

**British Columbia Citizens' Assembly on Electoral Reform
4th Weekend : Session 2 (Saturday afternoon)**

Proportional Representation by the Single Transferable Vote (PR-STV)

1. BASIC PRINCIPLES

Proportional representation by the single transferable vote (PR-STV) is an electoral system which aims to create a representative assembly which mirrors the pattern of electoral support in the political community. In contrast to PR-List systems which reflect the support for political parties, PR-STV achieves proportionality by adding the preferences of voters for individual candidates. The system requires voters to rank candidates (on a preferential ballot) rather than the categorical choice (a simple cross or tick). While the mechanics of vote counting under PR-STV can be complicated, the principle is simple—candidates are elected from multimember districts in proportion to the electoral support for the candidates expressed in the voters' preferences.

The history of PR-STV helps to explain its characteristics. In the second half of the 1800s, there was apprehension that the extension of the franchise would create political parties which would prevent the representation of the diversity of opinion in parliaments. PR-STV was devised as way of permitting individuals and groups to express a variety of views in representative assemblies even though their attitudes might be shared by a minority in the community. How the system works in practice is dependent on its political context, but PR-STV is an anti-majoritarian electoral system; its logic is to promote diversity in representation rather than simple choices between two large parties or groups of parties.

Because the voters' choice is based on ranking candidates rather than a choosing a party, PR-STV has an anti-party flavour. Even where the choice is between a small number of large parties, the voters have a choice of which of a party's candidates they prefer. This means that parties do not have the ability to guarantee victory to a particular candidate—there are no safe seats under PR-STV. Each candidate must maintain his or her own personal appeal to the voters. Candidates may see their major rival as a member of their own party rather than a member of an opposing party. As a consequence, the ability of parties to discipline their candidates is weakened. This limitation on party control of candidates goes a long way to explain why PR-STV has not been popular with governing parties. It has meant that, in spite of the appeal of its basic principles, the system has been adopted in only a few systems, often in circumstances where governments have had limited control over the choice of electoral system.

2. KEY ELEMENTS

District magnitude (DM)

- As with any proportional system, the DM must be 2 or more; in general, the higher the DM, the more proportional the result. If there are parties with around 40 percent of the vote, DMs with odd numbers (3, 5, 7) produce markedly more proportional results than even numbers (2, 4, 6).
- It is not necessary to have the same DM for every electoral district. Ireland has 3, 4, and 5 member districts; the Australian Senate has 6 and 2 member districts; the Western Australian upper house (Legislative Council) has 5 and 7 member districts.
- PR-STV has also been used in at large elections; South Australian upper house, DM of 11; New South Wales upper house, DM of 21 (both these houses have staggered terms).

Ballot structure

- Voters are presented with a list (or lists) of candidates
- Voters rank the candidates in the order of the voters' preferences by putting sequential numbers next to the chosen candidates' names (a preferential ballot). Some systems require the voter to make only one choice (Ireland), others require the ranking of as many candidates as there are seats to be filled (Tasmania), while the Australian Senate requires all candidates to be ranked (but now provides an easy way for the voter to avoid this task).
- The design of a PR-STV ballot paper is important. Voters can be encouraged to vote for a party ticket (a list of candidates from a single party) if parties can group and rank their candidates on the ballot paper. Even such issues of the order of candidates and parties on the ballot paper can become contentious. The Tasmanian House of Assembly uses a system of rotating names on the ballot paper (Robson Rotation) to ensure that some candidates do not get favoured treatment.

Formula

- PR-STV is a quota preferential system. This means that candidates are elected as they gain a quota of votes. The quota usually used is the Droop quota:

$$\text{Quota} = \frac{\text{Total valid vote in the district}}{\text{Number of seats to be filled in the district (DM) + 1}} + 1$$

If there are 5 seats to be filled ($DM=5$), the divisor is 6, and the quota is 16.7 percent of the vote in the district. (Why 6? When you think about it, only 5 candidates can get $1/6^{\text{th}}$ of the vote + 1 vote; the most any other candidate can get is $1/6^{\text{th}}$ minus 5 votes. So the Droop quota is the smallest number of votes that only 5 candidates can win.)

- After an election, the first preference votes are counted.
- If a candidate gains a quota of first preferences, the candidate is declared elected; if the candidate has more than a quota, the surplus is transferred according to the voters' second preferences indicated on the ballot papers (this is similar to the counting process for AV). There are a variety of ways of deciding how the transferred votes are to be counted—this can become very technical—but the principle is straightforward. Voters who vote for a popular candidate who has more than a quota do not see their votes wasted; they are transferred to other candidates but at a reduced value.
- Once there are no more surplus votes to transfer, the least successful candidate is excluded, and the votes are assigned to other candidates remaining in the count according to the voters' second preferences (or next available preference).
- This process of distribution of a surplus once a candidate reaches a quota and is elected, followed by the exclusion of the least successful candidates continues until the required number of members is elected.
- An animated demonstration of this process can be found on the website of the State Electoral Office of South Australia: <http://www.seo.sa.gov.au/flash.htm>

3. VARIATIONS

The biggest source of variation with PR-STV is in the district magnitude (discussed above under District magnitude). Once the number of seats per district drops below 5, substantial reductions in proportionality occur. In the Australian Senate, for example, the two federal territories have only two seats each. With a DM of 2, the quota is 33.3 percent which guarantees each of the two biggest parties one seat each.

Variations can also occur in the number of preferences required for a ballot to be valid (see above under Ballot structure), and there are wide variations in the way candidates are listed and grouped on the ballot paper.

An interesting variation for the Australian Senate is the use of 'above the line' voting. Instead of numbering all the squares, voters are urged by parties to make a single party choice 'above the line'. This gives the party control over the completion of the whole ballot in a party preferred order, and turns the PR-STV system into something very like a PR-List system.

4. EXPLORATION OF HOW THE SYSTEM WORKS

Three examples of PR-STV in operation are discussed below: Ireland, Tasmania and the Australian Senate.

Ireland

- Ireland adopted PR-STV for the first election after the creation of the Republic of Ireland in 1922. PR-STV was adopted to accommodate religious divisions in Ireland at a time when there had been moves in a number of English speaking jurisdictions to investigate the possible adoption of PR-STV.
- District magnitude varies between 3 and 5, giving a reasonably proportional result but excluding very small parties unless their vote is regionally concentrated. The population of Ireland is around 4 million. The Irish Constitution states that the number of members of the lower house of the Irish parliament (the Dáil Eireann) cannot be more than one for every 20,000 of the population and cannot be less than one for every 30,000. There are now 166 members, which means that there is approximately one member for every 21,000 people.
- Irish politics is characterized by brokerage politics ('the politics of the parish pump', Carty) rather than class politics. Local issues are as important as national ones, and successful candidates must build a local support base.
- There can be fierce competition between candidates of the same party over which of them is to be elected.
- There has been only one party (Fianna Fáil) in a position to gain a majority of seats on its own. Fine Gail and the smaller Labour Party have formed governing coalitions. Most governments, including coalitions (and minority coalitions) have lasted several years.
- There have been two attempts by governments to change the electoral system to a single member system, but both proposals failed at the required referendums.
- An example of the counting process under PR-STV is given for Meath, and the results of the 2002 Irish election showing the distribution of preferences is available on the web at: <http://election.polarbears.com/online/online.htm>

Tasmania

- Tasmania is the only state in the Australian federation to use PR-STV for the election of members of its lower house (the House of Assembly), although the Australian Capital Territory has used PR-STV since the 1995 election (after a referendum).
- Tasmania adopted PR-STV in 1909 after a debate about the appropriate form of representation in a democracy, and before the current party system had emerged.
- District magnitude has varied over the years; it was originally 6, then 7 and since 1998, 5. The reduction in the DM was motivated, in part, by a desire to reduce the representation of a minor party (the Greens). Tasmania has a population of about 480,000.
- Tasmania, although small (about twice the size of Vancouver Island), is strongly regionalized with local issues dominating politics. Politics is brokerage politics even though political contests for most of the period since the 1940s have been dominated by two large parties, the Australian Labor Party and the Liberal Party. Independent members and the emergence of a Green party in the 1980s have occasionally altered this pattern
- Candidates must have strong constituency support in addition to party endorsement. Parties field more candidates than are likely to be elected partly to build a balanced ticket and partly to provide replacements for members who die or resign (there are no by-elections in Tasmania). This creates competition between candidates of the same party.
- Most governments have been single party governments. Tasmania had a Labor Party government from 1937 until 1969.
- Tasmania has several electoral rules which limit party control of candidates. While candidates are grouped on the ballot by party, the ordering is randomized (Robson rotation), and party advertisements indicating a party preferred order of candidates are banned.
- There have occasionally been proposals for abandoning PR-STV but no government has acted on them.

The Australian Senate

- The Australian Senate is the upper house of the parliament of the Commonwealth of Australia (the lower house is the House of Representatives). PR-STV was adopted for the 1949 Senate election partly for partisan gain and partly to solve a long running problem with the composition of the Senate

- The Senate is an interesting example of how PR-STV can be manipulated to operate like a PR-List system.
- From the 1949 to the 1983 elections, voters were presented with ballots without party labels and were required to express preferences for all candidates. This difficult task was made easier by party ‘how-to-vote’ cards which encouraged voters to fill in the ballot in a party preferred order.
- From 1984, voters have been given the option of voting ‘above the line’ on a ballot which permits a single party preference. The great majority of voters (more than 90 percent) choose this option with the result that candidates are always elected in a party preferred order, and preferences are assigned by party managers before the election.
- This provides a strong contrast with the experience in Ireland and Tasmania.

5. EVALUATION

Impact on the operation of government

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|---|--------------------------------|
| • Stable and effective government | Moderate (hard to generalize) |
| • Electoral accountability | Good |
| • Parliamentary check on government | Moderate (depends on majority) |
| • Monitoring of elected representatives | Good |
| • Fair representation of parties/groups | Good/Moderate |
| • Democratic political parties | Good |

Impact on the voters

- | | |
|--------------------------------|----------|
| • Choices for the voter | Good |
| • Identifiable representation | Good |
| • Encouragement to participate | Moderate |
| • Identifiable representation | Good |
| • Equality of the vote | Good |

6. ASSESSMENT OF STRENGTHS AND WEAKNESSES

Strengths

- PR-STV provides the benefits of proportional representation—a close match between seats shares and vote share of parties (but this varies with district magnitude). Smaller parties have a better chance to gain representation.

- It gives the voter the opportunity to vote for individual candidates as well as parties, and to choose among candidates of the same party or different parties.
- It permits candidates to be elected who appeal to a particular constituency, whether geographical or based on some other characteristic.
- It does not discriminate against independent candidates.

Weaknesses

- PR-STV requires a preferential ballot which is more complicated for voters than a categorical choice.
- There is no single, geographically defined, local member.
- As with any system of proportional representation, PR-STV is more likely to produce coalition governments than plurality or majority systems.
- It may encourage regional and/or sectional politics and/or brokerage politics rather than politics based on province-wide issues.
- It has the potential to weaken party control of candidates and members of parliament.
- Several of the characteristics of PR-STV can be altered by other electoral rules; ballot design, the number of preferences to be indicated, and rules governing parties and campaigning (but PR-STV shares this with other electoral systems).

7. PR-STV in BC?

The major issue is the geographical size of electoral districts. Voters outside the lower mainland and Vancouver Island would find themselves in ridings at least 3 times or 5 times bigger than at present. PR-STV permits the election of candidates with strong local support, but to make this work in areas with a dispersed population would require a change in the way parties and voters view candidate selection and campaigning. Parties would have to take into account the potential for competition between their own candidates in electoral contests, and the public would have to adjust to electoral campaigns which were more personalized. Voters would have to learn how to use a preferential ballot (but it was used in the 1952 and 1953 BC general elections for an AV system without too many problems). As with any system of proportional representation, the dynamics of politics would shift from having a majoritarian bias to a more consensus-oriented system.