con	Con	Con
Suffolk Coastal	Lab	Con	Con	Con	Con	Con	RUK
Sunderland Central	Lab	RUK	Green	RUK	RUK	Lab	RUK

Swansea West	Lab	RUK	Lab	RUK	Lab	Lab	Lab
Tamworth	Lab	RUK	Con	RUK	RUK	Con	RUK
Thurrock	Lab	Green	Con	RUK	RUK	Lab	RUK
Tipton and Wednesbury	Lab	Lab	Con	Con	Lab	Con	RUK
Torfaen	Lab	Con	RUK	Con	RUK	RUK	RUK
Uxbridge and South Ruislip	Lab	Lab	RUK	Con	Lab	Con	Con
Vale of Glamorgan	Lab	Lab	Green	RUK	Lab	Con	Con
Wakefield and Rothwell	Lab	Con	Green	Con	Lab	Lab	Lab
Walsall and Bloxwich	Lab	RUK	Green	Green	RUK	RUK	RUK
Washington and Gateshead South	Lab	Lab	RUK	RUK	Lab	RUK	RUK
Watford	Lab	LD	Green	Green	Con	Con	Con
Wellingborough and Rushden	Lab	Lab	Con	Con	Lab	Con	RUK
West Bromwich	Lab	RUK	Con	RUK	Lab	Lab	Lab
West Ham and Beckton	Lab	Lab	Con	RUK	Lab	Lab	Lab
Weston-super-Mare	Lab	Con	RUK	Con	Con	Con	Con
Wolverhampton North East	Lab	RUK	RUK	Con	RUK	RUK	RUK
Wolverhampton South East	Lab	RUK	RUK	RUK	Lab	Lab	Lab
Wrexham	Lab	RUK	Green	RUK	Con	Con	Con
Wycombe	Lab	Con	Con	Con	Con	Con	Con

Table B.11: Great Britain results under FPTP and the various schemes

## References

<sup>[1]</sup> R. Cracknell, C. Baker, General election 2024 results, Tech. rep., House of Commons Library (09 2024).

URL https://commonslibrary.parliament.uk/research-briefings/cbp-10009/
[2] C. Rallings, M. Thrasher, Guide to the new parliamentary constituencies 2024, Tech. rep., BBC, ITV News, Sky News, PA Media (2024).