



Parity among Wards and Quotas in a Municipality

Quota-preferential proportional representation electoral systems (**PR-STV**) for elections of municipal councils can be used either in unsubdivided municipalities or within the individual wards of a subdivided municipality. In the latter case, the number of councillors to be elected for the whole municipality must be apportioned among the number of wards. If the number of councillors per ward is the same for each ward and is an aliquot part of the whole number of councillors for the municipality, there will be parity and symmetry among the wards in terms of the number of representatives of electors for each ward, as each ward will have the same percentage quota for election of councillors.

Such parity and symmetry is desirable because that, along with the **existing provision** for wards to be set so enrolments per ward are within 10% of each other, works with proportional representation towards each elector's vote being as close as practicable in the effectiveness of his or her vote with each other elector in the municipality. If disparity or asymmetry exists between wards in the size of the percentage quota, there will be distinct differences among the wards in the residual near-quota percentage that is unable to affect the outcome of the poll. Disparity will - all other things being equal - allow some candidates of a particular background, or identified with a particular stance, to be elected in wards with a smaller percentage quota, but not to be elected in wards with a larger percentage quota.

An arrangement with differing quotas is discriminatory between wards as is **malapportionment** between enrolments in single-member electoral districts, even though it is of a different nature. If two ward enrolments per councillor are identical, but their **district magnitudes** differ, both the percentage and the absolute numerical quota of votes will differ, allowing the positions of councillors in one ward to be based on a different number of voters from the other ward, which is obviously not even-handed between the two wards. Such discrepancies provide opportunities for schemers.

If the total number of councillors is to be within the range from 5 to 15, **avoiding disparity and asymmetry** among a municipality's multi-councillor electoral districts is only possible if the number of councillors for the municipality is a non-prime number divisible by 2, 3, 4, 5, 6, or 7. Table 1 below lists possibilities within that range. It includes the cases where the whole number of councillors is an even number, but PRSAV-T Inc. recommends against having an even number, as tied votes are less likely with an odd number.

It also includes the cases where the number of councillors per ward is an even number, but PRSAV-T Inc. recommends against that, as such "**stalemate**" wards can result in a majority of voters in the ward being represented by only half the councillors for the ward, with the minority being represented by the other half. The recommended options that remain are shown with **yellow shading** in Table 1. Options **shaded blue** with quotas below 10% do work fairly, but can involve unwieldy ballot papers, and can produce considerable fragmentation of opinion on a Council.

Whole number of councillors	Whether whole no. is a prime no.	Smallest percentage quota, with an unsubdivided Council	Medium common percentage quota per electoral district, using an intermediate no. of equal PR wards			Largest common percentage quota per electoral district, using maximum no. of equal PR wards
5	Prime	16.67%				
6	Non-prime	14.29%	25.00%			33.33%
7	Prime	12.50%				
8	Non-prime	11.11%	20.00%			33.33%
9	Non-prime	10.00%				25.00%
10	Non-prime	9.09%	16.67%			33.33%
11	Prime	8.33%				
12	Non-prime	7.69%	14.29%	20.00%	25.00%	33.33%
13	Prime	7.14%				
14	Non-prime	6.66%	12.50%			33.33%
15	Non-prime	6.25%	16.67%			25.00%

Table 1: Quotas for electoral districts without disparity in district magnitudes (Yellow shaded options show the recommended odd-numbered district magnitudes between 5 and 9)