The Jersey States Assembly in Comparative Perspective

A Report for the States of Jersey Electoral Commission

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Summary of Principal Findings

This report draws on the existing findings of political science and on analysis of a new dataset of electorate arrangements in 33 small democratic polities. It offers conclusions regarding the appropriate size of the States Assembly, the justifiability of unicameral and bicameral structures, the apportionment of seats, and the core of the electoral system.

The Size of the States Assembly

- The current size of the Jersey States Assembly fits with internationally observed patterns, though it is somewhat greater than that of legislatures of other democracies with similar populations.
- Thus, the States Assembly is not notably large in international comparison. Equally, however, a reduction in its size to somewhere between 30 and 50 would not make it unusually small.

Unicameralism v. Bicameralism

- Few democracies of Jersey's size have two legislative chambers and fewer still – only one of the 33 states in our dataset – have two elected chambers.
- A model in which the Connétables were removed to an independent second chamber with delaying rather than blocking powers would, however, have a coherent logic.

Apportionment of Seats

- Malapportionment – that is, the extent of the deviations in the number of voters per seat in different parts of the country – is unusually large in Jersey when compared to large and medium-sized democracies, but not when compared to other small democracies.
- Whether this degree of malapportionment can be justified depends on the degree to which the identity of the parishes can be said to be relevant. More obvious justifications for malapportionment – such as the presence of multiple islands or large sparsely populated areas – are not available in Jersey.
- Malapportionment could be reduced by over a fifth without changing any of the fundamentals of the system by introducing reapportionment of the Deputy seats through compensatory Sainte-Laguë.

The Electoral System

- It would be impossible for the Commission to fulfil its tasks completely without considering the electoral system itself.
- Like most other small democracies, Jersey uses a plurality electoral system. It uses single-member plurality (also known as 'first past the post') to elect the Connétables and the Deputies in some parishes and districts. It uses multi-member plurality (also known as the 'block vote') to elect the remaining Deputies and all of the Senators.

- Most alternative systems would not be appropriate for Jersey. But the alternative vote (AV) offers a viable alternative for single-member contests and the single transferable vote (STV) presents a viable alternative for multi-member contests.
- The choice between single-member plurality and AV is one of limited significance, but AV is clearly (if only marginally) superior in Jersey's context.
- The choice between multi-member plurality and STV is important. STV is superior on all criteria: it would allow better representation of opinion, reduce the number of wasted votes (which could be expected to improves turnout), and make it more likely that the most popular candidates are elected.
- Thus, if the current structure of Deputies, Connétables, and Senators is in broad terms maintained, AV should be introduced for single-member contests and STV for multi-member contests.
- There is a strong case for extending the use of STV to all the Deputies. A sensible reform would replace the current Deputies and Senators with a single class of member elected by STV in districts of three-to-five seats. Such a system could operate alongside the Connétables.

Introduction

This report presents and analyses comparative evidence that may assist the States of Jersey Electoral Commission in its deliberations regarding the appropriate electoral system for the States Assembly.

Political scientists generally focus on large or medium-sized states, and the following sections include evidence from such states. It is reasonable to suppose, however, that the character of politics in small states may be different from that in larger states and that inferences from larger states may, as a result, sometimes be misguided. In addition to the conventional analysis, therefore, this paper presents a new dataset gathered specially for the States Assembly, that allows comparisons between Jersey and other democracies of similar size.[1] Specifically, evidence has been collected from all fully democratic independent states with populations between 10,000 and 500,000 as well as from British overseas territories, British crown dependencies, and the one territory of New Zealand falling within the same population range.[2] This dataset contains thirty-three polities, ranging from the Pacific Island state of Tuvalu (population 10,619) to Malta, with a population of just over 400,000.

The following discussion is organized into five sections. The first deals with the size of the legislature: is it correct, as many argue, that the Jersey States Assembly is too large and ought to be downsized? The second section turns to the question of whether Jersey should retain a unicameral legislature or move to an assembly of two chambers. The third and fourth sections both deal with questions of apportionment and districting, particularly with the extent and justifiability of inequalities in the value of the vote in different parts of Jersey. The analysis in the third section focuses on international comparisons, while the fourth section analyses certain details of the current arrangements in Jersey. The fifth section, finally, looks at the core of the electoral system itself and at whether the current system of plurality elections in both single- and multi-member districts is the best option available.

It should be emphasized that I claim no special knowledge of Jersey. Rather, this report provides and analyses evidence on practice in other democracies and considers the implications of this evidence for a country like Jersey.

1. Size of the Legislature

The size of the States Assembly is one of the items on the Commission's terms of reference: much concern has been voiced that the States Assembly, as it stands, is too large. International political science offers one principal insight on this issue: broadly speaking, the membership of the lower (or sole) chamber of a country's national legislature tends to be roughly equal to the cube root of its population. Spain's lower chamber, for example, has 350 members; and Spain's population is 46.3

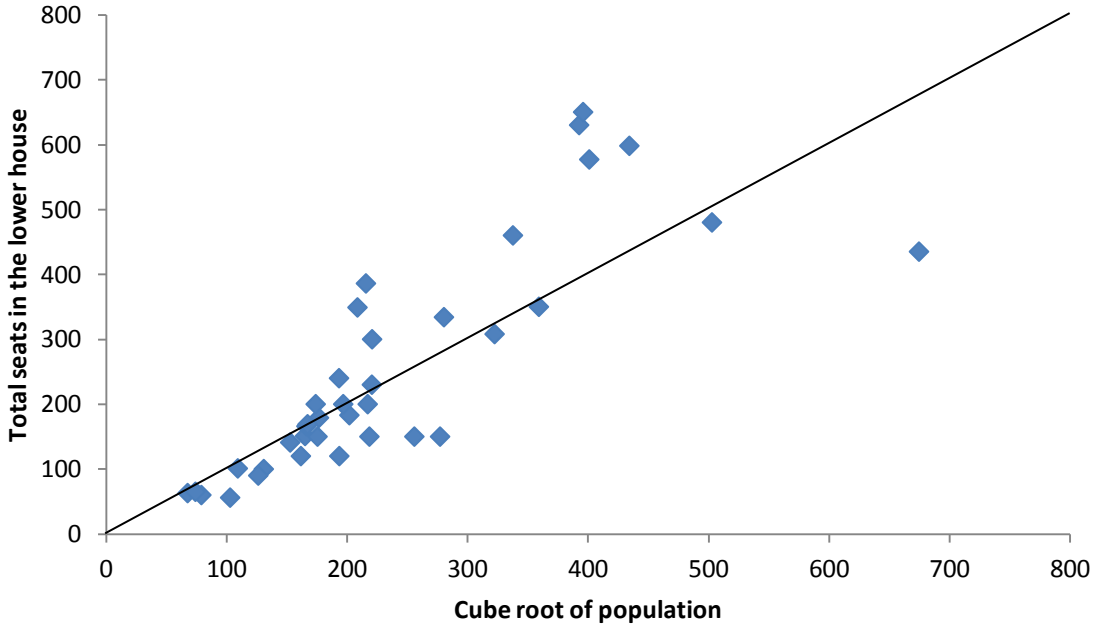
[1] The full dataset is available as an Excel file.

[2] Full democracies are defined here as countries rated as 'free' in the Freedom House *Freedom in the World* survey of 2010. See www.freedomhouse.org. Population data are taken from the CIA World Factbook, available at https://www.cia.gov/library/publications/the-world-factbook/index.html.

million, the cube root of which is 359. The cube root law reflects the fact that, as we move from small to larger countries, the size of the legislature tends to rise, but at an ever declining rate.[3]

Figure 1 shows data on assembly size and population for a standard set of mainly large and medium-sized democracies.[4] The diagonal line shows where the number of members of the lower house of the legislature is equal to the cube root of the population. The data do not fit this line perfectly, but they nevertheless cluster around it fairly closely: most large democracies do roughly follow the general rule. Two of the largest exceptions are the United States – which, with a population of 307 million (in 2009) would be expected to have a lower chamber of about 675 rather than the actual 435 – and the United Kingdom, where the general rule predicts a House of Commons with just under 400 members, rather than the actual figure of 650.

Figure 1. The cube root law in large democracies



Sources: CIA World Factbook and Inter-Parliamentary Union Parline Database (www.ipu.org).

Jersey's population, as of the 2011 census, is 97,857.[5] By the cube root law, this implies a legislature of 46 members, only slightly below the actual figure of 51.

That said, it may be noted in Figure 1 that the smallest countries included all fall below the line, with legislatures smaller than predicted by the cube root law. Figure 2 confirms this overall pattern,

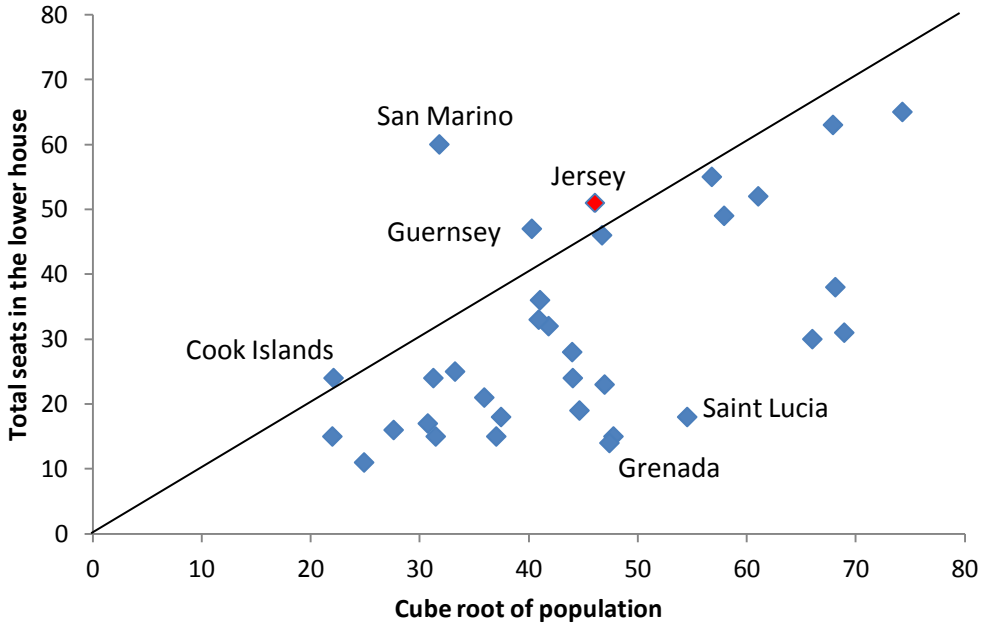
[3] The cube root law is explored in depth by Rein Taagepera and Matthew Soberg Shugart in their book *Seats and Votes: The Effects and Determinants of Electoral Systems* (New Haven: Yale University Press, 1989), pp. 173–83.

[4] Cf. Arend Lijphart, *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries* (New Haven: Yale UP, 1999).

[5] 2011 census results: http://www.gov.je/Government/Census/Census2011/Pages/2011CensusResults.aspx.

showing data from our survey of thirty-three small democracies. Only four of these democracies – including Jersey – are located above the line. All others have assemblies smaller than the general law predicts. To take some of the extreme cases, Grenada, whose population is 109,000, gets by with a lower house of fifteen members (though it also has an upper house of thirteen members); St Lucia has a lower chamber of seventeen members (and an eleven-member upper chamber) for a population of 162,000.

Figure 2. The cube root law in small democracies



Sources: See data file.

Thus, the Jersey States Assembly is towards the large end of the spectrum of comparator states, but it is not an egregious outlier.

We should, however, be careful of the inferences we draw from this evidence. Figures 1 and 2 show the current reality in a range of democratic polities. But they say little about what *should* happen. Rein Taagepera and Matthew Soberg Shugart do suggest a mathematical logic underlying the cube root law, but this is highly stylized and includes little of the complexity of legislatures' real-world roles.[6] Expectations of what members of legislatures should do vary greatly between countries: some, for example, are expected to perform significant constituency duties, while others are not. An assembly size that works well in one country might therefore present problems in another, even if population is the same.

The most that we can say from the evidence is that there is no reason to think the current size of the Jersey States Assembly is unreasonable, but that a somewhat smaller chamber could also, at least in terms of international comparisons, be justified.

[6] Taagepera and Shugart (note 3), pp. 179–82.

2. Unicameralism or Bicameralism?

One of the most basic choices in the design of a legislature is the choice between unicameralism and bicameralism: the choice between a legislature of one chamber and of two. (In principle, a legislature could have more than two chambers, but in practice examples are very rare.) A survey conducted in 2011 found that, of 89 democracies around the world, 53 had unicameral legislatures and 36 bicameral legislatures.[7] Thus, examples of both models are widespread.

Among small democracies, however, the unicameral pattern predominates. Of the thirty-three small democracies in our database, only nine have bicameral legislatures. Furthermore, only one – the Pacific island state of Palau – has an elected second chamber. Most of the others – Antigua and Barbuda, the Bahamas, Barbados, Belize, Bermuda, Grenada, and St Lucia – are Caribbean states or territories in which the upper house is appointed by the Governor General for a fixed five-year term. The final case is the Isle of Man, where most members of Tynwald's upper chamber (the Legislative Council) are elected indirectly by the lower chamber (the House of Keys).

Several reasons for this tendency towards unicameralism in small democracies can be conjectured. Bicameralism is sometimes a product of federalism, whereas most small democracies are not federal. Even where assembly members are elected partly on territorial and partly on non-territorial bases – as currently in Jersey – it may make sense where numbers are small for these members to sit together in a single chamber rather than separately. Time pressures are less acute where numbers are lower, so there is less need to hold parallel debates in separate chambers. Where politics is non-partisan – as is the case in some small democracies, including Jersey, but no large democracies – the lower chamber may be able to check the power of the executive more effectively than where party loyalties predominate.

Equally, the idea that two chambers should represent the country in different ways can apply to small states as well as to large. A common pattern in large federal democracies – as, for example, in the United States – is that the lower chamber should represent individual voters while the upper chamber should represent the subnational units. Thus, the US House of Representatives is elected such that each vote has close to the same value in all parts of the country, whereas the Senate has two members per state, whether that state be California (population 37 million) or Wyoming (population 564,000).[8] The same logic is applied in Palau, though in reverse: the lower House of Delegates contains one representative per state regardless of population, while the Senate is elected through one nationwide election. Under an alternative scheme, the German Bundestag is directly elected by the people, while the Bundesrat contains delegates from the governments of the Länder.

The equivalent logic in Jersey would see the Connétables removed to an independent second chamber, which would have the power to delay but not to block the decisions of the lower chamber. Whether such a move would be desirable cannot be judged without engagement with specific Jersey circumstances. What can be said on the basis of comparative analysis is that this arrangement would have a coherent underlying logic for which precedents can be found elsewhere.

[7] Alan Renwick, *House of Lords Reform: A Briefing Paper* (London: Political Studies Association), p. 20.
[8] Figures from the United States Census Bureau, www.census.gov, for 2010.

3. Apportionment of Seats

We turn now to the apportionment of seats: to the determination of how many seats will be assigned to each part of the polity. Closely allied to apportionment is the issue of districting: the process by which the parts to which seats are apportioned are determined. One of the concerns that have been expressed regarding current electoral arrangements in Jersey is that different parts of the island receive different levels of representation in the States Assembly: the number of voters per seat is considerably higher in some parishes than in others. This section will place Jersey in international comparison. The next section will then consider certain particular features of the Jersey system in more depth.

The principle of equality lies at the heart of democracy: each citizen should have an equal voice in the determination of how the polity is to be governed. On the other hand, there are also other values that matter in the design of a democratic system: government should be effective; particular communities of interest may deserve to be respected. Thus, some deviations from full equality may be justifiable. The question is what degree of deviation can be justified and what sorts of factor determine this level.

To assess this, we can look at the degree of malapportionment in different legislatures around the world. Malapportionment simply refers to deviations from perfect equality in the value of a vote in different parts of the country. In Jersey, for example, the 1,227 registered voters in St Mary have two representatives (counting Deputies and Connétables), as do the 3,529 voters in St Peter; malapportionment therefore exists, as the number of voters per seat is considerably lower in the former than the latter. The standard measure of malapportionment, proposed by the political scientists David Samuels and Richard Snyder, is calculated as follows:

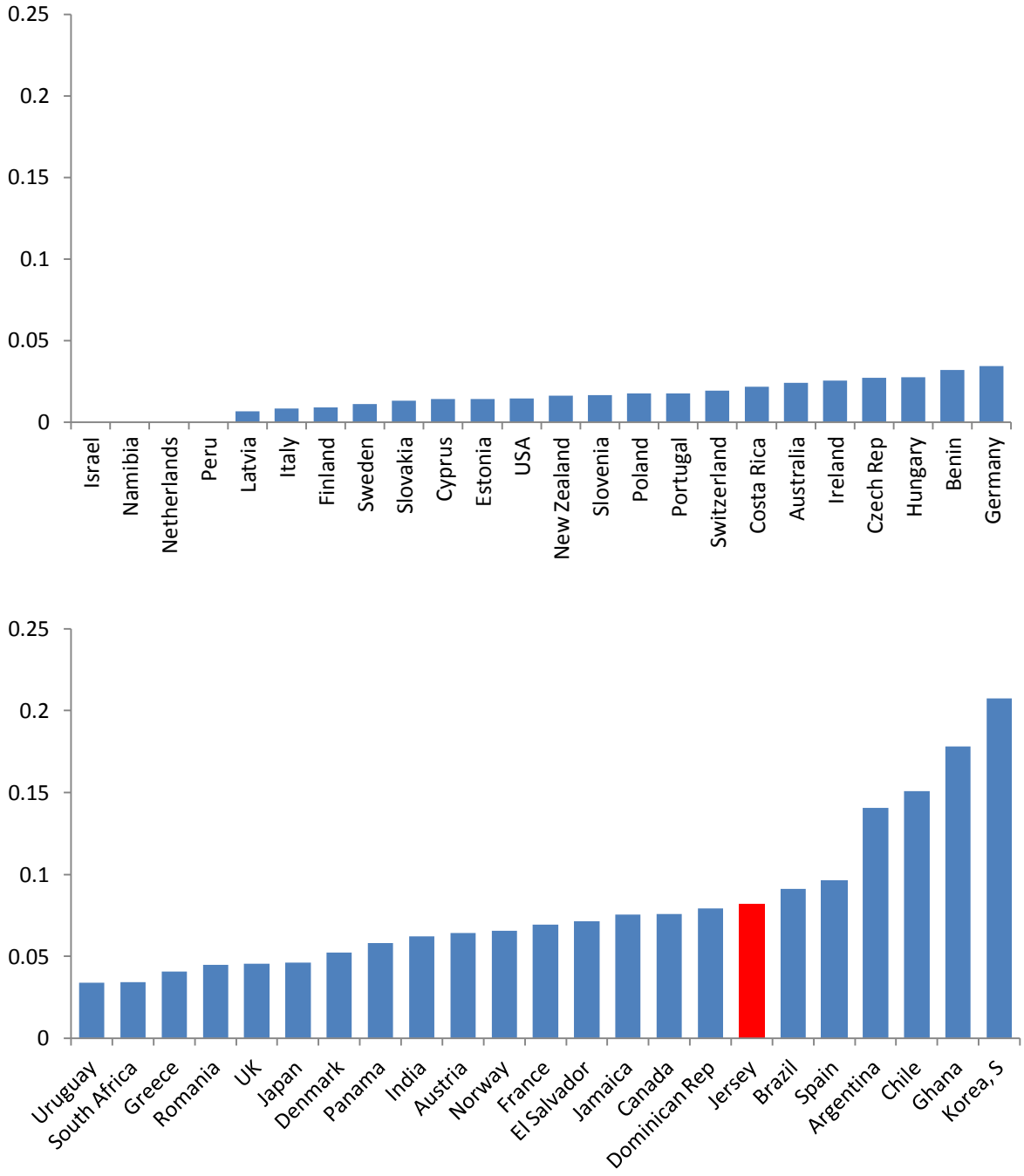
$$Malapportionment = \tfrac{1}{2}\,\Sigma|s_i - v_i|$$

where s_i is the proportion of seats allocated to district *i* and v_i is the proportion of registered voters living in that district.[9] Translating this into English, we take the difference between the share of seats and the share of voters for each district (ignoring plus or minus signs), add all of these up, and then divide by two.

Samuels and Snyder calculated malapportionment across a large number of democracies using data from the late 1990s. Figure 3 reproduces their findings and adds the data from the most recent election in Jersey by way of comparison. As before, we begin by comparing Jersey against the polities that political scientists generally pay attention to, namely larger democracies. With the exception of Jersey, Figure 3 therefore includes only countries with populations greater than 500,000. It includes only those countries in the Samuels–Snyder dataset that have a reasonable claim to being solid democracies, having been rated as 'free' in the Freedom House *Freedom in the World* surveys of both 2010 and 2012.

[9] David Samuels and Richard Snyder, "The Value of a Vote: Malapportionment in Comparative Perspective", *British Journal of Political Science* 31, no. 4 (October 2001), pp. 651–71, at p. 655. Where some seats are filled in districts and some are elected polity-wide (as, for example, in Jersey), the polity-wide seats are, for the purposes of this calculation, allocated to the districts in proportion to their share of the electorate.

Figure 3. Malapportionment: Jersey compared to large democracies



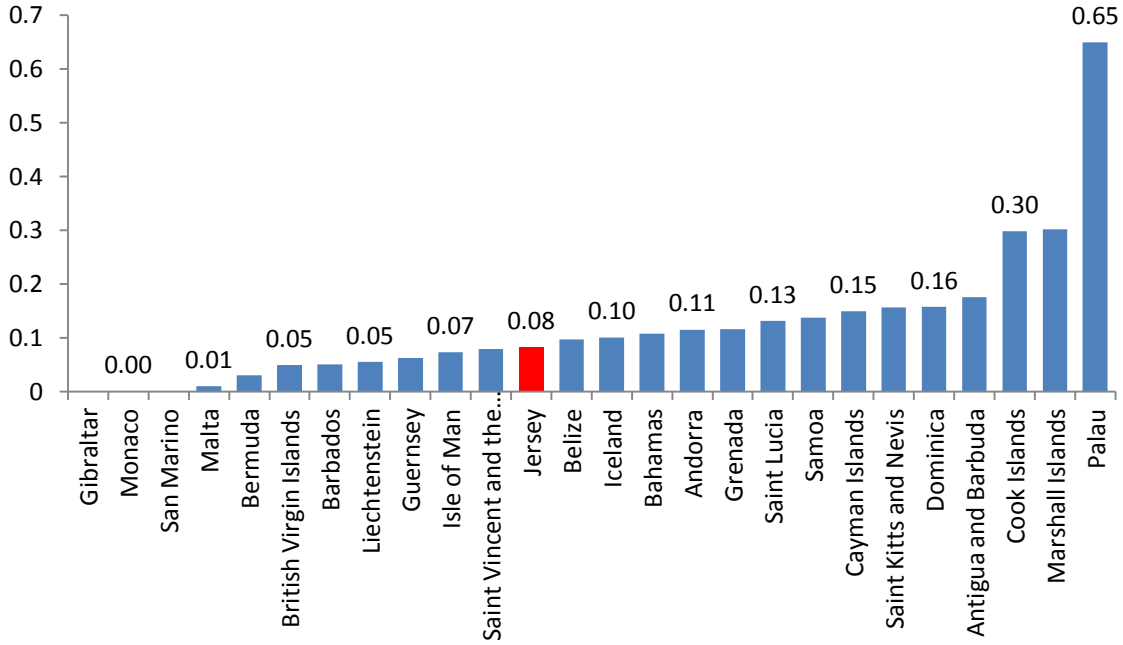
Source: All except Jersey: Samuels and Snyder (note 9), pp. 660–1. Jersey: Calculated from data supplied by the Jersey Electoral Commission.

Jersey's malapportionment figure is 0.08. This can roughly be understood as meaning that 8 per cent of the seats would need to be moved somewhere else in order to achieve full voting equality (though in Jersey's case such equality would require the redrawing of district boundaries as well as the reallocation of seats among districts). This may sound like a fairly low number, but in fact, as

Figure 3 shows, it is high when compared to larger democracies: of the forty-seven polities shown in Figure 3, only six have greater malapportionment. Furthermore, all of the countries with greater malapportionment than Jersey are relatively new democracies in which democratic norms may remain weakly embedded. Malapportionment in Jersey is almost twice as high as in the UK, where new legislation was passed in 2011 that tightens the rules on districting, because inequalities under the existing arrangements were deemed unacceptably high. It is also higher than in France, which is infamous for gerrymandering and where the Conseil Constitutionnel ruled the existing district structure unconstitutional in 2003.[10]

If we turn to our comparator group of small democracies, however, the picture becomes rather different. It has not been possible to find detailed information on district electorates for all of these polities. Figure 4, however, provides data on twenty-six of them. As is apparent, Jersey is now located around the middle of the range. At one extreme, we find three cases – Gibraltar, Monaco, and San Marino – where all seats are allocated in a single polity-wide district, and in which malapportionment is necessarily zero. At the other extreme, we find Palau, where almost two thirds of the seats would need to be moved in order to achieve equality. As noted above, Palau allocates one seat to each of its sixteen states, even though state populations range from 44 in Hatohobei to 12,676 in Koror.

Figure 4. Malapportionment: Jersey compared to small democracies



Note: In nineteen cases, the data shown here are based on numbers of registered voters at the last election. In five cases (Barbados, the British Virgin Islands, Dominica, Grenada, and the Marshall Islands) data for registered voters were unavailable, so I have relied on the number of votes actually cast in each district. This may produce inaccuracies if turnout is substantially different in different districts. In Palau and Saint Lucia, finally, the only data available related to total district populations. Sources: See data file.

[10] Decision no. 2003/20, 15 May 2003, available at www.conseil-constitutionnel.fr.

The key question, again, concerns what is appropriate. That elections in some polities are substantially more malapportioned than those in Jersey does not necessarily mean that those arrangements – either in Jersey or elsewhere – are justifiable.

The Council of Europe's European Commission for Democracy through Law (more commonly known as the Venice Commission) established a *Code of Good Practice in Electoral Matters* in 2002, which lays down guidelines regarding many aspects of electoral law.[11] It states that each polity should determine an "apportionment criterion" (or "distribution criterion") according to which apportionment and districting are conducted, such as "the number of residents in the constituency, the number of resident nationals (including minors), the number of registered electors, or possibly the number of people actually voting".[12] It continues:

> "The maximum admissible departure from the distribution criterion adopted depends on the individual situation, although it should seldom exceed 10% and never 15%, except in really exceptional circumstances (a demographically weak administrative unit of the same importance as others with at least one lower-chamber representative, or concentration of a specific national minority)."[13]

In Jersey, the *average* deviation in the number of voters per seat in each of the seventeen voting districts from the number of voters per seat in the island as a whole exceeds 17 per cent:[14] it is thus greater than the maximum permitted by the Venice Commission for any individual district unless exceptional circumstances apply. The highest deviation is in St Mary, where the number of voters per seat is 54 per cent below the island-wide average. The greatest underrepresentation is in St Clement, where the number of voters per seat is 27 per cent above the island-wide mean. It needs to be asked whether there are "exceptional circumstances" that justify such deviations.

Plausible candidates for such exceptional circumstances can be found, at least in some polities. Several of the small democracies with high levels of malapportionment are archipelago states in which each island is guaranteed its own representation. Such arrangements may be justifiable against the Venice Commission's standards where islands have their own distinct identities or where communication between islands is relatively limited. Another common practice is that polities with large rural areas overrepresent those areas in order to compensate for their distance from the centres of power and the difficulties faced by representatives in moving around them. Denmark, Iceland, and Norway have all long provided for such overrepresentation (though they have tended over time to reduce its extent); the UK also allows for overrepresentation of the sparsely populated Scottish Highlands and Islands.

Neither of these justifications could apply to Jersey, there being only one island and no distant hinterland. Any justification would need, rather, to be cast in terms of the distinct and valuable

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[11] Available at http://www.venice.coe.int/docs/2002/CDL-AD(2002)023-e.pdf.

[12] European Commission for Democracy through Law, *Code of Good Practice in Electoral Matters* (Opinion no. 190/2002, Strasbourg, 30 October 2002), p. 17.

[13] Ibid.

[14] The calculations used here take account of Deputies, Connétables, and Senators. As explained above (note 9), the Senators are distributed across the voting districts in proportion to numbers of registered electors.

identities of the parishes. At present, each parish is guaranteed a minimum of two of its own States members (one Connétable and at least one Deputy). This is similar to the position in Spain – the only large European democracy where malapportionment is higher than in Jersey – where each province is guaranteed at least two members of the Chamber of Deputies. It is not for me to judge whether the significance of the parishes is sufficient to justify this degree of guaranteed representation.

4. Specificities of Apportionment in Jersey

The preceding section compared the overall level of malapportionment in Jersey with malapportionment in other polities. Jersey's electoral arrangements are, however, unusually complex, comprising the three distinct sections of the Deputies, Connétables, and Senators. It is useful to consider how malapportionment breaks down across these elements.

Table 1 shows the values of the malapportionment index for the various elements of the Jersey electoral system in the 2011 elections. The first column gives data calculated using the number of registered voters in each parish or district, while the second column uses the total resident population as revealed in the 2011 census.[15] We can begin by looking at the data relating to registered voters. As would be expected, malapportionment is highest for the Connétables: the Connétable of St Mary represents 1,227 voters, that of St Helier 18,000. Malapportionment among the Deputies is much lower, but still very high in international comparison. In fact, the current distribution of Deputies is very surprising: for example, the second district of St Saviour, with 2,975 registered electors, has two Deputies, while St Peter, with 3,529 electors, has only one. The third line of Table 1 shows what might seem to be a paradox: adding the Connétables to the Deputies actually reduces the level of malapportionment overall. This happens because, at present, the malapportionment of the Deputies favours the large parishes while the malapportionment of the Connétables favours the small: the most underrepresented parishes in terms of Deputies are St Peter, Grouville, and St Clement, while St Saviour and St Helier are, in terms of Deputies, overrepresented. The combination of the two elements cancels out some of the disparities. Malapportionment among the Senators, meanwhile, is necessarily zero, because they are elected in a single island-wide district. When the Senators are added to the equation, the overall level of malapportionment falls to the level already quoted above, of 0.082, or 8.2 per cent.

Table 1. Malapportionment in Jersey

Section of the system	Malapportionment index	
	Based on registered voters	Based on total population
Deputies only	0.1201	0.0994
Connétables only	0.3158	0.3502
Deputies and Connétables	0.1021	0.1161
Senators only	0	0
Deputies, Connétables, and Senators	0.0821	0.0934

[15] Census data are available only at parish level. In the calculations reported in Table 1, I have assumed that population is distributed among the districts of the multi-district parishes in proportion to registered voters.

These patterns are somewhat – but only somewhat – different when we look at the final column in Table 1, showing malapportionment calculated in relation to total resident population. The proportion of the population that is registered to vote varies markedly, from 54 per cent in St Helier to 73 per cent in St Ouen. Because this proportion is lowest in the two most populous parishes, the malapportionment of the Connétables is greater when population data rather than data on registered voters are used. Malapportionment of the Deputies alone is reduced, largely because the overrepresentation of St Helier is virtually eliminated. This also means, however, that the compensatory effect between the Deputies and the Connétables is removed. As a result, malapportionment across the system as a whole is higher when we use population data than when we use registered voters, standing at 9.3 per cent.

Given that the overall effect upon the malapportionment index of using population data rather than data on registered voters is relatively small, the remainder of this analysis uses the data on registered voters alone. In cross-national terms, this is the more common basis for seat apportionment.

Of particular interest in the figures presented in Table 1 is malapportionment among the Deputies. It would be a relatively minor change, violating none of the existing principles of the electoral system, to reapportion the Deputy seats such as to achieve greater equality.

I do not have information on how the Deputies are apportioned at present (that is, on how the number per parish is determined, how it is decided how many districts there should be in parishes electing more than one Deputy, how the boundaries of districts within parishes are drawn, or how it is decided how many seats should go to each intra-parish district). Working with the existing set of districts, however, it is possible to do some calculations regarding optimal apportionment arrangements.

It is well recognized in political science that, in order to obtain the greatest possible equality in the value of the vote among pre-determined districts, the Sainte-Laguë apportionment method (also known as Webster's method) should be used.[16] Here, the number of registered electors per district is divided successively by the series of odd numbers (1, 3, 5, 7, and so on), generating a table of numbers. Seats are then allocated to the districts in declining order of these numbers until all of the seats available have been assigned.

Table 2 shows this procedure as applied to the 29 Deputy seats in Jersey. The total number of registered voters in each of the existing districts is divided successively be the series of odd numbers. The highest 29 numbers in the resulting table are then identified, and the seats are allocated to the districts accordingly. As the table shows, if this rule were applied, three seats would need to be reallocated from St Helier and St Saviour to Grouville, St Peter, and St Clement.

[16] Simon Hix, Ron Johnston, and Iain McLean, *Choosing an Electoral System* (London: British Academy, p. 32).

Table 2. Sainte-Laguë apportionment of the Deputy seats

District	Registered voters ÷ 1	÷ 3	÷ 5	÷ 7	÷ 9	No. seats (Sainte-Laguë)	No. seats (actual)
St Mary	1,227	409.00	245.40	175.29	136.33	1	1
St John	2,029	676.33	405.80	289.86	225.44	1	1
Trinity	2,054	684.67	410.80	293.43	228.22	1	1
St Martin	2,726	908.67	545.20	389.43	302.89	1	1
St Ouen	2,990	996.67	598.00	427.14	332.22	1	1
Grouville	3,422	1140.67	684.40	488.86	380.22	2	1
St Peter	3,529	1176.33	705.80	504.14	392.11	2	1
St Lawrence	3,736	1245.33	747.20	533.71	415.11	2	2
St Clement	6,167	2055.67	1233.40	881.00	685.22	3	2
St Brelade 1	2,535	845.00	507.00	362.14	281.67	1	1
St Brelade 2	5,102	1700.67	1020.40	728.86	566.89	2	2
St Saviour 1	3,094	1031.33	618.80	442.00	343.78	2	2
St Saviour 2	2,975	991.67	595.00	425.00	330.56	1	2
St Saviour 3	2,304	768.00	460.80	329.14	256.00	1	1
St Helier 1	5,048	1682.67	1009.60	721.14	560.89	2	3
St Helier 2	4,512	1504.00	902.40	644.57	501.33	2	3
St Helier 3	8,440	2813.33	1688.00	1205.71	937.78	4	4

Table 3 shows the degree of malapportionment in the system under the hypothetical condition that the Deputy seats were apportioned according to the Sainte-Laguë method just described. As expected, malapportionment among the deputies is significantly reduced: from 12 per cent to 7.6 per cent. This number could be reduced still further if the district boundaries within the three divided parishes – St Brelade, St Saviour, and St Helier – were redrawn such as to maximize intra-parish equality. The Connétable elections remain as before. We again find an apparent paradox, however, when the Deputies and Connétables are combined: far from reducing overall malapportionment, the introduction of equal apportionment of the Deputies would actually increase it, relative to the status quo. That would happen because, as noted above, the different elements of malapportionment among the Connétables and the Deputies at present partially cancel each other out. A reduction in the malapportionment of the Deputies would weaken this cancelling effect.

Table 3. Malapportionment in Jersey with Sainte-Laguë apportionment of Deputies

Section of the system	**Malapportionment index (actual, 2011 election)**	**Malapportionment index (Sainte-Laguë apportionment of Deputies)**
Deputies only	0.1201	0.0762
Connétables only	0.3158	0.3158
Deputies and Connétables	0.1021	0.1204
Senators only	0	0
Deputies, Connétables, and Senators	0.0821	0.0968

I do not know whether the cancelling effect has been deliberately designed into the current apportionment of Deputies. Whether it has been deliberate or not, there is much to be said for it, if the overall structure of Deputies, Connétables, and Senators is to be maintained.

But this compensatory principle could be designed into the system more effectively than it is at present: if the goal in apportioning Deputies is to minimize malapportionment across the system as a whole, that goal could be achieved to a much greater degree than at present. That can be done simply by applying the Sainte-Laguë method to forty-one seats – the Deputies and Connétables combined – and then subtracting one from each parish's total in order to give the number of Deputies per parish.

I presume it would be considered unacceptable, however, that a parish should be represented by a Connétable but not by a Deputy. The condition that each parish should have at least one Deputy as well as one Connétable can be enshrined by stipulating that each parish should be allocated a minimum of two seats, and that the remaining seats should be allocated according to the Sainte-Laguë method. This allocation procedure is shown in Table 4.

As is apparent from Table 4, this compensatory procedure does not systematically disadvantage the larger parishes, which reflects the fact that, once the Connétables are taken into account, the larger parishes are not currently overrepresented. One seat is taken from each of St Saviour and St Lawrence. These seats are added to St Brelade and St Clement.

Table 5 shows the effects that this apportionment method would have upon levels of malapportionment across the various parts of the electoral system. Malapportionment among the Deputies alone is reduced only slightly relative to the status quo. This time, however, the combination of the Deputies and the Connétables reduces overall malapportionment, as the cancelling out effect is maximized. Once the Senators are added in as well, total malapportionment falls to 6.5 per cent – a reduction of more than a fifth relative to the figure for the 2011 election.

Table 4. Compensatory Sainte-Laguë (CSL) apportionment of the Deputy seats

District	Registered voters ÷ 1	÷ 3	÷ 5	÷ 7	÷ 9	Total seats (CSL)	Deputies (CSL)	Deputies (actual)
St Mary	1,227	409.00	245.40	175.29	136.33	2	1	1
St John	2,029	676.33	405.80	289.86	225.44	2	1	1
Trinity	2,054	684.67	410.80	293.43	228.22	2	1	1
St Martin	2,726	908.67	545.20	389.43	302.89	2	1	1
St Ouen	2,990	996.67	598.00	427.14	332.22	2	1	1
Grouville	3,422	1140.67	684.40	488.86	380.22	2	1	1
St Peter	3,529	1176.33	705.80	504.14	392.11	2	1	1
St Lawrence	3,736	1245.33	747.20	533.71	415.11	2	1	2
St Clement	6,167	2055.67	1233.40	881.00	685.22	4	3	2
St Brelade 1	2,535	845.00	507.00	362.14	281.67	2	1	1
St Brelade 2	5,102	1700.67	1020.40	728.86	566.89	3	3	2
St Saviour 1	3,094	1031.33	618.80	442.00	343.78	2	2	2
St Saviour 2	2,975	991.67	595.00	425.00	330.56	2	1	2
St Saviour 3	2,304	768.00	460.80	329.14	256.00	1	1	1
St Helier 1	5,048	1682.67	1009.60	721.14	560.89	3	3	3
St Helier 2	4,512	1504.00	902.40	644.57	501.33	3	2	3
St Helier 3	8,440	2813.33	1688.00	1205.71	937.78	5	5	4

Note: in the multi-district parishes, we assume that the Connétable seat is taken from the district allocated the last seat.

Table 5. Malapportionment in Jersey with compensatory Sainte-Laguë apportionment of Deputies

Section of the system	Malapportionment index (actual, 2011 election)	Malapportionment index (compensatory Sainte-Laguë apportionment of Deputies)
Deputies only	0.1201	0.1194
Connétables only	0.3158	0.3158
Deputies and Connétables	0.1021	0.0806
Senators only	0	0
Deputies, Connétables, and Senators	0.0821	0.0648

Thus, even if the basic principles of the system, including the roles of the parishes and the Connétables, are kept unchanged, malapportionment could be reduced significantly through the application of the principle of compensatory Sainte-Laguë allocation of Deputy seats. As noted above, malapportionment could be further reduced if the boundaries within the multi-district parishes were redrawn such as to minimize inequalities.

The question still remains, of course, of whether malapportionment around 6 per cent should be though appropriate. The apportionment shown in Table 4 leaves the voters of St Mary, St John, and Trinity significantly overrepresented, while those in the second districts of St Saviour and St Helier and the first district of St Brelade would be the most underrepresented. It is for the Commissioners to decide whether such disparities are appropriate.

5. Types of Electoral System

This final section turns to the core of the electoral system itself: the set of rules determining the nature of the votes that voters can cast and the mechanisms by which those votes are translated into seats. Jersey currently uses plurality voting in all three parts of the electoral system. Connétables are elected using single-member plurality (commonly, though misleadingly, known as 'first past the post'), as are the Deputies in the parishes and districts that elect one Deputy. Multi-member plurality (commonly, but again misleadingly, known as the 'block vote' system) is used to elect the Deputies in multi-member parishes and districts as well as the ten Senators.

While consideration of the electoral system is not explicitly included in the Commission's terms of reference, it is impossible to consider whether the current arrangements – including the division into three classes of member – are appropriate unless the core of the electoral system is examined. In addition, the issue of low electoral turnout is one of the concerns frequently raised in Jersey, and reform of the electoral system offers the prospect of some improvement on this score.

Figure 5 briefly outlines the main categories of electoral system that are used in legislatures around the world. While there are as many electoral systems in the world today as there are elected bodies, these systems can be classified into three broad families. Majoritarian systems follow the basic principle that whoever wins most support – either a relative majority (a plurality) or an absolute majority – should win all the spoils. Proportional systems enshrine the principle that seats should be distributed in proportion to levels of support. Intermediate systems combine elements of both logics or use procedures that yield outcomes between the extremes.

Figure 5. Types of electoral system

Electoral system family	Electoral system type	Key features	Examples
Majoritarian systems	Single-Member Plurality	Vote for 1 candidate; top candidate elected	Canada; UK; USA; Jersey
	Multi-Member Plurality	Vote for *n* candidates; top *n* candidates elected	Guernsey; Jersey
	Alternative Vote	Rank candidates; candidate over 50% elected	Australia; Fiji
	Two-round systems	Vote for 1 candidate; second round if no one over 50%	France; Kiribati
Intermediate systems	Limited Vote	Vote for fewer candidates than no. seats; top *n* elected	Gibraltar
	Single Non-Trans-ferable Vote	Multiple seats but vote for only 1; top *n* elected	Vanuatu
	Mixed-Parallel System	Proportional/majoritarian mix with no compensation	Andorra; Japan; Lithuania
	Bonus-adjusted systems	Proportional system with bonus for largest party	Italy; Greece; San Marino
	Borda Count	Rank candidates; points given points according to ranking	Nauru; Eurovision
Proportional systems	Closed-List Proportional	Vote for party list; seats allotted in proportion to votes	Spain; Liechtenstein
	Flexible- or Open-List Proportional	Vote for candidate or list; seats allotted proportionally	Austria; Belgium; Iceland
	Mixed-Compen-satory System	Proportional/majoritarian mix with compensation	Germany; Scotland
	Single Transferable Vote	Rank candidates; candidates over quota elected	Ireland; Malta

Each of these families can be broken down in turn into a variety of narrower types. Even within these types, considerable variation can remain. For example, Jersey uses multi-member plurality to elect both the Senators and the Deputies in the two-, three-, or four-member districts, but the system operates very differently when used island-wide to elect ten officeholders compared to when it is used in, say, St Lawrence to elect two. Similarly, proportional systems vary from barely proportional two- or three-member systems, as in Chile and parts of Spain, to highly proportional systems in, for example, Israel and the Netherlands, where the whole country forms a single district.

Looking across the democratic world as a whole, the commonest electoral systems are proportional systems. Among European sovereign democracies, for example, only France and the UK have no proportional elements in their national electoral systems, though several other countries – including Greece, Hungary, Italy, and Lithuania – have systems that fall into the intermediate family.

Among our sample of small democracies, the pattern is rather different: here, single- and multi-member plurality systems predominate. Figure 6 summarizes the systems in place across these polities. In part, the preponderance of majoritarian systems revealed in Figure 6 arises for reasons that are not interesting. Major electoral reform being rare, most former British colonies and current overseas territories or crown dependencies retain the plurality systems bequeathed to them by the UK. Our sample includes only British overseas territories: were those of France and the Netherlands also included, a somewhat different picture would arise. Furthermore, independent small democracies are disproportionately former British colonies. Thus, the pattern revealed in Figure 6 is in significant part no more than an artefact of the British legacy.

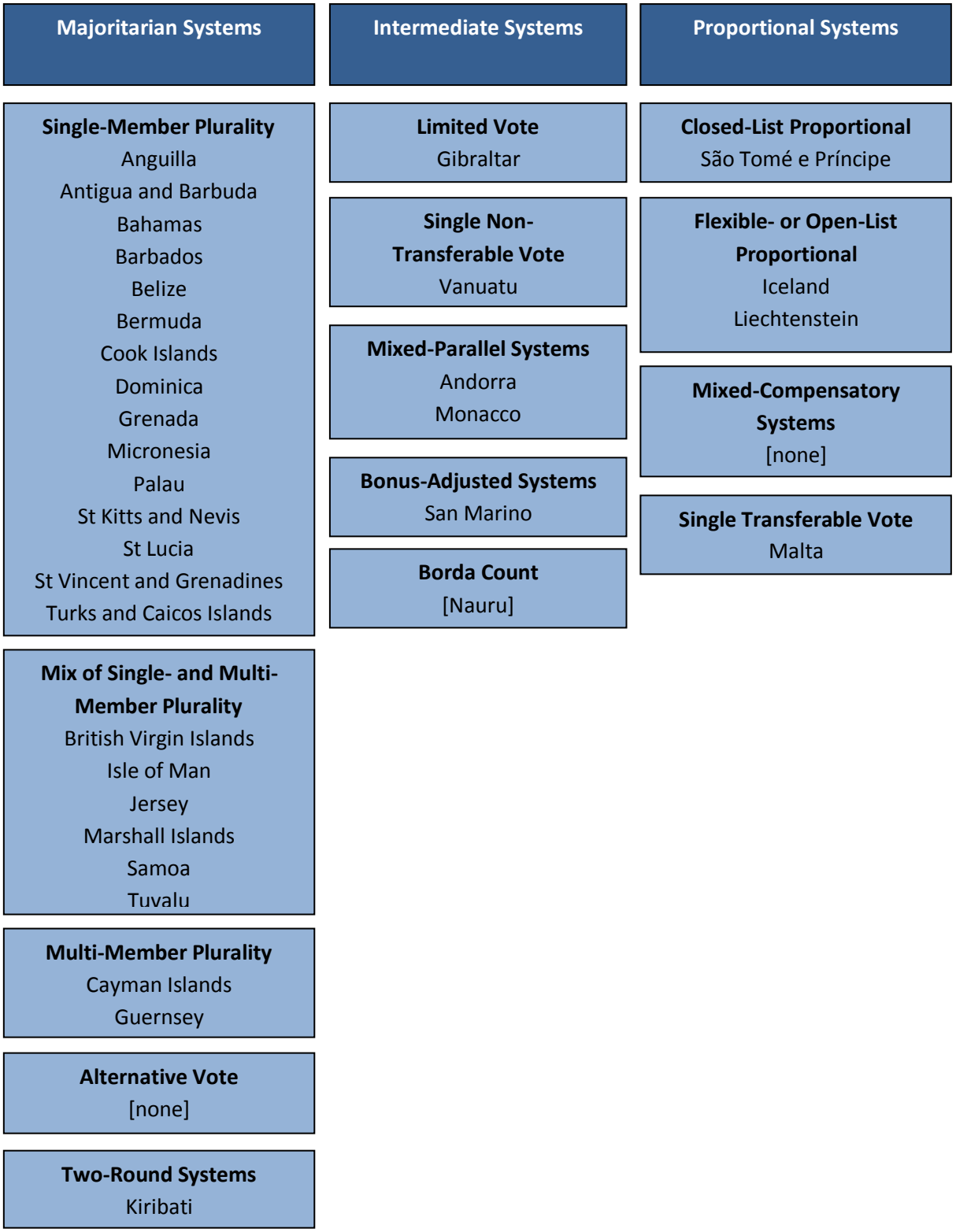
Nevertheless, two factors may tend to perpetuate the survival of majoritarian electoral systems in these polities. First, the combination of small populations and, in many cases, strong community attachments within the polity tends to favour single-member districts: if there is a strong desire that particular islands or parishes should have their own representation and those islands or parishes have populations numbered in the hundreds or low thousands, there is little space for districts large enough to justify several members. Second, several – though by no means all – if these polities have non-partisan systems in which elections based on party lists would be incongruous.

As in the previous sections, the preponderance of a particular system does not imply its desirability for Jersey. Some of the alternatives to the current plurality system can confidently be ruled out:

- Politics in Jersey being non-partisan, list-based systems – closed-, flexible-, or open-list proportional systems, mixed-parallel or mixed-compensatory systems, or bonus-adjusted systems – would be incongruous. Though some in Jersey may advocate the development of a party system, it would be quite inappropriate to seek to force that precipitately through the design of the electoral system.
- Limited vote, single non-transferable vote, and Borda count systems can represent different strands of opinion within the community effectively, but they can also leave candidates' success or failure dependent as much open tactical calculations as actual popularity.

This leaves the options of the alternative vote (AV) for single-member contests and the single-transferable vote (STV) for multi-member contests. These two systems are described in Appendices 1 and 2 (pp. 21–3 of this report).

Figure 6. Electoral systems in small democracies



The choice between AV and single-member plurality is one of marginal importance: rarely would anything significant be changed by AV's introduction, either in the election campaign or in the outcome. In a non-partisan context, AV should be marginally preferred: in contests with more than two candidates, it is slightly more likely than single-member plurality to lead to the election of the most popular candidate. That is why AV or multi-round systems employing the same logic as AV are used very widely in non-partisan elections – perhaps most notably, in internal elections within even those political parties, such as the UK Conservative Party, that strongly oppose AV's use in parliamentary contests between political parties. Still, this is not a reform that should spark any excitement on either side of the debate.[17]

Rather more important is the choice between plurality and STV in the multi-member contests. Multi-member plurality has three important disadvantages:

- First, it can seriously misrepresent opinion. If groups of voters tend to vote for the same set of candidates, the largest group can secure all the representation even if is in the minority of the population as a whole. The groups here might be partisan, but need not be: for example, they could be ideological or geographical.
- Second, as a corollary of the first point, multi-member plurality can lead to large numbers of wasted votes, an effect that is likely to depress electoral turnout. There is clear evidence that greater proportionality in elections leads to higher turnout.[18] In non-partisan Jersey, standard measures of proportionality have little meaning. But wasted votes are strongly associated with non-proportionality. Thus, it is safe to surmise that Jersey's non-proportional voting system harms electoral turnout.
- Third, multi-member plurality can do a bad job of choosing the most popular candidates, as vote-splitting between candidates with similar constituencies can allow a less popular candidate through. Such problems are more likely to arise than under single-member plurality because of the greater number of candidates.

STV would significantly reduce each of these difficulties. It would be wholly compatible with Jersey's non-partisan politics: it is used in many non-partisan elections, such as trade union elections and elections within the Church of England. STV is best suited to elections for up to around seven members: the voting process becomes complex for voters if the number increases much further. While it would be suitable for multi-member Deputy elections, therefore, it might, at present, pose challenges for the election of ten Senators. If the number of Senators is reduced, as planned, to eight, however, these difficulties would diminish. There is no evidence at all that voters find STV confusing or cumbersome where the number of seats per district is low: in both Ireland and Malta, the two countries that use STV for national lower-house elections today, the proportion of ballot papers that are spoilt is around 1 per cent of the total – exactly the same figure as in the UK. More information on the guidance that might be offered to voters to ensure that they understand how to use their vote under AV or STV is provided in Appendix 3 of this report (p. 24).

[17] For a detailed discussion of the comparison between AV and single-member plurality, see Alan Renwick, *The Alternative Vote: A Briefing Paper* (London: Political Studies Association, 2011).

[18] See especially James W. Endersby and Jonathan T. Krieckhaus, "Turnout around the Globe: The Influence of Electoral Institutions on National Voter Participation, 1972–2000", *Electoral Studies* 27 (2008), pp. 601–10.

In a partisan context, STV could be criticized on the grounds that proportional systems, because they tend to produce coalition government, harm accountability and government effectiveness. In the non-partisan context of Jersey, however, this argument does not apply.

STV is sometimes also criticized for weakening political parties. In Jersey's non-partisan context, however, this again clearly does not apply. Those who favour the development of political parties might have concerns on this ground. But there is no clear difference between multi-member plurality and STV in the degree to which they create incentives for or against such a development.

All in all, therefore, there can be no justification for maintaining multi-member plurality in Jersey in preference to STV. It is rarely possible for an electoral system expert to give such a definite judgement: in most cases, one electoral system performs better on some criteria, while another performs better on other criteria; the final decision then depends on which of these criteria one values more. In Jersey's case, however, all the plausible criteria point the same way: STV performs better on all criteria.

Given that STV is desirable, it would clearly be advantageous to introduce AV also for the elections in single-member districts. Otherwise, voters would have to place an 'x' next to single candidate to elect some Assembly members while ranking candidates in order of preference for other members, which could create confusion.

Thus, if something like the current structure of Deputies, Connétables, and Senators is retained, the electoral system should be reformed so as to replace the plurality system with AV in the single-member contests and STV in the multi-member contests.

STV also has advantages relative to AV: it fosters more accurate representation of opinion and reduces the number of wasted votes. As before, arguments that in most circumstances would work against STV – particularly relating to the disadvantages of proportionality – do not operate in a non-partisan context. Thus, simply looking at the merits of the electoral system, there is a clear case for replacing the current Deputies and Senators with a single class of Assembly member elected using STV in districts of three to five members. Such districts would need to span several parishes in some cases, but the interests of the parishes could be protected through the retention of the Connétables within the Assembly if that were thought desirable. If parish identities were considered to justify some malapportionment in favour of the smaller parishes, the apportionment of STV Assembly members could be done using the simple Sainte-Laguë method. If such malapportionment were not thought justified, the Connétables could be retained, but the STV apportionment could be conducted using the compensatory Sainte-Laguë method, thereby minimizing discrepancies.

Of course, whether a reform of this kind is preferred should depend on additional considerations, such as whether the Deputies and Senators are considered to perform usefully different roles. Looking simply at the operation of the electoral system, however, such an arrangement would clearly be superior to the current rules. It would also be simpler than the current system and therefore less likely to cause confusion. It ought therefore to be given serious consideration.

Appendix 1: The Alternative Vote

The alternative vote electoral system (AV) is similar to the single-member plurality or 'first past the post' system in that it is used in districts that elect one member each. Under AV, voters can rank the candidates according to preference, placing a '1' by their favourite candidate, a '2' by their next most favoured candidate, and so on. In most of the elections where AV is used, voters can express as many or as few preferences as they wish. Australia uses a version of AV where a vote is valid only if all candidates are ranked.

In the first stage of the vote count, only first preferences are counted. If a candidate has more than 50 per cent of first preferences, that candidate is elected and the counting process is over.

If no candidate wins more than 50 per cent of first preferences, the candidate with fewest first preferences is knocked out of the race. The ballot papers in their pile are looked at again and added to the piles for the remaining candidates according to the second preferences that these voters have indicated. If a candidate has now passed 50 per cent of all votes, that candidate is elected. If still no one has met this mark, the process continues until someone does pass 50 per cent or until there are only two candidates left, in which case the one with more votes is elected.

The logic underlying AV can be seen from a simple example. Suppose that a club is planning to redecorate its meeting room and wants to choose a new carpet. Three carpets receive nominations from society members. A vote is taken to choose among these, with the following result:

	Light Green	Dark Green	Light Blue
Votes received	33	58	65

If single-member plurality is employed, the blue carpet wins. But is this actually the most popular carpet? If most society members are mainly concerned about whether the carpet is light or dark, then light blue is probably the most popular choice. But if they are more interested in colour, it seems that the election has produced the wrong outcome: more members want a green carpet than a blue carpet, but the split in the green vote has allowed the blue carpet to win. We cannot know which is actually the most popular carpet just by looking at the plurality result.

AV avoids this. After the first round of counting, it is clear that the light green carpet has least support. It is therefore eliminated and we look at the second preferences of the people who voted for it. If most of them care primarily about colour, then the dark green carpet will win. If most care more about shade, then the light blue carpet will win. Either way, we can be confident that the result reflects what voters actually want.

The process is equivalent to an election with multiple rounds of voting in which the bottom candidate is eliminated after each round until one candidate passes 50 per cent. The difference is that AV allows voters to express all their preferences at once, rather than having to trudge to the polls multiple times.

Such systems – either AV or systems with multiple rounds of voting – are standardly used by societies, trade unions, political parties, and others to elect individual officeholders.

Appendix 2: The Single Transferable Vote

The single transferable vote system (STV) applies basically the same logic as AV to an election in which multiple candidates are to be elected. As under AV, voters can rank the candidates in order of preference. The normal version of STV again allows voters to rank as many or as few candidates as they wish, while the Australian version requires them to rank all the candidates.

The first step of the counting process is to work out how many votes a candidate needs to secure election – the so-called electoral 'quota'. Under AV, as we saw, candidates need to pass 50 per cent of the vote to secure election. The logic is that, once a candidate has passed 50 per cent, it is clear that no other candidate can meet them. Similarly, if there are two positions to be filled, candidates have to pass a third of the vote to secure election: it is impossible for more than two candidates to pass a third of the vote, so we know that the candidates who achieve this are the most popular. The general rule is that candidates must reach what is called the Droop quota to secure election:

$$Droop\ quota = \left(\frac{v}{n+1}\right) + 1$$

where *v* is the total number of valid votes cast and *n* is the number of seats to be filled.

The count begins by counting only voters' first preferences. If no candidate meets the Droop quota, then, as under AV, the bottom candidate is eliminated and the second preferences of that candidate's supporters are added to the piles of the remaining candidates.

The difference from AV is that, even after a candidate has met the quota, the counting process continues: there are still some seats to fill. One of the goals of STV is to ensure so far as possible that every vote should count equally. To achieve this, it is necessary to redistribute a winning candidate's surplus votes to the remaining candidates. Consider, for example, a case where one candidate captures two-thirds of all the first preferences in a four-seat district. This candidate has clearly won many more votes than were needed to secure election. If we do not redistribute the surplus, the outcome will be that one person will represent two thirds of the voters, while the remaining third of voters will determine the victors in three seats. In order to ensure that the favourite candidate's voters are fairly represented, therefore, the winning candidate's surplus votes (the votes they have won in excess of the quota) are transferred to remaining candidates according to the next preference marked.

For example, suppose that our club is planning three social excursions for the coming year and five possible venues have been suggested. The members rank the options in order of preference. Their first preferences are shown in the first row of Table 6, on the next page.

Using the STV system, the first step is to determine the quota needed for election. 100 votes have been cast and three venues are to be chosen, so the Droop quota is

$$\left(\frac{100}{3+1}\right) + 1 = 26$$

So a venue needs 26 votes to be chosen. This makes sense, as 26 is the smallest number of votes that only three venues can secure: if the quota were 25, it would (just) be possible for four venues to hit this mark.

Table 6. A hypothetical application of STV

	Kew Gardens	Blenheim Palace	Tate Gallery	Alton Towers	Legoland
First preferences	52	15	5	20	8
Transfer of Kew surplus	–26	+ 15	+8	+2	+1
Second round totals	Chosen	30	13	22	9
Transfer of Blenheim surplus		–4	+3	+1	+0
Third round totals		Chosen	16	23	9
Transfer of Legoland votes			+2	+7	–9
Fourth round totals			18	30	
				Chosen	

It is clear from the first preferences on the top row of the table that Kew Gardens is, by some margin, the most popular choice. In fact, it has just over half of all the votes cast, and twice the Droop quota. In order to ensure that half of Kew's supporters have not wasted their votes, we need to consider their second preferences. We therefore take the surplus of 26 votes from the Kew pile and redistribute them to the other venues according to the voters' second preferences. (The simplest way to do this is to pick out 26 votes at random from Kew's pile. The most accurate way is to look at all of the Kew votes and to redistribute them all at the value of half a vote.)

This redistribution is shown in the second line. It turns out that most garden lovers also like country houses, and some like art galleries, while few are so keen on theme parks. The effect is that Blenheim, with 15 extra votes and 30 votes in total, now also passes the quota and is confirmed as the second venue to be chosen. Blenheim has a surplus of four votes, which is redistributed to the remaining venues. Again, the more sedate pleasures of the Tate Gallery secure more of these votes than the theme parks.

We have now reached the row labelled 'Third round totals'. One more venue remains to be chosen, but none of the three remaining venues has met the quota, so we eliminate the venue with fewest votes – namely, Legoland. As would be expected, if those who want to go to Legoland don't have that option, most choose the alternative theme park as their second preference. The transfer of these preferences pushes Alton Towers over the quota, so Alton Towers is the venue of the third excursion.

If we look at how the votes have panned out, we can see that the majority of the club's members prefer sedate excursions, but a significant minority would prefer something more lively. The STV system ensures that both these preferences are reflected in the final choice. If, by contrast, the multi-member plurality method currently used in Jersey elections had been employed, each member would have had three votes, and those preferring sedate pleasures might well have captured all three slots. That may be appropriate in some contexts. But if you want the outcome to reflect the spread of opinion among voters, it is not.

Such an example may seem rather frivolous. But it illustrates the sorts of preference flows that might exist between candidates in a non-partisan context. If it is considered important that the election outcome should reflect the spread of preferences in the electorate, then, in a non-partisan context, STV is a good way of achieving that.

Appendix 3: Guidance to Voters for AV and STV Elections

One of the concerns sometimes expressed about AV and STV is that they are complicated for voters to understand. There is certainly some complexity in the process of counting votes, particularly under STV. Voters do not, however, have to understand all the details of that counting process in order to understand how best to use their vote.

We can take the example of Scottish local council elections. Since 2007, these have been held using STV in districts each electing three or four members. AV is used for by-elections where only one position is being filled. For the 2012 elections, the legally prescribed text at the top of the ballot paper was as follows:

> **[Number to be elected] of the candidates listed below will be elected.**
> **You can make as many or as few choices as you wish.**
>
> Put the number **1** in the voting box next to your **first** choice.
> Put the number **2** in the voting box next to your **second** choice.
> Put the number **3** in the voting box next to your **third** choice. **And so on.**[19]

In addition, local councils and the UK Electoral Commission produced a range of materials offer voters guidance on the election. The City of Edinburgh Council, for example, had a page on its website giving basic information and including links to further information.[20] The main link was to a booklet produced by the UK Electoral Commission, which gave slightly more information on the voting process but no information on the counting process.[21] There was also a link to a detailed description of the count, though this was lengthy and clearly not designed to be accessible to the average voter.

There is no evidence that voters in fact find STV confusing. As noted in the main text, the proportion of ballots cast that are invalid is around 1 per cent in both Ireland and Malta – the two countries using STV to elect their national lower or single chamber. This is exactly the same as the figure in recent UK elections. In Northern Ireland, all elections except Westminster elections are conducted using STV, and the share of spoilt ballot papers at recent elections has ranged from less than 1 per cent to fractionally over 2 per cent.[22] There is some evidence that this figure has been higher when several elections have been held simultaneously. This also occurred in Scotland in 2007, after which it was decided not to hold local council and Scottish Parliament elections at the same time.

[19] Scottish Local Government Elections Order 2011 (no. 399), Form 4, available at http://www.legislation.gov.uk/ssi/2011/399/contents/made.
[20] http://www.edinburgh.gov.uk/info/20185/information_for_the_public/1656/the_voting_system
[21] This booklet appears no longer to be available through the Electoral Commission but can still be found by following the link in note 19.
[22] Electoral Commission, *Report on the Northern Ireland Assembly Election on 5 May 2011*, available at www.electoralcommission.org.uk, pp. 45–6.