



The ten per cent solution:

Amending the Parliamentary Voting System and Constituencies Bill to make 'equalisation' more workable

Lewis Baston - January 2011

1. Introduction

The Parliamentary Voting System and Constituencies Bill received its Second Reading in September 2010 and returned to the House of Lords for its Committee stage in January 2010. It is a double-purpose piece of legislation. Its first part establishes a referendum on the Alternative Vote electoral system, and this part – although technically easily done and possibly, in the event of a No vote, of no constitutional import – has attracted the most attention. The second part is more complex. It will introduce a new system for drawing parliamentary boundaries based on 'reduce and equalise', i.e. cutting the number of MPs to 600 and requiring the registered electorate of each seat to be more precisely equal than before. Other than for a very few hard cases, it requires constituencies to be no more than a 5 per cent deviation from a national quota, i.e. rigidly between 72,200 and 79,800 electors. The argument given is that the 'weight' of a vote in determining an election should be as equal as possible.

The 'reduce and equalise' provisions may not sound particularly complicated, but it will mean that the boundaries of nearly every constituency in the country will be redrawn, and that arithmetic will have priority over all other factors. Constituencies will, for the first time, systematically cross county boundaries. In many areas there will be local government wards split between different constituencies. There are several fundamental issues with the legislation, in particular the potentially harmful democratic implications of reducing the number of MPs,¹ the increasing unreliability of electoral registration,² and the hasty, non-consensual and apparently politically driven way it is being implemented. But there are also a number of practical issues which make the government's proposals problematic. By some fairly simple amendments, the Lords can make the Bill much more workable while still making constituencies very equal in size by international comparison. The following paper outlines how these amendments could work.

¹ Lewis Baston and Stuart Wilks-Heeg (2010) [How strong is the case for having fewer MPs?](#) Democratic Audit, November 2010.

² Stuart Wilks-Heeg (2010) [Written evidence to the Political and Constitutional Reform Committee of the House of Commons](#), Democratic Audit, September 2010.

IMPROVING THE BILL

1. Allowing 10 per cent variation in constituency size. This would involve equalisation in practice about as good as that for the US House of Representatives while allowing more respect for local communities and physical geography. There would be minimal numbers of cross-county seats and split wards using a 10 per cent limit on variation, and it would also mean less disruptive change in future.

2. Allowing a few more anomalies, such as the Isle of Wight, would remove many of the most unpopular consequences of the Bill in a broad spread of constituencies across the UK.

3. Creating a new, limited number of special cases where the represented population is grossly in excess of the registered electorate would give due recognition to the fact that some MPs, especially in inner-London, already represent populations of 115,000 or more.

The paper also deals with the possible consequences for party representation under 5 per cent and 10 per cent equalisation, and concludes on the basis of model results that there is no significant difference in their effects. This is not surprising, because most of the bias that exists in the electoral system has nothing to do with the size of constituencies. These issues are examined briefly in an Appendix.

Although not dealt with in this paper, the Bill could also be improved in terms of its procedure, in particular by restoring the right to a public inquiry into local recommendations.³ In sum, the Bill would benefit from a period of prolonged expert scrutiny and consensus formation, but it appears the government has chosen to go ahead in haste. We may yet repent at leisure.

2. Why a 10 per cent permitted variation is superior to the government's 5 per cent rule

There are four key reasons why permitting maximum 10 per cent variation in constituency electorates would be greatly preferable to the 5 per cent variance proposed in the Bill. Under a 10 per cent variation, there would be: much less crossing of county boundaries; much less splitting of wards; fewer and less disruptive boundary changes in future; and closer concordance with community identities.

³ See Lewis Baston (2010) [*Written evidence to the Political and Constitutional Reform Committee of the House of Commons*](#), Democratic Audit, August 2010.

i. Much less crossing of county boundaries

A 5 per cent rule involves violating the boundaries of well-established local units in a way that does not take place in apparently comparable systems of equalisation in Australia and the United States. For a county to avoid sharing one or more seats with another county, it needs to meet a number of criteria relating not only to its own seat entitlement, but also the seats allocated to the counties with which it shares borders.

- A county will only be entitled to a whole number of seats if the size of its electorate permits this within the allowed variation. For instance, a county with an entitlement to 5.3 constituencies cannot be given a whole number of seats because its average seat would be 106 per cent of the standard national size.
- Even if a county is technically entitled to a whole number of seats, it might be practically impossible. For instance, a county with 5.7 times the national quota of electors could have six seats all at 95 per cent of standard size. However, in practice it will be impossible to find a sensible division of the county permitting such exact slicing.
- Even if a county's electorate is compatible with a whole number of seats, it may still need to have a cross-county seat because a neighbouring county is out of balance. For instance Suffolk, of itself, could have 7 seats quite easily under the government plan. But because Norfolk is a long way off a whole number entitlement, Suffolk ends up having to share.

Very few counties meet these criteria in England with a 5 per cent limit. In the Democratic Audit model of how boundaries could be drawn using a 5 per cent rule, only 9 out of 46 counties, accounting for 67 of the 503 seats proposed for England, did not need to be grouped with another county (North Yorkshire, Humberside, Lincolnshire, Cumbria, Staffordshire, Gloucestershire, Berkshire, Oxfordshire and Buckinghamshire). Furthermore, relatively small future changes in electorate size would lead to disruptive change to the county groupings every parliament.

A 10 per cent tolerance of variation would transform this chaotic picture. No counties fail outright (other than the Isle of Wight) although in practice a few are close enough to the edge to make pairing perhaps necessary. Nonetheless, it was found that only two, relatively 'natural' pairings (Wiltshire and Dorset, and West Yorkshire and South Yorkshire) would be required under a revised plan based on 10 per cent.

ii. Much less splitting of wards

It is probably impossible to implement a 5 per cent rule without splitting wards between constituencies, something which the Boundary Commissions currently avoid doing because of the potential for voter confusion and highly artificial constituency boundaries, not to mention causing headaches for the organisation of all political

parties. The Democratic Audit model distribution using 5 per cent variation in electorate size attempted to minimise ward-splitting, but it proved unavoidable to split wards in some areas. The worst-affected areas are those where wards have large electorates, such as the English metropolitan boroughs, most of Scotland and some unitary authorities and London boroughs. A rigid 10 per cent rule might still involve a few isolated cases of ward-splitting, but it is likely to be very uncommon in comparison with a 5 per cent rule.

iii. Fewer and less disruptive boundary changes in future

The government's Bill proposes that the boundaries will change every election, which disrupts the relationship between MP and constituency and will no doubt lead to confusion. Because the 5 per cent limit is so tight, many constituencies that were the right size in one boundary review will be too big or too small by the next. This will happen because of growth and decline in population. It will also happen because of variations in electoral registration from year to year, which are likely to be larger under the forthcoming Individual Electoral Registration system. It is quite possible that radical changes in boundaries will be made for no better reason than fluctuating registers, which as we know have become much less stable, complete and accurate.

With a wider permitted variation, fewer constituencies will go above or below the limit because of population or register change even if the boundaries are reviewed every election. It would make for a more sensible and stable system of boundaries, and better representation for constituents, if the frequency of reviews were to be 10 rather than 5 years anyway.

iv. Closer concordance with community identities

The government's proposals will involve areas, particularly rural areas, being moved into constituencies to make up numbers at the cost of making the constituency less cohesive. It is not clear, because the government has not undertaken any kind of consultation about whether people would prefer to be in a slightly larger seat that makes up a coherent whole, than in an appendage to a constituency based on different communities that is the 'right' size.

Taking the borough of Doncaster as an example, it would be entitled to 2.87 seats under the new rules. In practice, drawing three seats of just over 95 per cent of the standard size would involve splitting wards and creating illogical boundaries, so it is more likely that a ward of a neighbouring borough would be drawn into a seat. With a 10 per cent limit, Doncaster would have three seats of its own without a problem. Coventry would be festooned with rural wards bringing up numbers under the Bill's current

requirements for seats to be within 5 per cent of the mean, but would clearly be entitled to three city seats under 10 per cent.

2. The hard cases

The government's Bill proposes to tolerate an extremely small group of anomalous seats – two island groups in Scotland plus perhaps a seat with a large land area in the Highlands. Most other systems of districting (including the US and Australia) allow some latitude for small states, difficult territory, or both. The Bill insists that 99.5 per cent of seats are within 5 per cent of the national quota, while 86 per cent is good enough for the United States and 67 per cent is fine in Australia. There is ample room for a few more constituencies to depart from the national average in the interests of geography, local identity or simple common sense.

Among the most deserving cases are:

- **Isle of Wight.** The Bill proposes to have at least one seat that straddles the channel between the Isle and Hampshire, something that would create an absurd constituency with no coherent identity. In past boundary and local government reviews, local opinion has opposed the division of the island – this opposition is especially evident in relation to the current proposals.
- **Cornwall.** The Duchy of Cornwall has something of a special status among English counties – in some ways it is only administratively rather than culturally 'England' at all. Local opinion in Cornwall has been against a 'Devonwall' seat crossing the county boundary. It would not affect overall equality much to give it (plus the Isles of Scilly) a specific exemption, although the decision whether to give it 5 or 6 seats of its own is a matter of fine judgement.
- **Anglesey.** The island is, unlike Wight or the Scottish island groups, linked to the mainland by bridges, but then again it is not as far from the national quota at around 50,000 electors. Equalisation would mean putting Bangor into the same constituency.
- **Argyll & Bute.** This is in some ways an even sparser constituency than the Highland seats because of its extremely long coastline, islands and the difficulty of internal communications.
- **North West Wales.** Two factors come into play in this area. The difficult and mountainous geography has caused the Boundary Commission to exercise a bit of leniency in the past. The representation of indigenous national minorities is also a recognised criterion for drawing up electoral districts, and the government's plan would probably involve creating fewer Welsh-speaking majority seats than their proportion in the population.
- **Estuaries.** It would make sense to ban constituencies straddling wide estuaries such as the Mersey, Humber, Clyde, Forth and Thames. While the Boundary

Commission for England has proposed cross-estuary seats in the past, for instance on Merseyside, there has been strong resistance to such proposals.

- **Welsh valleys.** There might be a case for allowing small departure from the usual rules if following them could lead to an absurd seat with a small part of one valley attached to a seat based on another valley.

3. The population/ register factor

There is scope for a fuller discussion of the appropriate way of measuring constituency 'size', particularly given the deterioration in the completeness of electoral registers in some seats in inner urban areas in particular. However, the government's haste to act has not permitted consideration of such issues.

In the absence of a thorough look at the issue, it would be possible and desirable to create a class of seats that were allowed to be a bit smaller than the norm because they are grossly overpopulated. If it is unacceptable for an MP to have a constituency with more than 13,000 square kilometres in area because it makes it impractical to represent, it is also unacceptable for a constituency to have a vast resident population. It is at least as difficult for an MP to represent an abnormally large number of constituents as it is to navigate around a large seat.

Overall, the electorate is about 75 per cent of the population – there are around 61 million people in the UK population and a bit over 45 million in the electorate. However, there are a number of constituencies where there are vastly more constituents than there are registered electors. Often, the factors that produce low levels of electoral registration or large ineligible populations coincide – young people, including foreign citizens, living for short periods in private rented accommodation comprise a large proportion of the population in inner London in particular.

Table 1 (overleaf) shows, on the basis of Office of National Statistics research compiled in 2007 (for the old constituencies), the English constituencies in which the population represented by the MP is much larger than normal compared to the registered electorate. Several Northern Ireland constituencies would also feature in a table for all UK constituencies, but none in Scotland or Wales.

There were already three Parliamentary seats with populations of more than 130,000 in 2007, and the Bill would be certain to create several more of this magnitude. An amendment to the Bill, analogous to the provision that already exists for land area, could limit the population allowed in any constituency. If no constituency were permitted to have more than, say, 125,000 in population the number affected would be relatively small but the impact on the service to constituents in some hard-pressed areas could be considerable.

Table 1: English parliamentary constituencies in which registered electors comprised less than two-thirds of the population, 2007

	2007 pop	2007 electors	Electors % of total pop	Electors % of 16+ pop	Party 2005	Party 2010 (model)
Kensington and Chelsea	134,717	62,874	46.7	55.3	Con	Con
Cities of London and Westminster	139,567	73,170	52.4	60.0	Con	Con
Regent's Park and North Kensington	146,473	79,939	54.6	67.5	Lab	Lab
Holborn and St. Pancras	117,513	66,477	56.6	69.2	Lab	Lab
Bradford West	113,199	64,115	56.6	80.0	Lab	Lab
Sheffield Central	101,043	58,857	58.2	72.8	Lab	Lab
Hampstead and Highgate	114,396	66,902	58.5	70.3	Lab	Lab
Hackney North and Stoke Newington	105,013	61,802	58.9	80.0	Lab	Lab
Tottenham	113,393	68,291	60.2	79.7	Lab	Lab
Finchley and Golders Green	112,560	68,534	60.9	77.6	Lab	Con
Hendon	115,639	70,695	61.1	81.1	Lab	Con
Birmingham, Sparkbrook and Small Heath	121,870	74,603	61.2	91.5	Lab	Lab
Nottingham East	92,135	57,006	61.9	77.2	Lab	Lab
Peterborough	96,753	59,986	62.0	81.7	Con	Con

4. Partisan effects and electoral bias

The results of a – rougher – Democratic Audit simulation using 10 per cent toleration are actually more favourable to the Conservatives than those under strict 5 per cent equalisation.

This may well be an effect of the model's methodology, but the conclusion has to be that there are no significant differences between 5 per cent and 10 per cent equalisation as regards their partisan effect. The differences are in the ability of 10 per cent equalisation to better accommodate natural communities and administrative boundaries.

Table 2: Alternative projections of what the partisan impact of the proposed boundary changes in a 600 seat Parliament would have been in 2010

	Current	Con best case 5 per cent	10 per cent model	Mid-point 5 per cent	Core detailed 5 per cent	Lab best case 5 per cent
Con	306	302	292	289	285	276
Lab	258	221	238	240	245	258
LD	57	51	46	46	45	42
Other	29	26	24	25	25	24

It is worth noting that whatever set of boundary changes are proposed, the effect on partisan outcomes is relatively small. This is because, as demonstrated by repeated academic research, constituency size is only a small element of the electoral system's current bias in favour of Labour. The illustrious psephological team of Ron Johnston, Colin Rallings and Michael Thrasher, and Galina Borisyuk, has analysed the 2010 election⁴ and the general issues⁵ conclusively. Their estimate of Labour's gain from the size factor is a net 13 seats over the Conservatives; using a different methodology I calculated it as being a net 15, a lot of which was caused by the over-representation of Wales.

The real major sources of electoral system bias are not to do with constituency size, but with differential turnout and the uneven way parties' votes are distributed across the country. Some model examples are given in the Appendix.

5. Conclusion

There are significant new issues to consider in the sphere of electoral registration and how constituency boundaries are drawn, which would benefit from a period of consideration and consensus-forming which the government has prevented by the haste of its Bill and its unwillingness so far to compromise. It would be better to take a little longer and devise a system that will last. I am not alone in thinking that there will be only two boundary reviews under these rules – one reporting by 2013 and in force from 2015, and another reporting in 2018. At that point, MPs will revolt at the prospect of repeated disruptive boundary reviews, as they did in similar circumstances in 1958.

⁴ G. Borisyuk, Michael Thrasher, C. Rallings and R. Johnston (2010) [Electoral bias in 2010: Evaluating its extent in a three-party system](#), paper presented to Elections, Public Opinion and Parties Annual Conference, University of Essex, September 10th-12th September, 2010.

⁵ G. Borisyuk, R. Johnston, C. Rallings, and M. Thrasher (2010) 'Parliamentary Constituency Boundary Reviews and Electoral Bias: How Important Are Variations in Constituency Size?' *Parliamentary Affairs*, 63, no. 1, pp. 4-21

The Bill is capable, though, of being sensibly amended to produce a system that will last a bit longer and work with the grain of practicality and local identity. The key measures to ameliorate the Bill would be, in summary:

- A 10 per cent permitted variation in seat size, replacing the 5 per cent rule
- Either a list of further permitted geographical special cases, or the restoration of the Boundary Commission's ability to use its discretion for special geographical circumstances.
- Creation of a new category of anomalous seats to deal with the new problem of constituencies with grossly oversized population compared to electorate.
- Boundary reviews every 10 years rather than every 5 years.

I have already argued elsewhere for the restoration of the right to a public inquiry.

Amendments of this nature will not prevent the achievement of a level of equality between constituencies that is towards the top of the international league table, and closer to equality than the Australian House of Representatives (and possibly the American House of Representatives as well). They will enable the new constituencies to be more identifiable by their constituents, more stable, more sensible with respect to the physical and administrative geography, and therefore more likely to be sustainable – while still meeting the government's aim of greater equality.

It would be in the best traditions of the House of Lords in improving legislation if the Upper House were to pass amendments such as these to the Parliamentary Voting System and Constituencies Bill.

Appendix

ELECTORAL SYSTEM BIAS: SOME ILLUSTRATIVE EXAMPLES

TURNOUT BIAS

In this example there are only three seats in Britain, one marginal and one safe seat for each of the two big parties. Parties win their safe seats by exactly the same share of the vote - 68 per cent to 32 per cent. In an election where turnout is uniform this produces the 'right' result – see '1964' below.

'1964'	'Bootle'	'Bury'	'Beckenham'	'Britain'	Share
Electorate	100,000	100,000	100,000	300,000	
Turnout	75%	75%	75%	75%	
Labour	51,000	38,000	24,000	113,000	50.2%
Conservative	24,000	37,000	51,000	112,000	49.8%
	Labour	Labour	Conservative	2 Lab 1 Con	

However, if there is a fall in turnout which is unevenly distributed this disrupts the relationship between seats and votes. Even if there is no swing in any constituency – the winners still hold their safe seats 68:32 – but turnout drops in one party's safe seats this causes an apparent national swing. In the example below there has been a fall in turnout in the safe Labour seat.

'2005'	'Bootle'	'Bury'	'Beckenham'	'Britain'	Share
Electorate	100,000	100,000	100,000	300,000	
Turnout	50%	75%	75%	66.7%	
Labour	34,000	38,000	24,000	96,000	48%
Conservative	16,000	37,000	51,000	104,000	52%
	Labour	Labour	Conservative	2 Lab 1 Con	

We now have a strong bias to Labour deriving simply from turnout – Labour has 'won' this election despite being 4 points behind the Conservatives in the popular vote.

In 2010 the turnout in Labour's hundred safest seats was 58.9 per cent, and in the Conservatives' hundred safest seats it was 68.5 per cent.

If one did away with differential turnout, the Conservatives' lead over Labour would have shrunk from 7.1 per cent to 5.4 per cent – the latter figure is the one the electoral system 'thought' there was.

There are only three methods of correcting turnout bias. One is to eliminate the turnout differential by making voting compulsory. Another is to – unlike any other country in the world other than Belarus – use the numbers voting as the basis for drawing parliamentary seats. Another is to have an element of national proportional representation in the electoral system.

VOTE DISTRIBUTION BIAS

In this example of electoral system bias Labour has come third in votes and first in seats, even though every seat is the same size and turnout is equal too.

	'Bradford'	'Bolton'	'Bournemouth'	'Berwick'	'Britain'	Share
Electorate	100,000	100,000	100,000	100,000	300,000	
Turnout	75%	75%	75%	75%	75%	
Labour	35,000	35,000	10,000	10,000	90,000	30.0%
Conservative	20,000	25,000	35,000	30,000	110,000	36.7%
Lib Dem	20,000	15,000	30,000	35,000	100,000	33.3%
	Labour	Labour	Conservative	Lib Dem	2 Lab 1 Con 1 Lib Dem	

The bias arises because Labour's vote is enough to win in the party's stronger seats but the party has ***few votes in its weaker areas***. By contrast, the Lib Dem and particularly the Conservative vote is relatively high even in the seats that party is not winning. Labour's vote was distributed in this way in 2005, while in the 1950s the Conservatives tended to benefit from this form of electoral bias.

This example also demonstrates the '***third party seats***' effect. In the three seats won by the Conservatives or Labour, the two parties' votes are equal at 80,000 (Labour's is more efficiently distributed, hence the 2:1 advantage in seats). In the Lib Dem seat, there is a substantial Conservative vote but a low Labour vote. This Tory advantage in 'Berwick' is reflected in the vote total but does not affect the number of seats.

Another form of vote distribution effect on bias is when a party wins its ***safe seats by an enormous margin*** but the other party wins more narrowly. This was the source of anti-Labour electoral bias in the 1950s because, crudely, Labour was winning working class strongholds 80-20 and the Conservatives' rural and suburban seats were being won 65-35 or so.

Further reading

All the Democratic Audit publications listed below are available to download on our website: <http://www.democraticaudit.com/issues/electreformbrit.php>

Lewis Baston, [*All are equal, but some are more equal than others. Is 'equalisation' of constituency electorates an international norm from which Britain departs?*](#) Democratic Audit, January 2011.

Lewis Baston, [*How pressing is the need for further equalisation of constituency electorates?*](#) Democratic Audit, December 2010.

Lewis Baston, [*Written evidence to the Political and Constitutional Reform Committee of the House of Commons*](#), Democratic Audit, August 2010:

Lewis Baston and Stuart Wilks-Heeg, [*How strong is the case for having fewer MPs?*](#) Democratic Audit, November 2010.

Lewis Baston, [*Written evidence to the Welsh Affairs Select Committee of the House of Commons*](#), Democratic Audit, August 2010.

Stuart Wilks-Heeg, [*Written evidence to the Political and Constitutional Reform Committee of the House of Commons*](#), Democratic Audit, September 2010.

House of Lords Constitution Committee report,
<http://www.publications.parliament.uk/pa/ld201011/ldselect/ldconst/58/5803.htm#a4>

House of Commons Political and Constitutional Reform Select Committee report,
<http://www.parliament.uk/business/committees/committees-a-z/commons-select/political-and-constitutional-reform-committee/news/pvsc-bill-report/>

House of Commons Welsh Affairs Select Committee report,
<http://www.publications.parliament.uk/pa/cm201011/cmselect/cmwelaf/495/49502.htm>

G. Borisyuk, R. Johnston, C. Rallings, and M. Thrasher, "Parliamentary Constituency Boundary Reviews and Electoral Bias: How Important Are Variations in Constituency Size?", *Parliamentary Affairs* 63, no. 1 (2010): 4-21.

G. Borisyuk, R. Johnston, C. Rallings, and M. Thrasher, "Electoral bias in 2010: evaluating its extent in a three party system" EPOP paper, September 2010
http://www.essex.ac.uk/government/epop/Papers/Panel16/P16_Borisyuk_EPOP2010.pdf

About Democratic Audit

Democratic Audit is an independent research organisation, based at the University of Liverpool. We are grant funded by the Joseph Rowntree Charitable Trust to conduct research into the quality of democracy in the UK and are currently conducting the fourth full Audit of UK democracy. The previous three Audits, which assess the democratic performance of the UK using a methodology which has won international acclaim, were published in 1996, 1999 and 2002. Democratic Audit has published many path-breaking reports on specific aspects of the UK's political life from a clearly defined democratic perspective.

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About the Author

Lewis Baston has been Senior Research Fellow at Democratic Audit since July 2010. His principal areas of expertise are electoral systems, constitutional reform, the history of elections, boundaries and redistricting and devolution. Before joining Democratic Audit Lewis was Director of Research at the Electoral Reform Society and had worked at ERS since 2003. From 1998 to 2002 he was a research fellow at the Centre for the Understanding of Society and Politics (CUSP) at Kingston University. His work for Democratic Audit since 2010 has involved a number of research reports on reducing the number of MPs (with Stuart Wilks-Heeg), 'equalising' constituency size, and modelling new boundaries using the government's proposed rules.



Democratic Audit
School of Sociology and Social Policy
University of Liverpool
Eleanor Rathbone Building
Bedford Street South
Liverpool, L69 7ZA

Tel: 0151 794 3012
Web: www.democraticaudit.com