
In 1994 Anton Buhagiar wrote a [report to the Gonzi Commission](#) in which he suggested a method for assuring a more proportionate distribution of parliamentary seats among the competing political parties. The present article is a follow-up to that report and demonstrates a way to assure a more equitable assignment, among the electoral districts, of the parliamentary seats that political parties have won.

**THE PRIORITY QUEUE:
A FAIR METHOD FOR THE ASSIGNMENT
OF SEATS TO DISTRICTS.**

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In the report submitted in November 1994 to the Commission on Electoral Reform, diverse electoral methods were suggested, which are guaranteed to secure the highly desirable feature of nationwide proportional representation. This means that the total number of seats gained nationally by a party should reflect the total number of votes earned by it in the various constituencies, and this irrespective of the actual configuration of the constituency boundaries.

Of these methods, the easiest to use was the partywise distribution method. This method consists of first determining the total number of nationwide seats which should be assigned to a given party on a nationwide basis. This is achieved in the following way:

- i) Count the first count votes for each party in each district;
- ii) Add the votes obtained by a given party in each district, thus obtaining the nationwide total of first count votes for that party;
- iii) Use the d'Hondt Divisor method on the nationwide first count total found in ii) to determine the total number of seats which a given party should be assigned on a nationwide basis.

The second step of the partywise distribution method is to assign the nationwide seats of a given party to the different districts. This necessitates further steps as follows:

- iv) Sort the parties in descending order of nationwide first count vote (using the information in ii),
- v) Calculate using i) the percentage of votes polled by a party in each district;
- vi) Starting with the largest party, use the d'Hondt divisor on the district percentages for that party. The party's seats are then assigned to the districts with the highest quotients. The seats that have already been taken are then subtracted from the total of seats allowed for that district.

vii) Repeat the procedure in vi) with the next largest party as determined by the order in iv) above. Eventually, the seats of all the parties, from the largest down to the smallest, are assigned to the various districts.

When the number of seats of a given party have been determined for each district, the first count votes can then be inspected for the candidates' names, and the STV process can proceed exactly as in previous elections. In a given district, the predetermined number of candidates of a given party are elected. The number of seats a party can win in a district has to be equal to this preassigned number, and cannot exceed it. Counting of votes for a party or transfer of votes to that party's candidates can then be stopped in that district, once the predetermined number of candidates for that party is elected.

Details of the partywise calculations on Maltese General Elections from 1962 to 1992, are given in the above mentioned report. For the convenience of the reader, we also give details of the partywise method for the election of 1992. Steps i) to vii) above are given in detail for this election in Appendix I of this report. No threshold is assumed in this case.

SEAT DISTRIBUTION BY DISTRICT IN THE PARTYWISE METHOD.

There are numerous advantages of the partywise distribution, and these were referred to in the previous report. However, the final distribution of the parties' seats by district is in some cases not wholly satisfactory. In the election of 1992, for instance, the partywise distribution assigns the only seat of the AD to the II District, rather than the XI District where they obtained most votes. (Please refer to Appendix I for details of this election). A similar instance occurs in the election of 1971, where the partywise method 'misplaces' an MLP seat from District IX to District I, and misplaces a PN seat the other way round.

It is therefore the aim of this study to find whether the partywise distribution can be modified to obtain an improved distribution of the contesting parties' seats in the districts. In particular, how can one amend steps iv) to vii) above to secure a fairer distribution of a party's seats in the different districts?

The proposed order for the party scans in the partywise distribution was that determined by the size of the nationwide first count vote, as mentioned in iv) above. The largest party has all its seats assigned first to the districts, then the next largest, and so on, until finally one assigns the seats of the smallest party. By the time one reaches the scan for the smallest party, most of the district seats will have been already filled, with the result, say, that such a party will be awarded its seat in a district where it does not have the highest number or the highest district percentage of votes.

The problem is that in the partywise distribution, where seats are distributed by party, all the seats of a given party will have a higher priority over the choice of district than any seat of a smaller party. It could therefore happen that a seat which was marginal for the larger party could be assigned to a district, which should have been assigned to a less marginal seat of a smaller party.

Conceivably one can alter the order, specified in iv) and vi) above, in which the parties are scanned for the partywise distribution of seats. If for example one were to start with the smallest party first, and end up with the largest, the partywise seat distribution in the districts might turn out to be unfair on some candidates of the larger parties. The problem is that whatever the order of the party scans, priority in the partywise distribution is determined by party size only, without any other consideration whatsoever.

THE PRIORITY QUEUE.

A possible remedy to this problem is to avoid using the concept of party priority implicit in the partywise distribution. A more sophisticated criterion to use is individual seat priority, or equivalently nationwide

priority, whereby one has to decide which party gets the first seat, which party gets the second seat, and so on, up to the 65th seat. This sequence of individual party seats determines the order in which each individual seat is assigned to the districts.

Once again the elegant method of d'Hondt can be easily utilised to determine which party has priority on each individual seat. As an illustration, we take the Maltese General Election of 1992, and assume that there is no threshold. In Table I, we give the calculation to determine the number of seats won by each party on a nationwide basis. The highest 65 quotients are chosen from the three columns, giving 34 seats to the PN, 30 seats to the MLP, and 1 seat to the AD.

To find the priority of the parties on these 65 seats, one again sorts these 65 numbers in descending order of magnitude. The largest quotient written in the columns of Table I is 127932, and corresponds to the first divisor of the PN. The PN has therefore priority over the first seat to be assigned to some district. The second largest quotient is 114861, which is the highest quotient for the MLP. The MLP therefore has priority over the second seat. The third largest quotient is 63966 in the PN column, which therefore has priority over the third seat. This can be repeated for each single seat.

The priority list for parties for each individual seat is given in Table II. As can be seen, the sequence is given by PN, MLP, PN, MLP, PN, , PN. The AD, for example, has priority over the 58th seat, whilst the PN has priority over the 65th seat, which is the last one to be awarded.

The 65 party seats can therefore be considered as a queue of length 65. The party sequence in this queue determines the order in which each individual party seat is assigned to the districts. For this reason, this procedure can be termed the priority queue method. This is in clear contrast to the partywise distribution where all the seats of a larger party have a higher priority than any seat of a smaller party.

To see how seats are assigned to districts in the priority queue, the d'Hondt divisor is again used, this time on the percentage of votes each party polls in each district. Please refer to Table III.

For each separate party, a matrix is first set up having thirteen columns. In the first row there are the 13 district names, I, II, up to XIII, and in the second row there is the percentage of votes obtained by that party in each of the districts. Thus, in the matrix for the PN, it can be seen that this party got 54.80% of the first count votes in the first district, 31.93% of the first count votes in the second district, and so on. In the thirteenth district it obtained 58.94%. (In this case the percentages are multiplied by a factor of 100 for convenience). Since there is a total of five seats available in each district, these district percentages are divided by the d'Hondt divisors, 1, 2, 3, 4, 5 and the quotients are written in the appropriate column. The matrices for the other parties are constructed in an analogous manner.

Seats are then assigned to the districts according to the nationwide priority established in Table II. Here it was shown that the PN has priority over the first seat. The PN matrix in Table III is therefore scanned first for the largest quotient (7129) which turns out to be in the 10th district. The PN is therefore awarded a seat in this district. The nationwide priority of the seat (1 in this case) is then written in boldface just beneath this quotient, which is also marked with an asterisk.

Similarly, from the priority list in Table II, it can be seen that the MLP has priority over the second seat. The MLP matrix in Table III is therefore scanned for the largest quotient. This turns out to be 6637 in the second district. The MLP is then awarded a seat in the second district. The priority of this seat (2 in this instance) is then written beneath this quotient, which is also marked with an asterisk.

Proceeding down the list, we assign the 3rd seat to the PN in the seventh district (with quotient 6162), and the fourth seat to the MLP in the third District (quotient 6105). At every step one chooses from the matrix of the relevant party, the highest quotient which has not yet been chosen. The priority is then written beneath it, and that quotient is then marked with an asterisk.

One must also be careful whilst following the priority list, that seats are not assigned to districts that already have their full complement of seats. Taking for instance the 58th seat pertaining to the AD, it can be seen that the highest quotient for this party is 218 in the ninth district. However the seat cannot be assigned there because that district already has its full complement of five seats. The next available quotient is then taken, which is 210 in the eleventh district. This is in fact the district where AD obtained most votes.

Following this procedure, it is not difficult to assign every single seat in the priority queue individually to the districts. As can be deduced from Table III, the matrix for each party will then determine the number of seats awarded to that party in each district, along with the individual seat priorities.

Alternatively for convenience, each party's matrix of district quotients can be written as a list of quotient and district. This is then sorted for each party separately in descending order of quotient. (These lists are given next in Table III). One then follows the nationwide priority party sequence to choose the appropriate party list, and hence to assign the next available district to that party seat. The nationwide priority for each assigned seat is then written in the left hand column of the relevant list. Each of these lists can be considered as a queue, where districts are waiting to be assigned to the seats of a given party.

The final distribution of party seats in the districts as predicted by the priority queue method for the Maltese General Election of 1992 with no threshold assumed, is summarised in the last part of Table III. As pointed out before, this distribution is practically identical to the actual election result, except that the AD is awarded a seat in the eleventh district, where it polled the highest number of votes.

This assignment of the nationwide seats gained by a party to the various districts can also be appreciated by drawing up a detailed schedule of how the seats are allocated to the districts. This schedule is displayed in Table IV. Each district quotient shown in Table III is listed in a matrix, along with the corresponding information including party, district, and d'Hondt divisor. Each quotient and its relevant information occupies one row in this matrix. For the sake of clarity, these rows are then sorted in descending order of quotient magnitude, and are shown in this order in Table IV below. The order defined by the district quotients in this table can be referred to as districtwise priority, to distinguish it from the nationwide priority referred to earlier.

According to the nationwide priority list shown in Table II, one awards the first seat to the PN. Looking up the list in Table IV, the highest PN seat is the first seat of the tenth district, which is the first one to be awarded to the PN. The nationwide priority of this seat is then written in the left hand side under the PN column. Similarly the second nationwide seat is to be awarded to the MLP. In Table IV, the highest MLP seat is the first seat in the second district. The nationwide priority (namely 2) of this seat is then written in the left hand side under the MLP column. Continuing in this way, alternately scanning the nationwide and the districtwise priority lists (Tables II and IV respectively), one can determine how the party seats are assigned to the districts.

Thus for example, as can be easily seen from the comments in the right hand side of Table IV, the ninth district is awarded the seats with nationwide priority 11, 16, 36, 46, and 56. The numbers 11, 36, and 56 represent the seats of the PN, whereas the numbers 16 and 46 represent the priorities of the MLP seats. This ninth district gains its full complement of 5 seats when the PN is awarded the 56th nationwide seat in this district.

Assuming one has already distributed the first 56 seats, the 57th seat is then awarded to the MLP in District 4. On assigning the AD the 58th nationwide seat, one then searches for the highest quotient of the AD, which is 218 in District 9. This seat, however, cannot be awarded since District 9 was already filled with the 56th seat. Therefore the next highest AD quotient is searched, which is 210 in the 11th District. This seat is then awarded to the AD in the 11th District, which now has its full complement of seats. Similarly, the 60th seat is not awarded to the MLP in the 11th District (with the highest available quotient of 1832), because that District is already full. The seat is then awarded to the District with the next highest MLP quotient (1819), namely the Seventh District. This District has now gained all its five seats, and henceforth cannot take any more seats.

Proceeding in this way, one finally arrives at the last seat, the 65th seat, which the PN gains in the Tenth District. The distribution of party seats over the districts can then be seen to be identical to that given in the last part of Table III.

SEAT DISTRIBUTION USING THE PRIORITY METHOD WITH THE D'HONDT SET OF DIVISORS FOR BOTH THE NATIONWIDE AND THE DISTRICT CALCULATIONS.

The predictions of the priority method for General Elections held in Malta in and after 1962, are shown in Table V. Here the d'Hondt set of divisors was used on both the nationwide first count votes and on the district percentages to obtain the nationwide priority and the seat distribution in the districts respectively.

For each election, the calculations are first done assuming that there is no threshold. A national threshold is then imposed to eliminate the smallest party with seats, and the distribution is recalculated using the priority method. This is repeated until only the two largest parties are left to compete for the available seats. In this and similar analysis, where a national threshold is imposed, parties which polled less than this threshold are not awarded any seats, but the district percentages of the other parties still in contention are not altered by the exclusion of the smaller parties.

The final distribution of party seats in the districts afforded by the priority queue seems to be fair in general, and agrees quite well with the actual election result. This is especially true in those elections, namely those of 1971 and 1976, where the nationwide number of party seats tallies exactly with the actual election result.

It can be seen from Table V, that for the elections of 1971 and that of 1976, the priority queue method predicts the exact election result. The partywise method by contrast fails to do so for the 1971 election. Relative to the actual election result, the partywise method displaced one MLP seat from the ninth to the first district, whereas one PN seat was displaced the other way. It should also be recalled that in this (1971) election, the number of seats available to each district was not constant, but was either five or six, depending on the district. In spite of this, the priority queue method predicts the election result exactly.

It was also shown above that in the election of 1992 with no threshold, the priority queue method awards a seat to the AD in the eleventh district, where it got most votes. By contrast, the partywise method awards this AD seat to the second district. The priority method yields a result which is fairer to the affected candidates of both parties concerned, the AD and the MLP in this case. It is also interesting to note that if a nationwide threshold of 5% is imposed in this election, the AD loses its seat in favour of the MLP, and the partywise and priority methods both agree exactly with the final election result.

Again, in the election of 1966 with no threshold, the priority queue method awards three seats to the CWP in the sixth, seventh and eighth districts, where this party is strongest. By contrast, the partywise distribution removes a CWP seat from the sixth district, and places it in the second district, where it polled only a relatively small number of votes. In general, the priority distribution seems to be fairer not only to the smaller parties, but also, indirectly, to the candidates of the larger parties affected by this change in district.

The priority method also gives a fair result for the election of 1966, assuming a national threshold of 6%. The CWP is eliminated with this threshold. (Please refer to Table V). The priority method predicts a marginal distribution of 26 seats for the PN, and 24 seats for the MLP, just like the partywise distribution. The seat assignment to the districts by the two methods, however, differs in the second and the seventh districts. The priority method predicts 1 seat for the PN and 4 seats to the MLP in the second district, and 3 seats to the PN and 2 seats to the MLP in the seventh district.

On the other hand, the partywise method predicts 2 seats for the PN and 3 seats for the MLP in the both the second and the seventh districts. This is not so fair on the PN candidates in the 7th district, since the PN got about 2000 more votes than the MLP in this district. An event such as this, where a party gets more votes than another in a district but gets less seats (or vice-versa) will henceforth be referred to as an inversion. It is

clear that for a given nationwide distribution of seats, a districtwise distribution with a fewer number of inversions is fairer than a distribution with a larger number of inversions. The voting pattern in the districts will be respected more when there are fewer inversions, or better still, when there are none at all.

It is also interesting to note that in the eighth district both the priority and the partywise methods assign 3 seats to the MLP and 2 seats to the PN, even though the latter party polled 57 more votes than its rival in this district; (ie. both methods produce an inversion in the 8th district). However, such inversions have actually occurred also in past elections because a good number of votes can be wasted on unelected candidates. Besides such a paradoxical result can be interpreted as a 'seat swap', as in the districtwise a priori method, to restore an abnormal election result to nationwide proportionality.

More detailed comparisons of the priority and the partywise methods will be discussed in the following sections in this study.

THE EFFECT OF DIVISOR ON THE NATIONWIDE CALCULATION IN THE PARTYWISE AND PRIORITY METHODS.

The partywise and priority methods are two similar procedures based on the divisor method to translate a given number of party votes into parliamentary seats. So far only the d'Hondt set of divisors has been considered in our calculations, but there are other sets of divisors which are commonly used in such contexts. The most popular sets of divisors are the following:

- a) the D'Hondt set of divisors: 1, 2, 3, 4, 5,
- b) the modified Sainte Lague : 1.4, 3, 5, 7, 9,
- c) the Sainte Lague : 1, 3, 5, 7, 9,
- d) equal proportions : $(\sqrt{2})/3$, $\sqrt{2}$, $\sqrt{6}$, $\sqrt{12}$, ...
- e) the Danish system : 1, 4, 7, 10, 13,

Different sets of divisors make it more or less difficult for the smaller parties to obtain representation in Parliament. The sets of divisors a) to e) listed above are given in the sequence of increasing ease with which a small party stands to gain seats. Thus for a given voting pattern, the d'Hondt set offers the greatest difficulty for a small party to gain seats. The Danish system conversely tends to give seats to smaller parties with very little votes! (In the case of the method of equal proportions, the first divisor is not usually defined, but for the purpose of this study, it was taken to be 0.4714, to retain the same ratio between the first and second seat as for the Sainte Lague system).

In the priority method, as for the partywise procedure, divisors are used on two separate occasions: firstly to determine the number of seats earned nationwide by a given party; and secondly to distribute each seat in the various districts. These two steps are mainly independent of each other, and, tentatively, one can use a different set of divisors for these two distinct purposes. At this point it is natural to ask the following question: how does the choice of divisor affect the performance and the fairness of the partywise and priority methods?

The numerous advantages of these methods were referred to in the previous report. One of the most notable was that, when the total number of seats available is odd, a party which polls more votes than all the others together on a nationwide basis will then get an absolute majority of seats. This very important majority rule only holds true provided one uses the d'Hondt divisor, rather than any of the other divisors. It is therefore clear that one cannot replace the d'Hondt divisor in the nationwide calculation without sacrificing this important majority rule.

This is readily illustrated using the Monte Carlo method. In Appendix II, examples are given of elections between three parties A, B, and C. In these elections, party A gets more nationwide votes than parties B and C together, yet A fails to gain an absolute majority of seats when divisors other than the d'Hondt are used.

By contrast, the d'Hondt set of divisors unfailingly guarantees a majority of seats for party A in such a situation. A majority of votes and/or seats for party A is distinguished by a + sign in Appendix II.

In view of the foregoing arguments therefore, it is not advisable to use the modified Sainte Lague, the Sainte Lague, the equal proportion, or the Danish sets of divisors for the initial calculation of the number of nationwide seats due to a given party. In fact, the main reason for these divisors is to enable the smaller parties to gain a seat, even when they have obtained a small fraction of the quota obtained by the larger parties. This is illustrated by some elections in Appendix II. For example, in election number v), the Danish system awards one seat to party C with only 342 votes, when the average quota for the larger parties is about one thousand. The reason is that these divisors tend to equalise the percentage of votes wasted for each party, rather than the absolute number of votes. Thus a party with ten times as many votes as a smaller party will have ten times as many votes wasted! These divisor systems therefore have an effect opposite to that of the threshold. Whereas a threshold tends to exclude the smaller parties from the electoral contest, these divisor systems are inclined to assign seats to parties with a very small nationwide vote. For this reason, it is not advisable to employ these divisors for the preliminary calculation of the number of seats to be awarded to a party on a nationwide basis.

THE SAINTE LAGUE PRIORITY METHOD.

Having calculated the number of nationwide seats for each party, both the partywise and priority methods proceed to assign the seats to the various districts. In both cases this is done using a suitable set of divisors on the district percentages for each party. So far we have only used the d'Hondt set of divisors for this purpose. However once the total number of seats due to each party has been determined, it is only reasonable to examine how the final seat distribution in the districts is affected when one employs an alternative set of divisors on the district percentages. In this instance, it is the relative strength of the parties in the districts which is affected rather than their overall nationwide strength.

As an example of this we give detailed calculations for the priority method for the election of 1962, assuming there is no threshold. The nationwide number of seats and their priority is first computed using the d'Hondt set of divisors. The seats are then assigned to the districts, employing the Sainte Lague system of divisors (1, 3, 5, 7 ...) on the district percentages of first count votes.

For convenience, this method will be referred to as the Sainte Lague priority method. The computational details of this method are shown in Appendix III for the election of 1962 without a threshold. It can be seen that the calculation is very similar to the method shown above in Tables I, II and III for 1992. We now give a formal description of this method.

The Sainte Lague priority method achieves nationwide proportional representation by a priori adjustments to the STV, and can be described as follows:

- i) Count the first count votes for each party in each district;
- ii) Add the votes obtained by a given party in each district, thus obtaining the nationwide total of first count votes for that party;
- iii) Use the d'Hondt Divisor method on the nationwide first count total found in ii) to determine the total number of seats which a given party should be assigned on a nationwide basis (see Table I), and also to determine the priority of each individual seat. Set up the nationwide priority list (as in Table II).
- iv) Calculate using i) the percentage of votes polled by a party in each district;
- v) For each party, set up its matrix of district percentages and the corresponding quotients calculated with the Sainte Lague system of divisors as in Appendix III. (One can also set up for each party, the

corresponding district queue for convenience. This is obtained by sorting a party's matrix in descending order of quotient and noting the corresponding district, as explained previously).

vi) Starting with the seat of highest priority, identify the party to which it belongs from iii) above, and then search in the matrix of quotients of that party (or the corresponding district queue) for the highest available quotient. The seat will then be assigned to the district associated with that quotient.

vii) Take the next seat on the nationwide priority list, and repeat the procedure just described in vi). In this step, care must be taken not to assign seats to districts which are already full. Repeat until all seats on the nationwide priority list have been assigned to the districts.

viii) The STV can then proceed as described above for the partywise method.

Priority methods with other options for district divisors can be easily described in a similar fashion.

THE EFFECT OF DIVISOR ON THE DISTRIBUTION OF SEATS IN THE DISTRICTS.

To examine the effect of divisor further, and for the sake of completeness, we also give calculations for all possible combinations of divisor systems for both partywise and priority methods. This is done for all elections in or after 1962, with or without a threshold. The d'Hondt, modified Sainte Lague, Sainte Lague, equal proportions, and Danish systems are first used, in that order, to obtain the nationwide number of seats for each party, (and the priorities of these seats also in the case of the priority method). For each of these methods, the distribution of the seats in the districts is then obtained by using each of these divisors, in turn, on the district percentages. For any particular election with a given threshold, therefore, there are a total of twenty five divisor combinations, (although many of these often turn out to give identical results). The sequence of divisors, d'Hondt through to Danish, represents a greater facility for smaller parties to gain seats in the nationwide calculation, and an increasing tendency to even out a party's seats in the districts in the subsequent computation.

The partywise calculations are shown in Appendix IV, whereas the results for the priority method are given in Appendix V. The distributions for these two methods are given for all different divisor combinations. In Appendix VI, we compare these two methods for different divisor options in the districts. (For the sake of simplicity, however, we comment only on the case when the d'Hondt set of divisors is used to obtain the nationwide distribution).

On inspection of the various distributions arising from these two methods, it appears that the priority method with d'Hondt divisors for the nationwide calculation, and Sainte Lague divisors for the districts gives a seat distribution which is generally fair to all the contesting parties whether large or small, and whether there is a threshold or not. With this choice of divisors, the partywise method sometimes gives identical results, but is generally speaking less accurate in the assignment of the smaller parties' seats in the districts. The advantages of the Sainte Lague priority method are listed below.

ADVANTAGES OF THE PRIORITY SAINTE-LAGUE METHOD.

In this method, the seats of the smaller parties are generally awarded in the districts where they are strongest. Indirectly, this is also fair on candidates, of whatever party, who would have lost their seat had the small party been awarded its seat in a district where its following is weak. The 'correct' assignment of a smaller party's seats to the right districts leads to a more equitable distribution for all the contesting parties and for their candidates.

There also seems to be a smaller number of inversions for this method than for the other methods. It is clear that an electoral system with constituencies should as far as possible respect the voting pattern in each constituency. A party which polled significantly more votes in a district than another party should gain more, rather than less, seats in that district than the other party. Given a marginal (nationwide) distribution of seats, therefore, one should strive to achieve that distribution in the districts with the smallest number of inversions. The number of inversions when one uses the Sainte Lague priority method is generally smaller than for the other methods.

Another feature of this method is that it does not concentrate the seats of a smaller party in just one district. It can well happen that a small party that is awarded two seats on a nationwide basis gets both those seats in one district, even though its vote was rather evenly spread out over more than one district. (This happens for instance in the election of 1962 under various thresholds, when the PCP and DNP parties are each awarded two seats in one district by the other methods.) Such a distribution is clearly unfair to the other parties in that district, and could easily lead to inversions in that same district, and possibly also in other districts. This priority method does not have this drawback and seems to distribute a small party's seats reasonably well in the districts.

In a similar fashion, the Sainte Lague priority method will make it slightly more difficult (though certainly not impossible) for a large party to get a fourth seat in a given district. In a district with two major contending parties, it is slightly more probable to get a 3 seats to 2 result than a 4 to 1 result. (Please refer to comments on 1992 election in Appendix VI). Whereas this might seem strange in the light of results of recent elections, this method spreads the parties' seats more evenly in the districts, thus leading to a less polarised distribution of party seats.

The two proportional elections of 1971 and 1976 are also predicted perfectly by this method. It is interesting to remember that in 1971, the number of seats available to the districts was not constant, but was five or six depending on the district.

The main characteristic of the Sainte Lague priority method is that it is fair, and is seen to be fair by all parties, whether large or small, and by their candidates. It leaves less to chance than the partywise method: each seat is individually assigned to a party and hence to a district. The smaller parties are awarded seats where they are stronger rather than in districts where the larger parties did not happen to gain seats! The method generally also respects the voters' wishes in the individual districts, in that it keeps the number of inversions to an absolute minimum. Besides, the parties' seats are distributed quite evenly in the districts, thus keeping regional polarisation in check.

CALCULATIONS.

Since hundreds of distributions had to be computed for this study, resort had to be made to the digital computer. The seat distribution predicted by the partywise and priority methods for the different divisor systems was calculated by two computer programs in the GWBASIC language. These were written expressly for this purpose by the present author. Some of the calculations were also performed manually to corroborate the distributions predicted by these programs.

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Table I: Use of the d'Hondt divisor to calculate the number of seats due to a party on the basis of its first count nationwide vote. This is done for the election of 1992, and no threshold is assumed for this particular example. To elect 65 seats, the largest 65 numbers are chosen from the three columns. These are marked with an asterisk. The smallest of these 65 numbers is essentially a quota for the divisor method, and is denoted by *- . In this case, it is equal to 3763, corresponding to the 34'th seat of the PN. Numbers smaller than this quota are unmarked corresponding to unelected candidates. The number of candidates assigned will then be 34 seats for the PN, 30 seats for the MLP, and 1 seat for the AD. Sorting these 65 numbers in descending order will then determine which party has priority over a given seat. This is done in Table II.

TABLE I:

ELECTION OF 1992; NO THRESHOLD ASSUMED:

PARTY:	MLP	PN	AD	TOTAL
Nationwide 1st count votes:	114861	127932	4186	246979
% votes :	46.51	51.80	1.69%	100%

DIVIDE BY:						NO OF
DIVISOR						SEATS
1	114861*	127932*	4186*	AD	1	
2	57431*	63966*	2093		2	
3	38287*	42644*	1395		3	
4	28715*	31983*	1047		4	
5	22972*	25586*	837		5	
6	19144*	21322*	698		6	
7	16409*	18276*	598		7	
8	14358*	15992*	523		8	
9	12762*	14215*	465		9	
10	11486*	12793*	419		10	
11	10442*	11630*	381		11	
12	9572*	10661*	349		12	
13	8835*	9841*	322		13	
14	8204*	9138*	299		14	
15	7657*	8529*	279		15	
16	7179*	7996*	262		16	
17	6757*	7525*	246		17	
18	6381*	7107*	233		18	
19	6045*	6733*	220		19	
20	5743*	6397*	209		20	
21	5470*	6092*	199		21	
22	5221*	5815*	190		22	
23	4994*	5562*	182		23	
24	4786*	5331*	174		24	
25	4594*	5117*	167		25	
26	4418*	4920*	161		26	
27	4254*	4738*	155		27	
28	4102*	4569*	150		28	
29	3961*	4411*	144		29	
30	3829*	4264*	140	MLP	30	
31	3705	4127*	135		31	
32	3589	3998*	131		32	
33	3481	3877*	127		33	
34	3378	3763*	123	PN	34	
35	3282	3655	120		35	
36	3191	3554	116		36	
37	3104	3458	113		37	
38	3023	3367	110		38	

TABLE II. The nationwide priority list for parties for each individual seat. The d'Hondt divisor illustrated in Table I can be used to determine the priority in which the individual seats of the various parties are allocated to the districts. The largest quotient written in the columns of Table I is 127932, and corresponds to the first divisor of the PN. The PN has therefore priority over the first seat to be assigned to some district. The second largest quotient is 114861, which is the highest quotient for the MLP. The third largest quotient is 63966 in the PN column, which therefore has priority over the third seat. This can be repeated for each single seat. The AD, for example, has priority over the 58'th seat, whilst the PN has priority over the 65'th seat, which is the last one to be awarded.

The 65 party seats can therefore be considered as a queue of length 65.

The party sequence in this queue determines the order in which each individual party seat is assigned to the districts. This is in clear contrast to the partywise distribution where all the seats of a larger party have a higher priority than any seat of a smaller party.

d'Hondt quotients from Table I.	Party Priority List.	Seat Number.
--	----------------------------	-----------------

127932	PN	1
114861	MLP	2
63966	PN	3
57431	MLP	4
42644	PN	5
38287	MLP	6
31983	PN	7
28715	MLP	8
25586	PN	9
22972	MLP	10
21322	PN	11
19144	MLP	12
18276	PN	13
16409	MLP	14
15992	PN	15
14358	MLP	16
14215	PN	17
12793	PN	18
12762	MLP	19
11630	PN	20
11486	MLP	21
10661	PN	22
10442	MLP	23
9841	PN	24
9572	MLP	25
9138	PN	26
8835	MLP	27
8529	PN	28
8204	MLP	29
7996	PN	30
7657	MLP	31
7525	PN	32
7179	MLP	33
7107	PN	34
6757	MLP	35
6733	PN	36
6397	PN	37
6381	MLP	38
6092	PN	39
6045	MLP	40
5815	PN	41
5743	MLP	42
5562	PN	43
5470	MLP	44
5331	PN	45
5221	MLP	46
5117	PN	47
4994	MLP	48
4920	PN	49
4786	MLP	50
4738	PN	51
4594	MLP	52
4569	PN	53
4418	MLP	54
4411	PN	55
4264	PN	56

4254	MLP	57
4186	AD	58
4127	PN	59
4102	MLP	60
3998	PN	61
3961	MLP	62
3877	PN	63
3829	MLP	64
3763	PN	65
.....		
3705	MLP	not elected
3655	PN	not elected
3589	MLP	..
3554	PN	..
3481	MLP	..
3458	PN	..

Table III. The d'Hondt divisor method is used on the district percentages of first count votes (as in the partywise distribution) to assign the individual seats of the various parties to the different districts.

In the priority queue method, however, the order is not determined by descending order of party size, as in the partywise method, but according to the nationwide priority list described in Table II.

PN SEATS:

DISTRICT PERCENTAGES

DISTRICT	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
%*100	5480	3193	3718	4188	3848	4417	6162	6033	5712	7129	6127	5472	5894
1	5480 *13	3193 *26	3718 *22	4188 *18	3848 *20	4417 *17	6162 *3	6033 *7	5712 *11	7129 *1	6127 *5	5472 *15	5894 *9
2	2740 *37	1597	1859 *59	2094 *45	1924 *55	2209 *43	3081 *28	3017 *32	2856 *36	3565 *24	3064 *30	2736 *39	2947 *34
3	1827 *61	1064	1239	1396	1283	1472	2054 *47	2011 *51	1904 *56	2376 *41	2042 *49	1824 *63	1965 *53
4	1370	798	930	1047	962	1104	1541	1508	1428	1782 *65	1532	1368	1474
5	1096	639	744	838	770	883	1232	1207	1142	1426	1225	1094	1179

MLP SEATS:

DISTRICT PERCENTAGES.

DISTRICT	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
%*100	4390	6637	6105	5623	5988	5455	3637	3771	4071	2668	3663	4380	4042
1	4390 *12	6637 *2	6105 *4	5623 *8	5988 *6	5455 *10	3637 *25	3771 *21	4071 *16	2668 *38	3663 *23	4380 *14	4042 *19
2	2195 *42	3319 *27	3053 *29	2812 *33	2994 *31	2728 *35	1819 *60	1886 *54	2036 *46	1334	1832	2190 *44	2021 *50
3	1463	2212 *40	2035 *48	1874 *57	1996 *52	1818 *62	1212	1257	1357	889	1221	1460	1347
4	1098	1659 *64	1526	1406	1497	1364	909	943	1018	667	916	1095	1011
5	878	1327	1221	1125	1198	1091	727	754	814	534	733	876	808

AD SEATS:

DISTRICT PERCENTAGES.

DISTRICT	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
%*100	130	170	177	188	164	128	201	196	218	203	210	148	64
1	130	170	177	188	164	128	201	196	218	203	210 *58	140	64
2	65	85	89	94	82	64	101	98	109	102	105	74	32
3	43	57	59	63	55	43	67	65	73	68	70	49	21
4	33	43	44	47	41	32	50	49	55	51	53	37	16
5	26	34	35	38	33	26	40	39	44	41	42	30	13

Alternatively, each party's matrix of district quotients can be written as a list of quotient and district. This is then sorted for each party separately in descending order of quotient. One then follows the nationwide priority party sequence to choose the appropriate party list, and hence to assign the next available district to that party seat. The nationwide priority for each assigned seat is then written in the left hand column of the relevant list. Each of these lists can be considered as a queue, where districts are waiting to be assigned to the seats of a given party. These lists are given on the following page.

PN			MLP			AD		
SEAT	QUOTI-		SEAT	QUOTI-		SEAT	QUOTI-	
PRI	DIS.	ENT	PRI	DIS.	ENT	PRI	DIS	ENT
1	10	7129	2	2	6637	*58	9	218
3	7	6162	4	3	6105	58	11	210
5	11	6127	6	5	5988		10	203
7	8	6033	8	4	5623		7	201
9	13	5894	10	6	5455		8	196
11	9	5712	12	1	4389		4	188
13	1	5480	14	12	4380		3	177
15	12	5472	16	9	4070		2	170
17	6	4417	19	13	4042		5	164
18	4	4188	21	8	3771		12	148
20	5	3848	23	11	3662		1	130
22	3	3718	25	7	3637		6	128
24	10	3564	27	2	3319		9	109
26	2	3193	29	3	3052		11	105
28	7	3081	31	5	2994		10	102
30	11	3064	33	4	2812		7	101
32	8	3017	35	6	2727		8	98
34	13	2947	38	10	2668		4	94
36	9	2856	40	2	2212		3	88
37	1	2740	42	1	2195		2	85
39	12	2736	44	12	2190		5	82
41	10	2376	46	9	2035		12	74
43	6	2209	48	3	2035		9	73
45	4	2094	50	13	2021		11	70
47	7	2054	52	5	1996		10	68
49	11	2042	54	8	1886		7	67
51	8	2011	57	4	1874		8	65
53	13	1965	*60	11	1831		1	65
55	5	1924	60	7	1818		13	64
56	9	1904	62	6	1818		6	64
59	3	1859	64	2	1659		4	63
61	1	1827		3	1526		3	59
63	12	1824		5	1497		2	57
65	10	1782		1	1463		5	55
	2	1596		12	1460		9	54
	7	1540		4	1406		11	53
	11	1532		6	1364		10	51
	8	1508		9	1357		7	50
	13	1473		13	1347		12	49
	6	1472		10	1334		8	49
	9	1428		2	1327		4	47
	10	1426		8	1257		3	44

* signifies that the seat is not awarded since the relevant district already has its full complement of seats.

PN			MLP			AD		
SEAT	QUOTI-		SEAT	QUOTI-		SEAT	QUOTI-	
PRI	DIS.	ENT	PRI	DIS.	ENT	PRI	DIS	ENT
4	1396		3	1221		9	44	

1 1370
12 1368
5 1283
3 1239
7 1232
11 1225
8 1207
13 1179
9 1142
6 1104
1 1096
12 1094
2 1064
4 1047
5 962
3 930
6 883
4 838
2 798
5 770
3 744
2 639

11 1221
7 1212
5 1198
4 1125
1 1097
12 1095
6 1091
9 1018
13 1010
8 943
11 916
7 909
10 889
1 878
12 876
9 814
13 808
8 754
11 732
7 727
10 667
10 534

1 43
6 43
2 43
11 42
5 41
10 41
7 40
8 39
4 38
12 37
3 35
2 34
5 33
1 33
13 32
6 32
12 30
1 26
6 26
13 21
13 16
13 13

FINAL SEAT DISTRIBUTION BY DISTRICT (1992, NO THRESHOLD ASSUMED):

PARTY	DISTRICT.													TOTAL
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	
PN:	3	1	2	2	2	2	3	3	3	4	3	3	3	34
MLP:	2	4	3	3	3	3	2	2	2	1	1	2	2	30
AD:	0	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL:	5	5	5	5	5	5	5	5	5	5	5	5	5	65

As pointed out before, this distribution is practically identical to the actual election result, except that the AD is awarded a seat in the eleventh district, where it polled the highest number of votes. By contrast, the partywise method assigns the AD seat to the second district, where the AD did not get most votes. This improvement in the allocation of party seats to districts by the priority queue method is confirmed in many other elections.

TABLE IV: Detailed schedule for the assignment of party seats to the districts. The d'Hondt quotients for the district percentages in Table III are sorted in descending order of quotient, and written in the following matrix along with the corresponding party and divisor. The nationwide priority of each seat is given on the left. The final seat distribution is identical to that given in Table III.

NATIONWIDE		PARTY	DISTRICT	PARTY	COMMENTS.
SEAT	PRIORITY		-WISE	SEAT NO.	
MLP	PN	AD	PRIORITY	IN DIST.	
			100*		
			DISTRICT%		
	1	PN	10	7129	1
2		MLP	2	6637	1
	3	PN	7	6162	1
	5	PN	11	6127	1
4		MLP	3	6105	1
	7	PN	8	6033	1
6		MLP	5	5988	1
	9	PN	13	5894	1
	11	PN	9	5712	1
8		MLP	4	5623	1
	13	PN	1	5480	1
	15	PN	12	5472	1
10		MLP	6	5455	1
	17	PN	6	4417	1
12		MLP	1	4390	1
14		MLP	12	4380	1
	18	PN	4	4188	1
16		MLP	9	4071	1
19		MLP	13	4042	1
	20	PN	5	3848	1
21		MLP	8	3771	1
	22	PN	3	3718	1
23		MLP	11	3663	1
25		MLP	7	3637	1
	24	PN	10	3565	2
27		MLP	2	3319	2
	26	PN	2	3193	1
	28	PN	7	3081	2
	30	PN	11	3064	2
29		MLP	3	3053	2
	32	PN	8	3017	2
31		MLP	5	2994	2
	34	PN	13	2947	2
	36	PN	9	2856	2
33		MLP	4	2812	2
	37	PN	1	2740	2
	39	PN	12	2736	2
35		MLP	6	2728	2
38		MLP	10	2668	1
	41	PN	10	2376	3
40		MLP	2	2212	3
	43	PN	6	2209	2
42		MLP	1	2195	2
44		MLP	12	2190	2
	45	PN	4	2094	2
	47	PN	7	2054	3
	49	PN	11	2042	3
46		MLP	9	2036	2
48		MLP	3	2035	3
50		MLP	13	2021	2
	51	PN	8	2011	3

1st seat in District 9.

2nd seat in District 9.

3rd seat in District 9.

4th seat in District 9.

APPENDIX I.

ELECTION OF 1992. SEAT DISTRIBUTION BY THE PARTYWISE METHOD.

First count votes for parties in each district, district percentages, and partywise calculations for the 1992 election. No threshold is assumed.

Number of parties is 3. Number of seats is 65.
 Number of districts is 13. Number of seats/ district is 5.

FIRST COUNT VOTES	PARTIES.		
	MLP	PN	AD
I	8153	10179	242
II	12680	6100	325
III	11936	7270	346
IV	10061	7494	337
V	11852	7616	325
VI	10241	8293	241
VII	6960	11792	385
VIII	7030	11247	365
IX	7808	10956	418
X	5025	13426	383
XI	7337	12275	421
XII	8249	10305	278
XIII	7529	10979	120
TOTAL:	114861	127932	4186
NATIONWIDE SEATS:	30	34	1

% vote of each party by district:

I	43.895	54.802	1.303
II	66.370	31.929	1.701
III	61.047	37.183	1.770
IV	56.232	41.885	1.884
V	59.880	38.478	1.642
VI	54.546	44.170	1.284
VII	36.369	61.619	2.012
VIII	37.711	60.332	1.958
IX	40.705	57.116	2.179
X	26.680	71.286	2.034
XI	36.625	61.274	2.102
XII	43.803	54.721	1.476
XIII	40.418	58.938	0.644

Parties in descending order of first count vote: PN, MLP, AD.

Choose largest 1 number. Smallest is 170 in District II, Seat 1.

AD: 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1

Seats still available:

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

ALL SEATS ARE NOW ASSIGNED.

FINAL SEAT DISTRIBUTION BY DISTRICT (1992):

	DISTRICT													
PARTY	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	TOTAL
PN:	3	1	2	2	2	2	3	3	3	4	3	3	3	34
MLP:	2	3+	3	3	3	3	2	2	2	1	2	2	2	30
AD:	0	1-	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL	5	5	5	5	5	5	5	5	5	5	5	5	5	65

In the actual election, the MLP got one seat more, and the AD one seat less in the II district.

APPENDIX II.

EFFECT OF DIVISOR ON MAJORITY RULE.

Comparison of different divisors on fictitious elections between three parties, A, B and C, where A has the largest following, B is slightly smaller than A, and C is a small party. In each case Party A gains more votes than parties B and C put together, ie. A has an absolute majority of votes. A total of 65 seats is then distributed amongst the three parties. The quota per seat is about 1000 votes for the larger parties A and B. Different divisor methods are then used to calculate the number of nationwide seats to each party, The elections and the divisor systems with a majority of votes and seats respectively are marked with a +. Of all the divisor methods, it is only the d'Hondt set of divisors which is mathematically guaranteed to give an absolute majority of seats to party A. The Danish system in particular is extremely generous to small parties. As can be deduced from election v), it awards one seat to party C with only 342 votes, when the quota for the larger parties is about 1000. This is because divisors other than the d'Hondt do not equalise the number of wasted votes to each party; rather they equalise the proportion of votes wasted by each party.

	PARTY	A	B	C	
i)	Votes	33010	: 32000	: 712	+
SEATS:					
	d'Hondt	33	32	0	+
	Modified St. Lague	32	32	1	
	St. Lague	32	32	1	
	Equal Proportions	32	32	1	
	Danish	32	32	1	
ii)		34020	: 32000	: 1572	+
SEATS:					
	d'Hondt	33	31	1	+
	Modified St. Lague	32	31	2	
	St. Lague	32	31	2	
	Equal Proportions	32	31	2	
	Danish	32	31	2	
iii)		35210	: 32000	: 2710	+
SEATS:					
	d'Hondt	33	30	2	+
	Modified St. Lague	32	30	3	
	St. Lague	32	30	3	
	Equal Proportions	32	30	3	
	Danish	32	30	3	
iv)		36450	: 32000	: 3927	+

SEATS:					
	d'Hondt	33	29	3	+
	Modified St. Lague	32	29	4	
	St. Lague	32	29	4	
	Equal Proportions	32	29	4	
	Danish	32	29	4	

	PARTY	A	B	C	
v)	Votes	33018	: 32000	: 342	+

SEATS:					
	d'Hondt	33	32	0	+
	Modified St. Lague	33	32	0	+
	St. Lague	33	32	0	+
	Equal Proportions	33	32	0	+
	Danish	32	32	1	

vi)		33000	: 31000	: 1361	+
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SEATS:					
	d'Hondt	33	31	1	+
	Modified St. Lague	33	31	1	+
	St. Lague	33	31	1	+
	Equal Proportions	33	31	1	+
	Danish	32	31	2	

vii)		34150	: 31000	: 2470	+
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SEATS:					
	d'Hondt	33	30	2	+
	Modified St. Lague	33	30	2	+
	St. Lague	33	30	2	+
	Equal Proportions	33	30	2	+
	Danish	32	30	3	

viii)		34230	: 30000	: 3530	+
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SEATS:					
	d'Hondt	33	29	3	+
	Modified St. Lague	33	29	3	+
	St. Lague	33	29	3	+
	Equal Proportions	33	29	3	+
	Danish	32	29	4	

APPENDIX III. The Sainte Lague priority method for the election of 1962. No threshold is assumed. The d'Hondt divisor is first used to determine the number of seats for each party, and their priority. The seats are then distributed in the districts, using the Sainte Lague system of divisors.

The D'Hondt set of divisors is used on the nationwide total of first count votes obtained by each party. In this election, the PN polled 63262 votes, the MLP 50974, the CWP 14285, the DNP 13968, the PCP 7290. The nationwide totals for each party are divided by the divisors 1, 2, 3, 4, etc, and sorted in descending order of this quotient. The sequence of this sorted list determines the number of seats due to each party, and also the nationwide priority of each seat.

NATIONWIDE PRIORITY	PARTY	D'HONDT QUOTIENT
1	PN	63262
2	MLP	50974
3	PN	31631
4	MLP	25487
5	PN	21087
6	MLP	16991
7	PN	15816
8	CWP	14285
9	DNP	13968
10	MLP	12744
11	PN	12652
12	PN	10544
13	MLP	10195
14	PN	9037
15	MLP	8496
16	PN	7908
17	PCP	7290
18	MLP	7282
19	CWP	7143
20	PN	7029
21	DNP	6984
22	MLP	6372
23	PN	6326
24	PN	5751
25	MLP	5664
26	PN	5272
27	MLP	5097
28	PN	4866
29	CWP	4762
30	DNP	4656
31	MLP	4634
32	PN	4519
33	MLP	4248
34	PN	4217
35	PN	3954
36	MLP	3921
37	PN	3721
38	PCP	3645
39	MLP	3641
40	CWP	3571
41	PN	3515
42	DNP	3492
43	MLP	3398
44	PN	3330
45	MLP	3186
46	PN	3163
47	PN	3012
48	MLP	2998
49	PN	2876
50	CWP	2857

not elected	...	MLP	2832
not elected	...	DNP	2794
..		PN	2751
..		MLP	2683
..		PN	2636
..		MLP	2549
		PN	2530
		PN	2433
		PCP	2430
		MLP	2427
		CWP	2381
		PN	2343
		DNP	2328
		MLP	2317
		PN	2259
		MLP	2216
		PN	2181
		MLP	2124
		PN	2109
		CWP	2041
		PN	2041
		MLP	2039
		DNP	1995
		PN	1977
		MLP	1961
		PN	1917
		MLP	1888

The Sainte Lague Priority Method;

Sainte Lague's set of divisors is used on the districtwise proportions to determine the order in which districts are assigned to the seats of a given party. The nationwide priority of each seat is written under the relevant quotient. The distribution of the contesting parties' seats in the districts arising from using this set of divisors is usually fairer to the parties and the individual candidates than when the d'Hondt's divisors are used in this step.

PARTY	DISTRICT.									
DIVISOR										
PN	1	2	3	4	5	6	7	8	9	10
%*100	4518	2672	3494	4272	4977	4913	3626	3739	4910	5188
1	4518 *11	2672 *23	3494 *20	4272 *12	4977 *3	4913 *5	3626 *16	3739 *14	4910 *7	5188 *1
3	1506 *34	891	1165 *44	1424 *35	1659 *26	1638 *28	1209 *41	1246 *37	1637 *32	1729 *24
5	904	534	699	854	995 *47	983	725	748	982 *49	1038 *46
7	645	382	499	610	711	702	518	534	701	741
9	502	297	388	475	553	546	403	415	546	576
MLP	1	2	3	4	5	6	7	8	9	10

%*100	3308	5620	4635	4747	3430	2402	2648	3541	2597	626
1	3308 *15	5620 *2	4635 *6	4747 *4	3430 *13	2402 *25	2648 *18	3541 *10	2597 *22	626
3	1103 *45	1873 *27	1545 *33	1582 *31	1143 *39	801	883	1180 *36	866	209
5	662	1124 *43	927	949 *48	686	480	530	708	519	125
7	473	803	662	678	490	343	378	506	371	89
9	368	624	515	527	381	267	294	393	289	70
CWP	1	2	3	4	5	6	7	8	9	10
	585	1025	1213	467	755	1097	878	1240	910	1407
1	585	1025 *50	1213 *29	467	755	1097 *40	878	1240 *19	910	1407 *8
3	195	342	404	156	252	366	293	413	303	469
5	117	205	243	93	151	219	176	248	182	281
7	84	146	173	67	108	157	125	177	130	201
9	65	114	135	52	84	122	98	138	101	156
DNP	1	2	3	4	5	6	7	8	9	10
	1028	574	467	347	553	986	1347	936	902	2162
1	1028 *30	574	467	347	553	986 *42	1347 *21	936	902	2162 *9
3	343	191	156	116	184	329	449	312	301	721
5	206	115	93	69	111	197	269	187	180	432
7	147	82	67	50	79	141	192	134	129	309
9	114	64	52	39	61	110	150	104	100	240
PCP	1	2	3	4	5	6	7	8	9	10
	475	109	192	168	285	431	1413	466	654	522
1	475	109	192	168	285	431	1413 *17	466	654 *38	522
3	158	36	64	56	95	144	471	155	218	174
5	95	22	38	34	57	86	283	93	131	104
7	68	16	27	24	41	62	202	67	93	75
9	53	12	21	19	32	48	157	52	73	58

Alternatively, each party's district quotients can be sorted in descending order for each party, and listed as district queues.

Alternatively, each party's matrix of district quotients can be written as a list of quotient and district. This is then sorted for each party separately in descending order of quotient. One then follows the nationwide priority party sequence to choose the appropriate party list, and hence to

assign the next available district to that party seat. The nationwide priority for each assigned seat is then written in the left hand column of the relevant list. Each of these lists can be considered as a queue, where districts are waiting to be assigned to the seats of a given party.

PN			MLP			CWP			DNP			PCP		
SEAT	QUOTI-		SEAT	QUOTI-		SEAT	QUOTI-		SEAT	QUOTI-		SEAT	QUOTI-	
PRI	DIS.	ENT	PRI	DIS.	ENT	PRI	DIS	ENT	PR	DIS	ENT	PR	DIS	ENT
1	10	5188	2	2	5620	8	10	1407	9	10	2162	17	7	1413
3	5	4977	4	4	4747	19	8	1240	21	7	1347	38	9	654
5	6	4913	6	3	4635	29	3	1213	30	1	1028	10		522
7	9	4910	10	8	3541	40	6	1097	42	6	986	1		475
11	1	4518	13	5	3430	50	2	1025		8	936	7		471
12	4	4272	15	1	3308		9	910		9	902	8		466
14	8	3739	18	7	2648		7	878	10		721	6		431
16	7	3626	22	9	2597		5	755		2	574	5		285
20	3	3494	25	6	2402		1	585		5	553	7		283
23	2	2672	27	2	1873	10		469		3	467	9		218
24	10	1729	31	4	1582		4	467		7	449	7		202
26	5	1659	33	3	1545		8	413	10		432	3		192
28	6	1638	36	8	1180		3	404		4	347	10		174
32	9	1637	39	5	1143		6	366		1	343	4		168
34	1	1506	43	2	1124		2	342		6	329	1		158
35	4	1424	45	1	1103		9	303		8	312	7		157
37	8	1246	48	4	949		7	293	10		309	8		155
41	7	1209		3	927	10		281		9	301	6		144
44	3	1165		7	883		5	252		7	269	9		131
46	10	1038		9	866		8	248	10		240	2		109
47	5	995		2	803		3	243		1	206	10		104
49*	6	983		6	801		6	219		6	197	1		95
49	9	982		8	708		2	205		7	192	5		95
	1	904		5	686	10		201		2	191	9		93
	2	891		4	678		1	195		8	187	8		93
	4	854		3	662		9	182		5	184	6		86
	8	748		1	662		8	177		9	180	10		75
	10	741	10		626		7	176		3	156	9		73

* signifies that the seat with priority 49 is not awarded to the PN in district 6, since this is already full (with seats 5, 25, 28, 40 and 42). Instead, the PN is awarded the seat in the next district available on its list, namely the ninth district.

APPENDIX IV.

PARTYWISE CALCULATIONS WITH DIFFERENT DIVISORS

FOR THE ELECTIONS 1962-1992.

ELECTION OF 1962. PARTYWISE CALCULATIONS.
No threshold assumed.

Number of parties is 7
Total number of seats is 50
Total number of districts is 10
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	PCP	CWP	DNP	DCP	IND
1	5532	7556	795	979	1720	143	0
2	9170	4359	178	1672	937	0	0
3	6512	4908	269	1704	656	0	0
4	6919	6226	245	681	505	0	0
5	4860	7051	404	1069	784	0	0
6	3457	7072	621	1579	1419	247	0
7	4493	6152	2397	1489	2285	152	0
8	5292	5588	697	1853	1399	116	0
9	3896	7368	981	1366	1353	41	0
10	843	6982	703	1893	2910	0	128
TOTAL:	50974	63262	7290	14285	13968	699	128

Nationwide Divisor: D'HONDT:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	22	17	5	4	2	0	0

District divisors: D'HONDT to DANISH; all same:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
PN	2	1	2	2	3	3	2	2	2	3	22
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	0	1	0	1	1	4
PCP	0	0	0	0	0	0	1	0	1	0	2
TOTALS:	5	5	5	5	5	5	5	5	5	5	50

Nationwide Divisor: SAINTE LAGUE MODIFIED, SAINTE LAGUE, EQUAL PROPORTIONS:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	21	17	5	5	2	0	0

District divisors: D'HONDT to DANISH; all same:

DISTRICTS	1	2	3	4	5	6	7	8	9	10	TOTAL
PN	2	1	2	2	3	2	2	2	2	3	21
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	1	1	5
PCP	0	0	0	0	0	0	1	0	1	0	2
TOTALS	5	5	5	5	5	5	5	5	5	5	50

Nationwide Divisor: DANISH:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	20	17	5	5	3	0	0

District divisors: D'HONDT to DANISH; all same:

DISTRICTS	1	2	3	4	5	6	7	8	9	10	TOTAL
PN	2	1	2	2	2	2	2	2	2	3	20
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	1	1	5
PCP	0	0	0	0	1	0	1	0	1	0	3
TOTALS:	5	5	5	5	5	5	5	5	5	5	50

ELECTION OF 1962. THRESHOLD 5%.
PCP eliminated.

Nationwide Divisors: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	22	18	5	5	0	0	0

District divisors: D'HONDT to DANISH; all same:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
PN	2	1	2	2	3	3	2	2	2	3	22
MLP	2	3	3	3	2	1	1	2	1	0	18
CWP	0	1	0	0	0	1	0	1	1	1	5
DNP	1	0	0	0	0	0	2	0	1	1	5
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50

ELECTION OF 1962. THRESHOLD = 9.3 % of national vote.
DNP eliminated.

NATIONWIDE DIVISORS: D'HONDT only:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	25	20	5	0	0	0	0

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
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District divisors: D'HONDT only:

PN	3	1	2	3	3	3	2	2	3	3	25
MLP	2	4	3	2	2	1	2	2	2	0	20
CWP	0	0	0	0	0	1	1	1	0	2	5

District divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN	3	2	2	2	3	3	2	2	3	3	25
MLP	2	3	3	3	2	1	2	2	2	0	20
CWP	0	0	0	0	0	1	1	1	0	2	5

NATIONWIDE DIVISORS: SAINTE LAGUE MODIFIED to DANISH; all same:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	24	20	6				

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
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District divisors: D'HONDT:

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	4	3	3	2	1	2	2	1	0	20
CWP	0	0	0	0	0	1	1	1	1	2	6

District divisors: SAINTE LAGUE MODIFIED, SAINTE LAGUE:

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	3	3	3	2	1	2	2	2	0	20
CWP	0	1	0	0	0	1	1	1	0	2	6

District divisors: EQUAL PROPORTIONS, DANISH:

PN	2	2	2	2	3	3	2	2	3	3	24
MLP	2	3	3	3	2	1	2	2	2	0	20
CWP	1	0	0	0	0	1	1	1	0	2	6

TOTAL:	5	5	5	5	5	5	5	5	5	5	50
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Election of 1962; THRESHOLD = 10 % of national vote.
CWP eliminated.

NATIONWIDE DIVISORS: SAINTE LAGUE MODIFIED only:

PARTY:	PN	MLP	CWP	DNP	PCP	IND
SEATS:	24	22	3	1	0	0

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

Districtwise divisor: D'HONDT only:

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	3	3	3	2	2	2	2	2	1	22
CWP	0	0	0	0	0	0	1	1	0	1	3
PCP	0	1	0	0	0	0	0	0	0	0	1

Districtwise divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN	2	2	2	2	3	3	2	2	3	3	24
MLP	2	3	3	3	2	2	2	2	2	1	22
CWP	0	0	0	0	0	0	1	1	0	1	3
PCP	1	0	0	0	0	0	0	0	0	0	1

NATIONWIDE DIVISORS: SAINTE LAGUE to DANISH; all same:

PARTY:	PN	MLP	CWP	DNP	PCP	IND
SEATS:	24	21	3	1	1	0

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

Districtwise divisor: D'HONDT only:

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	3	3	3	2	1	2	2	2	1	21
CWP	0	0	0	0	0	1	1	1	0	0	3
PCP	0	0	0	0	0	0	0	0	0	1	1
DNP	0	1	0	0	0	0	0	0	0	0	1

Districtwise divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN	2	2	2	2	3	3	2	2	3	3	24
MLP	2	3	2	3	2	2	2	2	2	1	21
CWP	0	0	0	0	0	0	1	1	0	1	3
PCP	1	0	0	0	0	0	0	0	0	0	1
DNP	0	0	1	0	0	0	0	0	0	0	1
TOTAL:	5	5	5	5	5	5	5	5	5	5	50

ELECTION OF 1966; 6% THRESHOLD.
CWP eliminated.

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	CWP	DNP	PCP	IND
SEATS:	26	24	0			

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
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Districtwise divisor: D'HONDT only:

PN	3	2	2	2	3	3	2	2	3	4	26
MLP	2	3	3	3	2	2	3	3	2	1	24

Districtwise divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN	3	2	2	2	3	3	3	2	3	3	26
MLP	2	3	3	3	2	2	2	3	2	2	24

TOTAL:	5	5	5	5	5	5	5	5	5	5	50
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ELECTION OF 1971. PARTYWISE CALCULATION.
No threshold.

Number of parties is 4.
Total number of seats is 55.
Total number of districts is 10.

Seats available in each district:

District:	1	2	3	4	5	6	7	8	9	10	TOTAL
Number of seats:	5	6	6	5	5	5	6	6	6	5	55.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	PCP	OTH
1	7728	8266	204	0
2	11827	5293	43	8
3	11354	6888	55	22
4	10288	6324	36	0
5	8151	8130	23	0
6	6664	9332	349	0
7	7617	11032	682	26
8	8480	8631	171	0
9	7232	9392	165	27
10	6107	7465	28	19
TOTAL:	85448	80753	1756	102

NATIONWIDE DIVISORS: D'HONDT and SAINTE LAGUE MODIFIED:

PARTY: MLP PN PCP OTH
 SEATS: 28 27

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

Districtwise divisor: D'HONDT only:

MLP 3 4 4 3 3 2 2 3 2 2 28
 PN 2 2 2 2 2 3 4 3 4 3 27

Districtwise divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

MLP 3 4 3 3 3 2 2 3 2 3 28
 PN 2 2 3 2 2 3 4 3 4 2 27

TOTAL 5 6 6 5 5 5 6 6 6 5 55

NATIONWIDE DIVISORS: SAINTE LAGUE to DANISH; all same:

PARTY: MLP PN PCP OTH
 SEATS: 28 26 1

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

Districtwise divisor: D'HONDT only:

PN 3 4 4 3 3 2 2 3 2 2 28
 MLP 2 2 2 2 2 3 4 3 3 3 26
 PCP 0 0 0 0 0 0 0 0 1 0 1

Districtwise divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN 3 4 3 3 3 2 2 3 2 3 28
 MLP 2 2 2 2 2 3 4 3 4 2 26
 PCP 0 0 1 0 0 0 0 0 0 0 1

TOTAL: 5 6 6 5 5 5 6 6 6 5 55

ELECTION OF 1976. PARTYWISE CALCULATION.
 No threshold.

Number of parties is 3.
 Total number of seats is 65.
 Total number of districts is 13.
 Seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	OTH
1	7537	7408	0
2	11282	4346	0
3	10400	5497	0
4	9639	6051	0
5	9193	6420	0
6	9300	7455	0
7	8446	7492	11
8	6442	8969	0
9	7554	8898	0
10	5647	9875	24
11	7388	8564	0
12	6134	9501	0
13	6892	9075	0
TOTAL	105854	99551	35

NATIONWIDE DIVISORS: D'HONDT only:

PARTY:	MLP	PN	OTH
SEATS:	34	31	

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 TOTAL

Districtwise divisor: D'HONDT to DANISH; all same:

MLP	3	4	3	3	3	3	3	2	2	2	2	2	2	34
PN	2	1	2	2	2	2	2	3	3	3	3	3	3	31

NATIONWIDE DIVISORS: SAINTE LAGUE MODIFIED to DANISH; all same

PARTY:	MLP	PN	OTH
SEATS:	33	32	

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 TOTAL

Districtwise divisor: D'HONDT to DANISH; all same:

PN	2	4	3	3	3	3	3	2	2	2	2	2	2	33
MLP	3	1	2	2	2	2	2	3	3	3	3	3	3	32

ELECTION OF 1981. PARTYWISE CALCULATION.
No threshold.

Number of parties is 3.
Total number of seats is 65.
Total number of districts is 13.
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	OTH
1	8240	7786	9
2	11871	5207	0
3	10355	6375	0
4	9972	6848	0
5	9949	7569	0
6	9316	8333	0
7	9267	8210	13
8	6923	10945	0
9	6673	10856	0
10	6282	10793	0
11	7604	10048	0
12	6550	10999	0
13	6988	10165	7
TOTAL:	109990	114134	29

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	OTH
SEATS:	33	32	

Districtwise divisor: D'HONDT only:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	1	2	2	2	2	2	3	3	4	3	3	3	33
MLP	2	4	3	3	3	3	3	2	2	1	2	2	2	32

Districtwise divisor: SAINTE LAGUE MODIFIED to DANISH; all same:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	2	2	2	2	2	2	3	3	3	3	3	3	33
MLP	2	3	3	3	3	3	3	2	2	2	2	2	2	32
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	5	5	5	65

ELECTION OF 1987. PARTYWISE CALCULATION.
No threshold.

Number of parties is 3.
Total number of seats is 65.
Total number of districts is 13.
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	AD
1	8800	8396	30
2	12486	5808	23
3	11417	6486	14
4	10223	7412	21
5	10139	8284	14
6	10080	8746	27
7	9154	8366	42
8	7016	11227	74
9	6962	11884	71
10	6135	11259	78
11	7156	11438	57
12	7393	10986	60
13	7975	9429	0
TOTAL:	114936	119721	511

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	AD
SEATS:	33	32	

Districtwise divisor: D'HONDT only:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	1	2	2	2	2	2	3	3	4	3	3	3	33
MLP	2	4	3	3	3	3	3	2	2	1	2	2	2	32

Districtwise divisor: SAINTE LAGUE MODIFIED to DANISH; all same:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	2	2	2	2	2	2	3	3	3	3	3	3	33
MLP	2	3	3	3	3	3	3	2	2	2	2	2	2	32
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	5	5	5	65

ELECTION OF 1992. PARTYWISE CALCULATION.
No threshold.

Number of parties is 3.
Total number of seats is 65.
Total number of districts is 13.
Number of seats in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	AD
1	8153	10179	242
2	12680	6100	325
3	11936	7270	346
4	10061	7494	337
5	11852	7616	325
6	10241	8293	241
7	6960	11792	385
8	7030	11247	365
9	7808	10956	418
10	5025	13426	383
11	7337	12275	421
12	8249	10305	278
13	7529	10979	120
TOTAL:	114861	127932	4186

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	AD
SEATS:	34	30	1

Districtwise divisor: D'HONDT only:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	1	2	2	2	2	3	3	3	4	3	3	3	34
MLP	2	3	3	3	3	3	2	2	2	1	2	2	2	30
AD	0	1	0	0	0	0	0	0	0	0	0	0	0	1

Districtwise divisor: SAINTE LAGUE MODIFIED to DANISH; all same:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	2	2	2	2	2	3	3	3	3	3	3	3	34
MLP	2	3	3	3	3	3	2	2	2	1	2	2	2	30
AD	0	0	0	0	0	0	0	0	0	1	0	0	0	1
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	5	5	5	65

ELECTION OF 1992. THRESHOLD OF 5%.
AD eliminated.

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTY: PN MLP AD
 SEATS: 34 31 0

Districtwise divisor: D'HONDT only:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	1	2	2	2	2	3	3	3	4	3	3	3	34
MLP	2	4	3	3	3	3	2	2	2	1	2	2	2	31
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	5	5	5	65

Districtwise divisor: SAINTE LAGUE MODIFIED to DANISH; all same:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
PN	3	2	2	2	2	2	3	3	3	3	3	3	3	34
MLP	2	3	3	3	3	3	2	2	2	2	2	2	2	31
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	5	5	5	65

Fictitious election. No threshold.

Number of parties is 6.
 Total number of seats is 50.
 Total number of districts is 10.
 Seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	A	B	C	D	E	F
1	3200	2100	100	921	930	925
2	2200	3100	110	980	990	985
3	4100	1200	989	930	910	950
4	2100	3221	980	970	982	994
5	1100	4050	970	981	902	911
6	1120	1050	3050	910	940	980
7	2500	3010	950	960	970	975
8	3020	2400	960	943	921	910
9	2500	3500	950	960	965	948
10	2500	980	3022	981	982	978
TOTAL:	24340	24611	12081	9536	9492	9556

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTIES: B A C F D E
 SEATS: 14 14 7 5 5 5

continued ...

Fictitious election continued ...

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

Districtwise divisor: D'HONDT only:

B	1	2	1	2	3	0	2	1	2	0	14
A	2	1	3	1	0	1	2	2	1	1	14
C	0	0	1	0	1	3	0	0	0	2	7
F	1	1	0	1	0	1	1	0	0	0	5
D	1	1	0	1	1	0	0	0	0	1	5
E	0	0	0	0	0	0	0	2	2	1	5

Districtwise divisor: SAINTE LAGUE MODIFIED only:

B	1	2	1	2	2	1	2	1	2	0	14
A	2	1	3	1	0	1	2	2	1	1	14
C	0	0	1	0	1	3	0	0	0	2	7
F	1	1	0	1	0	0	1	0	0	1	5
D	1	1	0	1	1	0	0	0	0	1	5
E	0	0	0	0	1	0	0	2	2	0	5

Districtwise divisor: SAINTE LAGUE only:

B	1	2	1	2	2	1	2	1	2	0	14
A	2	1	3	1	1	1	1	2	1	1	14
C	0	0	1	1	1	2	0	0	0	2	7
F	1	1	0	1	0	1	1	0	0	0	5
D	1	1	0	0	1	0	0	1	0	1	5
E	0	0	0	0	0	0	1	1	2	1	5

Districtwise divisor: EQUAL PROPORTIONS only:

B	1	2	1	2	2	1	2	1	2	0	14
A	2	1	2	1	1	1	2	2	1	1	14
C	0	0	1	1	1	2	0	0	0	2	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	0	0	1	0	1	5
E	0	0	0	0	0	0	1	1	2	1	5

Districtwise divisor: DANISH only:

B	1	2	1	2	2	1	1	1	2	1	14
A	2	1	2	1	1	1	2	2	1	1	14
C	0	0	1	1	1	1	1	1	0	1	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	0	0	0	0	0	0	1	1	2	1	5

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

Fictitious election continued.
National threshold of 12%.
Parties D, E, F eliminated.

NATIONWIDE DIVISORS: D'HONDT to DANISH; ALL SAME:

PARTIES:	B	A	C	F	D	E
SEATS:	20	20	10			

Districtwise divisor: D'HONDT only:

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
B	2	3	1	3	3	1	2	2	3	0	20
A	3	2	3	2	1	1	2	2	2	2	20
C	0	0	1	0	1	3	1	1	0	3	10
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50

Districtwise divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

B	2	3	1	2	3	1	2	2	3	1	20
A	3	2	3	2	1	1	2	2	2	2	20
C	0	0	1	1	1	3	1	1	0	2	10
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50

APPENDIX V.

PRIORITY CALCULATIONS WITH DIFFERENT DIVISORS
FOR THE ELECTIONS 1962-1992.

ELECTION OF 1962. PRIORITY CALCULATION.
No threshold assumed.

Number of parties is 7
Total number of seats is 50
Total number of districts is 10
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	PCP	CWP	DNP	DCP	IND
1	5532	7556	795	979	1720	143	0
2	9170	4359	178	1672	937	0	0
3	6512	4908	269	1704	656	0	0
4	6919	6226	245	681	505	0	0
5	4860	7051	404	1069	784	0	0
6	3457	7072	621	1579	1419	247	0
7	4493	6152	2397	1489	2285	152	0
8	5292	5588	697	1853	1399	116	0
9	3896	7368	981	1366	1353	41	0
10	843	6982	703	1893	2910	0	128
TOTAL:	50974	63262	7290	14285	13968	699	128

NATIONWIDE Divisor: D'HONDT only:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	22	17	5	4	2	0	0

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

District divisors: D'HONDT to SAINTE LAGUE MODIFIED; all same:

PN	2	2	2	2	3	3	1	2	3	2	22
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	0	1	0	0	1	0	1	1	1	5
DNP	1	0	0	0	0	0	1	0	0	2	4
PCP	0	0	0	0	0	0	2	0	0	0	2

District divisors: SAINTE LAGUE to DANISH; all same:

PN	2	1	2	2	3	2	2	2	3	3	22
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	0	1	4
PCP	0	0	0	0	0	0	1	0	1	0	2

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

NATIONWIDE DIVISOR: SAINTE LAGUE MODIFIED to EQUAL PROPORTION; all same:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	21	17	5	5	2	0	0

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

District divisors: D'HONDT to SAINTE LAGUE MODIFIED; all same:

PN	2	1	2	2	3	3	1	2	3	2	21
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	0	1	0	1	2	5
PCP	0	0	0	0	0	0	2	0	0	0	2

District divisors: SAINTE LAGUE to DANISH; all same:

PN	2	1	2	2	3	2	2	2	2	3	21
MLP	2	3	2	3	2	1	1	2	1	0	17
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	1	1	5
PCP	0	0	0	0	0	0	1	0	1	0	2

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

NATIONWIDE Divisor: SAINTE LAGUE MODIFIED to DANISH; all same:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	22	18	5	5			

District divisors: D'HONDT:

PN	2	1	2	2	3	2	2	2	4	2	22
MLP	2	3	2	3	2	1	2	2	1	0	18
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	0	2	5

District divisor: SAINTE LAGUE MODIFIED:

PN	2	1	2	2	3	2	3	2	3	2	22
MLP	2	3	2	3	2	1	1	2	2	0	18
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	0	2	5

District divisor: SAINTE LAGUE to DANISH; all same:

PN	2	1	2	2	3	2	2	2	3	3	22
MLP	2	3	2	3	2	1	2	2	1	0	18
CWP	0	1	1	0	0	1	0	1	0	1	5
DNP	1	0	0	0	0	1	1	0	1	1	5

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

ELECTION OF 1962. National threshold of 9.3%.
DNP eliminated.

NATIONWIDE Divisor: D'HONDT:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	25	20	5				

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

District divisors: D'HONDT to SAINTE LAGUE MODIFIED; all same:

PN	3	1	2	2	3	3	2	2	3	4	25
MLP	2	3	2	3	2	1	3	2	2	0	20
CWP	0	1	1	0	0	1	0	1	0	1	5

District divisors: SAINTE LAGUE to DANISH; all same:

PN	3	1	2	2	3	3	3	2	3	3	25
MLP	2	3	2	3	2	1	2	2	2	1	20
CWP	0	1	1	0	0	1	0	1	0	1	5

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

NATIONWIDE Divisor: SAINTE LAGUE MODIFIED to EQUAL PROPORTIONS; all same:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	24	20	6				

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

District divisors: D'HONDT to SAINTE LAGUE MODIFIED; all same:

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	3	2	3	2	1	3	2	2	0	20
CWP	0	1	1	0	0	1	0	1	0	2	6

District divisors: SAINTE LAGUE to DANISH; all same:

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	3	2	3	2	1	2	2	2	1	20
CWP	0	1	1	0	0	1	1	1	0	1	6

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

NATIONWIDE Divisor: DANISH only:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	24	20	6				

District divisors: D'HONDT to DANISH; all same:

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

PN	3	1	2	2	3	3	2	2	3	3	24
MLP	2	3	2	3	2	1	2	2	2	1	20
CWP	0	1	1	0	0	1	1	1	0	1	6

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 50

ELECTION OF 1962. National threshold of 10%.
CWP eliminated.

NATIONWIDE Divisor: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	CWP	DNP	PCP	DCP	IND
SEATS:	28	22	0				

DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
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District divisors: D'HONDT only:

PN	3	1	2	2	3	4	2	3	3	5	28
MLP	2	4	3	3	2	1	3	2	2	0	22

District divisors: SAINTE LAGUE MODIFIED only:

PN	3	2	2	2	3	3	2	3	3	5	28
MLP	2	3	3	3	2	2	3	2	2	0	22

District divisors: SAINTE LAGUE to DANISH:

PN	3	2	2	2	3	3	3	3	3	4	28
MLP	2	3	3	3	2	2	2	2	2	1	22

DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50
---------------	---	---	---	---	---	---	---	---	---	---	----

ELECTION OF 1966. PRIORITY CALCULATION.
No Threshold.

Number of parties is 6
Total number of seats is 50
Total number of districts is 10
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	PCP	CWP	DNP	IND
1	6151	7623	191	747	351	0
2	9517	4771	0	598	0	20
3	7756	5356	0	954	99	0
4	7812	5761	0	347	0	29
5	6176	7231	0	495	0	0
6	4561	7725	180	1033	199	0
7	5622	7737	915	1554	476	0
8	6402	6459	163	1134	523	9
9	5010	7805	257	853	197	67
10	2767	8188	380	879	0	267
2TOTAL:	61774	68656	2086	8594	1845	392

NATIONWIDE Divisors: SAINTE LAGUE to EQUAL PROPORTIONS:

PARTY:	PN	MLP	CWP	PCP	DNP						
SEATS:	24	21	3	1	1						
DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
District divisors: D'HONDT only:											
PN	2	1	2	2	3	3	2	2	3	4	24
MLP	2	4	3	3	2	1	1	2	2	1	21
CWP	0	0	0	0	0	1	1	1	0	0	3
PCP	0	0	0	0	0	0	1	0	0	0	1
DNP	1	0	0	0	0	0	0	0	0	0	1
District divisors: SAINTE LAGUE MODIFIED to DANISH.											
PN	2	2	2	2	2	3	2	2	3	4	24
MLP	2	3	3	3	3	1	1	2	2	1	21
CWP	0	0	0	0	0	1	1	1	0	0	3
PCP	0	0	0	0	0	0	1	0	0	0	1
DNP	1	0	0	0	0	0	0	0	0	0	1
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50

NATIONWIDE Divisors: DANISH only:

PARTY:	PN	MLP	CWP	PCP	DNP						
SEATS:	24	21	3	1	1						
DISTRICTS:	1	2	3	4	5	6	7	8	9	10	TOTAL
District divisors: D'HONDT only:											
PN	3	1	2	2	3	3	2	1	3	4	24
MLP	2	4	3	3	2	1	1	2	2	1	21
CWP	0	0	0	0	0	1	1	1	0	0	3
PCP	0	0	0	0	0	0	1	0	0	0	1
DNP	0	0	0	0	0	0	0	1	0	0	1
District divisors: SAINTE LAGUE MODIFIED to DANISH; all same:											
PN	2	2	2	2	3	3	2	1	3	4	24
MLP	3	3	3	3	2	1	1	2	2	1	21
CWP	0	0	0	0	0	1	1	1	0	0	3
PCP	0	0	0	0	0	0	1	0	0	0	1
DNP	0	0	0	0	0	0	0	1	0	0	1
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50

ELECTION OF 1966. National threshold of 6%.
 CWP eliminated.

NATIONWIDE Divisors: D'HONDT to DANISH; ALL SAME:

PARTY: PN MLP CWP PCP DNP
 SEATS: 26 24

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

District divisors: D'HONDT only:

PN 3 1 2 2 3 3 3 2 3 4 26
 MLP 2 4 3 3 2 2 2 3 2 1 24

District divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN 3 2 2 2 3 3 3 2 3 3 26
 MLP 2 3 3 3 2 2 2 3 2 2 24

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 50

ELECTION OF 1971. PRIORITY CALCULATION.
 No threshold.

Number of parties is 4
 Total number of seats is 55
 Total number of districts is 10
 Seats available in each district:
 District: 1 2 3 4 5 6 7 8 9 10
 Number: 5 6 6 5 5 5 6 6 6 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	PCP	OTH
1	7728	8266	204	0
2	11827	5293	43	8
3	11354	6888	55	22
4	10288	6324	36	0
5	8151	8130	23	0
6	6664	9332	349	0
7	7617	11032	682	26
8	8480	8631	171	0
9	7232	9392	165	27
10	6107	7465	28	19
TOTAL:	85448	80753	1756	102

NATIONWIDE Divisors: D'HONDT to SAINTE LAGUE MODIFIED; all same:

PARTY: MLP PN PCP OTH
 SEATS: 28 27

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 TOTAL

District divisors: D'HONDT to DANISH; all same:

MLP 2 4 4 3 3 2 2 3 3 2 28
 PN 3 2 2 2 2 3 4 3 3 3 27

ELECTION OF 1981. PRIORITY CALCULATION.
 No threshold.

Number of parties is 3.
 Total number of seats is 65.
 Total number of districts is 13.
 Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	OTH
1	8240	7786	9
2	11871	5207	0
3	10355	6375	0
4	9972	6848	0
5	9949	7569	0
6	9316	8333	0
7	9267	8210	13
8	6923	10945	0
9	6673	10856	0
10	6282	10793	0
11	7604	10048	0
12	6550	10999	0
13	6988	10165	7
TOTAL:	109990	114134	29

NATIONWIDE Divisors: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	OTH
SEATS:	33	32	

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 TOTAL

District divisors: D'HONDT only:

PN	3	1	2	2	2	3	2	3	3	3	3	3	3	33
MLP	2	4	3	3	3	2	3	2	2	2	2	2	2	32

District Divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN	3	2	2	2	2	2	2	3	3	3	3	3	3	33
MLP	2	3	3	3	3	3	3	2	2	2	2	2	2	32

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 5 5 65

ELECTION OF 1987. PRIORITY CALCULATION.
 No threshold.

Number of parties is 3.
 Total number of seats is 65.
 Total number of districts is 13.
 Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	AD
1	8800	8396	30
2	12486	5808	23
3	11417	6486	14
4	10223	7412	21
5	10139	8284	14
6	10080	8746	27
7	9154	8366	42
8	7016	11227	74
9	6962	11884	71
10	6135	11259	78
11	7156	11438	57
12	7393	10986	60
13	7975	9429	0
TOTAL:	114936	119721	511

NATIONWIDE Divisors: D'HONDT to DANISH; ALL SAME:

PARTY:	PN	MLP	AD
SEATS:	33	32	

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 TOTAL

District divisors: D'HONDT only:

PN	3	1	2	2	2	2	3	3	3	3	3	3	3	33
MLP	2	4	3	3	3	3	2	2	2	2	2	2	2	32

District Divisors: SAINTE LAGUE MODIFIED to DANISH; all same:

PN	3	2	2	2	2	2	2	3	3	3	3	3	3	33
MLP	2	3	3	3	3	3	3	2	2	2	2	2	2	32

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 5 5 5 65

ELECTION OF 1992. PRIORITY CALCULATION.
No threshold.

Number of parties is 3.
Total number of seats is 65.
Total number of districts is 13.
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	MLP	PN	AD
1	8153	10179	242
2	12680	6100	325
3	11936	7270	346
4	10061	7494	337
5	11852	7616	325
6	10241	8293	241
7	6960	11792	385
8	7030	11247	365
9	7808	10956	418
10	5025	13426	383
11	7337	12275	421
12	8249	10305	278
13	7529	10979	120
TOTAL:	114861	127932	4186

NATIONWIDE Divisors: D'HONDT only:

PARTY: PN MLP AD
SEATS: 34 30 1

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 TOTAL

District divisors: D'HONDT only:

PN 3 1 2 2 2 2 3 3 3 4 3 3 3 34
MLP 2 4 3 3 3 3 2 2 2 1 1 2 2 30
AD 0 0 0 0 0 0 0 0 0 0 1 0 0 1

District divisors: SAINTE LAGUE MODIFIED to DANISH:

PN 3 2 2 2 2 2 3 3 2 4 3 3 3 34
MLP 2 3 3 3 3 3 2 2 2 1 2 2 2 30
AD 0 0 0 0 0 0 0 0 1 0 0 0 0 1

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 5 5 65

This last array is also the distribution obtained by all the remaining divisor combinations, namely, Sainte Lague modified to Danish nationwide, combined with any divisor for the districts.

ELECTION OF 1992. National threshold of 5%.
AD eliminated.

NATIONWIDE Divisors: D'HONDT to DANISH; ALL SAME:

PARTY: PN MLP AD
SEATS: 34 31

DISTRICTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 TOTAL

District divisors: D'HONDT only:

PN 3 1 2 2 2 2 3 3 3 4 3 3 3 34
MLP 2 4 3 3 3 3 2 2 2 1 2 2 2 31

District divisors: SAINTE LAGUE MODIFIED to DANISH:

PN 3 2 2 2 2 2 3 3 3 3 3 3 3 34
MLP 2 3 3 3 3 3 2 2 2 2 2 2 2 31

DIST. TOTALS: 5 5 5 5 5 5 5 5 5 5 5 5 5 65

FICTITIOUS ELECTION. PRIORITY CALCULATION.
No threshold.

Number of parties is 6.
Total number of seats is 50.
Total number of districts is 10.
Number of seats available in each district is 5.

VOTES OF EACH PARTY BY DISTRICT:

DISTRICT	A	B	C	D	E	F
1	3200	2100	100	921	930	925
2	2200	3100	110	980	990	985
3	4100	1200	989	930	910	950
4	2100	3221	980	970	982	994
5	1100	4050	970	981	902	911
6	1120	1050	3050	910	940	980
7	2500	3010	950	960	970	975
8	3020	2400	960	943	921	910
9	2500	3500	950	960	965	948
10	2500	980	3022	981	982	978
TOTAL:	24340	24611	12081	9536	9492	9556

ALL NATIONWIDE DIVISORS give:

PARTIES:	B	A	C	F	D	E
SEATS:	14	14	7	5	5	5.

NATIONWIDE DIVISOR: D'HONDT only:

Districtwise Divisor D'HONDT:

B	1	1	0	2	3	0	2	2	3	0	14
A	1	1	3	1	0	0	2	3	2	1	14
C	0	0	1	0	1	2	1	0	0	2	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor SAINTE LAGUE MODIFIED:

B	1	1	1	2	3	0	2	2	2	0	14
A	1	1	3	1	0	0	2	3	2	1	14
C	0	0	1	0	1	2	0	0	1	2	7
F	1	1	0	1	0	1	1	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor SAINTE LAGUE:

B	1	1	1	2	2	0	2	2	3	0	14
A	1	1	3	1	1	0	2	2	2	1	14
C	0	0	1	0	1	2	0	1	0	2	7
F	1	1	0	1	0	1	1	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor EQUAL PROPORTIONS:

B	1	1	1	2	2	0	2	2	3	0	14
A	1	1	2	1	1	0	2	3	2	1	14
C	0	0	1	0	1	2	1	0	0	2	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor DANISH:

B	1	1	1	1	2	1	2	2	2	1	14
A	1	1	2	1	1	0	3	2	2	1	14
C	0	0	1	1	1	1	0	1	1	1	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5
DIST. TOTALS:	5	5	5	5	5	5	5	5	5	5	50

NATIONWIDE DIVISOR: SAINTE LAGUE MODIFIED to EQUAL PROPORTIONS:

Districtwise Divisor D'HONDT:

B	1	1	0	2	3	0	2	2	3	0	14
A	1	1	3	1	0	0	3	2	2	1	14
C	0	0	1	0	1	2	0	1	0	2	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor SAINTE LAGUE MODIFIED:

B	1	1	1	2	3	0	2	2	2	0	14
A	1	1	3	1	0	0	2	2	3	1	14
C	0	0	1	0	1	2	0	1	0	2	7
F	1	1	0	1	0	1	1	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor SAINTE LAGUE:

B	1	1	1	2	2	0	2	2	3	0	14
A	1	1	2	1	1	0	3	2	2	1	14
C	0	0	1	0	1	2	0	1	0	2	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor EQUAL PROPORTION:

B	1	1	1	2	2	0	2	2	3	0	14
A	1	1	2	1	1	0	3	2	2	1	14
C	0	0	1	0	1	2	0	1	0	2	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

Districtwise Divisor DANISH:

B	1	1	1	1	2	1	2	2	2	1	14
A	1	1	2	1	1	0	2	2	3	1	14
C	0	0	1	1	1	1	1	1	0	1	7
F	1	1	1	1	0	1	0	0	0	0	5
D	1	1	0	0	1	1	0	0	0	1	5
E	1	1	0	1	0	1	0	0	0	1	5

NATIONWIDE DIVISOR: DANISH only:

The seat distribution is identical to the above, except when the district divisor is Sainte Lague modified, when the distribution is similar to the first one given on this page.

FICTITIOUS ELECTION. National threshold of 12%.

APPENDIX VI.

COMPARISON OF PARTYWISE AND PRIORITY METHODS
WITH NATIONWIDE D'HONDT DIVISORS
FOR DIFFERENT DIVISORS IN THE DISTRICTS.
ELECTIONS 1962-1992.

NB: ALL THE FOLLOWING COMPARISONS ARE BETWEEN METHODS WITH THE D'HONDT DIVISOR FOR THE NATIONWIDE CALCULATIONS. THESE METHODS ARE COMPARED WHEN DIFFERENT DIVISORS ARE CHOSEN FOR THE DISTRICTS.

ELECTION OF 1962. No Threshold.

District divisor:

Partywise: d'Hondt to Danish.
NOT =
Priority : d'Hondt, Modified St Laque; Sainte Laque to Danish.

All three groups of distributions are different.

D'Hondt priority concentrates 2 seats of the PCP in District 7, and 2 seats of the DNP in District 10. This is not done in the Sainte Laque priority method. This method also gives a better distribution for the DNP and the PN than does the partywise method for any choice of divisor. It gives a seat to the DNP in the 6th rather than the 9th district, and gives 3 seats to the PN in the 9th rather than the in the 6th district, making it fairer than its counterparts.

ELECTION OF 1962. 5% Threshold.
PCP eliminated.

District divisor:

Partywise: d'Hondt to Danish.
NOT =
Priority : d'Hondt, Modified St Laque; Sainte Laque to Danish.

All three groups of distributions are different.

The partywise method (with any district divisor) concentrates 2 seats of the PCP in district 7, whilst the priority method with the d'Hondt divisor awards 2 seats to the DNP in the tenth district. The Sainte Laque priority method does not do this. This method also gives a better distribution for the CWP, the DNP and the PN. It gives a seat to the CWP in the 3rd rather than the 9th district, it transfers one DNP seat from the 7th to the 6th district, and awards 3 seats to the PN in the 9th rather than the 6th district.

ELECTION OF 1962. 9.3% Threshold.
DNP eliminated.

District divisor:

Partywise: d'Hondt ; Modified Sainte Lague to Danish.
NOT =
Priority : d'Hondt, Modified St Lague; Sainte Lague to Danish.

There are four groups of methods, all different from each other.

All the partywise methods concentrate 2 CWP seats in the 10th district, and award a seat to this party in the 7th District, where it is not so strong. Conversely, the priority methods move one Gozo seat and the seat in the seventh district to the 2nd and 3rd districts, where the CWP is strong.

The d'Hondt partywise method gives an inversion in the 4th District, whilst the d'Hondt priority method gives an inversion in the 7th District. The Sainte Lague priority method does not yield any inversion. It is also interesting to note that this method awards one seat to the MLP in the tenth District.

ELECTION OF 1962. 10% Threshold.
CWP eliminated.

District divisor:

Partywise: d'Hondt to Danish.
NOT =
Priority : d'Hondt, Modified St Lague; Sainte Lague to Danish.

There three groups of distributions all different from one another.

The partywise methods yield an inversion in the 4th and 7th Districts. The priority d'Hondt produces an inversion in the 7th District.

By contrast, the Sainte Lague priority method does not give rise to any inversion, and seems to be the best option.

ELECTION OF 1966. No Threshold.

District divisor:

Partywise: d'Hondt ; Modified Sainte Lague to Danish.
NOT = =
Priority : d'Hondt ; Modified Sainte Lague to Danish.

There are three groups of distributions all different from one another.

Partywise d'Hondt : CWP awarded seats in districts 2, 7 and 8;
Partywise Priority: CWP awarded seats in districts 6, 7 and 8;
Mod St Lague to Danish: CWP awarded seats in districts 7, 8, 10.
(Partywise or priority)

The relevant districts in descending order of CWP strength are: 7, 8 and 6, all closely followed by district 10. The CWP has only a moderate following in the second district. There are no inversions in this district for any of the three groups of methods.

ELECTION OF 1966. 6% Threshold.
CWP eliminated.

District divisor:

Partywise: d'Hondt ; Modified Sainte Lague to Danish.
NOT = =
Priority : d'Hondt ; Modified Sainte Lague to Danish.

There are three groups of distributions all different from one another.
The difference between these methods lies in Districts 2, 7 and 10
as follows.

Method	Party	District		
		2	7	10
Partywise d'Hondt	PN	2	2*	4
	MLP	3	3	1
Priority d'Hondt	PN	1	3	4
	MLP	4	2	1
Mod Sainte Lague-Danish (Partywise or Priority)	PN	2	3	3
	MLP	3	2	2

* signifies an inversion.

All methods give an inversion in the 8'th district for this election.

ELECTION OF 1971. No Threshold.

District divisor:

Partywise: d'Hondt ; Modified Sainte Lague to Danish.
NOT =
Priority : d'Hondt to Danish.

All three groups of methods are different from one another.

Partywise d'Hondt gives an inversion in the 1st district.

Partywise Sainte Lague modified to Danish give an inversion in 1st and
10th districts.

Priority d'Hondt to Danish does not yield any inversion. Also the
distribution is identical to the actual election.

ELECTION OF 1976. No Threshold.

District divisor:

Partywise: d'Hondt to Danish.
=
Priority : d'Hondt to Danish.

All methods are identical and equal to the actual election.

ELECTION OF 1981. No Threshold.

District divisor:

Partywise: d'Hondt ; Modified Sainte Lague to Danish.
NOT = =
Priority : d'Hondt ; Modified Sainte Lague to Danish.

There are three groups of distributions all different from one another.
The difference between these methods lies in Districts 2, 6 and 10 as follows.

Method	Party	District		
		2	6	10
Partywise d'Hondt	PN	1	2	4
	MLP	4	3	1
Priority d'Hondt	PN	1	3*	3
	MLP	4	2	2
Sainte Lague Mod-Danish (Partywise or Priority)	PN	2	2	3
	MLP	3	3	2

* signifies an inversion.

It is interesting to note that all methods give an inversion in the first district for this election. This is equivalent to a seat swap to restore a districtwise result to nationwide proportionality.

ELECTION OF 1987. No Threshold.

District divisor:

Partywise: d'Hondt ; Modified Sainte Lague to Danish.
NOT = =
Priority : d'Hondt ; Modified Sainte Lague to Danish.

There are three groups of distributions all different from one another.

The difference between these methods lies in Districts 2, 7 and 10 as follows.

Method	Party	District		
		2	7	10
Partywise d'Hondt	PN	1	2	4
	MLP	4	3	1
Priority d'Hondt	PN	1	3*	3
	MLP	4	2	2
Sainte Lague Mod-Danish (Partywise or Priority)	PN	2	2	3
	MLP	3	3	2

* signifies an inversion.

All methods give an inversion in the first district for this election.

ELECTION OF 1992. No Threshold.

District divisor:

Partywise:	d'Hondt ;	Modified Sainte Lague to Danish.
	NOT =	NOT =
Priority :	d'Hondt ;	Modified Sainte Lague to Danish.

There are four groups of distributions all different from one another.

In this election the MLP cedes one seat to the AD in a district depending on the method and divisor used. The d'Hondt partywise awards the seat in the second district - this is the least satisfactory of all. The other methods award this seat in the 9th, 10th or 11th districts, where the AD is strongest with 2% of the relevant district's total vote. It is clear that when the district percentages are very near each other as in this case, it is mainly a matter of chance which of the three districts will get the AD seat!

ELECTION OF 1992. 5% Threshold.

AD eliminated.

District divisor:

Partywise:	d'Hondt ;	Modified Sainte Lague to Danish.
	=	=
Priority :	d'Hondt ;	Modified Sainte Lague to Danish.

There are two groups of distributions which are different from each other.

D'Hondt for both methods gives MLP: PN = 4 : 1 in second district,
and MLP: PN = 1 : 4 in tenth district;

Modified Sainte Lague to Danish for both partywise and priority methods give the corresponding ratios in these two districts as 3 : 2 and 2 : 3 respectively.

FICTITIOUS ELECTION. No Threshold.

District divisor:

Partywise:	d'Hondt to Danish: all different.
	NOT =
Priority :	d'Hondt to Danish: all different.

All ten methods are different from one another.

The partywise methods all give two seats to party E in the 9th District, where it is of only average strength.

The priority Sainte Lague method gives a better distribution for parties D and E. Party C has one seat transferred from District 4 to District 8, where it is of comparable strength. Distributions of

parties A and B are reasonable for both partywise and priority methods.

FICTITIOUS ELECTION. 12% Threshold.
Parties D, E, F eliminated.

District divisor:

Partywise: d'Hondt ;	Modified St Lague to Danish.	
NOT =	=	NOT=
Priority : d'Hondt ;	Mod St Lague to Eq prop;	Danish.

There are four groups of methods, all different from one another.

The partywise and priority methods with Sainte Lague divisors give identical distributions in this case.