

Resolution to Change the Process for Counting Ballots in MIT EECS GSA Elections with Multiple Winners

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Approved by the Executive Committee on March 12, 2007 (12 for, 0 against, 6 abstaining).

Approved by a General Body Meeting on March 12, 2007 (24 for, 0 against, 2 abstaining).

Motivation

The current system for counting ballots for competitive multiple-winner elections with multiple candidates applies the single transferable vote (STV) system that provides for proportional representation. It is similar to the process used in national elections in Australia and the Republic of Ireland, as well as in city council elections in Cambridge, Massachusetts.

However, it is a complicated procedure that contains an inherently random aspect, namely the choice of surplus ballots that are set aside and redistributed in Process A. In some nations, the randomness is removed using proportional transfer of votes, which is even more complicated and requires fractions of a vote (and generally a computer to tabulate the results).

Given that EECS GSA may soon switch to a Presidency with two individuals (Co-Presidents), it is important that we have a fair, simple process for electing Members to such positions. Furthermore, we are not choosing a large body representative of the population, for which the current system is appropriate. Thus, I propose changing to a simpler process that is still based on instant runoff voting (IRV).

Legislation

Article III, Section 3 of the Bylaws of the EECS GSA describes the process for counting ballots in elections with multiple winners. It currently reads:

Section III–3. Competitive Multiple-Winner Elections with Multiple Candidates

For an election in which the number of candidates exceeds the number of available positions, and there is more than one position available, the following procedure shall be used. Define the threshold to be the smallest integer greater than (and not equal to) the real number obtained by dividing the total number of non-abstained votes by $(N + 1)$, where N is the number of available positions. Voters are to list the candidates in order of preference and the first-choice votes for each candidate shall be counted. Any candidate who obtains the threshold number of votes shall be declared elected and all ballots with first-choice votes for the candidate beyond this threshold shall be set aside. If there are any remaining available positions, the election proceeds to Process A.

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Process A: The vote from any voter whose ballot was set aside in the previous step shall now be redistributed to the candidate, among those candidates not yet eliminated, listed next in the voter's preferences. If a voter's ballot does not list any such candidates, the ballot shall be considered an abstention for the remainder of the voting process. The threshold shall now be recalculated based on the number of remaining positions available and the number of non-abstained votes that have not gone towards a candidate that has already been elected. If any candidate now meets or exceeds the threshold, he or she is declared elected, and, if any available positions remain, Process A is repeated until no one has more than the threshold number of ballots. If any available position remain, the election proceeds to Process B.

Process B: The candidate with the fewest votes shall be eliminated. Each vote for the eliminated candidate shall then be transferred to the candidate, among those candidates not yet eliminated, listed next in the voter's preferences. If a voter's ballot does not list any such candidates, the ballot shall be considered an abstention for the remainder of the voting process. This process of dropping the candidate with the fewest votes and transferring ballots to the next choice candidate shall continue until a candidate meets or exceeds the threshold. The election now proceeds to Process A again and the cycle continues until all slots are filled. If there are ever ties between multiple candidates for fewest number of votes at any time during this process, those ties shall be handled in the same manner as in Section III-2.

Be it enacted that, effective immediately, this section shall be amended to read:

Section III-3. Competitive Multiple-Winner Elections with Multiple Candidates

For an election in which the number of candidates exceeds the number of available positions, and there is more than one position available, the following procedure shall be used. Voters shall mark their ballots as in Section III-2 and a single winner shall be determined accordingly. The winner shall then be struck from the ballots. The ballots shall be recounted with all the preferences moved up accordingly and another winner shall be determined. This process is repeated until all the available positions are filled.