



Electoral System Simulations

PART II

Jonathan Rose

Heather MacIvor

Michael MacKenzie

Mark Lyons

Single Transferable Vote (STV)

- District magnitude: between 1 and 21; usually 3-5 seats per district, to keep the ballot size manageable
- Ballot structure: ordinal (voters rank-order some or all of the candidates according to preference)

Electoral Formula

1. The ballots are counted, and a quota is calculated based on the number of valid votes cast.
2. Any candidate with more first-preference votes than the quota is declared elected.
3. The last-place candidate(s) is/are eliminated, and their second-place votes for the remaining candidates are counted.

Electoral Formula (continued)

4. Any surplus votes for the elected candidate(s) are counted and reallocated among the remaining candidate(s).
5. The reallocation can be governed by a variety of methods.
6. The process continues until all of the seats are filled.

Proportionality and STV

- District magnitude: the larger the DM, the more accurate the translation of party votes into seats and the better the odds of electing candidates from under-represented groups
- Electoral Formula: some counting methods are more favourable to smaller parties, but the differences are minor.

Voter Choice

- Ballot structure: the ordinal ballot allows voters to rank-order candidates from one or more parties according to their preferences
- District magnitude: in a multi-member district, voters can divide their support among two or more parties or candidates

Local Representation

- District magnitude: multi-member districts increase the odds that a citizen will have a representative on the government side of the legislature
- STV gives MPPs an incentive to serve their constituents well.

Objectives

- Illustrate how the Single Transferable Vote system works
- Show that features of Single Transferable Vote can be altered to produce different results

Design Features

- One 5 member district
- Not necessary to rank all candidates
- When transferring surplus votes all ballots are counted

Variations to be shown

- Change the District Magnitude to 3
- Change the District Magnitude to 7

STV Vote

MARK ORDER OF PREFERENCE	NAME OF CANDIDATE
	Black Liquorice (Candy Party)
	Broccoli (Veggie Party)
	Cantaloupe (Fruit Party)
	Carrot Sticks (Veggie Party)
	Chocolate Chip (Cookie Party)
	Digestives (Cookie Party)
	Dill Pickle (Chip Party)
	Honeydew Melon (Fruit Party)
	Macaroons (Cookie Party)
	Mixed Nuts (Independent)
	Oatmeal (Cookie Party)
	Ripple (Chip Party)
	Scotch Mints (Candy Party)

STV Vote

- Rank-order the items by writing your preferences (1, 2, 3, 4, 5, etc.) in the space provided next to each option.
- You may rank as many or as few candidates as you choose