



## **NORTHAMPTON MASSACHUSETTS RANKED CHOICE VOTING COMMITTEE**

**Meeting Date: January 12, 2022**  
**Meeting Time: 4:00 pm**

### **HYBRID MEETING - IN-PERSON & TELECONFERENCE**

Join Zoom Meeting via Internet (Meeting ID: 886 2431 5525 - Passcode: L8u7BS)

<https://us06web.zoom.us/j/88624315525?pwd=MHpldGVVVElDd1k3dWJkcXVWZhdwZz09>

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#### **1. MEETING CALLED TO ORDER**

The meeting will be held via teleconference and will be audio and video recorded.

All votes of the committee will be done by a roll call vote.

#### **2. PUBLIC COMMENT**

In accordance with committee rules, each public speaker shall have a maximum of two minutes to address the committee concerning any agenda topic or related ranked choice voting topic. The committee has established an overall time limit of 20 minutes for public participation.

#### **3. Approve minutes of December 16, 2021 meeting**

Documents:

[Minutes of December 16, 2021.pdf](#)

#### **4. Consideration of the election outcomes under various formats**

Continued discussion concerning election results of mock election conducted

by Jeff Sylvestro of LHS

**5. Consideration of various options for multi-seat elections**

Documents:

[Northampton Multi-seat RCV options - V 2 \(1\).pdf](#)

**6. NEW BUSINESS**

**7. FUTURE MEETING DATE(S)**

**8. ADJOURN**

For Questions, please contact City Clerk Pamela L. Powers @ (413) 587-1223



## NORTHAMPTON MASSACHUSETTS RANKED CHOICE VOTING COMMITTEE

Meeting Date: 12/16/2021

Meeting Time: 4:00pm

### Meeting Minutes

**1. MEETING CALLED TO ORDER:** At 4:02 pm Chair Boulrice called the meeting to order. Present at the meeting were: Robert Boulrice, Chair; Councilor Bill Dwight; and members Catherine Kay and Mark Ventola. Attorney Seewald was also present. Member John Crowley arrived at 4:30 pm. The meeting was held via teleconference and was audio and video recorded. All votes of the committee were done by a roll call vote.

### **2. PUBLIC COMMENT - None**

**3. APPROVE MINUTES OF NOV. 17, 2021 MEETING:** A motion to approve the meeting minutes was made by Councilor Dwight and seconded by Mark Ventola. The minutes were approved on a roll call vote of 4 Yes (Boulrice, Dwight, Ventola, Kay), 0 No, 1 Absent (Crowley).

### **4. 200 Ballot Mock Election**

Objective: Conduct a mock election using 200 ballots with various RCV Profile Settings

The committee evaluated the differences in the outcomes of various races based on different profile settings as follows:

1. A multi-seat race using IRV vs. STV options;
2. A multi-seat race with "Skip Overvoted Rankings" box Checked vs. Not Checked; Question: is it possible to mark the ballots in such a way that it will influence the outcome of an election if the box is checked or not checked?
3. A multi-seat election where there are three candidates on the ballot and two strong write-ins. What is the outcome if the box "Exclude Unresolved Write-ins" is checked vs. not checked.

In addition to using the IRV & the STV methods, the committee would like to understand the outcome of this mock election using majoritarian and proportional methods.

## A. Mock Election Results

The Chair noted that no threshold was calculated when looking at the STV method. Voter Choice MA representative Greg Dennis pointed out that the results of the STV method did not include surplus transfer votes because the fixed precision decimals for the tabulation options was set to “0”. In order for the transfer of surplus votes to take place, the tabulation option needed to be set to a number greater than “0”, and he suggested at least “5” or “6”. Only then, he believes, would the threshold be calculated.

It was unclear what method was used to break a tie. When looking at IRV vs. STV, the following tabulation options were selected:

Previous rounds evaluation method	<i>Backwards from previous round</i>
Elimination type	<i>Single</i>

In Round 2, Bluto the bulldog is eliminated because the candidate “had the least amount of votes” however, in the previous round, Bluto and Dixie had the same number of votes. The committee speculated that a tie-breaker was chosen at random (not allowed under Massachusetts law) and this exercise points out the need to define how ties will be broken during an election.

If setting the option, “declare winners by threshold” to “true”, as soon as a candidate crosses the threshold, they are “elected” and no more rounds are done. If set to “false”, the rounds will continue until all candidates are exhausted. It doesn’t change the winner; however, choosing “false” will show at what level of certainty the winner is elected.

Chair Boulrice explained that in order for the group to understand the entire process, members need to see how votes are transferred at each step. Given that so many pages need to be in front of the members, he wondered if it would be worthwhile to have an in-person meeting.

Greg Dennis shared a mock RCV election that was also tabulated by LHS Associates.

Town Council	<i>3 Winner election</i>
School Winner	<i>2 Winner election</i>
Library Trustee	<i>Single Seat election</i>

STV election with tabulation option set to “5”. What was observed was that the threshold was established as  $16.00000$  (# of ballots divided by [number of seats +1]) or  $60/4 = 15 + (1 \text{ more to win}) = 16$

Fractional votes are transferred once a candidate reaches the threshold value. In each round the candidates are evaluated against the threshold. If a candidate reaches

threshold, the number of votes above the threshold are transferred at a fractional level. In the next round, if no candidate reaches threshold, then the candidate with the lowest number of votes is eliminated and those votes are redistributed to the remaining candidates at a whole vote level. This process continues until all of the seats are filled.

If Majoritarian method is used, each seat is filled as if an individual IRV single seat race. Profile settings will be different. In each round the lowest vote getter is dropped, until there is one candidate in the final round. To determine the second seat results, the first seat winner votes are eliminated, and the voter's second choice is transferred in its entirety.

To the question about whether the Majoritarian method was of interest to the group, Councilor Dwight noted that this method would be easier to explain to voters; member Kay stated that she is skeptical of surplus transfer of voters to the extent that it encourages running slates of candidates, and the predetermining a certain proportional outcome is concerning to her. Member Crowley states under the majoritarian method, if he is able to vote for the most popular candidate, then during the second seat determination, his second choice will be assigned to a candidate at the whole vote level vs. at the fractional vote level. His votes will have more weight under the majoritarian method.

#### **5. NEW BUSINESS – None**

**6. FUTURE MEETING DATE(S):** The committee discussed an in-person meeting. The plan will be a hybrid meeting so that the public can participate remotely, while the committee can meet in person. The next meeting is scheduled for January 12, 2022 @ 4:00 pm.

**7. ADJOURN:** At 5:10 pm Councilor Dwight moved to adjourn the meeting; Catherine Kay seconded the motion. The motion was approved on a roll call vote of 5 Yes (Dwight, Kay, Ventola, Crowley, Boulrice), 0 No.

For Questions, please contact City Clerk Pamela L. Powers @ (413) 587-1223

# Northampton Multi-seat RCV options

In Northampton, most city offices, including Mayor and Ward Councilor, are elected in single-seat elections. The exceptions are the two-seat elections for At-Large City Councilor, At-Large School Committee, and At-Large Community Preservation; and the three-seat elections for Superintendents of the Smith's Agricultural School and Trustees Under the Will of Charles E. Forbes. The chart below covers four options as to how Northampton could choose to elect these multiseat offices:

Model	At-Large Plurality (no RCV)	Sequential RCV (aka "Majoritarian ")	RCV without surplus transfer (aka "Bottoms Up")	Proportional RCV with whole ballot transfer	Proportional RCV with fractional transfer
<b>Current jurisdictions</b>	Easthampton, Northampton (today)	Arlington, Utah cities	None, to our knowledge	Cambridge	Amherst, Minneapolis, Australia, Ireland, other cities & countries
<b>Technical name</b>	Block voting	Preferential block voting	Bottoms-Up Method	Single Transferable Vote via the "Cincinnati" method	Single Transferable Vote via the Weighted Inclusive Gregory Method (WIGM)
<b>Same ranked ballot as single-seat elections</b>	X	✓	✓	✓	✓
<b>Dominion Software support</b>	✓	✓	✓	X	✓
<b>Prevents vote-splitting</b>	X	✓	✓	✓	✓
<b>Majority always wins at least half the seats</b>	X	✓	X	✓	✓
<b>No randomness in outcome</b>	✓	✓	✓	X	✓
<b>Fair representation of voter diversity</b>	X	X	X	✓	✓
<b>Makes preliminary elections unnecessary</b>	X	✓	✓	✓	✓
<b>Only whole numbers in tally</b>	✓	✓	✓	✓	X
<b>Method of surplus transfer</b>	None	None: a new tally is run from the beginning with the prior winners excluded	None: candidates who have already mathematically won continue to accrue votes as last-place finishers are eliminated	Cincinnati: when a candidate wins with S surplus votes and N total votes, take every S/Nth ballot from their pile and count it for its 2nd choice instead	WIGM: when a candidate wins with S surplus votes and N total votes, take an S/N fraction of every ballot and count it for its 2nd choice instead
<b>Link to further reading</b>	<a href="#">Wikipedia link</a>	<a href="#">Wikipedia link</a>	<a href="#">PRSA link</a>	<a href="#">Robert Winters link</a>	<a href="#">FairVote link</a>
<b>Comment</b>	Easthampton opted not to use RCV for multiseat elections, not out of opposition to the idea, but because of time pressure they were facing to put their home rule petition together. They also were the only city that used plurality voting <i>without</i> preliminary elections, so they didn't have to apply it to multiseat offices to avoid preliminaries. The backers aim to add in multiseat elections using proportional RCV with fractional transfer soon.	Arlington was divided between sequential and proportional. A factor that helped tipped the scales to sequential was that the Select Board, the most prominent elected office in any town, is an <i>executive</i> , not a legislative office. Key proponents of the sequential model in Arlington said they would favor proportional if RCV were applied to a legislative office, like a city council, whose role puts a greater priority on incorporating the diversity of voter opinion.	This is a "semi-proportional" variant of RCV that has some limited historical use in South Australia. Because the outcomes can be quite erratic—bottoms-up can both underrepresent <i>and</i> overrepresent the majority—it's been replaced by fully proportional RCV everywhere it once existed.	The "Cincinnati" method was popular in the days before computer tabulation, and while it has the benefit that surplus transfer only involves whole numbers, it introduces a small element of randomness into the outcome and requires ballots be kept in the same order throughout. Although relatively minor downsides, they are frequent subjects of criticism. Robert Winters would prefer Cambridge move to fractional transfer—only inertia seems to prevent it.	STV with fractional transfer is widely considered the fairest way to elect multiseat offices because it reflects the diversity of voter opinion but without the random element of the Cincinnati method. It is also the easiest to implement, since it has out-of-the-box support by the Dominion software. (Sequential is supported but requires a few more steps to eliminate the prior winner and run a new election for each seat.)