

# **Electoral Systems for the States of Jersey:**

## **Some Briefing Notes**

Ron Johnston and Iain McLean  
*University of Bristol and University of Oxford*

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## **Introduction**

We have been contracted as expert advisers to the States of Jersey Electoral Commission which is considering recommendations on the future composition of the States Assembly.

Our terms of reference include:

- to provide a critique of the present composition of the States Assembly;
- to provide advice on international comparisons;
- to consider the electoral system currently employed during the election of members to the States Assembly and the implications of introducing relevant alternatives;
- to consider the implications for Jersey of modifications to the composition of the States Assembly; and
- to identify possible revised models for the composition of the States Assembly.

At our first meeting with the Commission on 16 July 2012 we were asked to provide the following briefing notes on:

1. Bicameralism;
2. Disproportionality in Electoral Representation in Jersey;
3. District Magnitude and Size;
4. Elections in Multi-Member Districts;
5. Equal Representation and Districting.

Ron Johnston  
Iain McLean

# 1. Bicameralism

A bicameral legislature is simply one with two chambers. Thus Jersey would be bicameral if one class of elected members (say Senators and/or Connétables) sat in a different chamber to another class (say Deputies).

There is no point in electing two chambers at the same time, using the same electoral system, and with the same powers: the two assemblies would simply be clones of one another. Therefore a second chamber must differ from the first in at least one of these three characteristics:

- Different powers;
- Different method of election;
- Different dates of election.

Some second chambers represent regions (states, provinces) etc as units: for example in Germany, Australia, and the USA. Although this model is also used in some island states that are federations of roughly equally-populated islands (see Table 1.1), there seems to be no particular reason to adopt it in a single island such as Jersey.

If the chambers have different powers, the usual arrangement is that the lower house controls finance (as in UK, USA, and Australia for example). Otherwise the powers of the two chambers can be coequal. In the UK, Australia and the USA, the formal power of the upper chamber is equal to that of the lower chamber in all non-financial matters. In the USA and Australia this formal equality is close to real equality, because the upper chamber is elected. In the UK it is not, because the unelected House of Lords has held back since 1909 from using the full range of its formal powers.

If the two chambers have different electoral majorities, then it is more difficult to change the status quo than in a single-chamber assembly. This may be regarded as good or bad depending on one's point of view.

Most bicameral systems have different methods of election: e.g., the lower house is elected in single-member districts and the upper house in multi-member districts. Australia is again an example. So long as block voting is avoided (where each elector has as many votes as there are seats to fill and can give them all to the same party), multi-member districts lead to proportional representation, so the two chambers will have a different character.

If elections to the two houses are held at different times, it is a fact universally acknowledged that all governments are unpopular in mid-term; therefore in a party system, the upper chamber is likely to be controlled by the opposition. In a non-party system such as Jersey's, this consideration may be less relevant.

We have compared the situation in Jersey with that in comparable independent or largely-autonomous territories in the same population range. Table 1.1 gives data on the legislature of all independent and semi-independent states in the world with a population of between 50,000 and 150,000. All 22 of them have an elected legislature. Most are unicameral; only seven (31.8%) have a bicameral legislature. In most of those seven, the upper house is wholly or largely nominated, as with the British House of Lords, rather than elected. Reasons for

having an upper house appear to include being an old-established British former colony (e.g., Grenada) or being a federation of scattered islands (e.g., Marshall Islands). For your Commission to propose a new nominated upper house in Jersey might meet resistance.

Table 1.1 also calculates population per elected representative in the lower house. This shows that Jersey, with 1920 citizens per elected representative, is one of the most generously represented territories in the group. Only Bermuda, the Marshall Islands, and Guernsey have a more generous ratio of representation.

Table 1.1 Countries and autonomous island areas with populations between 50,000 and 150,000: details of legislatures

Country	Popn	C	MLH	MUH	Ratio	Notes
Curaçao	149.7	1	21	-	7129	
St Vincent	109.0	1	21	-	5190	includes 6 appointed
US Virgin Is	106.4	1	15	-	7093	
Grenada	105.0	2	15	13	7000	
Tonga	103.0	1	26	-	3692	includes 9 appointed
Federated States of Micronesia	102.6	1	28	-	3664	some federal component: Senators from each island group
Aruba	101.5	1	21	-	4833	
Kiribati	101.0	1	46	-	2196	
Jersey	97.9	1	51	-	1920	
Seychelles	90.9	1	34	-	2674	
Antigua and Barbuda	86.2	2	17	17	5071	Senate appointed
Isle of Man	84.5	2	24	11	3521	Legislative chamber (upper house), part-elected, part-appointed
Andorra	78.1	1	28	-	2789	
Dominica	71.3	1	30	-	2377	9 appointed
Bermuda	64.2	2	36	11	1783	Senate appointed
Guernsey	62.4	1	47	-	1328	includes 2 from Alderney
Greenland	56.7	1	31	-	1829	plus 2 seats in Danish parliament
American Samoa	55.5	2	18	18	3083	
Cayman Islands	55.5	1	18	-	3083	
Marshall Islands	54.3	2	33	12	1645	Upper house comprises tribal chiefs
St Kitts Nevis	54.0	1	14	-	3857	3 members appointed
Northern Mariana Islands	53.9	2	20	9	2695	

Key: Popn – population (in thousands); C – number of chambers in legislature; MLH – number of members of the lower house; MUH – number of members of the upper house; Ratio – population per legislator in the lower house

Source: UN population data; various encyclopaedia; authors' calculations

## **2. Disproportionality in Electoral Representation in Jersey: Assessed and Compared**

Disproportionality arises in an electoral system when some of the elected members represent many more people in the legislature than others. This has a number of implications, the most important of which are that:

- Some votes carry more weight than others because it takes a smaller number in some districts than others to win an election; and
- Some of the elected members may have potentially larger workloads than others because they represent more people.

### **Disproportionality in Jersey: the 29 Deputies**

How disproportional is the situation in Jersey? The following analysis is based on electoral and census data for 2011.

The first column in Table 2.1 gives the electorate for each of the 17 Districts which elected Deputies then, plus the number of Deputies elected (a total of 29). The column E/D gives the ratio of the number of electors in each District per Deputy: thus with an electorate of 5,102 and two Deputies, for example, St Brelade 2 had a ratio of 2,551 electors per Deputy.

The ratio for Jersey as a whole was 2,134 electors per Deputy, but it ranged widely, from 1,487 in St Saviour 1 to 3,529 in St Ouen. The final column gives each District's ratio as a %Deviation from the island-wide average of 2,134. Thus, for example, the ratio of 2,535 for St Brelade 1 is 18.7% above the average whereas that for St Helier 2 of 1,504 is 29.5% below the average. Districts with a positive %Deviation are under-represented in the legislature, whereas those with a negative %Deviation are over-represented.

Substantial under- or over-representation was the norm in Jersey in 2011. Only four of the 17 Districts had a %Deviation figure of less than +/-10%, and 10 of the 16 values exceeded +/-20%.

### **Extending the analysis: Deputies and Connétables as territorial representatives**

A particular feature of Jersey's electoral system is that in addition to the 29 Deputies elected from the 17 Districts a further 12 members – the Connétables – are elected from the 12 Parishes (three parishes are divided into 8 Districts; the other nine Parishes are undivided). If we add the Connétables to the analyses of disproportionality, which is restricted to the 12 Parishes, we get a further indication of the extent of disproportionality in Jersey in 2011.

The first four columns of Table 2.2 repeat the analyses of Table 2.1, except that the districts in the three subdivided Parishes (St Brelade, St Helier and St Saviour) are combined. Of those 12 Parishes, only two have a ratio of electorate to Deputy within +/-10% of the national figure of 2,134: two of the three divided Parishes (St Helier and St Saviour) are substantially over-represented; St Brelade is substantially unrepresented.

The final three columns of Table 2.2 combine the number of Deputies and Connétables elected from each Parish. For Jersey as a whole, the ratio of electors to those two types of representative of a territorial unit combined is 1,509. The range varies from just 613 for St Mary Parish to a figure more than three times that (2,056) for St Clement.

Of the 12 Parishes, four have ratios within +/-10% of the Jersey average – including the two largest, St Helier and St Saviour; five have %Deviation figures greater than +/-20%, however.

### **Comparing Jersey's Disproportionality**

How does the degree of disproportionality in Jersey compare to that in other jurisdictions?

Table 2.3 gives comparable data for the four countries of the United Kingdom (with separate data for London for illustrative purposes) at their most recent redistributions (2004 in Scotland; 2007 elsewhere). In those exercises, there was no precise requirement for constituency sizes – they merely had to have electorates as near to the relevant national average as feasible. The first five columns show that – with the exceptions of the acknowledged special cases in England (the Isle of Wight) and Scotland (the four seats in the Highlands and Islands) – only two constituencies had electorates more than 20% above the national average of electors per MP, and only two had electorates more than 20% below that figure (all four were in Wales). The great majority of constituencies had electorate:MP ratios within 10% of the national average.

Jersey was very different, however, as the final two columns (compiled from the data in the final columns of Tables 2.1 and 2.2) in Table 2.3 show. Of the 17 Districts which return Deputies, only four (less than one quarter) had ratios within 10% of the average; and similarly only four of the 12 Parishes had %Deviations of less than 10.

Comparable data for other small states is not readily available in most cases. To provide some basis of comparison, the electorate in each constituency in Guernsey and the Isle of Man has been calculated from voting returns that give the number of votes cast in each constituency at the most recent election and the percentage turnout (2012 for Guernsey and 2011 for the Isle of Man). For Barbados, only the number of votes cast in each constituency at the most recent election (2008) was available – no data on turnout could be identified. Only for Malta were electorate data for each of the country's 13 constituencies at the most recent election available (2008). The distribution of the ratio of electors:representatives in each of those countries is given in Table 2.4 along with the comparable data for Jersey's Electoral Districts and Parishes taken from Table 2.3.

These data show that the extent of disproportionality in Jersey is not as extreme as in at least one of the comparators – the Isle of Man – but also that it is much greater than in Malta, where the variations are even less than in those for the UK shown in Table 2.3. In general terms, however, Jersey has greater disproportionality than both Barbados and Guernsey.

### **Electorate and Population**

All of the analyses reported above analyse disproportionality in terms of the number of registered electors in each District and Parish. The ratio of electors to population is not consistent across the 12 Parishes, however. Although in most cases the ratio is close to 1.40 (i.e. the population of the Parish is 40 per cent greater than the electorate) a few deviate

substantially from that average: in St Clement the ratio is 1.49, in Trinity 1.54, and in St Saviour and St Helier it is 1.62 and 1.86 respectively. In the last four cases, therefore, even if the ratio of electors to Deputies was consistent across Parishes their elected representatives would be representing larger numbers of people – and may have larger workloads as a consequence.

To evaluate the extent of this variation, Table 2.5 repeats the analysis of Table 2.2, but uses population rather than electorate as the numerator in calculating the ratios. The results in the last two columns show that, compared to the average of one elected member (Deputy or Connétable) to every 2,387 members of the population, five of the seven single-Deputy Parishes were substantially over-represented (i.e. they had negative %Deviations). Both St Clement and St Helier Parish were substantially under-represented, however.

Table 2.1. Electorates, Deputies and Electorate:Deputy Ratios for Jersey’s Districts, 2011

District	Electorate	Deputies	E/D	%Deviation
St Brelade 1	2,535	1	2,535	18.7
St Brelade 2	5,102	2	2,551	19.5
St Clement	6,167	2	3,083	44.5
Grouville	3,424	1	3,424	60.4
St Helier 1	5,048	3	1,683	-21.1
St Helier 2	4,512	3	1,504	-29.5
St Helier 3	8,440	4	2,110	-1.1
St John	2,029	1	2,029	-4.9
St Lawrence	3,733	2	1,866	-12.6
St Martin	2,728	1	2,728	27.8
St Mary	1,227	1	1,227	-42.5
St Ouen	2,990	1	2,990	40.1
St Peter	3,529	1	3,529	65.3
St Saviour 1	3,094	2	1,547	-27.5
St Saviour 2	2,975	2	1,487	-30.3
St Saviour 3	2,304	1	2,304	8.0
Trinity	2,054	1	2,054	-3.7
TOTAL	61,891	29	2,134	-

Key: E/D – Electorate divided by the Number of Deputies

Table 2.2. Electorates, Deputies, Connétables and Electorate:(Deputies+Connétables) Ratios for Jersey's Parishes, 2011

Parish	E	D	E/D	%Dev	D+C	E/(D+C)	%Dev
Grouville	3,424	1	3,424	60.4	2	1,712	13.5
St John	2,029	1	2,029	-4.9	2	1,014	-32.8
St Martin	2,728	1	2,728	27.8	2	1,364	-9.6
St Mary	1,227	1	1,227	-42.5	2	613	-59.3
St Ouen	2,990	1	2,990	40.1	2	1,495	-0.9
St Peter	3,529	1	3,529	65.3	2	1,764	16.9
Trinity	2,054	1	2,054	-3.7	2	1,027	-31.9
St Clement	6,167	2	3,083	44.5	3	2,056	36.2
St Lawrence	3,733	2	1,866	-12.6	3	1,244	-17.6
St Brellade	7,637	3	2,546	19.3	4	1,909	26.5
St Helier	18,000	10	1,800	-15.6	11	1,636	8.4
St Saviour	8,373	5	1,675	-21.5	6	1,395	-7.6
	61,891	29	2,134	-	41	1,509	-

Key: E – electorate; D – number of Deputies elected from Parish; E/D – electorate divided by number of Deputies; D+C – number of Deputies and Connétables elected from the Parish; E/(D+C) – electorate divided by the number of Deputies and Connétables elected from the Parish.

Table 2.3. Levels of Disproportionality in the United Kingdom and Jersey: the number of constituencies (Districts, Parishes) according to the %Deviation from the national average electorate:member ratio

	England	London	Wales	NI	Scotland	Jersey	
						Districts	Parishes
Above average							
30%<	1	0	0	0	0	4	1
20-30%	0	0	2	0	0	1	1
10-20%	19	7	5	3	3	2	2
0-10%	225	17	13	4	22	1	1
Below average							
0-10%	249	40	13	11	28	3	3
10-20%	39	9	5	0	2	1	1
20-30%	0	0	2	0	0	3	0
30%<	0	0	0	0	4	2	3
TOTAL	533	73	40	18	59	17	12



Table 2.4. Levels of Disproportionality in several small states and Jersey: the number of constituencies (Districts, Parishes) according to the %Deviation from the national average electorate:member ratio

	Guernsey**	IoMan**	Malta*	Barbados***	Jersey	
					Districts	Parishes
Above average						
30%<	0	2	0	0	4	1
20-30%	0	1	0	2	1	1
10-20%	3	0	0	8	2	2
0-10%	1	2	5	5	1	1
Below average						
0-10%	1	1	8	6	3	3
10-20%	1	4	0	9	1	1
20-30%	1	0	0	0	3	0
30%<	0	5	0	0	2	3
	7	15	13	30	17	12

Key: \* registered electorate; \*\* - estimated electorate; \*\*\* - voters;

Table 2.5. Population, Deputies, Connétables and Population:(Deputies+Connétables) Ratios for Jersey's Parishes, 2011

Parish	P	D	P/D	%Dev	D+C	P/(D+C)	%Dev
Grouville	4,866	1	4,866	44.2	2	2,433	1.9
St John	2,911	1	2,911	-13.7	2	1,455	-39.0
St Martin	3,763	1	3,763	11.5	2	1,881	-21.2
St Mary	1,752	1	1,752	-48.1	2	876	-63.3
St Ouen	4,097	1	4,097	21.4	2	2,048	-14.2
St Peter	5,003	1	5,003	48.2	2	2,501	4.8
Trinity	3,156	1	3,156	-6.5	2	1,578	-33.9
St Clement	9,221	2	4,610	36.6	3	3,074	28.8
St Lawrence	5,418	2	2,709	-19.7	3	1,806	-24.3
St Brelade	10,568	3	3,523	4.4	4	2,642	3.2
St Helier	33,522	10	3,352	-0.7	11	3,047	27.6
St Saviour	13,580	5	2,716	-19.5	6	2,263	-5.2
	97,857	29	3,374	-	41	2,387	-

Key: P – population; D – number of Deputies elected from Parish; P/D – population divided by number of Deputies; D+C – number of Deputies and Connétables elected from the Parish; P/(D+C) – population divided by the number of Deputies and Connétables elected from the Parish.

### 3. District Magnitude and Size

These two terms are often used interchangeably, but precise definitions are:

- *District magnitude* – the number of members (e.g. Deputies) to be returned from a District; and
- *District size* – the population or number of registered electors in a District.

The two are normally linked: with a fixed size for the legislature, then the larger the District magnitude the larger the District size – especially if equal representation is practised.

The most important issue relating to District magnitude concerns proportional representation in polities in which political parties dominate. One of the strongest relationships adduced in the analysis of election results is the larger the District the greater the probability that the allocation of seats across the political parties will be commensurate with the ideal of proportional representation – whereby each party has a share of the seats approximately equivalent to its share of the votes cast. (In some systems, thresholds are introduced – e.g. no party is allocated seats if it gets less than 5 per cent of the votes cast – to prevent a multiplication of parties in the legislature.)

Although other claims have been made regarding differences between electoral systems reflecting District magnitude, very few of them are strongly supported by empirical evidence. There is little support for a claim, for example, that electors are more likely to recognise and make contact with candidates in seats with low District magnitudes (especially those returning single-members) than in multi-member Districts. Electoral behaviour is not much influenced by such details of the electoral system.

The current absence of a party system within Jersey suggests that the issue of designing an electoral system to facilitate proportional representation is of little importance. However, if a party system were to emerge, then the current system for electing Deputies would be very likely – like that in the UK – to result in election outcomes that were both disproportional (a party's vote share would not equate to its share of the seats) and biased (one party might benefit from greater disproportionality than another). Introduction of a system based on multi-member districts now would however mean that a new system need not be sought if a party system emerges – and the use of multi-member districts would be entirely feasible for elections where parties are absent. (Indeed, choice of a voting system such as STV would allow electors to indicate their relative preference for candidates whether or not these are fielded by parties, and if the latter were the case, then in most circumstances STV election results – perhaps with an average of five members per District – would be close to the proportional representation ideal.)

## 4. Elections in multi-member districts

If the Senate (or another component of the States) is to be elected in multi-member districts, there are two recommended ways to do this. One is well-known: *Single Transferable Vote*, which is used for national elections in the Republic of Ireland, for elections to the Northern Ireland Assembly, for local elections there and in Scotland, in some Australian States, and in many clubs and societies throughout the English-speaking world. The other is less well-known: *Single Non-Transferable Vote*. A version of it was used to elect MPs from some English boroughs in the 19<sup>th</sup> century, under the name *limited vote*.

Another class of methods is unsuitable for the task in hand, although most proportional representation systems in the world use them. Under the generic title *party list systems*, each elector votes for a party, not a candidate, and parties win seats in the legislature in proportion to the votes they have received. Thus for example, UK members of the European Parliament (other than from Northern Ireland) are elected on party lists. These systems are inappropriate for Jersey, which does not have a party system. It is assumed that electors will continue to value candidates for their personal characteristics rather than for their party labels. Therefore party-list systems are not considered further in this report.

Under the Single Transferable Vote (STV) system, each elector votes for as many candidates as s/he wishes, placing a 1 against the first preference, a 2 against the second and so on as far as the elector wishes to go. Tied ranks (2= etc) are not permitted, but there is no requirement on any elector to list every candidate. To be elected, a candidate must achieve a quota of votes. A quota, in this sense, is the smallest number of votes that will ensure that exactly the required number of candidates is elected. An example will make this clearer. Suppose that there is a four-member district in which exactly 10,000 votes have been cast. If the quota were set at 2000, then should votes be divided exactly equally, there would be a chance that five Senators could be elected – one more than the number of places available. So in that instance the quota is set at 2001. In general the formula is  $Q = V/(n+1)$  rounded to the next whole number above, where  $Q$  = the quota,  $V$  = the number of votes cast, and  $n$  = the number of seats to fill.

Once the quota has been established, the first preference votes for each candidate are counted. Any candidate who has achieved more than the quota is elected, and their surplus votes over quota are redistributed in the proportion that the other available candidates are listed in second place. Suppose for example that the quota is 1000 and a candidate has received 1500 first preferences. Then  $500/1500$  (i.e., a third) of that candidate's votes are deemed to be "surplus votes". Each ballot paper for that candidate is examined again and assigned to the second-place candidate shown (if any) at a weight of  $1/3$ .

Whenever nobody else can be elected by a redistribution of surpluses, the candidate with the fewest first preferences is eliminated, and all their votes go to the next available candidate listed (which may not be their second preference if that candidate has either already been elected or has been eliminated). The election proceeds with redistribution of surpluses when available and elimination of low-ranking candidates otherwise, until the required number of candidates have been elected.

Details such as how to handle non-transferable votes and how to redistribute surpluses need to be specified in the legislation or regulations, but need not be addressed in this report. A set

of regulations could be acquired off the shelf from the electoral authorities in either part of Ireland or from the UK Electoral Reform Society. Validated computer algorithms for counting votes also exist, and may be acquired from the same sources.

Under Single Non-Transferable Vote (SNTV) each voter has just one vote. If all candidates for Senate are running as individuals and on their individual policies and personalities, this may be felt to be equally appropriate with STV. If groups of candidates are identified with one or the other side of topical issues, the voter under SNTV has the opportunity to vote for any of the candidates in the favoured group.

In comparison:

- SNTV is easier to count than STV
- STV gives the voter the chance to express an opinion on more of the candidates than does SNTV.
- Contrary to what one might expect, the two systems are roughly equally good at representing voters' opinions proportionally.

## 5. Equal Representation and Districting

Creating districts with equal electorates – to a specified tolerance – is a relatively straightforward task (assuming that the needed data for small areas are available). The current (2011-) UK legislation provides a good model – though it has some elements in it that are peculiar to the local situation (e.g. the division into four countries).

In addition to specifying the rules to be applied – set out below – consideration will need to be given to:

- The constitution of the body to undertake the districting – a standing Commission or an ad hoc Commission appointed for each exercise – with the number of members and method of appointment;
- The frequency with which districting will be undertaken (e.g. a fixed timetable – every five years; a flexible timetable – every 5-8 years; when a threshold is crossed – more than 20% of the current constituencies have electorates greater than +/-10% of the quota; ad hoc);
- What public consultation should be undertaken during the districting procedure (e.g. should it be after the Commission has produced provisional recommendations; should there be oral (with questioning of those making representations) and/or written submissions; and should there be further consultation if the Commission alters its recommendations after the first round?); and
- Whether the Commission should be given the power to implement its final recommendations or these have to be submitted to the States Assembly for final approval or rejection (and whether either Ministers or the Assembly can modify the recommendations).

### *Single-member districting*

For both single- and multi-member districts, the rules to be applied – in order – are as follows:

1. Define the number of districts;
2. Define the national electoral quota (which requires specifying the date on which the register will be collated for this purpose);
3. Define the tolerance limits for each district electorate;
4. Indicate what other criteria can be taken into account.

For Jersey, assuming for illustrative purposes 30 Districts are to be defined for the election of Deputies, a total electorate of 66,000, and a tolerance of +/-5%. (The numbers are for illustrative purposes only.)

1. There shall be 30 Electoral Districts, each returning a single Deputy;
2. The electoral quota for those Districts shall be the national electorate on the specified date divided by the number of Electoral Districts (i.e. 66,000/30 – 2,200);
3. No District shall have an electorate which is either less than 95% of the electoral quota (2,090) or greater than 105% of the electoral quota (2,310);
4. In defining new Districts consideration should be paid to:
  - a. The boundaries of Parishes, Vingtaines, Cantons and other administrative areas;
  - b. The boundaries of Senatorial Districts; and
  - c. The boundaries of the current Electoral Districts.

### *Multi-member districting*

This would require only a slight variation of the above rules. Assume for illustrative purposes that 15 Senators are to be elected from three Districts, again with an electorate of 66,000.

There are two options.

In the first, each District returns the same number of Senators.

1. There shall be three Senatorial Districts, each returning five Senators;
2. The electoral quota shall be the national electorate on the specified date divided by the number of Senatorial Districts (i.e.  $66,000/3 = 22,000$ );
3. No Senatorial District shall have an electorate which is either less than 95% of the electoral quota (20,900) or greater than 105% of the electoral quota (23,100);
4. In defining new Senatorial Districts consideration should be paid to:
  - a. The boundaries of Parishes, Vingtaines, Cantons and other administrative areas;
  - b. The boundaries of the Electoral Districts used for electing Deputies; and
  - c. The boundaries of the current Senatorial Districts.

In the second, Districts may return different numbers of Senators.

1. There shall be fifteen Senators;
2. There shall be Senatorial Districts, each returning no fewer than four and no more than six Senators;
3. The national electoral ratio for those Districts shall be the national electorate on the specified date divided by the number of Senators (i.e.  $66,000/15 = 4,400$ );
4. No District shall have an ratio of electors to Senators which is either less than 95% of the national electoral ratio (4,180) or greater than 105% of the national electoral ratio (4,620);
5. In defining new Senatorial Districts consideration should be paid to:
  - a. The boundaries of Parishes, Vingtaines, Cantons and other administrative areas;
  - b. The boundaries of the Electoral Districts used for electing Deputies; and
  - c. The boundaries of the current Senatorial Districts.