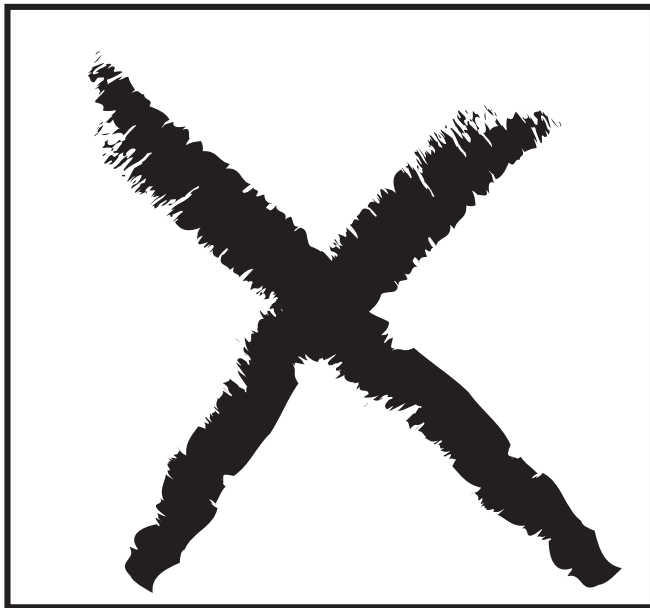


Choosing an Electoral System



**Prepared for the British Academy by Simon Hix,
Ron Johnston FBA and Iain McLean FBA with
research assistance from Angela Cummine**

CHOOSING AN ELECTORAL SYSTEM

A RESEARCH REPORT
PREPARED FOR
THE BRITISH ACADEMY

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POLICY
CENTRE

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FOREWORD

This is the first policy review to emerge from the British Academy's Policy Centre. In publishing policy reviews, the purpose of the Academy is not the advocacy of any position or stance but the furthering of the public understanding of important issues in the light of available research. Underlying the work of the Policy Centre is the view that the public interest is best served by there being available an accessible but authoritative guide to existing scholarship on particular topics.

The subject of electoral systems and electoral outcomes was chosen because there is persistent public discussion on the merits of different electoral systems and because over recent years political scientists have accumulated a great deal of knowledge on the effects of different systems. It is an area where discussion is frequently passionate and intense but lacking in the discipline of academic standards of evidence – even though much evidence is available in the professional literature.

In the task of synthesising that evidence, the Academy has been fortunate in securing the services of Professors Hix, Johnston and McLean to carry out this review. All are distinguished students of electoral systems and they have striven to present the fruits of current scholarship in an accessible form. Aided by Angela Cummine, they have produced something between a tourist guide and a cook book, dealing with highly technical issues in a lucid way. A particular merit of their approach is to show how seemingly technical matters have implications for important political values like representation and accountability. They have set a distinguished precedent for others to follow.

Professor Albert Weale, Vice President (Public Policy),
British Academy

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INTRODUCTION

Electoral reform for national elections in the UK has attracted considerable political and public attention. A report commissioned by the Labour government after its election in 1997 (reflecting a manifesto commitment) recommended change from the current system, but no action was taken. In February 2010, Prime Minister Gordon Brown promised to hold a referendum on changing the system for elections to the Commons to the Alternative Vote and committed his party to support for an elected upper house, a policy that was in the 2005 manifestoes of both other main parties. The documents accompanying the 2009 Queen's Speech included an outline arrangement for an elected upper house, with elections taking place by proportional representation in large regional constituencies (i.e. the regions used in European Parliament elections). In 2009, also, the leader of the Liberal Democrats proposed a referendum on changing the Commons electoral system to one called AV+ (recommended by the Independent Commission on the Electoral System in 1998 and discussed below.)

This report is intended to advise commentators, policymakers and a wider readership on the characteristics of the main types of electoral system and the issues affecting electors, political parties and system designers should they be implemented for elections to the House of Commons, the House of Lords, or any other elected body in the UK. The authors of this report have no axe to grind. Nor has the British Academy. There is no such thing as a perfect electoral system. Each has virtues and defects. Each has features which are virtues to some observers and defects to others. For 200 years scholars have explored the properties of electoral systems. A great deal is known about them in the academy. But public discussion is usually poorly informed. Interest groups, and political parties, have an incentive to highlight the advantages and to hide the disadvantages of the systems they favour. Politicians tend to favour the electoral system(s) under which they think they would win the most seats.

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Many other democracies, both new and established, have changed their electoral system in recent decades, and a wide range of different systems has been selected. For example, France changed to proportional representation (PR) in 1986 and then back to single-member constituencies in 1988; Italy changed from PR to a mixed-member constituency system in 1994 and then back to a form of PR with a winners' bonus for the largest coalition of parties in 2006; New Zealand changed from a British style first-past-the-post system to a German style mixed-member form of PR in 1996; and Japan changed from multi-member constituency PR to a mixed-member system, also in 1996. Whereas New Zealand changed its system after a Royal Commission report and two referendums (at which the electorate went against the advice of the main political parties), France and Japan changed theirs by acts of parliament without public votes; Italy changed its system the first time after a referendum and the second time by an act of parliament. Those changes were undertaken for a variety of reasons: to achieve greater proportionality of representation (New Zealand); to produce more stable government (Italy); or to improve the accountability of individual politicians (Japan). The changes in France were undertaken to promote partisan advantage.

The electoral systems used by these four countries cover all three main types of system deployed around the world, which form the basis of the discussion here.

1. *Single-member constituency* systems, in which the country is divided into separate territories, each of which returns one member to the relevant legislature. These include the first-past-the-post (FPTP) system currently used for elections to the UK House of Commons and to local authorities in many parts of England and Wales; and preferential voting in single-member constituencies using either the Alternative Vote (AV) – where voters rank the candidates in declining preference-order – or the Supplementary Vote (SV) – which allows voters to rank their first and second most-preferred candidates.

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2. *Multi-member constituency* systems. These include: the Single Transferable Vote (STV), which works in a similar way to AV, and is currently used for elections to the Northern Ireland Assembly, to the European Parliament from Northern Ireland and for local government elections there and in Scotland; and a variety of List systems, where parties present lists of candidates to voters, one form of which is currently used for elections to the European Parliament in England, Scotland and Wales. Almost all of these systems use a division of the country into constituencies, which may vary in the number of members returned to the legislature; a few use a single national list for the entire country. The goal of such systems is to produce an election outcome based on the principle of proportional representation (PR), in which each party fielding candidates for election is allocated a proportion of the seats commensurate with its proportion of the votes cast – although in many systems mechanisms are introduced either to preclude small parties winning representation or to boost larger parties' representation. Some also give electors a choice of candidates within parties.
3. *Mixed* systems, of which there are two main variants: Mixed Member Proportional (MMP – also termed Additional Member Proportional: AMP); and Mixed Member Majoritarian (MMM). They combine single-member with List systems – as in the systems currently used for elections to the Scottish Parliament and the National Assembly of Wales. In MMP systems, achieving an outcome close to PR is a clear goal, but this is not the case with MMM.

Each of these system types is the subject of a separate chapter in this paper.

The majority of the systems introduced during the twentieth century were of either the second or the third of those types – few countries opted for single-member constituency systems. In Eastern Europe, for

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example, most of the post-1989 democracies were inaugurated with either a multi-member or a mixed system; a few switched to one of those formats after initial elections with single-member constituencies.

Electoral system choices have also been made in the United Kingdom in recent years, and several different systems from that deployed for elections to the House of Commons have been selected – for elections to the European Parliament, the Northern Ireland Assembly, the Scottish Parliament, the National Assembly of Wales, local authorities in both Northern Ireland and Scotland, and the Greater London Assembly, as well as for the election of the Mayors of London and several other cities.

In the Appendix to this report we discuss the main trends in voting patterns in British general elections in the past 60 years. The main trends are declining support for the two main parties and divergent voting patterns in different regions of the country. If these trends continue, it will be difficult for the first-past-the-post system to produce either single-party government or a highly representative parliament.

Given the number of new systems introduced within the UK since 1997 and continued interest in the subject, the Ministry of Justice produced a report in 2008 on *The Governance of Britain. Review of Voting Systems: the experience of new voting systems in the United Kingdom since 1997*¹. As well as reviewing the outcomes of those elections held under the new systems against a number of criteria, it also included comparative data from other countries, drawing on the academic and other literature. It received very little publicity either from the government that commissioned it or in the UK media, however.

It is not our purpose here to replicate the material in that extensive review, nor that produced by other bodies – such as the Electoral Reform Society and the Independent Commission on

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Proportional Representation². Our goal here is to identify the features of the main types of electoral system available that might be considered for future elections to the House of Commons – or any other elected body in the UK, such as a replacement for the House of Lords – and the choices that have to be made when implementing such systems. For comparison, we include material on the current system deployed for UK Parliamentary elections.

We describe and illustrate the salient features of the main systems and set out, briefly and without technical details, what adoption of any system implies for:

- The electorate;
- The parties; and
- The system designers/implementers.

We do not attempt to predict what result might have occurred if any of the methods discussed were to be applied retrospectively to a recent British election – e.g. in the distribution of seats in the House of Commons if the 2005 general election had been fought using a different system. Although other authors have done this, whose work we discuss, there is a fundamental problem with such studies. Any change of system deployed will influence the behaviour of both the parties and the electorate; under different systems, parties will campaign in different ways to maximise their number of votes/seats won, and electors will similarly alter their decisions according to the particular circumstances. What we do here, instead, is use actual election results – from both the UK and elsewhere – to illustrate not only the sorts of outcome that different systems deliver but also how particular aspects of each system (most of which have a number of variants) can affect the detailed outcome given the same pattern of voting.

In evaluating these electoral systems, we focus on a number of criteria that must influence the choice of which system to implement:

¹ Cm 7304, 2008. Available to download at: <http://www.justice.gov.uk/publications/docs/voting-systems-review-full.pdf>.

² Several of the Electoral Reform society's publications are available to download at: <http://www.electoral-reform.org.uk/article.php?id=9>. The Independent Commission's report is available at http://www.ucl.ac.uk/constitution-unit/files/108_icpr_final.pdf.

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- Whether the elected legislators should represent a defined area and its population – a constituency – within the national territory, plus the size and nature of that area;
- Whether a major goal of the system should be to deliver an outcome that approaches proportional representation – i.e. where a party's share of the seats allocated should be commensurate with its share of the votes cast; and
- Whether electors should be able to indicate their preferences both for which parties should be represented in the legislature and for which individuals should be elected to represent those parties.

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WHAT PRIOR RESEARCH SHOWS

Much research on individual electoral systems – such as that reported in the Ministry of Justice report on *The Governance of Britain* – is descriptive and does not undertake a comparative assessment of the outcomes from the various systems. The latter has been the focus of much academic research, seeking to identify general patterns across a large number of systems and elections. This chapter briefly summarises those findings before turning to detailed discussions of the three main types identified above.

That body of research, focused almost entirely on elections to national legislatures, usually their lower houses, has encountered problems because of the small number of examples of particular cases. Very few countries use either STV or AV, for example, and MMP/AMP and MMM systems have only recently been adopted by more than a small number of countries, providing few cases for comparative analysis.

Although there are general trends, the research clearly indicates that there is no deterministic relationship between the type of system and particular election outcomes, such as turnout levels, the number of parties represented in the legislature, and whether one party wins an overall majority of seats. The detailed outcomes in particular countries at each election depend on contingent circumstances – such as the country's political culture, and the degree of ethnic and regional fragmentation – including the specific rules with which a particular system is enacted. The systems discussed here have a number of variants, and the detailed choices made by the system designers can have substantial impacts. Nevertheless, some important general patterns have been identified.

The main conclusions are:

1. The most important determinant of the proportionality of a system is the magnitude of its electoral constituencies. (In this

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report we use ‘magnitude’ to mean the number of MPs elected from each constituency, and we use ‘size’ to mean the number of electors per constituency.) Magnitude may be fixed: FPTP and AV use single-member constituencies, for example. Or it may be variable: the List system used for European Parliament elections in the UK takes the country’s 12 standard regions as its constituencies. As they have widely varying electorates, as discussed below, the magnitude of those constituencies – the number of MEPs per region – varies. In general, larger constituency magnitudes are associated with greater proportionality in election outcomes.

2. Turnout is usually higher at elections in countries with PR than in countries without. It also tends to be even higher in PR systems with smaller multi-member constituencies than in those with larger multi-member constituencies, and also tends to be higher where citizens can express preferential votes between individual politicians from the same political party rather than simply choosing between pre-ordered party lists. In general, the more choice electors are offered the greater the likelihood that they will turn out and exercise it. However, these effects are not particularly strong, there is some evidence that highly complex electoral systems suppress turnout, and turnout levels may partly reflect influences other than the electoral system; for instance in some countries voting is compulsory. It is not safe, therefore, to predict that electing the House of Commons by a PR system would be certain to increase turnout.
3. FPTP and AV are more likely than PR systems to produce single-party majority and long-lasting governments. This is because they translate the vote share of the largest party (and often the vote share of the second-largest party also) into an even larger share of seats. Indeed, under those systems the largest party may gain an absolute majority of seats without having won more than half the votes. However, this effect is also fairly weak. There

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are countries using modified forms of PR that typically have single-party governments (Spain and Japan) and/or long-lasting coalition governments (Germany or Denmark). Countries using single-member constituency systems with a number of relatively large localised parties do not necessarily have majority governments. Both Canada and India exemplify this. Canada has a strong regional party (the Bloc Québécois) which runs for election in only its home province and other parties win representation from only some of the Provinces. Minority governments have been relatively common there as a consequence; of the 40 parliaments elected since federation in 1867, 13 have had minority governments, including the three elected in 2004, 2006 and 2008. And in the UK the combined vote-share of the largest two parties has declined substantially in recent decades (as illustrated in the Appendix); should that decline continue, a single-party majority may not be the outcome of a future election even under FPTP.

4. Multi-member constituency PR systems tend to result in a greater number of parties with candidates elected to the legislature than is the case with single-member systems, some of which are characterised by a predominance of two parties only (the USA being a prime example). In a large number of multi-member constituency systems, however, mechanisms, such as minimum vote share thresholds, are put in place to prevent small parties winning representation and thereby avoiding the creation of highly-fragmented legislatures in which small parties may accrue power incommensurate to their size in the formation of coalition governments, which can make for government instability.
5. There tends to be greater inter-election volatility in single-member than multi-member electoral systems – not only in the electors’ choices but also in the relative size of the parties’ contingents in the legislature. In single-member constituency

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systems, small shifts in support between the dominant parties in the ‘marginal constituencies’ can lead to many constituencies changing hands. One major exception to this is the USA, where gerrymandering of constituencies is undertaken in many states by political parties, to make most seats safe for one of them and limit the number of marginal seats.

6. Systems may be candidate-based or party-based. This distinction crosscuts the distinction between single-member and multi-member PR systems. FPTP and AV give some scope for independent candidates with strong local support to gain election, although in the UK this rarely happens. Nevertheless, these are best characterised as party-based systems, because parties control the process of nominating candidates. Many List and MMP systems are also party-based, because the party draws up the rank-ordering of its candidates, which normally determines who is elected within the total number allocated. Some countries have introduced modifications that make their List or MMP systems more candidate-based, by allowing electors choice within a party’s list of candidates. STV is the most candidate-based of the systems we consider; choice of candidates, within as well as between parties, is at the core of its rationale.
7. There is no good evidence that any of the systems we consider here is ‘too complicated for voters to understand’, as is sometimes claimed. Instructions to *scrutineers* are sometimes extremely complicated, notably for STV, but instructions to voters are not. However, when voters are asked to vote in two or more simultaneous elections using different electoral systems, the number of spoiled ballot increases. Notable examples of this were the Scottish Parliament and local government elections in 2007 (when ballot paper design exacerbated the problem), and also the 2004 London Mayoral and Assembly elections, which were held simultaneously with the European Parliament election.

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8. It has been argued that PR makes it easier for *socially*, as well as politically, underrepresented groups to gain election. The UK House of Commons elected in 2005 contained 126 women (20% of all MPs) and 15 from minority ethnic groups (2%, compared with a minority ethnic population of 7.9% in the UK). However, it is not practicable to design electoral systems to secure representativeness on multiple dimensions simultaneously. Policymakers who wish to make the House of Commons more socially representative of the UK electorate should not expect to achieve this primarily through changing the electoral system; candidate nominating procedures are much more important.
9. Under FPTP (and AV, which is used for elections to national legislatures in Australia, Fiji and Papua New Guinea) many seats are safe for the incumbent party; their margin of victory is such that challengers have only a very small chance of unseating them because it would involve a very large proportion of the electorate changing their partisan preference between elections. The national parties thus have no incentive to campaign intensively in either their safe or their hopeless seats, and an incentive to focus their constituency campaigns on marginal seats. Constituency campaigning should be spread more evenly under PR.
10. Because most election campaigns in single-member constituency systems are won or lost in the relatively small number of marginal seats, this provides an incentive for governments to focus not only their campaigning but also (some at least of) their policies on certain parts of the country only. They may, for example, focus policies that benefit certain groups over others on their core supporters in their safe seats; they may also target other policies on the swing voters in marginal constituencies who might determine the overall election outcome. Electors in the government’s ‘hopeless seats’ where it has little chance of victory would then be disadvantaged – which could mean that substantial areas of a country are relatively ignored in the formulation of a range of

government policies. Such targeting could also occur in multi-member constituency contests, although the greater the constituency magnitude the smaller the likelihood that a governing party would focus many of its policies on particular areas and voter groups. There is also a tendency for representatives from single-member constituencies to steer benefits towards their home areas (a process generally known as pork-barrelling). This also occurs in multi-member constituency systems, both STV (where individual candidates are competing within as well as between parties) and open List systems (especially those with relatively small constituencies).

TRADE-OFFS IN THE DESIGN OF ELECTORAL SYSTEMS

There is no perfect electoral system. Designing an electoral system involves making a choice about how to trade off several desirable objectives. Two such trade-offs which political scientists understand reasonably well are: (1) between the representativeness of a parliament and government accountability; and (2) between the accountability of individual politicians and party cohesion.

Regarding the **trade-off between the representativeness of parliament and government accountability**, some people believe that elections should primarily produce a highly representative parliament, where party vote-shares translate directly into party seat-shares. Other people believe, meanwhile, that elections should primarily deliver accountable single-party government. It is difficult to achieve both of these objectives.

Single-member constituencies, as currently used for the UK House of Commons, tend to produce stable single-party governments. Single-party government is highly desirable in terms of the electorate being able to identify which policies will result from a particular election outcome and also in terms of the ability of the electorate to hold a government to account for its successes or failures: to 'throw

the rascals out'. Also, small swings in votes between parties tend to be magnified in terms of election outcomes, with the largest party winning proportionally more seats than their share of the vote. This enables elections under single-member constituencies to produce decisive political outcomes.

On the other hand, single-member constituencies can produce highly unrepresentative parliaments, in terms of the relationship between the proportion of votes each party receives and the proportion of seats each party wins. Vote-shares in single-member constituency elections may translate quite well into parliamentary seat-shares, if distortions are cancelled out across constituencies, as tends to be the case in the USA. However, if a country has a multi-party system, single-member constituencies tend to lead to unrepresentative parliaments. And, if seat-shares in parliament do not correspond closely to vote-shares in the election, this usually leads to disproportional representation in government: where the party which forms the government has less than 50% of the support of the electorate and, as a result, might be some distance either to the left or to the right of the average voter.

At the other extreme, 'pure' PR systems, with large multi-member constituencies, will produce highly representative parliaments, in terms of parties' vote-shares mapping closely on to parliamentary seat-shares. Some people regard this pure form of PR as the *sine qua non* of 'representation', since parliaments under these systems are microcosms of the various political, geographic or ethno-linguistic divisions in society. However, the pure form of PR performs less well on the government accountability side. This is because elections held under these systems can lead to large and unwieldy coalition governments. This makes it difficult for voters to identify which government is likely to form after an election and also which party in a coalition government is responsible for which policies, which makes it difficult to decide who to reward or punish in the next election.

Consequently, people who believe that government accountability is more important than a highly representative parliament prefer single-member constituencies to pure PR, whereas people who

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believe the opposite prefer PR to single-member constituencies.

However, the choice between a highly representative parliament and a highly accountable government may not be so stark. Many countries have designed electoral systems to try to achieve ‘the best of both worlds’. This usually involves a system with one or more ‘modifications’ of pure PR, to try to achieve single-party government or a smaller number of parties in a coalition government, without reducing the representativeness of parliament too much. For example, some countries apply a national or regional vote share threshold to qualify for representation, which reduces the number of parties in parliament, makes government formation easier, and allows voters to identify which coalition is most likely to form as a result of a particular election outcome. Another modification is to use small multi-member constituencies, which reduces the overall proportionality of an electoral outcome and reduces the number of seats for small parties, which then increases the likelihood of single-party government. A third modification is to apply a ‘winner’s bonus’ to the largest party or alliance after a PR election has taken place, which guarantees that one party or alliance has a parliamentary majority, and so encourages voters to support a party which has a chance of being the largest in the election.

It is not guaranteed that these modifications to PR will achieve an optimal trade-off between a representative parliament and government accountability. It is difficult to predict how voters and parties will behave under a change of the electoral rules, which will then affect how proportional a parliament will be, or whether a single-party government can be formed. There is some evidence that, on average, modified PR systems slightly outperform pure PR systems and single-member constituency systems in terms of producing single-party government and a relatively proportional parliament. Nevertheless, in some countries modified PR systems lead to less representative parliaments *and* unaccountable and unstable coalition governments, which many people would regard as ‘the worst of both worlds’.

Regarding the **trade-off between the accountability of**

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individual politicians and the cohesiveness of political parties, some people want highly accountable politicians, whereas other people want highly cohesive parties, which are able to deliver on their electoral promises. Again, it is difficult to have both.

Closed-List PR systems in particular enable parties to control their politicians, because under these systems parties control which position each candidate is placed on the list (although strong whipping is a characteristic of some other systems too, such as in Ireland, which uses STV). Under this electoral system, however, voters have no way of choosing between politicians from the same party, which prevents voters from holding individual politicians to account for their actions. As a result, members under Closed-List PR tend to display high levels of voting cohesion in parliament and to be beholden to their party leaders rather than their voters.

At the other extreme, under preferential voting systems, such as Open-List PR and STV, politicians from the same party are forced to compete with each other for votes. This enables voters to reward or punish incumbent politicians without necessarily switching the party they support, which increases the accountability of individual politicians. There is considerable evidence, for example, that citizens in countries with Open-List PR or STV are more likely to be contacted by, or to have contact with, their members of parliament than citizens who live in countries with either Closed-List PR or single-member constituencies. The ‘constituency link’ seems to be *stronger* under Open-List PR in Denmark or STV in Ireland than under the British FPTP system.

On the other hand, under Open-List PR and STV party leaders are less likely to be able to control their backbenchers than under Closed-List PR or FPTP. This is because politicians in Open-List PR or STV can make a virtue of their independence from their party when campaigning at the next election. There is some evidence that party cohesion is lower under Open-List PR or STV than under Closed-List PR or FPTP. In general, under preferential voting systems leaders are forced to take account of the opinions of their backbenchers before parties take positions in parliamentary votes,

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which party leaders rarely need to do under Closed-List PR.

FPTP, AV and Mixed-Member systems are somewhere between these two extremes. This is because politicians who are elected in single-member constituencies are accountable both to their party, which places them as a candidate in their constituency, and to the voters in their constituency. Incumbent politicians in single-member constituencies tend to be difficult for party leaders to remove, which gives them a degree of independence. However, voters cannot choose between candidates from the same party, which makes it difficult for voters to hold individual politicians to account. Under some circumstances, single-member constituency systems might be a reasonable half-way house between accountable politicians and cohesive parties. Under other circumstances, however, they can lead to highly unaccountable politicians *and* fragmented parliamentary parties, which would be a negative-sum trade-off between these two objectives.

One other factor which influences the trade-off between accountable politicians and cohesive parties in multi-member constituencies is the average number of seats in each constituency (the constituency magnitude). Under Closed-List PR, the larger the constituency, the lower the individual accountability of politicians and the higher the cohesion of parties. This is because the larger the constituency, the smaller the opportunity for candidates to differentiate themselves from the party and the more centralised the process of selecting candidates is likely to be. In contrast, under Open-List PR or STV, the relationship between constituency magnitude and individual accountability/party cohesion is in the opposite direction. In these systems, the larger the constituency, the more candidate-centric the election becomes, which increases individual accountability and decreases party cohesion.

If Open-List PR or STV is used, because of the dangers of highly personalised campaigns and weak parties in high-magnitude multi-member constituencies, most political scientists advocate relatively small multi-member constituencies under these systems. Small constituencies with some form of preferential voting provide some

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incentives for candidates to cultivate a personal vote, and so allow for voters to hold individual politicians to account and choose between candidates from the same party, yet prevent elections becoming completely dominated by high-profile personalities and undermining the cohesion of parties in parliament.

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TWO KEY ISSUES: CONSTITUENCY MAGNITUDE AND APPORTIONMENT

Before proceeding to chapters on the properties of the individual systems, we discuss two further important general points. One concerns *constituency magnitude*; the other concerns *apportionment*, which, put simply, is about rounding off fractions to whole numbers.

CONSTITUENCY MAGNITUDE

The most important factor determining the proportionality of seats to votes is the magnitude of electoral constituencies (i.e. the number of MPs they elect). The key number is the *quota*, Q , which is the number of votes cast, divided by one more than the number of seats available, plus one.³

A party is guaranteed as many seats as it can get quotas. In single-member constituency systems, such as FPTP and AV and its variants, this formula simply states that a party which gets more than half the votes is guaranteed the seat – although, of course, if more than two parties contest the seat, with FPTP the proportion needed for victory may be substantially smaller.

In a three-member seat a party which gets a quarter of the vote is guaranteed a seat; one which gets half the vote is guaranteed two seats; and so on. In a ten-member constituency the quota is $1/11$; and in a very large constituency (for instance when the whole country is treated as one constituency, or when the compensating element in a mixed-member system is calculated over a very large territory), very small parties can gain representation. In a 99-member constituency any party which can get 1% of the vote is guaranteed a seat.

³ The formula is as follows:

$$Q = \left[\frac{\text{total valid votes}}{(\text{total number of seats}) + 1} \right] + 1$$

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Some electoral systems allow a small party to win a seat with less than one quota. In particular, the Sainte-Laguë system discussed below awards a small party its first seat at approximately $Q/2$. If it is desired to exclude small parties, thresholds below which a party is denied a seat may be deployed.

It follows that, if constituencies are of unequal magnitudes, small parties have unequal chances of winning a seat. This may be seen for instance in elections from the UK to the European Parliament, for which the constituencies are the country's twelve standard regions: Scotland, Wales, Northern Ireland, and the nine regions of England that are used for some statistical and administrative purposes. At the 2009 elections to the European Parliament, the number of seats per constituency ranged from 3 in the smallest (Northern Ireland and North East of England) to 10 in the largest, the South East of England. In consequence, small parties had a lower threshold to cross in the large constituencies than in the small ones.

Those who draw up boundaries for multi-member constituencies have two options, each with an advantage and a drawback. They may use existing administrative units (which may be historic entities, such as Scotland, or may not); or they may draw equal-electorate constituencies, each with the same number of members. In the first case, there is no opportunity for politicians to manipulate boundaries for partisan reasons – although a body must have responsibility for allocating seats to the regions and re-allocating them as a consequence of either population shifts or changes in the total number of seats to be allocated (as happens after every decennial census in the USA, when each State's number of seats in the House of Representatives and the Electoral College for presidential elections is re-determined). In such a case, the chances of smaller parties are unequal if constituencies differ in their magnitude. In the second case, the chances of a party of any given size are the same everywhere; but there will be a costly and possibly manipulable boundary-drawing process.

In virtually all systems, therefore, the definition of constituencies is a crucial influence on election outcomes. In some – such as single-

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member systems and those mixed systems with a single-member component – the definition of constituencies can be highly conflictual, especially where (as in many parts of the USA) the procedure is partisan. Delimiting the boundaries of individual constituencies can have an important bearing on a candidate's/party's chances of success there. Such gerrymandering is easy with modern Geographic Information Systems. But even in multi-member constituency systems, although the constituency boundaries may be fixed, the apportionment of seats to them can have significant political implications.

APPORTIONMENT

There are two apportionment issues: (1) the allocation of seats to geographical constituencies; and (2) the allocation of seats to parties, on the basis of their share of votes.

MPs come in whole numbers. Vote shares, and seat shares in multi-member constituencies, are fractions. The task is to fit the one into the other and is not as straightforward as it looks.

However, the **allocation of seats to geographical constituencies** is one of the few problems for which voting specialists can say that one answer is correct, and all the others are wrong.

To illustrate this we consider the example of the UK's current European Parliament constituencies – the 12 standard regions of the UK. For the 2009 European Parliament election, the UK was entitled to 72 seats, three of which it reserved for Northern Ireland (which would otherwise only have been entitled to two). How were the remaining 69 seats to be assigned to the 11 regions of Great Britain? The Electoral Commission solved this problem using 2006 electorates (as required by EU legislation), which as it happens do not reveal any of the paradoxes of apportionment. But if it had used the latest numbers available at the time (the numbers for the December 2008 electoral register), it might have encountered some paradoxes. We

therefore use these numbers (Table 3.1) for illustration.

Table 3.1.
The apportionment of 69 European Parliament seats to 11 British regions using 2008 electorates.

Region	Electorate	TE	RTE	RDTE	H	SLE	SL
North East	1,964,812	3.01	3	3	3	3.016291	3
North West	5,278,051	8.09	8	8	8	8.102627	8
Yorkshire & Humberside	3,831,774	5.87	6	5	6	5.882367	6
East Midlands	3,373,143	5.17	5	5	5	5.178298	5
West Midlands	4,115,063	6.31	6	6	6	6.317260	6
East Anglia	4,322,949	6.63	7	6	7	6.636390	7
London	5,537,622	8.49	8	8	8	8.501108	9
South East	6,335,874	9.71	10	9	10	9.762549	10
South West	4,036,053	6.19	6	6	6	6.195967	6
Scotland	3,930,244	6.03	6	6	6	6.033534	6
Wales	2,279,779	3.50	3	3	4	3.499814	3
TOTAL	45,005,364	69.00	68	65	69	69.090210	69
Average electorate per seat		652,251.65					
Sainte-Laguë divisor		651,400.00					

Key: TE – theoretical entitlement; RTE – rounded theoretical entitlement; RDTE – rounded down theoretical entitlement; H – Hamilton apportionment; SLE – Sainte-Laguë exact entitlement; SL – Sainte-Laguë apportionment.

In December 2008, the North East region had a qualifying electorate of 1,964,812. With the whole of Great Britain having an electorate of just over 45 million and 69 seats to allocate, the North East share, to two decimal places, is 3.01. Any fair system would round this to the nearest whole number, and assign three seats to the North East. The exact entitlement of each region is shown in the next column (TE).

So far so simple. The first suggestion is to do this calculation for all 11 constituencies, round the answer off to the nearest whole number, and declare the job done. Unfortunately, this does not work. The rounded totals only add up to 68. There is one seat left over. How is it to be assigned? The rounded totals might also have added up to 70, in which case one seat would have to be taken away – from where?

The next move, therefore, is to give each constituency the whole number contained in its entitlement. This (in the given example) assigns only 5 seats to Yorkshire and the Humber against its entitlement of 5.87. This process will (almost) always leave a few seats over. The most intuitive way to distribute those was devised by the American politician Alexander Hamilton in 1790. The Hamilton rule states:

First, choose the size of the house to be apportioned. Find the exact entitlements of each subunit. Give each subunit the whole number contained in its exact entitlement. Assign the remaining seats to those subunits having the largest fractions or remainders. Stop when all seats have been assigned.

For obvious reasons, the Hamilton method is also known as the ‘largest remainder’ method. Unfortunately, it has a fatal flaw, which was discovered by the chief clerk of the US Census Bureau in 1880. There was talk at the time of increasing the size of the House of Representatives. The chief clerk found that in a House of 299 seats, Alabama would be entitled to eight of them; in a House of 300 seats, it would be entitled to only seven! This ‘Alabama paradox’ rules out the whole class of largest-remainder rules including Hamilton’s because they violate a fundamental property which theorists call ‘monotonicity’. Roughly, this means that if a unit’s relative population increases, or if the number of seats in the House increases, that unit’s number of seats must never decline. The only way of avoiding the Alabama paradox is to discard the whole class of largest-remainder systems and look instead at ‘divisor’ systems.

All divisor systems work by first finding a suitable divisor. This is divided into the qualifying electorate of each subunit, the resulting non-round quotients are rounded off in an appropriate way, and the list of numbers then adds up to the required total size of the house. Only two divisor systems need concern us. Each has two names, because both were invented completely independently by an American politician and a European electoral reformer. For the task in hand, one is wrong and the other is right. The wrong one is known as

the ‘Jefferson’ or ‘D’Hondt’ (DH) system. It rounds off by ignoring all fractions. That is systematically biased towards large subunits. It should therefore never be used unless designers *want* a bias to the large, which is difficult to justify in a democracy.

The correct divisor system, which should always be used, is therefore the ‘Webster’ or ‘Sainte-Laguë’ (SL) system. It was first devised by the American politician Daniel Webster in 1832, but is better known in Europe under the name of the French mathematician André Sainte-Laguë, who reinvented it independently in 1910. The SL rule states:

First, choose the size of the house to be apportioned. Find a divisor x such that the whole numbers nearest to the quotients of the subunits sum to the required total. Give each subunit the resulting, rounded, whole number of seats.

In the worked example in Table 3.1, the divisor 651,400 does the trick. Dividing this number into the electorate of each standard region gives the list of quotients in the column headed ‘SL exact’. These are then rounded, up or down, to the nearest whole number. This gives the numbers in the far right column, which would have been the numbers of European seats that the Electoral Commission would have assigned to each British region if they had used 2008 electorate data and the SL divisors.

Apportionment is also needed to solve another problem in multi-member constituencies: of **allocating seats to parties after the votes have been counted**. The exact entitlement of each party will typically not be a whole number. Once again, a set of whole numbers is needed, to determine how many seats are to go to each party. Largest-remainder and D’Hondt systems are widely used around the world for this task. Largest-remainder systems are non-monotonic, and hence should be avoided. (STV is also non-monotonic, but it is not used for this purpose). D’Hondt systems are biased in favour of large parties. If the objective is to achieve a fully proportional outcome,

then the only fair system is SL. However, under SL small parties win a seat when they pass half the quota defined above. If it is desired both to have proportionality and to discourage small parties, SL could be combined with a minimum vote requirement.

Both the DH and SL systems are often implemented by dividing each region’s electorate by a series of divisors and rank ordering the resultant figures to decide the allocation of seats. (The outcome is the same as the method described above: the identity is proved in Balinski and Young’s book *Fair Representation*.) For DH those divisors are the sequence of all integers 1,2,3,4, and so on, whereas for SL it is the sequence of odd number integers 1,3,5,7, and so on (although in some cases the first divisor is 1.4, which is done to slightly favour large over small parties).

Table 3.2.
The allocation of seats in the South West region of England at the 2009 European Parliament elections

	<i>Divisor</i>		
<i>D’Hondt</i>			
Party	1	2	3
Conservative	468,742	234,371	156,247
Labour	118,716	59,538	39,752
Liberal Democrat	266,253	133,127	88,751
Green	144,179	72,090	48,060
UKIP	341,845	170,923	113,948
BNP	60,899	30,445	20,296
<i>Sainte Laguë</i>			
Party	1	3	5
Conservative	468,742	156,247	93,748
Labour	118,716	39,752	23,743
Liberal Democrat	266,253	88,751	53,251
Green	144,179	48,060	28,836
UKIP	341,845	113,948	68,369
BNP	60,899	20,296	12,178

Key: the figures in bold indicate a seat allocated to the named party

Use of these systems of divisors is illustrated in Table 3.2 using the allocation of seats among the parties in the South West region of

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England at the 2009 European Elections; in this, the seats allocated are indicated in bold. The first block shows that using DH the Conservatives would have won three seats, UKIP two and the Liberal Democrats one. If SL had been used, on the other hand, the Conservative and UKIP delegations would have been reduced by one each, with Labour and the Greens both gaining a seat. Similar differences would have been produced in several other regions, with the net impact if SL had been used rather than DH being a reduction in the number of Conservative seats from 25 to 21 and an increase in the Green party's representation from two MEPs to seven.

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4

SINGLE-MEMBER
CONSTITUENCY SYSTEMS

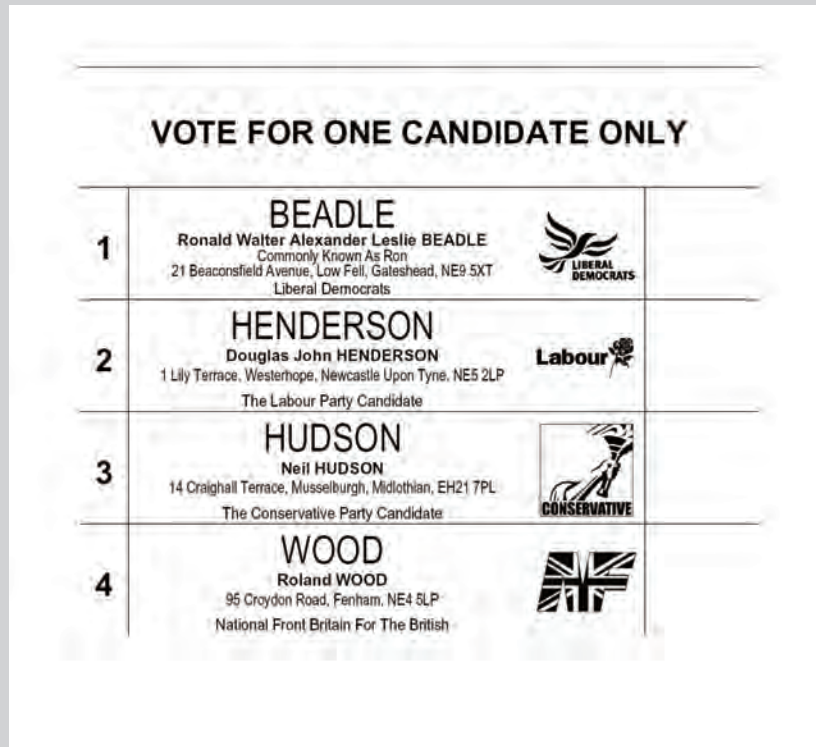
Single-member district systems, in which the country is divided into a set of electoral districts/constituencies each returning one legislator, are part of the British colonial legacy in many parts of the world. Some countries that previously used them (such as New Zealand and South Africa) have recently changed to other systems, however, and only three of the new democracies formed since 1945 (Albania, Macedonia and Ukraine) introduced single-member district systems based on the British model – and all subsequently switched to a mixed system (with two later changing again, to list systems).

FIRST-PAST-THE-POST (FPTP)

Among these systems, the commonest version is that used for elections to the UK House of Commons, usually termed first-past-the-post (FPTP: an alternative term is single member plurality). Only since 1950, however, has the entire House been elected from single-member constituencies; previously at least some MPs were elected from multi-member constituencies, which were the most common type until 1867. There were numerous two-member seats, a small number of three-member seats in the big cities, and a single four-member seat (the City of London); in addition, university graduates who could vote for both a university seat and in their home constituency had two votes.

FPTP is simple to use for electors – a slate of candidates is nominated in each constituency; voters select the candidate that they wish to see represent their constituency (as illustrated in Figure 4.1 by the ballot paper used for the Newcastle upon Tyne North constituency at the 2005 UK general election); and the candidate with most votes in each constituency is declared elected, irrespective of whether he/she has majority support.

Figure 4.1.
Example of a First-Past-the-Post ballot paper used in the 2005 UK general election in the Newcastle upon Tyne North constituency



In UK parliamentary elections, although the ballot paper explicitly invites electors to select from among the named candidates – so that selection is of the person considered best able to represent the constituency’s interests – electors are also being asked, implicitly at least, to indicate which party they wish to see form the country’s next government. For more than a century, this has been the predominant issue in most electors’ decisions on who to vote for, as reflected by the decision in 1970 to allow candidates to indicate on the ballot paper which party they were standing for. Thus although in a few cases enough electors have voted for an individual standing as an independent – as with the elections of Martin Bell as MP for Tatton in 1997, Richard Taylor for Wyre Forest in 2001, and Peter Law for Blaenau Gwent in 2005 – in the great majority of constituencies partisan concerns predominate and individual candidates’ characteristics are at best of only minor importance as a determinant of the election outcome. Very few UK MPs win more than a small personal vote additional to that reflecting their party affiliation.

The results of a Parliamentary election conducted under FPTP are usually characterised by one or more of the following features:

- There is substantial *disproportionality* between the share of the votes cast for each party across the country and its share of the Parliamentary seats. This was acutely the case in Great Britain (i.e. the United Kingdom less Northern Ireland, which has a separate party system) at the 1983 general election (Table 4.1). The two largest parties – Conservative and Labour – got larger shares of the seats than of the votes (the former substantially so), whereas the smaller parties, notably the Alliance (of Liberals and the SDP), got a disproportionately small share of the seats relative to their vote share.

Table 4.1.**Result of the 1983 general election in Great Britain**

Party	%V	%S
Conservative	43.5	62.7
Labour	28.3	33.0
Alliance	26.0	3.6
SNP	1.1	0.3
PC	0.4	0.3
Other	0.7	0.0

Key: %V – percentage of the votes; %S – percentage of the seats

In general, parties with small shares of the votes win very few seats unless their support is concentrated in relatively few constituencies (as was the case for Plaid Cymru in 1983). Even with as much as one-quarter of the votes cast, a party whose strength is relatively evenly distributed across the country's constituencies will win few seats. To gain some representation in parliament, therefore, smaller parties need geographically-concentrated support (as in Canada, where several have their support concentrated in particular provinces). Even then, the bigger parties are still likely to get larger shares of the seats than of the votes. This has been the case in Great Britain at all recent elections, with the largest party generally getting the most disproportionate share of the seats and – in almost all cases, despite having only a minority of the national vote total – a House of Commons majority. The system can thus deter the establishment of new parties that might win an element of electoral support but have very little expectation of winning seats; donors will generally be unwilling to support such enterprises and activists reluctant to give their time to promoting what seem to be 'lost causes', unless by doing so they are harming the cause of another party. The result is that the party system becomes polarised, with only a small number of parties able to gain substantial parliamentary representation. At its extreme, the polarisation may be on two parties only, although in some countries different pairs of parties dominate in different areas.

- Although elections using this system almost always result in the largest party getting a larger share of the votes than of the seats, if the geographies of support for the larger parties are very different – especially if one has its voting strength highly concentrated in certain parts of the country – then the second-placed party in terms of vote share may win the largest number of seats. In 1951, for example, Labour won 48.8% of the votes cast and the Conservatives/National Liberals 48.0%, but Labour won only 295 of the seats compared to their opponents' 321, with which the Conservatives were able to form a majority government. In February 1974, the Conservatives won 37.9% of the votes cast and Labour 37.2%, but Labour obtained 301 seats (which was less than a majority in the House of Commons) and the Conservatives 297. Similar reversals of the largest vote and seats shares happened in New Zealand at two successive general elections, when that country used FPTP to elect its entire House of Representatives (the MMP system discussed below was first used in 1996). In 1978, Labour obtained 11,000 more votes than the National Party (40.4% for the former and 39.8% for the latter), but National won 11 more seats and a majority of ten in the unicameral parliament. Three years later, the difference between the two parties was even less: Labour had a majority over National of 4,000 votes, but National obtained four more seats and an overall majority of two. (The Social Credit party won one seat in 1978 and two in 1981, having contested all 92 constituencies: its share of the votes cast at those two contests was 16.1% and 20.7% respectively.)
- In addition to disproportionality there is also a *bias* in many of the election results, whereby the larger parties are not treated equally in the translation of votes into seats. Party *x*, for example, may get 42% of the votes cast at an election and 60% of the seats, with its main opponent (party *y*) getting 38% of the votes and 30% of the seats. If the vote shares were reversed uniformly across all constituencies, and if there was no inherent bias, then party *y* should also get 60% of the seats if it obtained 42% of the votes.

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One way of estimating whether an election result was biased is to construct a 'notional election result' with each party getting an equal share of their joint vote total. In our example, parties x and y would each get 40% of the votes: if one got a larger share of the seats than the other with these equal shares, this would indicate bias.

Such bias has been a feature of British election results over the last 60 years. Until the 1960s, it favoured the Conservative party: in 1951, for example, if the Conservatives and Labour had achieved equal vote shares, the Conservatives would have won 59 more seats than Labour. (As indicated above, Labour won 200,000 more votes than the Conservatives in 1951, but the latter won 26 more seats.) After 1987, there was a major switch: not only did the bias from then on favour Labour, but it was also much larger. In 1997, for example, if the Conservatives and Labour had obtained equal vote shares, Labour would have won 82 more seats than their main opponent: the comparable pro-Labour bias figures for 2001 and 2005 were 131 and 111 seats.

Production of bias via the translation of votes into seats is a function of a number of features of the electoral system's geography, each of which may enable one party to win seats with fewer votes on average than the other. It may, for example, tend to win in the smaller seats (those with fewer electors on average), or by smaller majorities – thereby accumulating fewer surplus votes in safe seats. In Britain the Conservatives have been disadvantaged since 1945 because the seats that they won at each election on average contained more electors than those won by Labour. But the Conservatives were advantaged until the 1990s because the geography of Labour support was spatially more polarised, with many surplus votes from the large majorities in the latter's industrial and inner city heartland seats. From the 1990s on, Labour's electoral strategy involved concentrating its campaigns on marginal seats and being relaxed about tactical voters switching to the Liberal Democrats where the latter's candidates had a

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greater chance of defeating the Conservatives – with Liberal Democrat supporters switching to Labour in similar tactical situations where Labour was better placed to defeat a Conservative candidate. This reversed the impact of the geography of support on the bias estimates. The geography of Labour's support changed so that in general where it won, it won comfortably but no more, and where it had no chance of victory it lost badly – thereby reducing its surplus votes in the former constituencies and its wasted votes in the latter. Labour also benefited in the creation of biased election outcomes from the substantial fall in turnout over recent elections (from an average of just over 74% in the 1970s, 1980s and 1990s to 59.4% in 2001 and 61.4% in 2005). Abstention rates tended to be higher in the seats that it won. There was also pro-Labour bias resulting from Liberal Democrat victories in seats that might otherwise have been won by the Conservatives.

- In any single-member constituency electoral system where support for the various political parties is spatially polarised, there is likely to be a large number of seats that one of them regularly wins by a substantial margin, and which are therefore not likely to change hands at subsequent general elections. In most cases, these safe seats experience relatively low-intensity campaigns, since one party is virtually sure of victory there and the others see little chance of unseating the incumbent. Campaigning is instead focused on the marginal seats, where a change in the outcome is possible.

This is illustrated by the 2005 general election results (Table 4.2). Of the 626 seats in Great Britain, 280 were won by one of the parties with a margin of more than 20 percentage points over its nearest rival; it would involve a massive shift of support for those to be lost at the next contest. Another 91 were won with a margin of 15–20 percentage points, and shifts of that magnitude between general elections are also extremely rare in Britain, even

in individual constituencies. Only 167 of the seats – 27% of the total – would change hands with a shift of support from the first- to the second-placed party of less than 10 percentage points.

Table 4.2.
Marginality of seats after the 2005 British general election

Margin	Seat won by				Total
	C	L	LD	N	
Less than 5%	28	41	14	3	87
5-10%	17	47	16	0	80
10-15%	28	45	12	2	88
15-20%	40	40	9	2	91
More than 20%	84	181	11	2	280
Seats	197	354	62	9	626

Key: C – Conservative; L – Labour; LD – Liberal Democrat; N – nationalist (Plaid Cymru and Scottish National Party)

Parties focus the local components of their general election campaigns on these marginal constituencies. Alongside national strategies designed to win support for their policies and leaders they target the relatively small number of voters in such constituencies who might be convinced to transfer their support from another party at the previous election (or to vote this time, having previously abstained). If the 2010 election were to be fought in the same constituencies as the 2005 contest, to obtain an overall majority (omitting the Northern Ireland seats) the Conservatives would need to win a further 120 seats, which would require a swing in support to them from Labour of some 7 percentage points there.

Since 2007 the Conservatives have focused activity on the marginal seats that could deliver a victory at the next election, through both spatially-concentrated centrally-directed activities (such as voter surveys and telephone canvassing) and grants to constituency parties to (part-)fund local campaigns. While voters there are being subjected to such intensive activity seeking their

support, voters elsewhere, where it is unlikely that their constituency would change hands, are being relatively ignored. The Liberal Democrats and Labour have similar strategies, with the latter in particular focusing on the constituencies that it could lose with a swing of support away from it. In effect, therefore, the election outcome could be determined by a small minority of swing voters in marginal constituencies – perhaps less than 200,000 out of a total electorate of some 43 million.

In many constituencies, electors may find that voting for their preferred party is of little value – because it is either bound to win there or almost certain to lose. They may therefore either consider their vote of little value and abstain (which is why turnout tends to be higher in marginal constituencies) or vote for a candidate/party who is not their first choice. British Election Study data, for example, indicate that 15% of electors voted for a party other than their most preferred at the 2005 general election. Of those whose first choice was neither Conservative nor Labour, 45% voted for a party other than their most preferred; and of those whose first choice was other than Conservative, Labour or Liberal Democrat, only 21% voted for their most preferred party.

An associated feature of the concentration of campaigning on marginal seats is that changes in party support are frequently magnified by changes in seats won. In Great Britain, for example, the Conservatives won 43.3% of the votes in 1987 and 376 of the 633 seats: Labour's vote share was 31.5%, with which it gained 229 seats. Five years later, the Conservatives' vote share fell to 42.8% and Labour's increased to 35.2%: the two parties won 336 and 271 seats respectively. Thus a very small shift in support (only 0.5 percentage points) away from the Conservatives resulted in their losing 40 seats and Labour gaining 42 seats – 7% of the total. Between 1992 and 1997 Labour's support increased again, to 44.2%, which brought it an additional 147 seats: its share of the votes increased by 9 percentage points but its share of the seats by

20.5 percentage points. This magnification effect means that relatively small changes in electors' preferences can generate major changes in the composition of the House of Commons. For some commentators this is a benefit – fairly small shifts in partisan preferences can remove the governing party from office and provide the opposition with a comfortable majority. For others, however, it shows that changes in the opinion of only a small proportion of the electorate – the shifting voters in the marginal constituencies – can have a much exaggerated impact on the election outcome; we may have 'one person, one vote', it is claimed, but not 'one vote, one value'.

The policy implications of this focus on a relatively small number of voters in a few places can be quite considerable – at a variety of scales from the regional down to the individual constituency and even, in some cases, parts thereof. In formulating policies, governments are likely to be more attentive to their own supporters, especially in the constituencies they hold and in particular the marginal ones where the next election could be won or lost, in both the formulation of both general programmes (of grant allocation to local government, for example) and funding for specific projects. In addition, individual MPs from the governing party may be better placed to win benefits for their constituents than those representing opposition parties. Such 'pork-barrel politics' is particularly marked in the USA but there is evidence of its use in other countries (including some that use multi-member constituencies); in the UK this also includes the activities of local governments (which are elected in England and Wales using FPTP – in some cases using multi-member constituencies).

- Because one of the underlying principles of the British FPTP system is to ensure that each vote has approximately equal weight, legislation requires that 'as far as practicable' each constituency should have the same number of electors. The four Boundary

Commissions (for England, Northern Ireland, Scotland and Wales) are required to review all constituencies within their territory every 8–12 years and, where they deem it necessary and after public consultation, recommend new constituencies more equal in size than those currently in place – although certain other criteria normally have to be met also, such as not crossing major local government boundaries and not breaking established community ties. Although these exercises are likely to reduce the amount of disproportionality and bias produced by variations in electorate size (what Americans term malapportionment), they are unlikely to have an impact on the other bias sources. The geographies of party support and abstentions are unlikely to be significantly affected by a new set of constituency boundaries. (The former would involve the gerrymandering of boundaries, common in the USA but not in the UK where constituencies are defined by non-partisan Commissions.) Disproportionality and bias will therefore not be removed. For example, the estimated bias at the 2005 election was 111 seats favouring Labour; if that election had been fought in the new constituencies enacted in 2007, with much more equal electorates, it would only have been reduced to 95 seats. In 2005, Labour benefited by 20 seats in the bias calculations from winning in smaller seats on average; if the new constituencies had been in place then, that bias component would only have been reduced to 13 seats. The other underlying geographies, of abstention and party support, remain largely unchanged and would continue to benefit Labour very substantially. (Of the other major bias components, Labour benefited by 6 seats because constituencies in Wales and Scotland are on average smaller than those in England; by 38 seats because turnout was less in seats won by Labour than in those won by other parties; by 26 seats because of the impact of victories by the Liberal Democrats and other small parties; and by 35 seats because its support was more efficiently distributed across the constituencies than was the Conservative party's.)

Even after the Boundary Commissions had substantially reduced variation in electorate sizes across British constituencies, therefore, Labour would still benefit by 13 seats because those it wins tend to be smaller on average. This illustrates some of the difficulties that the Commissions face. Constructing a set of constituencies that are equal in size within the constraints of the other rules is difficult. Relaxation of those rules, giving equality greater importance as the key criterion – with no constituency having, say, an electorate varying by more than 5% from the average – would be feasible but difficult with the available data. This would be much easier with electoral data for smaller areas and Geographical Information Systems.

Under an FPTP system, therefore, for *electors* there are three basic decisions to be made:

- Whether to vote for the candidate best able to represent the interests of the constituency or for the party that they wish to see in government;
- If their main interest is in which party should be in government, whether to vote tactically for their second-choice party because their first-choice is considered unable to win in the constituency, thereby seeking to deny victory to a third party and perhaps ensure victory for a coalition of the other two; and
- Whether to abstain because their preferred candidate/party is either: (a) so unlikely to win in the constituency that a vote for them would be wasted; or (b) so sure to win that a further vote would be unnecessary.

For *parties*, the decisions are:

- Whether to contest every constituency;
- How intensively to campaign in each constituency contested, and how far to focus resources on the marginal constituencies (and floating voters therein) where victory is possible while (relatively) ignoring those where success is either virtually certain or extremely doubtful; and

- The relative importance of focusing those local campaigns on issues relating to party policy nationally or the characteristics and (where relevant) achievements of the individual candidate.

For the *electoral system designers*:

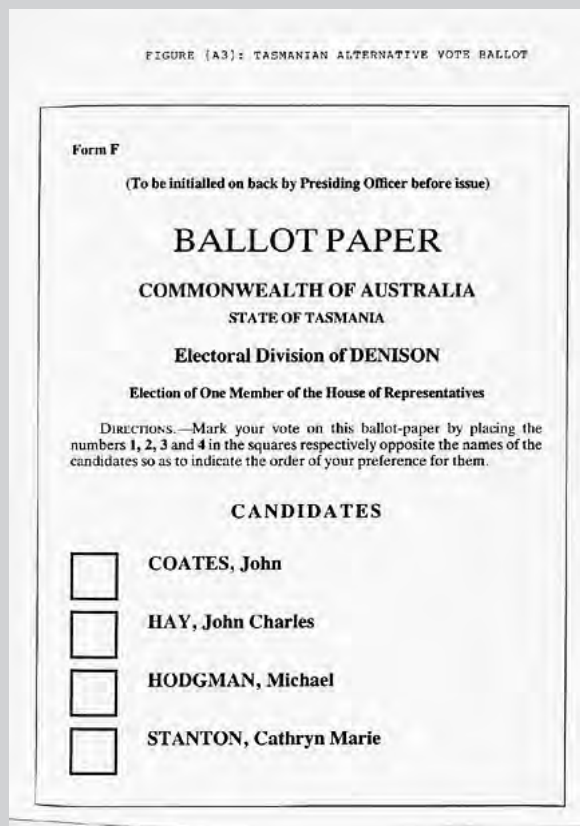
- What rules to deploy for the redefinition of constituencies, including the frequency of such redistributions.

There are also potential *policy implications* reflecting the operations of FPTP systems. In the allocation of public goods and services, governments are more likely to favour areas that either return MPs from their party or could do so after the next election, and to ignore (relatively) those areas where they have little support – and little prospect of increased support. Similarly, MPs who are members of the governing party are often better able to gain benefits for their constituents (collectively, and sometimes individually) than those who are members of opposition parties. The extent of such pork-barrelling varies, and is often difficult to uncover, yet its potential is substantial.

THE ALTERNATIVE VOTE (AV)

A number of other ways of conducting elections within single-member constituencies is available, of which one – the alternative vote (AV) – has been canvassed for adoption in the UK, not least as part of the system proposed by the 1998 Independent Commission on the Voting System chaired by Lord Jenkins, and recently by Gordon Brown and Jack Straw. (In the USA AV is termed ‘ranked choice voting’ or ‘instant runoff voting’, and is used in some municipal elections there.)

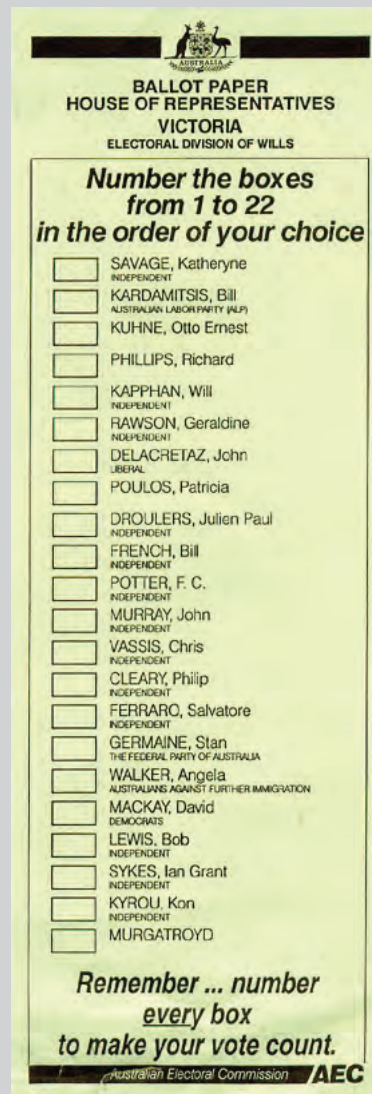
Figure 4.2.
Two examples of Alternative Vote ballot papers from the Australian House of Representatives



Under this system, as illustrated in the examples of Australian ballot papers in Figure 4.2, rather than simply indicating their favoured candidate (party) electors are asked to rank order them. In some places, as in elections to the Australian House of Representatives, if electors fail to rank all candidates, their ballot papers are declared invalid; in others, an incomplete ranking is acceptable. If one candidate in a constituency gets more than half of the first preferences, (i.e. the quota) he/she is elected. If no candidate has a majority, however, then the one with fewest votes is eliminated, and her/his second preferences distributed among the remaining candidates. This procedure continues, with progressive elimination of the candidate with least support until either one of the candidates obtains a majority and is declared elected or only two candidates are left, when the one with more votes wins. (This may not be with an overall majority if some electors fail to provide a full sequence of preferences.)

As the process continues the preferences allocated to the remaining candidates may not be the second choices of those electors whose first-choice candidates have been eliminated, It may be that after three candidates have been eliminated, say, when a fourth candidate is removed from the contest one of the electors who gave her first preference to him gave her second, third and fourth preferences to the three other candidates that have already been eliminated so her fifth preference is then allocated to one of the remaining candidates. Thus as the count proceeds the small number of remaining candidates amasses a combination of second, third, fourth and so on preferences. Those are all equally weighted and it could be that in the final round of the contest between the two remaining candidates the loser has more first and second preferences whereas the winner has more third, fourth and even lower preferences.

This system has been used in elections to the Australian House of Representatives since 1918. Figure 4.2 shows two sample ballot papers, one for a Tasmanian constituency in which the electors had to rank order four candidates, and the other for a Victorian constituency which had 22 candidates.



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AV's main advantage is that it identifies the candidate that most electors would like as their representative if they cannot have their first choice because he/she does not have majority support – providing that such a 'second-best' candidate has a substantial share of the first-preference votes and so is not eliminated early in the procedure. Its main disadvantage is that – much like FPTP – it discriminates against smaller parties. At the 2007 Australian election, for example, the two largest parties/coalitions won 85.5% of the first preference votes but 98.7% of the seats: with 14.5% of the votes, the smaller parties won just 2 of the 150 seats in the House. There was also substantial bias to the result, especially in the 75 constituencies where the result was determined on the first preference votes alone because one candidate gained a majority.

It is difficult to evaluate the likely impact of using AV in British elections. One set of estimates, using responses to British Election Study questions on voters' second preferences, suggested that in 2005 the number of seats won would have been (actual result in brackets): Conservative, 171 (198); Labour 377 (356); and Liberal Democrats 68 (62). This would have been more disproportional than the actual outcome, with Labour getting an even larger majority with 35.3% of the first preference votes but over 56% of the seats. Labour and the Liberal Democrats would have been similarly advantaged, and the Conservatives disadvantaged, at the 1997 and 2001 elections, but at the preceding three contests (1983–1992) only the Liberal Democrats would have gained a substantially different share of the seats. Much depends on the allocation of preferences to and from the smaller parties – and it may well be that when voters are faced with a 'real' AV ballot paper they respond differently than to survey questions about their second preferences when these have no practical effect.

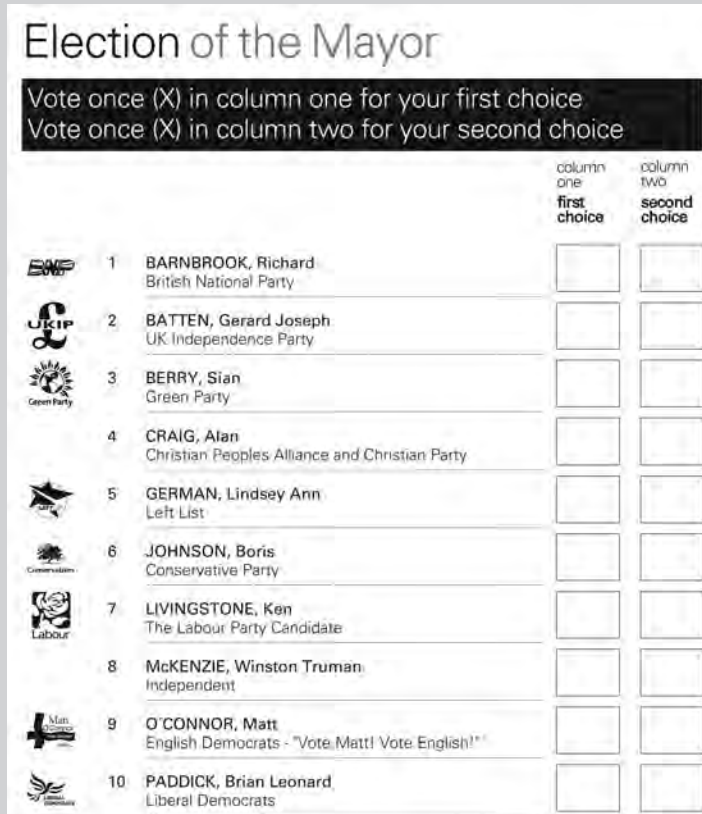
In an electoral system where two parties predominate – winning the great majority of all of the votes cast both nationally and in the individual constituencies – the outcome of an AV election is unlikely to differ substantially from one undertaken using FPTP. But where that is not the case, a significant number of the constituencies may be won on a minority mandate under FPTP – with the winning

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candidate having the support of less than a majority of the votes cast. This has been increasingly the case in the UK. In 1951 and 1955, for example, only 39 and 37 respectively of the constituencies were won with a minority mandate (about 6% of the total) – although 29% were won with such a mandate in 1950. (The Liberal party was at a very low ebb in the early 1950s; it fielded only 110 candidates in 1951, for example, which was a major reduction from 476 in 1950, but this had increased to 329 by 1970 and 593 in 1979.) At the two elections in 1974, however, minority mandates characterised 60% or more of the constituencies. The percentage fell back in the subsequent decades, but then increased again: in 2001, 333 MPs were elected on a minority mandate (50.5% of the total) and in 2005 436 (65.9%) were. AV ensures a majority mandate for each elected member where a complete ranking of all candidates is required; where it is not, the winner has a majority of all those expressing second and lower preferences.

One advantage of AV is thus that it allows two or more parties to compete against each other for first preferences – thereby getting an impression of their relative support – but to combine their support at the later stages if no other party's candidate gains majority support. In Australia, for example, two centre-right parties – Liberal and National (formerly Country) – have long combined in the allocation of preferences against the dominant centre-left Australian Labor Party. (However, those two parties now tend to compete against each other only in constituencies where the incumbent is not seeking re-election, allowing each party to establish its relative strength there.) Another advantage is that electors can use their first preference votes to indicate support for a small party but their later preferences for a larger one – thereby indicating to the latter the types of policy they wish it to follow. (First preference votes for UKIP and second preferences for Conservative could indicate that electors want a Eurosceptic stance from an elected Conservative candidate, for example.)

Figure 4.3.
Ballot paper for the 2008 election for the Mayor of London, using the Supplementary Vote



A variant of AV – *the supplementary vote (SV)* – is employed in elections for the Mayor of London. Each elector can express preferences (as illustrated by the ballot paper for the 2008 contest in Figure 4.3). If no candidate wins a majority of the first preferences, the second preferences of all but the first two candidates are then allocated, and the winner is the one with the most votes. In 2008, no candidate got a majority on the first preferences (Table 4.3): Boris Johnson got 43.2% of the total and Ken Livingstone 37.0%. 260,066 second preferences from the other candidates’ supporters were allocated, and although Livingstone closed the gap this was insufficient to secure victory for him.

Expressing only two preferences is simpler for the elector than having to rank-order them all, but they do have to assess which two candidates are likely to occupy the first two places after the first round of voting: a second preference to a candidate unlikely to occupy one of those two positions is a ‘wasted second preference’ (a situation which applied to about one-fifth of all the second preferences that could have counted at the 2000 and 2004 contests).

Table 4.3.
Result of the election for Mayor of London, 2008

Candidate	First Prefs.	Second Prefs.	Total
Boris Johnson	1,043,761	124,977	1,168,738
Ken Livingstone	893,877	135,089	1,028,966
Brian Paddick	236,752		
Siân Berry	77,396		
Richard Barnbrook	69,753		
Alan Craig	39,266		
Gerard Batten	22,435		
Lindsey German	16,804		
Matt O'Connor	10,700		
Winston McKenzie	5,396		
TOTAL	2,415,958		

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A further variant of AV – the double-ballot – is used in France for elections to both the Presidency and the National Assembly. The first round of voting uses FPTP, and if a candidate obtains a majority in a constituency he/she is elected. (There is a single, national constituency for Presidential elections.) If there is no outcome, a second round is held one week later (two weeks for Presidential elections) in which only the top two candidates from the first round participate, plus any other who obtained at least 12.5% of the votes cast in the first ballot and decides to contest the second. At the June 2007 elections, the UMP won 39.5% of the first-round votes and obtained 98 of the 110 seats allocated then. In the second round it won 46.4% of the votes and a further 215 seats, giving it a total of 313 out of the 577 seats in the National Assembly; 54% of the total with only minority support in the country's votes.

As with FPTP, neither AV, nor SV, nor the double-ballot is likely to deliver a proportional outcome. With the double-ballot, however, voters do not need to express their first and lower preferences at the same time; the elimination of candidates after the first round and the campaigning that follows (including the possibility of inter-party arrangements) provide further information on which their final choice can be made – which may include advice from their eliminated first-choice candidate.

Under AV and SV systems, the major decisions are:

For the *electors*:

- How to order their preferences, which may involve tactical considerations; and
- Whether to abstain.

For the *parties*:

- How intensively to campaign in each constituency;
- The relative importance of focusing those local campaigns on issues relating to party policy nationally or the characteristics and (where relevant) achievements of the individual candidate; and

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- What advice to give to their supporters on the ordering of their preferences.

For the *electoral system designers*:

- What rules to deploy for the redefinition of constituencies, including the frequency of such redistributions.

With the double-ballot, decisions regarding preferences are replaced by voters' decisions regarding which party to support in the second round and eliminated parties' decisions on the advice to give to their supporters.

5

MULTI-MEMBER CONSTITUENCY SYSTEMS: CLOSED-LIST PR, OPEN-LIST PR, AND SINGLE TRANSFERABLE VOTE

All forms of proportional representation (PR) electoral systems have a 'multi-member' element, where several candidates are elected in the same constituency. Such elections are more common in the UK than many people realise. Multi-member constituencies for the House of Commons were the most common type of constituency until 1867 and continued to be used for some seats until 1950. They are currently used in local elections in Scotland, Northern Ireland and in some local governments in England, in elections to the European Parliament throughout the UK and for the Northern Ireland Assembly, and for the 'top-up' element of elections to the Scottish Parliament, the National Assembly of Wales and the London Assembly (as discussed in the next chapter). Most British citizens are also familiar with multi-member elections in many other situations, from the election of School Governors to the election of governing boards of interest groups, professional associations, trade unions, university student unions, sports clubs, and many other organisations. In fact, multi-member elections may currently be the most commonly used type of election in the United Kingdom.

In addition to the issue of the electoral formula for allocating seats, which we have dealt with in Chapter 3, three factors in the design of multi-member elections determine how these work from the point of view of voters, politicians and parties:

1. The constituency magnitude – the number of members of parliament who are elected in each constituency;
2. The ballot structure – whether citizens vote for lists of candidates

proposed by parties (known as Closed-List PR) or can vote for one or more individuals from several candidates proposed by a party (either Open-List PR or Single Transferable Vote); and

3. The threshold – the minimum proportion of votes that is required for a party to win a seat.

Many different combinations of these choices are used in parliamentary elections across the world, as Table 5.1 shows. Few countries have a pure form of PR: where the whole country is a single constituency and there is no minimum threshold: indeed, only five countries treat the country as one single national constituency from which all the members of the parliament are elected (Israel, Moldova, The Netherlands, Slovakia, and Ukraine). Some countries that use multi-member constituencies require parties to obtain a certain percentage of the vote (usually no more than 5) in order to qualify for seats.

A striking feature of the world of electoral systems is the widespread use of relatively small multi-member constituencies, of between 2 and 10 seats per constituency, which limits the ability of small parties that do not have enough geographically concentrated support, to win seats.

Table 5.1.
Constituency Magnitudes in Elections to Lower Houses of Parliaments

Average Constituency Magnitude		Greater than 20	
1	2 to 3	4 to 6	7 to 10
Australia √o	Argentina (~1983) √	Austria (1949, 1962-1970)	Argentina (1983) √o
Bangladesh	Chile o	Belgium (~1965) o	Austria (1953-1959) √
Botswana	Dominican Republic (1994)	Benin (1995-)	Belgium (1965-) o
Bulgaria (1990)	Ecuador (-1996)	Bolivia (1993-)	Brazil o
Canada	El Salvador (1997-)	Colombia (1970-)	Bulgaria (1991-) √
France (except 1986)	Ireland (1969-1977) s	Costa Rica (1978-)	Colombia (1960-1966)
India	Mali	Costa Rica (1968) o	Costa Rica (1958-1974)
Italy (1994-2001) †√	Mauritius	Dominican Rep. (1978-90)	Cyprus √
Jamaica	Mongolia (1992)	Ecuador (1998)	Denmark (1971-) √o
Japan (1996-) †	Nicaragua (1995-)	El Salvador (-1994)	Estonia √o
Lithuania †√	Panama (1988)	France (1946-1956)	Honduras (1993-)
Macedonia (-1998)	Paraguay	France (1986) √	Indonesia √
Madagascar †	Peru (2001-)	Greece √	Nicaragua (1990)
Malawi	Thailand (1992-1996)	Guatemala	Norway (1953-)
Mongolia (1996-)	Venezuela (1993-) †	Guyana (1992-1997)	Norway (1953-)
Nepal		Honduras (1989)	Peru (1980)
New Zealand (-1993)		Hungary †√	Poland (1993-1997) √
Panama (1994-) †√		Ireland (-1965, 1981-) s	Romania
Papua New Guinea		Japan (-1993) o	Sri Lanka (2001-) o
Philippines (-1993)		Norway (1949)	Sweden (-1968) √o
Philippines (1998-) †√		Peru (1985-1990)	Taiwan †√
Russia †√ (-2003)		Portugal	
Sri Lanka (-1977)		Serbia & Montenegro	
South Korea †		Spain √	
Thailand (2001) †√		Switzerland (1967-1999) √o	
Trinidad & Tobago		Turkey √	
Ukraine		Venezuela (-1998)	
United Kingdom			
United States			

Key: † indicates a mixed-member electoral system, with some members elected in single-member constituencies; √ indicates a legal threshold for representation; o indicates a form of Open-List PR; s indicates Single Transferable Vote. The table includes all lower house elections since 1945 in all democracies with a population of greater than 1 million. The table reports the median constituency magnitudes, and hence shows mixed-member majoritarian systems as having a median magnitude of 1. Source: adapted from John Carey and Simon Hix (2009) 'The Electoral Sweet Spot: Low-Magnitude Proportional Electoral Systems', mimeo.

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There is a general trend towards the use of Open-List rather than Closed-List systems, with reform of the ballot structure in several countries to allow voters to choose between candidates from the same party or to change the way votes are counted to increase the proportion of voters who choose to vote for individual candidates rather than pre-ordered party lists.

The two apportionment issues discussed in Chapter 3 apply to all the multi-member constituency systems discussed in this chapter.

CLOSED-LIST PROPORTIONAL REPRESENTATION

In Closed-List PR systems, each party draws up a list of candidates to present in each constituency, usually equal to the number of members to be elected there. The order of the candidates on each party's list is usually determined either by a central party committee, or by a constituency-level party body, or by a primary election involving local party members. In the election a voter chooses between the lists of candidates presented by each party: for example by placing an X next to the name of the party he or she supports. The candidates are then elected in the order they are presented on the party lists. So, for example, if a party wins two seats in a constituency, the candidates at positions 1 and 2 on its list are elected.

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Figure 5.1
Example of a Closed-List PR ballot paper used in the 2009 European Parliament election in the South West region



Figure 5.1 shows an example of a Closed-List PR ballot paper, from the 2009 European Parliament election in the UK in the South West region. This was a six-member constituency, which meant that most parties presented six candidates. The lists were presented in a rank-order by each party. The main parties used similar methods to decide the order of the candidates on their list, which involved a primary amongst local party members. However, most parties gave priority to incumbent MEPs, placing them at the top of their lists, and the Labour and Conservative Parties also established procedures to give priority to new women over new male candidates.

Electors could then only vote for one of the pre-ordered party-lists. Each party won seats in proportion to the votes they received, using the DH formula for allocating seats, and the candidates won their seats in the order they were placed on the party lists. Table 3.2 shows the result in the South West region. The Conservative Party won 30.2% of the vote, which gave them 3 seats under the DH formula, and their top three candidates were duly elected (Chichester, Girling, and Fox). UKIP won 22.1% of the vote, which gave them 2 seats, and their top two candidates were elected (Coleman, and Dartmouth). And the Liberal Democrats won 17.2% of the vote and 1 seat, so their top-ranked candidate was elected (Watson).

This outcome in the South West region in the 2009 European Parliament elections illustrates that using the DH formula in a small multi-member constituency can produce a relatively disproportional outcome favouring larger parties. The Conservative Party won 50% of the seats in the region with only 30.2% of the vote, while UKIP won 33.3% of the seats with only 22.1% of the vote. Meanwhile, the Greens and the Labour Party did not win a seat, despite securing 9.3% and 7.7% of the vote, respectively. Had the SL formula been used instead of DH, the Conservatives would have won 2 seats, and UKIP, the Liberal Democrats, the Greens, and Labour would each have won 1 seat. This would have been a more proportional outcome, since the combined difference in vote-shares to seat-shares for all parties would have been about half as large under SL as DH.

OPEN-LIST PROPORTIONAL REPRESENTATION

Open-List PR systems also involve parties drawing-up lists of candidates for each constituency. In most cases, these lists are presented in a particular order, to indicate to voters each party's preferred ranking of its candidates (for example with the incumbent members of parliament placed in the top positions on a list). The difference between Open-List PR and Closed-List PR then comes with the way votes are exercised by electors. Under an Open-List system, voters are able to express a preference for a particular candidate on a party list, which increases the chance that this candidate will be elected ahead of another candidate from the same party.

In most Open-List PR systems voters have one vote, and can use this vote to convey a lot of information. A voter can either choose to use this vote to support a particular party, hence accepting the candidate order provided by the party (which is usually called a 'party vote'), or choose to support one particular candidate of a party (which is usually called a 'preferential vote'), which influences which candidate will be elected from that party. Once the votes have been counted, each party wins a certain number of seats in proportion to its total share of the vote in a particular constituency, combining both its party votes and the preferential votes for all of its candidates. Once the total number of seats a party has won has been worked out, the preferential votes then determine which of the party's candidates are elected. So, if a party wins two seats in a constituency, usually the candidates with the first and second most preferential votes from that party are elected.

Among countries that use Open-List systems, there is considerable variation in the proportion of preferential votes relative to party votes that are required for the order of candidates presented by a party to be overturned. Evidence from several countries suggests that lowering the proportion of preference votes required significantly increases the incentives for candidates to campaign directly to citizens, which in turn

increases the proportion of voters who choose to vote for individual candidates rather than just to plump for a party list as a whole.

Figure 5.2 shows an example of an Open-List PR ballot paper from the 2001 Danish Folketing election in the Sønderjylland constituency. This was a seven-member constituency, which meant that most, although not all, of the parties presented seven candidates. Voters could choose either to vote for a party, by placing an X next to the name of a party, or to vote for an individual candidate, by placing an X next to the name of a particular candidate. A vote for a candidate counted as a vote for a party, but also influenced which candidates were elected from that party.

Figure 5.2

An example of an Open-List PR ballot paper used in the 2001 Danish Folketing election in the Sønderjylland constituency

Sønderjyllands Amt
3. opstillingskreds

Folketingsvalget 2001

Sæt X til højre for en listebetegnelse (et partinavn)
eller et kandidatnavn.
Sæt kun ét kryds på stemmesedlen.

A. Socialdemokratiet

Frode Sørensen
Inger Bierbaum
Dorte Dinesen
P. Qvist Jørgensen
Eva Roth
Lise von Seelen
Søren Ebbesen Skov

B. Det Radikale Venstre

Nicolas Lund-Larsen
Per Kleis Bennelycke
Bente Dahl
Inger Harms
Bjarke Larsen
Henrik Larsen

C. Det Konservative Folkeparti

Kaj Ikast
Martin Andresen
Bent P. Have
Jens M. Henriksen
Bente Lassen
Lars Munk
Klaus Rehkopff

D. Centrum-Demokraterne

Henning Nielsen
Henning Borchert-Jørgensen
Helmuth Carstens
Flemming Hübschmann
Holger Madsen
Peter Berthel Nissen
Kai Paulsen

F. Socialistisk Folkeparti

Bjarne Eliassen
Bent Iversen
Jesper Petersen
Kirstine Rask Lauridsen
Jørn Ulrik Larsen
Jørgen Jørgensen
Mathias Gotthardsen

O. Dansk Folkeparti

Søren Krarup
Keli Kristiansen
Jørn Larsen
Jytte Lauridsen
Thels Mathiasen
Niels Oluf Michaelsen Petersen
Lars Rydhard

Q. Kristeligt Folkeparti

Michael Lund Markussen
Vibeke Christensen
Bjarke Friis
Knud Erik Hansen
Henning Holm

V. Venstre, Danmarks Liberale Parti

Bjørn Scherbarth
Sven Buhrkall
Peter Christensen
Allan Emilussen
Gunnar Hattesen
Helga Moos
Hans Chr. Schmidt

Z. Fremskridtspartiet

Ole Jensen
Heine Andresen
Henning Brandt
Carl Hahn
Margit Petersen
Preben Ravn
Jens Willatzen

Ø. Enhedslisten - De Rød-Gronne

Baltser Andersen
Svend Brandt
Signe Færch
Jette Hedegaard
Egon Laugesen
Niels-Erik Aaes

There are several additional features of the Danish Open-List PR system which are worth mentioning to explain the ballot paper in Figure 5.2, but which are not general features of Open-List PR systems. First, parties can indicate to their voters whether personal votes will change the order on their proposed list or not. Where a party presents an open-list all the candidates are indicated in bold type. In contrast, where a party presents a closed-list, where any personal votes are counted together with the party votes, this is indicated by making the top-named candidate the only candidate in bold type – as was the case in 2001 in Sønderjylland for the Socialist People's Party (F) and the Unity List (Ø). Second, parties in Denmark are allowed to nominate the same candidate in several constituencies. Where a candidate is standing in several constituencies this is indicated by placing that candidate at the top of the list, and then placing all the other candidates after this candidate in alphabetical order – as was the case with Frode Sørensen, at the top of the Social Democrats (A) list.

Table 5.2 shows the result from the Sønderjylland constituency in 2001. The seats were allocated with a modified form of SL (the first divisor used there is 1.4 rather than 1), which slightly favours the larger parties. The Liberals (V) won 38.2% of the vote, which gave them 3 seats, and their three candidates with the most personal votes were elected (Schmidt, Moos, and Buhrkall). The Social Democrats (A) won 27.4% of the vote and 3 seats and their three candidates with the most personal votes were elected (Sørensen, Qvist Jørgensen, and Bierbaum). The final seat went to the Danish People's Party which won 14.0% of the votes and their candidate with the most personal votes was elected (Krarup).

Table 5.2.

Election Result and Seats Allocated in the 2001 Danish Folketing Election in the Sønderjylland constituency

Party	No. of votes	% of votes	Seats won (modified St.-Lagüe)
V. Liberals	61,453	38.2	3
A. Social Democrats	44,067	27.4	3
O. Danish People's Party	22,507	14.0	1
C. Conservatives	12,174	7.6	0
F. Socialist People's Party	5,939	3.7	0
B. Social Liberals	5,388	3.4	0
Q. Christian People's Party	4,091	2.5	0
D. Centre Democrats	2,064	1.3	0
Z. Progress Party	1,581	1.0	0
Ø. Unity List: The Red-Greens	1,479	0.9	0
TOTAL	160,743		

SINGLE TRANSFERABLE VOTE

The Single Transferable Vote (STV) is another way of allowing electors to express a preference between candidates from the same party in a multi-member constituency election. STV works as follows. Each party nominates a number of candidates for each multi-member constituency. In some countries that use STV the candidates are grouped on the ballot paper by political party (as in Malta), whereas in other countries they are presented in some individual order, usually alphabetical (as in Ireland).

Then, instead of having a single vote, electors express a rank-order preference for as many candidates as they wish, by placing a number next to each candidate they would like to support; so a 1 next to their first choice, a 2 next to their second choice, a 3 next to their third choice, and so on. Voters are usually advised to declare as many preferences as possible, so as to maximise the influence of their vote on the final election outcome. (In elections to the Australian Senate, until 1983 if voters did not rank order all of the candidates their ballot paper was deemed invalid and not counted; after that date, if there were 10 or more candidates voters had to rank order only 90% of the candidates for their ballot papers to be deemed valid.)

Figure 5.3 shows the ballot paper from the 2007 local council election in the Airyhill/Broomhill/Garthdee ward of Aberdeen City Council. Three Councillors were to be elected in this ward. The Scottish Liberal Democrats stood two candidates, Scottish Labour, the SNP and the Scottish Conservatives each stood one, and Graham Murray Bennett stood as an independent. Electors were asked to number the candidates in the order of their choice, and could use as many or as few numbers as they wished.






Figure 5.3.
An example of an STV ballot paper used in the 2007 local election in the Airyhill/Broomhill/Garthdee ward of Aberdeen City Council

Election for the Aberdeen City Council Airyhall / Broomhill / Garthdee Ward

Instead of using a cross, number the candidates in the order of your choice.

Put the number 1 next to the name of the candidate who is your first choice, 2 next to your second choice, 3 next to your third choice, 4 next to your fourth choice and so on.

You can mark as many or as few choices as you like.

INDEPENDENT	BENNETT Graham Murray 37 Braeside Avenue, Aberdeen, AB15 7ST.	
SCOTTISH LIBERAL DEMOCRATS	CASSIE Scott 70 Garthdee Road, Aberdeen, AB10 7AR.	
SCOTTISH LABOUR PARTY CANDIDATE	MCINTOSH Allan 9 Whinhill Gardens, Ferryhill, Aberdeen, AB11 7WD.	
SCOTTISH NATIONAL PARTY (SNP)	ROBERTSON Rigg 79 Wood Street, Torry, Aberdeen, AB11 9RB.	
SCOTTISH CONSERVATIVE AND UNIONIST	WISELY Jill 1 Rubislaw Den North, Aberdeen, AB15 4AL.	
SCOTTISH LIBERAL DEMOCRATS	YUILL Ian Gillan 57 Countesswells Crescent, Aberdeen, AB15 8LN.	

Once voters' preferences have been expressed, seats are allocated according to a particular formula. First, a quota is calculated, which ensures that the correct number of candidates are elected in a constituency, and ordinarily a candidate must have at least as many votes as set by the quota. The quota is calculated as shown in Chapter 3.

Second, the number of first preference votes for each candidate is subtracted from the quota to determine how far above or below the quota a candidate is. Third, if a candidate receives more votes than the quota, her or his 'surplus votes' are allocated to the other candidates, on the basis of the second preferences of the voters who expressed a first preference for the candidate who has reached the quota. Fourth, if another candidate then reaches the quota, his or her surplus votes are re-allocated, and so on. Fifth, if at any stage none of the remaining candidates reach the quota, the lowest placed candidate is eliminated and his or her second preferences are re-allocated. Candidates are then eliminated and their votes re-allocated until the required number of candidates is elected.

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Table 5.3.
Vote Counting and Seat Allocation in the 2007 Local Election in the Airyhill/Broomhill/Garthdee
Ward of Aberdeen City Council

Number to be elected	3
Valid Votes	6966
Rejected as void	80
Quota	1742

Candidates	First Preferences	Stage 2	
		Surplus of Jill Wisely	New Vote Totals
Graham Murray Bennett (Independent)	332	20.16	352.16204
Scott Cassie (Scottish Liberal Democrats)	1365	16.01	1381.00583
Allan McIntosh (Scottish Labour)	894	7.16	901.16283
Rigg Robertson (Scottish National Party)	1207	13.44	1220.44136
Jill Wisely (Scottish Conservative)	1911	-169	1742
Ian Gillan Yuill (Scottish Liberal Democrats)	1257	53.85	1310.85387
Non-transferrable	0	58.37	58.37407
Total	6966		6966

Candidates	First Preferences	From Stage 2	Stage 3	
			Exclusion of G. M. Bennett	New Vote Totals
Graham Murray Bennett	332	352.16204	-352.16204	0
Scott Cassie	1365	1381.00583	65.91819	1446.92402
Allan McIntosh	894	901.16283	39.14959	940.31242
Rigg Robertson	1207	1220.44136	76.29918	1296.74054
Jill Wisely	1911	1742		1742
Ian Gillan Yuill	1257	1310.85387	74.95208	1385.80595
Non-transferrable	0	58.37407	95.84300	154.21707
Total	6966	6966		6966

Candidates	First Preferences	From Stage 3	Stage 4	
			Exclusion of Allan McIntosh	New Vote Totals
Graham Murray Bennett	332	0		
Scott Cassie	1365	1446.92402	248.85703	1695.78105
Allan McIntosh	894	940.31242	-940.31242	0
Rigg Robertson	1207	1296.74054	102.53058	1399.27112
Jill Wisely	1911	1742		1742
Ian Gillan Yuill	1257	1385.80595	179.74133	1565.54728
Non-transferrable	0	154.21707	409.18348	563.40055
Total	6966	6966		6966

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Candidates	First Preferences	From Stage 4	Stage 5		New Vote Totals
			Exclusion of Rigg Robertson		
Graham Murray Bennett	332	-			-
Scott Cassie	1365	1695.78105	342.27191		2038.05296
Allan McIntosh	894	0			-
Rigg Robertson	1207	1399.27112	-1399.27112		0
Jill Wisely	1911	1742			1742
Ian Gillan Yuill	1257	1565.54728	304.24464		1869.79192
Non-transferrable	0	563.40055	752.75457		1316.15512
Total	6966	6966			6966

There are several different ways of allocating surplus votes. Table 5.3 shows the method used for Scottish local government, in the case of the Airyhill/Broomhill/ Garthdee ward in 2007. On the basis of first preferences Jill Wisely (of the Scottish Conservatives) reached the quota (of 1742 votes). She was duly elected and her 169 surplus votes were re-allocated to the other candidates. The exact number to be transferred to the remaining candidates depended on the overall number of votes for Wisely. So, for example, the number to be re-allocated to Yuill was calculated as follows:

$$\frac{\text{No. of Wisely's surplus votes}}{\text{Total votes for Wisely}} \times \text{No. of votes to be transferred to Yuill}$$

Of those who gave their first preferences to Wisely, 34.54% did not indicate a second preference, so 58.37 (34.54% of the 169 surplus votes) of those first preference votes became non-transferable. Yuill received 31.86% of Wisely's second preferences (i.e. 609 of those who voted for Wisely ranked Yuill second), so that with 169 second preferences to be allocated this meant Yuill got 53.85 of them. Her vote total, shown in the final column of that block in Table 5.3, was thus increased to 1310.85.

After Wisely's surplus votes had been re-allocated none of the remaining candidates reached the quota, so the least preferred candidate, Graham Murray Bennett, was eliminated and his votes were re-allocated to the remaining candidates (over one-quarter of them

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were non-transferable, and the largest recipient of his second preferences was Robertson). Allan McIntosh was the next to be eliminated and his votes were re-allocated, as then was Rigg Robertson. After Robertson's elimination, Scott Cassie (of the Scottish Liberal Democrats) and Ian Gillan Yuill (also of the Scottish Liberal Democrats) reached the quota and were duly elected in second and third place, respectively.

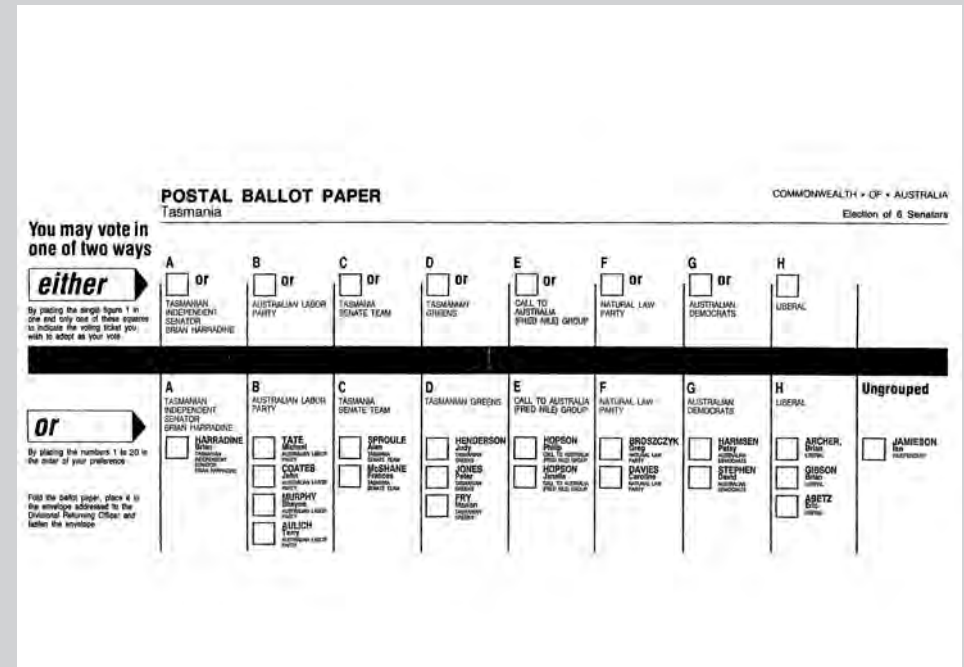
In this example, Wisely, Cassie and Yuill happened to be the top three candidates after the first preferences. However, had Allan McIntosh's (of Scottish Labour) votes transferred mainly to Rigg Robertson (SNP) rather than to the two Scottish Liberal Democrat candidates, Robertson would have been elected instead of Yuill. This consequently illustrates how STV encourages parties to appeal to each other's supporters to attract transfer votes.

STV is not voter-friendly in high magnitude constituencies, because of the large number of candidates that need to be rank-ordered. In elections to the Australian Senate, for example, each of the States returns 12 Senators although at most elections (i.e. other than when there is a double dissolution of both the House of Representatives and the Senate) only half of each State's delegation is elected. Nevertheless with several parties each fielding several candidates, electors can be asked to rank order more than 20. (In Tasmania, there were 26 candidates in the 2004 election. In New South Wales, where STV is also used for Legislative Council – the upper house – elections, 80 parties/groups fielded 264 candidates for 21 seats in 2007.) Rank-ordering a large number of candidates is very demanding on voters, many of whom used the 'how-to-vote' cards issued by the parties to determine most, if not all, of their preferences. (Some used the short-cut 'donkey vote', ranking candidates according to the order in which they appear on the ballot paper.) To reduce the demands on voters, the ballot paper for Australian Senate elections was changed in 1983, giving them the option simply to indicate their preferred party (i.e. make a single choice) by voting 'above the line' on the ballot paper instead of rank-ordering all candidates (as shown on the sample ballot paper in Figure 5.4, which was used for the 1996 elections to the Senate from Tasmania). They could still rank order the

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candidates by voting 'below the line' on the ballot paper, where individual candidate names are listed. If they vote 'above the line' electors indicate that they are accepting their preferred party's rank ordering of all of the candidates. These orderings are predetermined by the parties and submitted to the Electoral Commission before voting takes place, for use in the vote count. The great majority of voters now select this 'above the line' option (95.85% in 2004 and 96.78% in 2007), so that the voting system has, in effect, been changed from STV to a Closed-List PR system.

Figure 5.4.
An example of an STV ballot paper used for elections to the Australian Senate from the State of Tasmania



IMPLICATIONS OF CLOSED-LIST PR, OPEN-LIST PR AND STV

Although Closed-List PR, Open-List PR and STV are all types of multi-member electoral system, they affect electoral outcomes, how parties campaign, and the relationship between parties and candidates in different ways.

Regarding overall electoral outcomes, Closed-List PR and Open-List PR are often more proportional than STV. Since STV is an exclusively candidate-based system, it produces outcomes that are proportional at the level of individual candidates, but the outcomes need not be proportional at the level of political parties. For example, in the 2007 election to the Irish Dáil, Fianna Fáil won 46.6% of the seats having won 41.6% of first preference votes, while Sinn Féin won 2.4% of the seats having won 6.9% of first preference votes. This outcome resulted because low-magnitude multi-member constituencies make it difficult for small parties, like Sinn Féin, to win many seats. Nevertheless, in general STV tends to produce more proportional outcomes than FPTP, especially where the number of parties realistically expected to win seats in a constituency is less than the constituency magnitude. Irish data shows that, in general, the larger the constituency (up to a maximum of six) the greater the proportionality.

How proportional the overall electoral outcomes are under Closed-List PR and Open-List PR depends on two other factors: (1) the magnitude of the electoral constituencies; and (2) the electoral formula used. In general, low-magnitude constituencies produce less proportional outcomes than high-magnitude constituencies. Some countries (including Denmark) increase the proportionality of the overall electoral outcome despite having small electoral constituencies by allocating seats on two tiers: in the multi-member constituencies, and via some compensatory 'top-up' seats for smaller parties. On the issue of the electoral formula, as noted in Chapter 3, the SL formula produces more proportional outcomes than the DH formula. It is a separate question, of course, whether a more or less proportional outcome is preferable.

Regarding how parties campaign, Closed-List and Open-List PR systems encourage parties to mobilise their own supporters and also to try to persuade supporters of other parties to switch their votes in elections. STV, in contrast, encourages parties to appeal to supporters of other parties to switch their first preference votes and also to rank their party's candidates second or third in terms of their preferences. As a result, STV can encourage electoral alliances between parties, where parties tell their supporters to rank the candidates of their alliance partner immediately after their own candidates. Evidence from elections to the Northern Ireland Assembly, for example, suggests that, within each community, some supporters of either of the parties who were in favour of the Good Friday Agreement ranked the candidates of the other pro-Agreement party above the candidates of the anti-Agreement parties from their own community. Thus, some Ulster Unionist Party (UUP) supporters ranked Social Democratic and Labour Party (SDLP) candidates above Democratic Unionist Party (DUP) candidates, and some SDLP supporters ranked UUP candidates above Sinn Féin candidates.

Regarding the relationship between parties and candidates, elections under Closed-List PR tend to be more party-based and less candidate-based whereas elections under Open-List PR and STV tend to be more candidate-based and less party-based, with STV elections more candidate-based than Open-List PR elections. This is because under Open-List PR and STV, candidates from the same party compete against each other for votes, whereas there is no internal party competition between candidates under Closed-List PR. The internal party competition for votes is stronger under STV than under Open-List PR, because under Open-List PR every candidate from a particular party benefits from a vote for any other candidate from his or her party, whereas under STV a candidate must rely on the electors to choose to rank the candidates from the same party together before transferring their order to a candidate from another party. Evidence from the Republic of Ireland, for example, shows that electors often vote for a new candidate from their preferred party rather than an incumbent.

The constituency magnitude affects how far elections under these systems are candidate-based or party-based. Under a Closed-List PR system, the more seats to be won in a constituency, the more party-centric the election is. In large constituencies under Closed-List PR, for example, the candidates towards the top of their party's lists are in very safe positions – rather like safe seats under FPTP. In contrast, under Open-List PR or STV, the more seats to be won in a constituency, the more candidate-based the election becomes, as the need for candidates to establish personal name recognition intensifies as the number of seats to be won increases. As a result, where countries use Open-List PR or STV they tend to choose relatively small multi-member constituencies (as in our example for Denmark).

Put another way, on the one hand, the candidate-based nature of Open-List PR and STV elections can increase the personal recognition of politicians, the accountability of individual politicians, and the competition between candidates to get elected. On the other hand, the incentive to cultivate a personal vote under these two systems can reduce the ability of party leaders to enforce party discipline inside parliament. Hence, if given a choice between these systems, party leaders tend to prefer Closed-List PR, whereas electors tend to prefer Open-List PR or STV.

ISSUES FOR ELECTORS, PARTIES, AND ELECTORAL SYSTEM DESIGNERS

For *electors*, Closed-List PR is the simplest of these three multi-member systems, since each elector needs to answer one simple question:

- Which party do I prefer?

Under Open-List PR each elector faces two questions:

- Which party do I prefer?
- Which candidate presented by my preferred party, if any, do I prefer?

Depending on how the ballot is structured, electors need not have to answer the second question, and instead simply plump for the order of candidates presented by their preferred party if they so choose.

Under STV each elector faces one question with multiple potential answers:

- What is my preferred rank order of all the candidates on the ballot paper?

It is worth noting that there is little evidence from Open-List PR or STV systems that electors find these systems any more complicated than Closed-List PR.

For *parties*, several decisions need to be made under these multi-member systems:

- How many candidates should a party field in each constituency? Under Open-List or Closed-List PR a party should field at least as many candidates as it expects to get quotas. Under STV, a party should field neither fewer nor more candidates than its maximum expected number of quotas. This can be difficult for a party to judge, as seems to have been the case in our example from the Scottish Local Election in Aberdeen, where the Conservatives may have benefited if they had nominated one more candidate (Table 5.3).
- If a Closed-List PR system is used, who should decide the order of candidates on a party list: a central party committee, a constituency party committee, or a primary of local voters, or some combination of these elements? In a sense, under Open-List PR, a local party primary between the candidates of each party is combined with the general election in a single contest.
- How much freedom should be given to candidates to run their own campaigns, in terms of raising funds and producing personalised campaign materials? This is critical under Open-List

PR and STV in determining how far candidates can raise their personal profile independently from their party or the other candidates from their party.

- In an STV election, parties have to develop strategies to ensure that they maximise the number of seats that they win. If, for example, most of the electors supporting a party give their first preference votes to the same candidate, the party's other candidates may be eliminated because they have few first preference votes. To counter this, it is common in Irish STV elections for a party to suggest that its supporters rank order its candidates differently in different parts of the constituency, thereby distributing the first preference votes relatively equally across candidates and ensuring that none is prematurely eliminated. Each candidate thus has her/his own bailiwick within which to campaign intensively (in numerous cases, that part of the constituency around her/his home).

For *electoral system* designers, the main issues are:

- How many seats should be allocated to each constituency? This decision affects the trade-off between proportionality and single-party government, in that the higher the average magnitude the more proportional the electoral outcome but the greater the likelihood of coalition government, and the smaller the average magnitude the less proportional the electoral outcome but the greater the likelihood of single-party government.
- Should there be a threshold to preclude small parties from winning seats, and should this threshold be applied nationally or at the constituency level? For example, in the 2009 UK elections to the European Parliament, Plaid Cymru won only 0.8% of the votes nationally. If a national threshold of 5% had been applied, it would have not been allocated any seats. However, in Wales it won 18.5%, and was allocated one MEP – which would have been the case if there had been a constituency threshold of 5%. National

thresholds act against small parties winning seats – even if they are strong in particular regions.

- For Closed-List or Open-List PR, what formula should be used to allocate seats on the basis of votes? As discussed, SL produces more proportional outcomes than DH.
- Should the multi-member constituencies be based on existing economic, cultural or political localities (as in the Republic of Ireland) or on a standard size? If multi-member constituencies are based on political locality, such as the English Counties and Metropolitan Boroughs, this might influence the behaviour of politicians once elected, as they would have an incentive to influence public spending or other policies to further the interests of their local political authority. On the other hand, if constituencies are based on a standard size and so cut-across local political organisation of the state, a Boundary Commission will be needed to draw up the constituency boundaries and political decisions will then need to be made about where to draw the lines between the constituencies.
- If Open-List PR or STV are used, will candidates be pre-ordered by the parties or will they be presented in some other order, such as alphabetical or random?
- Finally, if Open-List PR is used, how many preferential-votes relative to party-votes should be required for a party's proposed candidate-order to be overturned? Related to this, will parties be allowed to choose whether to use closed-lists or open-lists to allocate seats to their candidates once the election has been conducted (as in the Danish example), and how will this be communicated to the voters?

6

MIXED SYSTEMS WITH BOTH SINGLE- AND MULTI-MEMBER CONSTITUENCIES

A group of electoral systems increasingly popular in the last two decades combines elements of both single-member constituency and multi-member list systems. They were promoted by electoral system designers, who argued that combining the two components would provide the 'best of both worlds' – a legislature some of whose members represented territorial constituencies with the others elected on the general principle of proportional representation. Two main types have been introduced: in one (generally known as MMP/AMS), the two components are linked, whereas in the other (MMM) they are not.

MIXED MEMBER PROPORTIONAL / ADDITIONAL MEMBER SYSTEMS (MMP/AMS)

In MMP/AMS systems the two components of the election are linked through two parallel contests: one involves election of territorial representatives from single-member constituencies (using FPTP or – potentially – AV); the other deploys a List system for one or more multi-member constituencies. The result of the List contest acts as a compensating mechanism to counter any disproportionality generated in the single-member contests, resulting in an overall outcome approaching proportional representation.

By combining two types of system, MMP/AMS creates two types of representative. One group performs the dual roles of both representing a territorial constituency and being a national legislator; the other need perform the latter role only. This can result in the two types of legislator undertaking different roles in both the legislature and the government and displaying different patterns of voting behaviour. In addition, it provides a greater opportunity for those

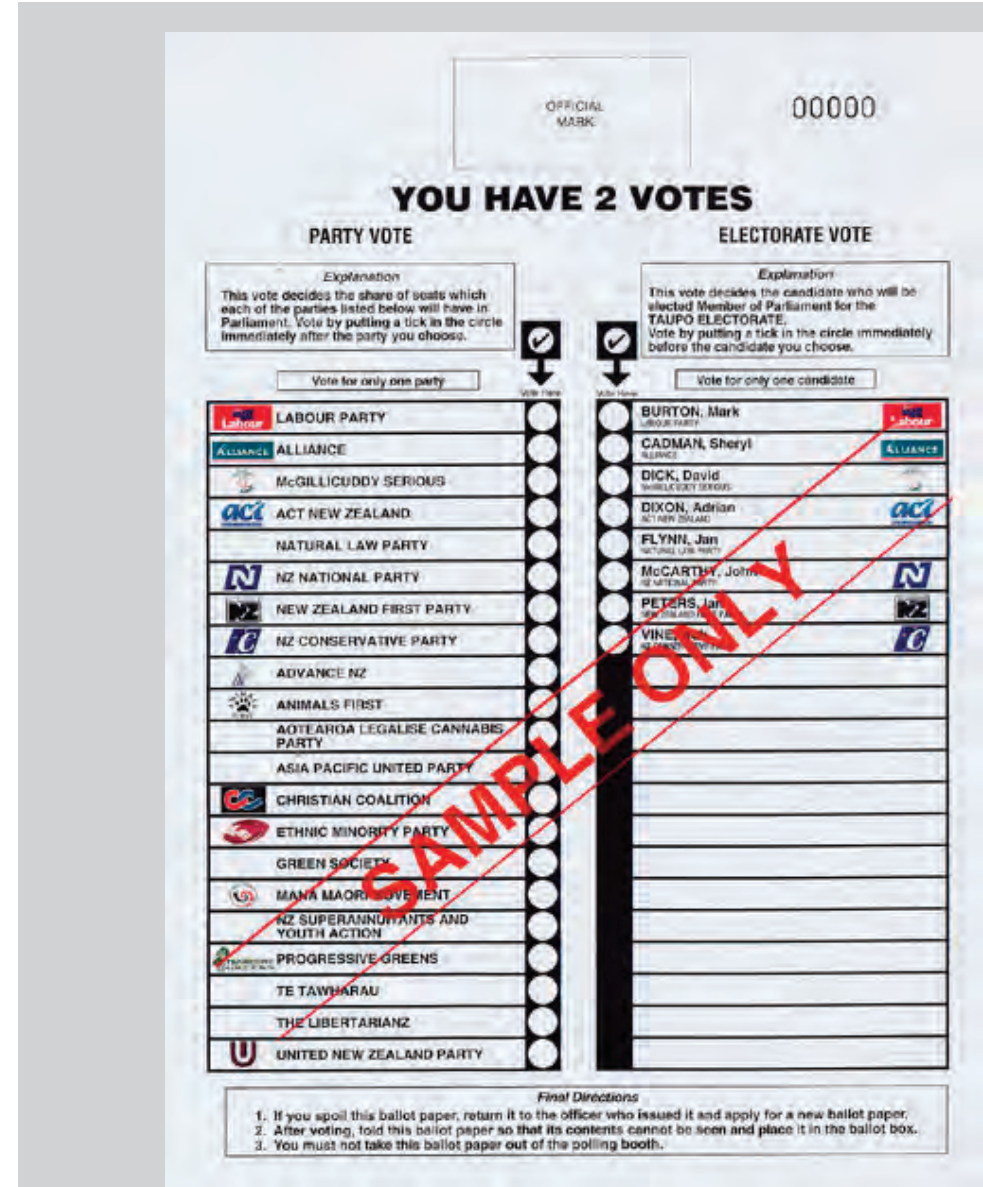
legislators elected as constituency MPs not only to promote themselves as individuals as well as party members (even in the larger parties, including those in the government) but also to seek pork-barrel benefits for their constituencies.

One variant of MMP/AMS has been used in (West) Germany since 1949; another was introduced in New Zealand in 1996; and within the UK since 1999 further variants have been deployed for the Scottish Parliament, the National Assembly of Wales, and the London Assembly (part of the Greater London Authority). (New Zealand is to hold a referendum in 2011 on whether to replace MMP and then if this is approved, in 2014, whether it should be by FPTP, AV, SV or STV.)

Mixed-Member Proportional/Additional Member System (MMP/AMS) with a national list – the New Zealand House of Representatives

At New Zealand's 2008 general election 70 seats in the House of Representatives were allocated to members elected from single-member constituencies, using FPTP. A further 52 seats were allocated using a Closed-List PR election, in which the whole country formed the single electorate. Figure 6.1 shows a sample ballot paper used in an MMP election for the Taupo constituency, with the List vote (known as the party vote – and sometimes the first vote – in New Zealand) on the left and the constituency vote (the electorate vote in local parlance) on the right.

Figure 6.1. An example of an MMP ballot paper used in an election to the New Zealand House of Representatives



The switch from an FPTP system to MMP between 1993 and 1996 not only introduced two types of MP – one representing a constituency, as before, and the other representing a party (being elected from its list) – it also reduced the total number of constituency MPs. The 1993 New Zealand general election was for 99 constituency MPs; the 1996 contest – the first using MMP – was for a larger House of Representatives with 120 members. Only 65 of those were constituency MPs, however, so the average constituency electorate increased by about 50 per cent. Incorporating a list element, unless that is to be achieved solely by increasing the total number of MPs, will almost certainly increase the size of the constituencies that the members elected by FPTP have to represent.

The composition of New Zealand's House of Representatives is very largely determined by the results of the List election. Each party's overall allocation of seats is determined by the number of List votes received, using the Sainte-Laguë procedure discussed earlier. To qualify for seats a party must either: (a) obtain 5% of all of the votes cast in the List election; or (b) win at least one constituency seat in the FPTP contests. For example, with 34% of the List votes in 2008 (and 36% of those won by parties that crossed one at least of the two thresholds) the Labour party was allocated 43 of the 122 MPs; 21 Labour candidates won constituency seats, and so a further 22 Labour MPs were selected from the party's list of candidates. (If a party wins more FPTP seats than its share of the List votes entitles it to, additional seats are allocated, thereby increasing the size of the House of Representatives – in Germany this is called an *überhangmandat*.)

The outcome in 2008 was close to proportional representation (Table 6.1). Four parties won representation in the House of Representatives because they crossed the 'victory in one constituency' threshold, even though all failed to get at least 5% of the List votes: only one of them – ACT New Zealand – won sufficient List votes to gain additional seats to its constituency victory. All but one of the parties represented in the House obtained a larger share of the seats there than of the List votes because 6.4% of the latter were cast for parties that won no representation. The Maori party was entitled to

only three seats according to its share of the List votes but won five in the constituency contests so the *überhangmandat* was applied, increasing the size of the House of Representatives from 120 to 122. (One other party – New Zealand First – obtained 4.1%; if there had been no threshold it could have anticipated being allocated 4–5 seats.) The disparities from strict proportionality are, however, small.

Table 6.1.
The New Zealand parliamentary election, 2008

Party	ListV%	Σ	Seats		
			Const.	List	Seat%
ACT New Zealand	3.65	5	1	4	4.09
Green Party	6.72	9	0	9	7.38
Jim Anderton's Progressive	0.91	1	1	0	0.82
Labour	33.99	43	21	22	35.25
Maori	2.39	5	5	0	4.10
National	44.93	58	41	17	47.54
United Future	0.97	1	1	0	0.82

Key: ListV% – percentage of List votes; Σ – total number of seats allocated; Const. – constituency seats won; List – List seats won; Seat% – percentage of total number of seats won.

This system gives electors two votes, therefore, one for a candidate to represent their constituency and the other for the List system on which the overall election result is determined. The latter vote is thus crucial, since the result in that component largely determines the legislature's overall composition. In the single-member constituency contests, however, electors need not vote for candidates of the party who received their List votes. They may prefer a candidate from another party to represent the local constituency, knowing that this is unlikely to influence the overall outcome. (An exception is where a constituency elects an MP from a party that would not qualify for seats on the List votes tally alone.) Electors may 'split' their votes, therefore, supporting one party in the List contest and another in the constituency: nearly 30% of New Zealand electors did so in 2008.

MMP/AMS in the UK with a single list – the London Assembly














The equivalent of the New Zealand system of a single national List is used for elections to the London Assembly, established in 2000 at the

Figure 6.2.

Ballot paper for the 2008 elections to the List component of the London Assembly

Election of the London Assembly
London Member

Vote once (X) in one blank box

	1	Abolish the Congestion Charge	<input type="checkbox"/>
	2	British National Party	<input type="checkbox"/>
	3	The Christian Choice	<input type="checkbox"/>
	4	Conservative Party	<input type="checkbox"/>
	5	English Democrats Party	<input type="checkbox"/>
	6	Green Party	<input type="checkbox"/>
	7	The Labour Party	<input type="checkbox"/>
	8	Left List	<input type="checkbox"/>
	9	Liberal Democrats	<input type="checkbox"/>
	10	One London (Leader Damian Hockney)	<input type="checkbox"/>
	11	Respect (George Galloway)	<input type="checkbox"/>
	12	UK Independence Party	<input type="checkbox"/>
	13	Unity for Peace & Socialism	<input type="checkbox"/>
	14	ALAGARATNAM, Rathy	<input type="checkbox"/>

same time as the post of elected Mayor. The Assembly has 25 members: 14 are elected from single-member constituencies using FPTP (the constituencies are groups of contiguous boroughs with an average electorate of 360,000) and the other 11 from the 'London-wide' closed List, using the D'Hondt method (described above) for allocating seats; Figure 6.2 illustrates the ballot paper used.

At the 2008 elections, the 14 constituency seats were shared between the Conservative (8) and Labour (6) parties, which obtained 37.4 and 28.0% of the FPTP votes cast respectively. Five other parties contested all 14 seats and another contested 13, without gaining any representation (the Liberal Democrats won 13.7% of the FPTP votes). More than one-third of the votes cast were thus for parties that gained no constituency representation.

Allocation of the 11 List seats was subject to a threshold of 5% of what are termed the 'London votes', for which five parties qualified (Table 6.2): 14% of those List votes were cast for parties that fell below the threshold. Using the DH system, the qualifying figures for the Conservatives and Labour excluded those for the divisors equal to the number of constituency seats won (8 and 6 respectively); their first relevant totals were those obtained with the ninth and seventh divisors respectively, whereas for the other three the full range was deployed. As Table 6.2 shows, the Conservatives and Liberal Democrats gained three List seats each, Labour and the Greens two each, and the BNP one.

Table 6.2.
The Greater London Assembly election, 2008

A. The allocation of List seats

Party	1	9	10	11	12
Conservative	835,535	92,837	83,554	75,958	69,628
Labour	665,433	95,063	83,180	73,938	
Liberal Democrat	252,556	126,278	84,185		
Green	203,465	101,733	67,822		
BNP	130,714	65,357	43,571		

See text for discussion of the divisors. Figures in bold indicate a seat allocated to the relevant party.

B. The final outcome

	ListV%	Const.	Seats			Seat%
			List	Σ	Seat%	
Conservative	34.5	8	3	11	44.0	
Labour	27.1	6	2	8	32.0	
Liberal Democrat	11.2	0	3	3	12.0	
Green	8.3	0	2	2	8.0	
BNP	5.3	0	1	1	4.0	

Key: ListV% – percentage of List votes; Σ – total number of seats allocated; Const. – constituency seats won; List – List seats won; Seat% – percentage of total number of seats won.

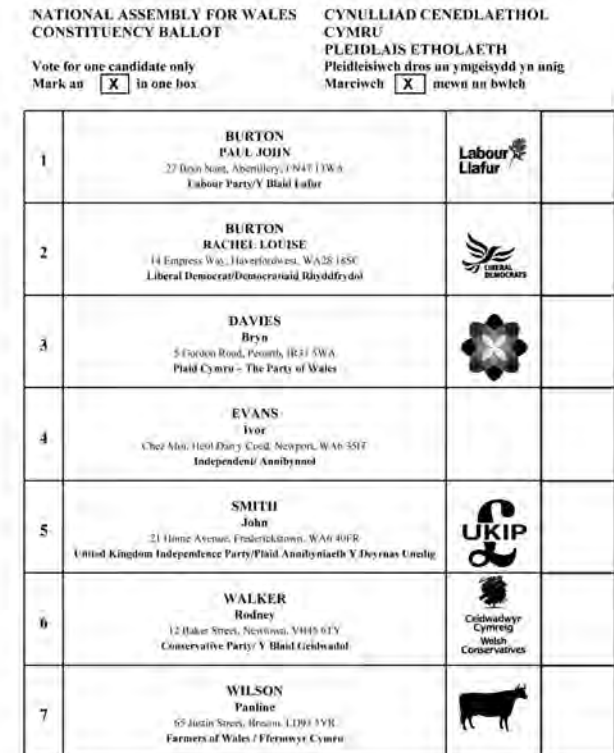
The overall outcome, indicated in the lower block of Table 6.2, was not very proportional, reflecting the small size of both the Assembly itself and the List component; the Conservatives obtained nearly 10 percentage points more of the seats than of the List votes. (If Sainte-Laguë had been used rather than D'Hondt for the List allocation, the Conservatives would have been allocated 10 rather than 11 seats, with the BNP getting one more.)

MMP/AMS with regional lists – the National Assembly of Wales

MMP/AMS was introduced to the UK with creation of the Scottish Parliament and the National Assembly of Wales in 1998. There is a significant difference between its use there and for elections to both New Zealand's House of Representatives and the London Assembly, however. Rather than have a single contest covering the entire

Figure 6.3.

The format of the ballot papers used for the MMP elections to the National Assembly of Wales



A. Constituency election

Figure 6.3.

The format of the ballot papers used for the MMP elections to the National Assembly of Wales B. Regional election

country several regional Lists are deployed – four in Wales and eight in Scotland. In those two countries the List votes are not used to ensure a body of legislators whose composition proportionally reflects the national pattern of support for the various parties. Rather, the List component provides a relatively small number of additional seats in each region for allocation to those parties that have been relatively unsuccessful in the FPTP constituency contests there.

Operation of this system is illustrated by the National Assembly of Wales, comprising 60 members (AMs); 40 are elected from single-member constituencies by FPTP and the other 20 from five regions, each of which returns four AMs from a closed List contest, with the seats allocated across parties according to the DH method. One region currently contains nine FPTP constituencies, one contains seven, and the other three eight each. The format of the ballot papers is illustrated in Figure 6.3.

At the 2007 election, Labour won five of the nine FPTP seats in the North Wales region and 26.4% of the List votes (Table 6.3). It thus qualified for none of the region’s List seats. (Under the DH method, its share of the List votes would have entitled it to three of the region’s 13 seats, and it had already won five in the constituency contests.) Two List seats went to the Conservatives, one to Plaid Cymru and one to the Liberal Democrats. In total, Labour, the Conservatives and Plaid Cymru respectively won five, three and four of the region’s total of 13 seats even though their shares of the List votes were very similar. Labour and Plaid Cymru got more seats than the Conservatives because of their success in the FPTP contests. The Conservatives improved their situation through the List allocation, but not sufficiently to gain equal representation with the other two parties. To avoid or at least reduce the likelihood of such inequality, this MMP system could be better designed so that there are most List seats relative to FPTP seats.






NATIONAL ASSEMBLY FOR WALES REGIONAL BALLOT		CYNULIAD CENEDLAETHOL CYMRU PLEIDLAIS RHANBARTHOL	
.....REGION		RHANBARTH.....	
Vote once only		Pleidleiswch unwaith yn unig	
Mark an <input checked="" type="checkbox"/> in one box		Mareiwch <input checked="" type="checkbox"/> mewn un bwlch	
1	<p>Conservative Party/ Y Blaid Geidwadol</p> <p>1. David Brandon 5. Claire Williams 9. Andrew Williams 2. Paul David Evans 6. Mashaq Singh 10. Cherie Bold 3. Sue Mairaney 7. Heather Painter 11. Owen Green 4. Nick Webb 8. Joan Harel Smith 12. Ollie Green</p> 		
2	<p>Democratiaid Rhyddfrydol Cymru/ Welsh Liberal Democrats</p> <p>1. Robert Watson 5. George Mason 9. David Fitzoy 2. Stephen Jones 6. William Richards 10. James Stuart 3. Trisha Phillips 7. Kate Walker 11. William Trib 4. Wendy Pellmar 8. Margaret Sullivan 12. Lucy Chiversell</p> 		
3	<p>Labour Party/ Y Blaid Lafur</p> <p>1. Tony John Fisher 5. Ceri Brown 9. David Hart 2. Charles Cook 6. Iqbal Khan 10. Emma Hedderp 3. Kathleen Hughes 7. Margaret Davies 11. Joan Hunt 4. Robin Mason 8. Paula Katie Smith 12. Jason George</p> 		
4	<p>Plaid Cymru – The Party of Wales</p> <p>1. Shelle Stacey 5. Brian Helen Collins 9. Dorian Pike 2. Fiona Chambers 6. Megan Dixon 10. Hugh Phipps 3. Michael Cole 7. Janice Farr 11. Gerald Griffiths 4. Sheker Mohammed 8. Cerys Singer 12. Clement Morris</p> 		
5	<p>United Kingdom Independence Party/ Plaid Annibyniaeth Y Deyrnas Unedig</p> <p>1. Hugh David James 5. Yvonne Brown 9. William Parry 2. Soren Cole 6. Desmond Wallis 10. Paul Ryan Jones 3. Herbert Cole 7. Grace Walsh 11. Jim Enoch 4. Roger Thomas 8. Joan Susan Maynard 12. Mary Foullkes</p> 		
6	<p>Xavier Alliance</p> <p>Independent/ Annibynol</p>		

Table 6.3.
The National Assembly of Wales election, 2007

Party	C	PC	LD	L	BNP	UKIP	G	Σ
<i>North Wales</i>								
Const. Seats	1	3	0	5	0	0	0	9
List Votes (%)	25.6	25.7	7.8	26.4	5.1	4.1	2.9	
List Seats	2	1	1	0	0	0	0	4
Total Seats	3	4	1	5	0	0	0	13
<i>Mid and West Wales</i>								
Const. Seats	2	4	2	0	0	0	0	8
List Votes (%)	22.9	31.0	13.3	18.4	2.9	3.8	4.0	
List Seats	1	1	0	2	0	0	0	4
Total Seats	3	5	2	2	0	0	0	12
<i>South Wales East</i>								
Const. Seats*	1	0	0	6	0	0	0	8*
List Votes (%)	20.0	13.6	11.0	35.8	4.7	4.6	2.8	
List Seats	1	2	1	0	0	0	0	4
Total Seats	2	2	1	6	0	0	0	12*
<i>South Wales Central</i>								
Const. Seats	1	0	1	6	0	0	0	8
List Votes (%)	21.7	15.5	14.0	34.0	3.8	3.7	3.8	
List Seats	2	2	0	0	0	0	0	4
Total Seats	3	2	1	6	0	0	0	12
<i>South Wales West</i>								
Const. Seats	0	0	0	7	0	0	0	7
List Votes (%)	16.1	17.7	12.4	35.8	5.5	3.6	3.8	
List Seats	1	2	1	0	0	0	0	4
Total Seats	1	2	1	7	0	0	0	11
TOTAL								
Const. Seats*	5	7	3	24	0	0	0	40*
List Votes (%)	21.5	21.0	11.7	29.6	4.3	4.0	3.5	
List Seats	7	8	3	2	0	0	0	20
Total Seats	12	15	6	26	0	0	0	60*

* An Independent candidate won one of the constituency seats

Key: C – Conservative; PC – Plaid Cymru; LD – Liberal Democrat; L – Labour; BNP – British National Party; UKIP – United Kingdom Independence Party; G – Green; Σ – Total.

Similar patterns occurred in the other regions. For example, Labour was substantially over-represented in each of the three South Wales regions because it won virtually all of the FPTP seats there but only just over one-third of the List votes. Allocation of additional seats on the basis of the List votes partially compensated for Labour's over-representation in the single-member constituency outcomes. This was not sufficient to achieve proportional representation in each region, however, because the List element is a relatively small component of the total number of seats and there is no *überhangmandat*.

This illustrates a difficulty for electors in the Welsh version of MMP/AMS compared to New Zealand's where, because seats are allocated nationally, the List votes very largely determine the overall outcome: in most circumstances electors there should give their List vote to their preferred party. In parts of Wales, however, this may not be the case. Labour won all seven FPTP seats in South Wales West, for example. If electors anticipated that this would occur, they would realise that the party would not also gain any of that region's four List seats. As such, Labour supporters might have given (and perhaps been encouraged by the other parties during the campaign to give) their List votes to whichever of the other parties they would prefer to see representing the region in the Assembly (i.e. in effect, to express their second preferences in the List contests). Indeed at each of the three elections for the National Assembly of Wales held to date Labour has won a larger share of the constituency than the List votes – 37.6% and 35.5% respectively in 1999; 40.0% and 36.6% in 2003; 32.2% and 29.6% in 2007. With a number of small regional Lists, therefore, the electors' decision which party to support in that component of the contest is less straightforward than if there is a single, national List; this is particularly the case if they support the dominant party (assuming there is one) that wins most of the constituency seats in their region. In total, survey data showed that 25% of voters supported different parties in the List and constituency components of the 1999 election, as did 17% in 2003 and 24% in 2007.

Labour was substantially over-represented in the National Assembly of Wales elected in 2007, obtaining 26 seats – 43% of the 60

– with just under 29.6% of the List votes. It won a larger share of the FPTP votes (32.2%), with which it obtained 24 of the 40 (60%) of the constituency seats. The List component did therefore move the outcome towards proportionality. Nevertheless, none of the three smaller parties (BNP, UKIP and Green) won any seats despite obtaining nearly 12% of the List votes. (UKIP contested 13 of the 40 constituencies: the Greens and BNP contested none, focusing entirely on the five List contests.) Plaid Cymru was also over-represented in the Assembly, but the Conservatives and Liberal Democrats, both of which were less successful in the FPTP contests, were under-represented.

What would have happened if instead of five separate regions for allocating additional members on the basis of List vote shares there had been a single national allocation of those 20 seats, assuming the same allocation of votes across the parties? Table 6.4 shows that, using the DH method, Labour would have obtained no seats other than those it won in the FPTP contests (with regional lists it obtained two, in Mid and in West Wales), and Plaid Cymru would have obtained three less than it did under the regional allocation. Those five seats would have been allocated to the three smaller parties – two each to the BNP and UKIP and one to the Greens. (If there had been a 5% threshold, however, as in New Zealand, those three parties would not have been allocated any seats.) If SL rather than DH were used to allocate the 20 List seats nationally, the final block in Table 6.4 shows that both the Conservatives and Plaid Cymru would have obtained one less than under DH: of those two seats, one would have been allocated to the Greens and the other to the Socialist Labour Party. (The latter is not shown in the Table; it obtained just 2,209 – 1.3% – of the List votes nationally, and its single seat would have been 1.7% of the Assembly's 60.)

Table 6.4.

The National Assembly of Wales election, 2007, if the List seats were allocated for a single, national constituency

Party	C	PC	LD	L	BNP	UKIP	G
Const. Seats*	5	7	3	24	0	0	0
List Votes (%)	21.5	21.0	11.7	29.6	4.3	4.0	3.5
List Seats	7	5	3	0	2	2	1
Total Seats	12	12	6	24	2	2	1
List Seats (Ste Laguë)	6	4	3	0	2	2	2
Total Seats (Ste Laguë)	11	11	6	24	2	2	2

* An Independent candidate won one of the constituency seats

Key: C – Conservative; PC – Plaid Cymru; LD – Liberal Democrat; L – Labour; BNP – British National Party; UKIP – United Kingdom Independence Party; G – Green; Σ – Total.

This Welsh example shows that whereas use of the MMP/AMS system can ensure more proportional representation in an election result than use of FPTP alone, the degree of proportionality depends on a number of detailed aspects of the system, in particular:

- The relative size of the FPTP and List components – the larger the latter, the greater the proportionality.
- Whether the List seats are allocated nationally or regionally – proportionality is likely to be greater with the former, with small parties the main beneficiaries; small parties especially benefit in a system with regional lists if their support is spatially concentrated. If regions are used, then when constituency maps are redrawn it may be necessary to: either (a) redraw the regional boundaries also; or (b), if the regions are fixed, redetermine the number of List seats per region (using either DH or SL, as currently in the allocation of European Parliament seats across the regions of the UK).
- Whether DH or SL is used to allocate the List seats across the parties – greater proportionality will be achieved with the latter.
- Whether there is a threshold in the allocation of List votes to exclude small parties.

Elections to the Scottish Parliament also illustrate these points, although the List component there (56 of the 129 seats, or 43.4% of the total) is proportionally larger than in Wales. Nevertheless, quite considerable disproportionality occurred at recent elections. In 2003, for example, with 29.3% of the List votes and 34.6% of the constituency votes, Labour won 38.5% of the seats; and in 2007 with 32.8% of the List votes and 33.5% of those cast in the constituencies, the SNP won 37% of the seats. (Survey data show that one-fifth of all Scottish electors voted a split-ticket in both 1999 and 2007, and 28% in 2003.) Although the outcomes of the elections to these two bodies have been more proportional than the average for FPTP elections using single-member constituencies, they are less proportional than other systems, notably those discussed in Chapter 5.

MMP/AMS using the Alternative Vote and small top-up regions (AV+): the 1998 Jenkins' proposals for the United Kingdom.

A further variant of MMP/AMS was proposed by the 1998 report of the Independent Commission on the Electoral System, chaired by Lord Jenkins of Hillhead and established by the Labour government following a 1997 manifesto commitment. It was asked to deploy four 'not entirely compatible requirements': (i) broad proportionality; (ii) the need for stable government; (iii) an extension of voter choice; and (iv) the maintenance of a link between MPs and geographical constituencies'.

The Commission's recommendations were for an MMP/AMS system in which the great majority of MPs would be elected from single-member constituencies, but using AV to ensure majority support in each rather than FPTP. (One member disagreed, arguing instead for FPTP.) There would also be a relatively small number of 'top-up' MPs elected through a regional List system. The Commission recommended 80 regions, including the five established in Wales and eight in Scotland for their devolved institutions and two for Northern Ireland; England's 65 would be based on administrative counties (incorporating the recently-created unitary authorities), with a small number of large counties divided into two 'top-up regions'. The

proposal is generally known as AV+, and continues to be promoted by some as both: (a) returning MPs elected from constituencies with a majority mandate; and (b) ensuring greater proportionality than is the case with elections held using AV alone.

None of the regions in the original proposal would have more than two List seats and the majority only one, so the degree of 'compensation' for the disproportionality (and probably bias) resulting from the single-member constituency contests would be small. Indeed, estimates produced for the Commission suggested that at the 1983, 1987 and 1997 general elections use of the system (making assumptions about voting behaviour derived from elections at the FPTP contests then) would have resulted in a majority of House of Commons seats for the largest party, even though in each case it obtained less than 44% of the first-preference constituency votes. The 1992 election would probably have resulted in a 'hung parliament', however, instead of the small Conservative majority obtained under FPTP (also with just under 44% of the votes cast).

A range of simulations for the 1997 election using AV+ was also produced, using a range of different ratios of FPTP to List seats. (These are reproduced in the *Final Report of the Independent Commission to Review Britain's Experience of PR Voting Systems*.) All showed that the Liberal Democrats would be the main beneficiary, relative to the actual 1997 election outcome using FPTP. The larger the List component, the greater the Liberal Democrat and, to a lesser extent, Conservative gains in number of seats relative to the FPTP outcome, and the larger the Labour losses. If the List component accounted for more than 25% of the seats allocated, Labour would not have an overall majority. (In the actual, FPTP, election it had a majority over all other parties of 179 seats.) More generally, later work suggested that a minimum of 25% of the seats being allocated to the top-up regions would be necessary to achieve 'broad proportionality' in an election outcome; there would need to be fewer regions with larger magnitudes.

In this system voters would have to express several preferences. In the constituency part, they would have to rank order all of the

candidates/parties – as in other AV contests (discussed above). In the ‘top-up list’ part, they would have to indicate their preferred party to get one of the seats allocated through that mechanism – which would most likely, though not necessarily, be either their first- or their second-ranked parties in the constituency contests. In making that selection, however, they would have to assess – as in the case of the National Assembly of Wales MMP/AMP elections discussed above – whether their preferred party is likely to win any of the ‘top-up’ seats given its probable performance in the single-member constituency part of the contest. Such evaluations will not be straightforward in many situations where the outcome of the constituency contests is not readily foreseen, which will also make for difficulties for parties in their campaigning advice to supporters. (Should they campaign for both the first preference vote in the constituency contests in a region and for the list vote? Should they campaign for second preferences in the former, alongside the List vote?) The number of options may be considerable in a multi-party contest where the outcomes are hard to predict, presenting electors with a difficult set of decisions to be based on far from complete information on the likely impact of their choices. The result may be a large number of wasted votes in the ‘top-up region’ contests, cast for preferred parties that win no seats there – especially if electors decide in the face of uncertainty to give their first-preference AV votes and their List votes to the same party.

MMP/AMS in summary

MMP/AMS systems include a proportion of a legislature’s members who are elected from – and thus represent – single-member, territorially-defined constituencies (using FPTP in all of the current cases where they are used), whilst at the same time moving towards a more proportional outcome than FPTP normally delivers through the election of a second set of legislators via one or more List contests. The extent to which the latter leads to an outcome close to proportionality is the result of a number of decisions regarding the system’s detailed construction, as illustrated above.

Where a national List is deployed, an election conducted under

MMP/AMS will probably result in no party having a majority in the legislature unless it has a majority of the List votes. (An exception could occur if a party gets a majority of the seats in the legislature solely through seats won in the constituency contests, if a *iiberhangmandat* applies; in such cases, the party may not have a majority of the List votes.) Where regional lists are used, however, a ‘manufactured majority’ may occur. In 2003, for example, Labour won 30 of the 60 seats in the National Assembly of Wales – all of them in the FPTP constituency contests – and yet it won only 40% of the votes there, and 36.6% of the List votes.

For an elector, therefore, under an MMP system such as New Zealand’s with a national List, two decisions have to be made:

1. Which party do I prefer, and thus want to see involved in the country’s government? This party should get the List vote; and
2. Which candidate do I prefer as a representative for the constituency in which I live?

The second decision may involve selecting a candidate and/or party based on personal rather than party grounds (although many small parties choose not to contest all of the single-member constituencies). Such vote-splitting would probably have no impact on the overall outcome; it could well, however, lead to a larger number of parties being represented in the legislature than if the entire election were determined using FPTP in single-member constituencies (as in New Zealand in 2008).

Where there are regional Lists, as in Scotland and Wales, as suggested above electors might give their List vote to a party other than their most preferred because the latter is unlikely to win any List seats given its probable success in the constituency contests. In all MMP/AMP systems, however, an elector may be unable to vote for her/his preferred party in the constituency contest if it does not field a candidate there, making split-ticket voting – i.e. supporting two different parties in the election’s separate components – virtually inevitable.

For the parties, the main decisions are which of the constituencies to contest and how to orient their campaigns. Small parties are unlikely to win constituency seats under FPTP unless they focus on a few where they have considerable local support and organisational strength, perhaps focused around a well-known local candidate. (This was the case with at least two of the New Zealand parties in 2008.) They should thus pay most attention to the national campaign, seeking to maximise their List votes – although if their expectation of reaching any List threshold for seat allocation is low, they might concentrate instead on one or a few constituencies only. (The same set of issues arises for independent candidates. If they contest the List vote only, they have to ensure that their vote total will exceed any threshold – 5% is a large vote share for an individual to obtain with a national or large regional list, for example; contesting a single constituency, especially if they have a home base there and can mobilise substantial local support, is more likely to bring success.) For larger parties, seeking to lead an elected government, the national List vote is crucial.

For the election system designers a number of subsidiary decisions can be crucial influences on the overall outcome. The most important are:

- The relative number of legislators to be elected from the List and from the constituencies: in general, the smaller the former component, the less proportional the overall result is likely to be (unless a potentially quite large *überhangmandat* is allowed). On the other hand, the larger the List component the larger the average size of the single-member constituencies. In the United Kingdom, for example, with 43 million electors voting for members of the House of Commons the following table shows the average constituency electorate with different MP totals and splits between constituency and List MPs. (Smaller numbers of MPs than the current total are included because of the explicit statements from several party leaders that they wish to reduce the size of the House of Commons.)

Number of MPs	Type of MP Const.	List	Average Constituency Electorate
650	550	100	78,000
	500	150	86,000
	450	200	96,000
600	500	100	86,000
	450	150	96,000
	400	200	108,000
550	450	100	96,000
	400	150	108,000
	350	200	123,000
500	400	100	108,000
	350	150	123,000
	300	200	143,000

- Whether to use a single constituency for the List component, or to use a number of regional List constituencies. In the UK, with a number of regionally-defined parties (such as those that only contest constituencies in one of Northern Ireland, Scotland and Wales), use of a national List may substantially reduce their chances of winning representation unless they are able to win one or more of the (compared to the present, reduced number of) single-member constituencies. (In the 2005 UK general election, for example, the SDLP won only 1.5% of the UK votes, and Plaid Cymru won 0.6%.)
- How to define the constituencies. With the FPTP element, the issues to be faced are the same as those discussed in the chapter on single-member constituency elections, although they are not necessarily as crucial. Any disproportionality and bias in the translation of votes into seats may be balanced by the List element, so that a party disadvantaged in the constituency contests would be compensated by the allocation of seats according to the List votes, especially if a single national List is used. (One party with 40% of the constituency votes might win more FPTP seats than another with the same percentage, but if both also got 40% of the List vote their total allocation of seats would be the same, as application of the List component makes the result more proportional.) Nevertheless, to maintain equity of representation –

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‘one vote, one value’ – it is desirable that constituency boundaries are redrawn regularly. (New Zealand has a redistribution every five years.) If regional Lists are used, then when Boundary Commissions consider the redistribution of single-member constituencies they should also be required to either re-define the regions or, if they are fixed, reallocate the number of List seats to each region to ensure equality of representation.

- What thresholds – if any – to use.
- Which divisor to use – Sainte-Laguë or D’Hondt.
- Whether to use FPTP, AV or some other system in the constituency contests.
- Whether to allow dual candidacies, with individuals standing for both a constituency seat and a party list.

The two levels of an MMP/AMS system are inter-dependent, and the behaviour of both electors and parties at one of those levels may be conditioned by either their behaviour at, or the institutional features of, the other level. Some analysts have called this ‘contamination’, finding, for example, that the choice of candidates for a single-member constituency can influence a party’s List vote performance there too. This suggests that even small parties not expecting to win such seats should field and campaign for strong, especially locally-known, candidates in the constituency contests, where greater choice may then reduce the major parties’ voting strength as well as boost the smaller party’s prospects in the List contest.

MIXED-MEMBER MAJORITARIAN (MMM)

Another type of mixed system that has become increasingly popular in recent decades, sharing some characteristics with MMP/AMS, is Mixed-Member Majoritarian (MMM). It is used in at least 25 countries including several in the former Soviet Union, but its adoption has not been promoted in the UK

MMM also has single-member constituency and List components

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but differs from MMP/AMS because the two are not linked; the List component is not used to compensate for (some at least of) the disproportionality produced by the constituency outcomes. The two sets of results are simply added together to produce the overall result. Thus in Russia until 2005 (when MMM was replaced by an entirely List system) the Duma comprised 225 List seats (with a 5% qualification threshold) and a further 225 constituency seats elected by FPTP. In 2003, United Russia was one of only four parties to cross the 5% List threshold; with 37.6% of the List votes it won 120 (53%) of those 225 seats. It also won 103 of the constituency seats, giving it a total of 223 members of the Duma, just under half of the total. (If MMP/AMS had been deployed, with 42.8% of those List votes won by parties crossing the 5% threshold, United Russia would probably have been entitled to 192 seats: 103 would have come from its constituency victories and a further 89 – rather than 120 – from the List.)

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CONCLUSIONS: THE UK AS AN ELECTORAL LABORATORY

There has been a great deal of experimentation with various electoral systems in the United Kingdom over the last decade or so, which has enabled us to examine the features of a number of systems in a local context. This use of the country and its constituent parts as a ‘laboratory’ for electoral change – stimulated by a range of groups (such as Charter88 and the Electoral Reform Society) and an historic agreement between several political parties in the mid-1990s – nevertheless has not covered all of the major options available; Open-List PR has not been deployed, for example. Thus alongside our analyses of UK election outcomes we have drawn on a wide range of international, comparative work by political scientists and others to identify the major features of each system type. We have not reviewed all of the variants by any means, omitting both those which are esoteric variations on the ones we have discussed and a number that have received no attention within the UK from change-proponents and are unlikely to be significant candidates for adoption here – for either the House of Commons, a reformed House of Lords, or any sub-national (regional and local) democratic institution.

In the introduction, we identified three major criteria against which different systems could be evaluated.

- *Territorial representation.* The UK has a long tradition of electing members of both the national and regional/local legislatures from defined territorial areas – either administrative areas established for other purposes or, more usually, constituencies specifically designed for the purpose. Until recently – with the exception of local governments, where multi-member constituencies remain common throughout the UK – single-member constituencies have been the norm, and there is considerable support for this practice to be continued, especially for elections to the House of Commons.

Territorial constituencies are deployed in most of the electoral systems that we have discussed here – elections to a national legislature from a single constituency are rare. But the magnitude (the number of legislators to be elected) of those constituencies varies – and as a consequence so does their size (their average population and electorate). In general, as we have shown, the greater the constituency magnitude the greater the probability that an election result will approximate proportional representation – where a party's share of the votes is mirrored in its share of the seats to be allocated. In many places, however, this is constrained by thresholds designed to prevent parties with relatively little support from being allocated seats and thereby producing a fractured legislature in which either or both of government formation and policy agreement is difficult.

Under most electoral systems, therefore, legislators are elected as representatives from – and potentially of – particular segments of the national territory. The role as the representative of a particular area is much stressed in some defences of the UK FPTP system; MPs, local councillors and other elected members are seen as having important roles presenting the views of their local constituents and promoting their interests, as well as acting as local ombudsmen for individual and group issues and concerns. Such roles can be played in different electoral systems with larger constituency magnitudes and sizes, especially if sufficient resources to support the legislators are provided: indeed, they are in most of the systems that we have discussed here. But the issue of size then becomes important: the larger the constituency (in area, population, or both) the greater its heterogeneity on average (and therefore the greater the problem of identifying a 'local view') and a legislator faces difficulties being made aware of the wide range of issues and interests contained within it. Where the constituency returns more than one member, however, these issues can at least partly be addressed by agreements to split the constituency among its members, with each responsible for part of the territory – although this may be more feasible where a constituency returns

several members from the same party.

Larger constituencies are thus more likely to produce electoral outcomes consistent with the principle of proportional representation, but could alter the role of the MP as a local representative and champion – although the evidence suggests that MPs elected in multi-member districts with a system of preferential voting (STV or Open-List PR) are just as likely to develop close connections with their local constituents as MPs elected under FPTP.

- *Proportional representation.* Many campaigners for electoral reform – especially for elections to the House of Commons – stress the importance of achieving election outcomes that are closer approximations to proportional representation than is the case with FPTP – and also AV and SV, which might increase the mandate of the elected candidates since they are designed to identify those with the widest support base within the single-member constituency.

The evidence reviewed here indicates very clearly that proportional representation is much more likely to be achieved with some systems – notably Closed- and Open-List multi-member constituency systems and some versions of MMP/AMS – than with single-member systems. In general, the greater the constituency magnitude the closer to proportional representation the outcome is likely to be – although this can be constrained by the use of thresholds to preclude small parties winning seats; such constraints are politically-determined rather than being integral to any system. Although not designed to achieve proportional representation, STV in multi-member constituencies – especially large ones – is also likely to generate election outcomes consistent with proportional representation.

In sum, the conclusion regarding proportional representation is straight-forward – the larger the constituency magnitude (whether with list systems, or STV, or top-up lists in MMP/AMP) the more proportional the election outcome.

- *Preferential voting.* Criticisms of FPTP and some other systems (AV, SV, Closed-List and MMP/AMP) include the absence of any choice for electors within a party: they are either presented with a single candidate by the party (unless there are open primaries in which any eligible person can stand and vote – with eligibility determined by factors such as party membership and residence within a constituency) or, in multi-member constituency systems, by a list whose order they cannot change. This, it is claimed, both depersonalises the election and gives parties very strong control over who can stand – and thus be elected.

As indicated above, two electoral systems – Open-List and STV – provide electors with intra-party choice: wherever parties nominate two or more candidates in a multi-member constituency, electors can indicate their relative preferences not only between parties but also within parties, thus allowing them, for example, to pass judgement on incumbents standing for re-election on their prior performance relative to new candidates from the same party. (Open-Lists could be used for the top-up regions in MMP/AMP – as indeed could STV – but there are no examples of this set of decisions being made available to electors.)

In an electoral system, therefore, multi-member constituencies are necessary if electors are to be given the chance of expressing their preferences within a party's list of candidates. (Primary elections make that possible with any system, but these would probably be run by the parties themselves, which would thus be able to control the rules – e.g. over selection of candidates.) Within multi-member systems, the degree of choice can still be constrained: a party, for example, may field no more than the number of candidates it expects to be successful in a constituency. And with high magnitude constituencies, STV especially becomes very demanding on the electorate – as the example of the Australian Senate indicates.

Some form of preferential voting would certainly increase the individual accountability of MPs, by allowing citizens to choose between politicians from the same political party (and

hence with similar positions on major policy issues) but with different personal characteristics, such as their positions on particular issues, their performance in key parliamentary votes or their attendance records. Preferential voting systems also create strong incentives for politicians to promote local interests at the expense of broader national interests, which some people might consider an undesirable feature of these systems.

Overall, therefore, it is very difficult to achieve a satisfactory outcome against all three of these criteria using a single-member constituency electoral system: proportional representation is an unlikely outcome (though it may occur, especially if there are only two parties contesting the election) and intra-party preferential voting is not feasible at the election itself. Multi-member constituency systems can deliver against all three, on the other hand – although to differing degrees, and in different directions, according to the magnitude of the constituencies. The more members a constituency returns, the greater the probability of an election outcome approaching proportional representation but the greater the problems of allowing electors meaningful ways of expressing their preferences among a party's candidates.

Two other issues need to be considered. First, could changing the electoral system from FPTP lead to unstable coalition government in Britain? For a start, not all coalition governments are unstable. Some countries have highly stable coalition governments, such as Germany and most of Scandinavia. It is also worth pointing out that in Britain, as we showed in the Appendix to the report, the decline of the combined vote for the two largest parties and the way their supporters are distributed across constituencies could mean that single-party government will no-longer be the norm with FPTP (as is now the case in Canada). Yet, on average, a PR electoral system is more likely to produce a coalition government than a FPTP system.

Nevertheless, many countries with PR electoral systems have single-party governments. Part of this is a result of the way the party system works there. A major factor, though, is the way their PR

electoral systems are consciously designed to reduce the number of parties in a parliament or to provide a boost in seats for the largest party in an election. For example, single-party governments are the norm in many countries with small multi-member constituencies (such as Spain and Ireland). In other words, if the aim of choosing an electoral system is to balance accountable single-party government with a fully proportional parliament, small multi-member constituencies might be one way to achieve an effective compromise between these competing objectives.

Second, what might be the policy consequences of changing the electoral system from FPTP? In one sense, the electoral system only affects policies via the type of government that forms after an election – in other words, whether a single-party government or coalition government is likely to form, as just discussed. On the one hand, single-party governments tend to be more able to change existing policies and to react quickly to new challenges than coalition governments. On the other hand, coalition governments tend to produce more gradual policy change and policies which are closer to the views of the average citizen than single-party governments, as a broader consensus needs to be achieved before a government can put forward legislation.

Another potential policy impact of changing the electoral system relates to the type of policy issues that are on the political agenda of the House of Commons. With only a small number of parties dominating the House of Commons under the current FPTP system, one could argue that certain policy issues have been prioritised while others have been excluded. For example, in countries with PR systems green parties started to win seats in the mid 1980s, which led to environmental issues being on the agenda much earlier there than in most countries with FPTP systems. Indeed, the Green party won 15% of the vote in the European Parliament elections in the UK in 1989. Had they won a similar proportion of the vote in a PR election for the House of Commons, environmental issues would have been debated in our parliament much earlier than they were. The same argument could be made, though, about less desirable political issues,

such as those promoted by extreme right parties which have won seats under PR electoral systems.

A third potential policy effect of changing the electoral system relates to which groups of citizens parties need to target to win an election under each electoral system. Under the current FPTP system, the two main parties consciously target their policy promises to swing voters in marginal constituencies. This is not only a very small proportion of the electorate, but is also a highly skewed section of the electorate in terms of how these swing voters compare to the average voter in the country. Swing voters in marginal constituencies tend to have higher incomes than the average voter and have particular views about how public services should be provided. In contrast, a PR electoral system would encourage the main parties to propose policies with broad public appeal rather than to target small groups of voters.

APPENDIX: TRENDS IN THE UK PARTY SYSTEM

The FPTP electoral system works best with a two-party system. With two dominant parties, FPTP tends to produce a clear governing majority for the winning party and a fairly representative mapping of party vote-shares into parliamentary seat-shares.

If a country has a multi-party system, FPTP works less well. If the electorate is divided between several political parties, FPTP can still produce a clear electoral winner, and hence single-party government, as long as one of the large parties is in first place in a majority of the constituencies. Nevertheless, if a significant proportion of the electorate votes for parties other than the largest two, there is likely to be a significant gap between parties' vote-shares and their parliamentary seat-shares, and the governing party is unlikely to command the support of a majority of voters.

An even bigger problem for FPTP is if voting patterns are different in different parts of the country. If this happens, the largest party is less likely to be able to win a parliamentary majority, which will result in either single-party minority government or a coalition government. There may also be a large gap between parties' vote-shares and their parliamentary seat-shares, but this will depend on how parties' votes are distributed across constituencies.

The UK features different patterns of party competition in its four constituent countries. The British parties do not contest seats in Northern Ireland. The Northern Ireland nationalist parties have never been affiliated to any party in Great Britain. The Ulster Unionist Party was affiliated to the Conservatives but they separated in 1972. Also, since 1966 there has always been at least one nationalist MP elected in Scotland, or Wales, or both.

FPTP in Britain will continue to deliver single-party government and a reasonably representative parliament (at least for the two main parties) if: (a) the Conservatives and Labour continue to command the

support of a large proportion of the electorate; and (b) these two parties are the top two parties in most constituencies.

Figure A1.
Trends in the electoral support for Britain's two main parties

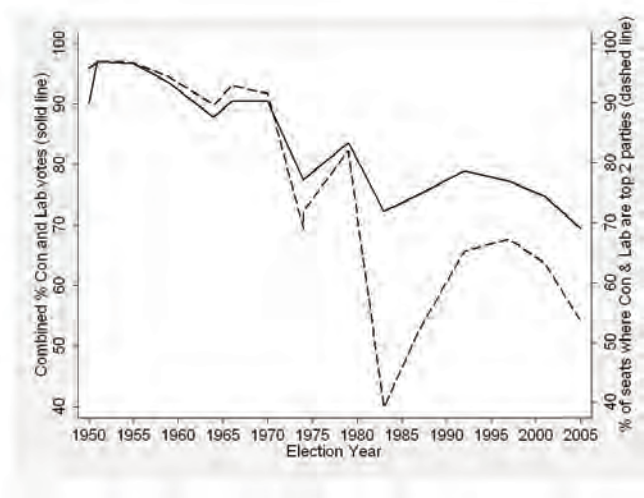


Figure A1 shows the trends in electoral support for the Conservatives and Labour since the 1950 general election. First, as shown by the bold line, the combined vote-share of the two main parties has declined from a peak in the 1951 election of 97% to 69% in 2005. So, almost a third of the British electorate voted for neither a Conservative nor a Labour candidate in the last general election. And in only one election since 1970 has the combined vote-share of the two largest parties been over 80% (in 1979).

Second, as shown by the dashed line, the percentage of constituencies where the Conservatives and Labour are the top two parties has also declined, from a peak of 97% in the 1951 and 1955 elections to 53% in the 2005 election. So, in only about half of the British constituencies in the last election was the electoral battle between Labour and Conservative candidates, and in the other half the battle was between either Labour and a third party, or the Conservatives and a third party, or two other parties altogether. And in

a number of seats there were three-way and even four-way contests.

In sum, the trends suggest that British elections are no longer dominated by the two main parties. If the Conservatives and Labour continue to lose support, the FPTP electoral system will be tested to its limits. In the last election, Labour was able to command a parliamentary majority with only 35% of the UK vote. If voting patterns across constituencies continue to diverge, it will become difficult for either of the two main parties to win a clear parliamentary majority with support in the 35–40% range.

Having said that, a two-party system might re-emerge in Britain. For example, the two main parties were more dominant in the 1997 election than they were in the 2005 election, or in the two 1974 elections or the 1983 election. Even with different voting patterns in different parts of the country, one or other of the two main parties may be able to win a parliamentary majority on the basis of a relatively low share of the vote, as Labour did in 2005 and the Conservatives did in 1992. Whether having a party in government with considerably less than 50% of the vote is the mark of a well-functioning democracy is another matter.

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ABOUT THE AUTHORS

Professor Simon Hix

Simon Hix is Professor of European and Comparative Politics at the London School of Economics and Political Science. He is Director of the Political Science and Political Economy Group at the LSE and is the co-editor of the journal *European Union Politics*. He has held visiting appointments at Stanford, Berkeley, UC San Diego, Sciences-Po in Paris, the Hertie School of Governance in Berlin, the College of Europe in Bruges, and Korean Institute for International Economic Policy in Seoul. Simon has written several books on EU and comparative politics, including most recently *What's Wrong with the EU and How to Fix It* (Polity, 2008). In 2008 he won the prestigious Fenno Prize from the American Political Science Association for his book *Democratic Politics in the European Parliament* (Cambridge, 2007), in 2005 he won the Longley Prize of the American Political Science Association for the best article on representation and electoral systems, and in 2004 he won a Fulbright Distinguished Scholar Award.

Professor Ron Johnston FBA

Ron Johnston has been Professor of Geography at the University of Bristol since 1995. He previously worked in the Departments of Geography at Monash University, the Universities of Canterbury and Sheffield and as Vice-Chancellor of the University of Essex. He has twice been honoured by both the Royal Geographical Society for his research achievements (Murchison Award, 1985; Victoria Medal, 1990), and by the Association of American Geographers (Research Honors, 1991); Lifetime Achievement, 2010. In 1999 he was elected a Fellow of the British Academy and a Foundation Academician of the Academy of the Learned Societies in the Social Sciences, and was awarded the Prix Vautrin Lud by the Festival Internationale de Géographie. He was a co-editor of two major journals – *Progress in Human Geography* and *Environment and Planning A* – between 1979 and 2006 and now edits the *Proceedings of the British Academy*. Since 1980 the majority of his work has focused on the value of a geographical

perspective in the study of electoral systems, specifically spatial variations in voting, the impact of local campaigns and the process of constituency definition.

Professor Iain McLean FBA

Iain McLean is Official Fellow in Politics at Nuffield College, Oxford and Professor of Politics at Oxford University. He was appointed as Specialist Adviser to the House of Commons Reform Committee in November 2009. Prior to this, Iain has worked at the Universities of Newcastle upon Tyne, Warwick, and Oxford, and has held visiting professorships at Washington & Lee, Stanford, Yale, and the Australian National University. His research interests are centred on public policy, in particular devolution; spatial issues in taxation and public expenditure; electoral systems; constitutional reform; and church and state. His previous OUP book, *State of the Union*, was awarded the W. J. M. McKenzie Book Prize and his most recent work, *What's Wrong with the British Constitution*, released in November 2009 is already influencing policy debates on the future of the House of Lords and British constitutional reform.

Angela Cummine

Angela Cummine is a doctoral candidate in Political Theory at New College, Oxford studying on an Australian Rhodes Scholarship. Her thesis examines the distributive justice implications of Sovereign Wealth Funds. She completed her Masters in Political Theory with Distinction at Oxford in June 2009, specialising in the Theory of Voting and Contemporary Political Philosophy. Her research interests focus on the translation of contemporary political theory into public policy, particularly in the areas of egalitarianism, property rights and deliberative democracy.

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P O L I C Y
C E N T R E

Changing the electoral system for the House of Commons is high on the political agenda, as is the choice of a system should an elected second chamber replace the House of Lords. What criteria should be used to evaluate the various systems promoted by the political parties and a range of pressure groups? How do those systems operate and what do they imply for the electorate, for the parties, and for policymakers? And what might the impact of any changes be, not only on election outcomes themselves but also on the formation of government and policy? Much academic research that has addressed these issues is brought together in this report, which is aimed at a wide range of readers interested in these important constitutional issues. The report does not advocate any particular electoral system from within the three main families identified, noting that there is no perfect solution that can meet all of the major evaluation criteria; instead it provides the bases for informed choices. Its role is to provide an accessible summary of relevant research findings, illustrating the value of high-quality social science in providing foundational material on which important public policy decisions can be made.

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10 Carlton House Terrace
London SW1Y 5AH
Telephone: +44 (0)20 7969 5200
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