# Ranked-Choice Voting in Connecticut

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The following comments are being submitted to the Working Group on Ranked-Choice Voting set up by Governor Lamont, which is holding a public forum on November 8, 2024.

The appeal of ranked-choice voting (RCV) stems from voters' desire for more choices. RCV answers the question, "If we had more than two choices, how might the voting process be structured to select the candidate who is most appealing to voters?"  Indeed, RCV is meaningful only in an election in which there are more than two candidates.  This begs the question; how can we foster such multiple-candidate elections?

While it is true that RCV makes no sense without multiple candidates, it is also true that multiple candidates make no sense without a system like RCV.  The two concepts, RCV and multiple candidates must be discussed together.

Let's start with RCV.  The conventional RCV method has two significant flaws.  First, its process is complicated.  Second, it does a poor job of reflecting the subtleties of voter preference.

*Complicated.*  For actuaries, mathematicians, and engineers, the RCV process may seem elementary.  Voters give each candidate a ranking (1, 2, 3, …).  The number of $1^{st}$ place votes are tallied.  If a candidate has more than 50% of the $1^{st}$ place votes, he or she wins.  If not, the candidate with the least number of $1^{st}$ place votes is logically removed from all ballots, shifting the other ranks up as needed so the ballots still have ranks 1, 2, 3, …  For example, if a voter selects ranks 3, 1, 4, 2 for candidates A, B, C, D on her ballot, and if candidate B (her $1^{st}$ choice) has the fewest $1^{st}$ place votes of all candidates, then candidate B is logically struck from all ballots.  The ranks on this voter's ballot then become 2, 3, 1 for candidates A, C, D.  As such, candidate D (formerly her $2^{nd}$ choice) is now her $1^{st}$ choice.  The votes are tallied again to see if any candidate now has 50% of the $1^{st}$ place votes.  If not, the process repeats until a candidate reaches that threshold.  While this process can be explained, its logic is hardly intuitive to the typical voter.  To see this, select three friends or family members and explain the process to them.  Have them explain it back to you.

The problem with complexity is that voters may not trust the results of the election and may thereby reject the winning candidate.  With the integrity of the American voting apparatus increasingly under intense scrutiny, now may not be the best time for added complications.

*Poor reflection.*  The RCV concept of asking the voter to rank his or her choices from best to worst is a step in the right direction, since an attempt is being made to assess the voter's views of the candidates beyond just "who's the best?"  The voter gets to express how he or she feels about the other candidates.  However, the assumption that there is a best choice, a second-

best choice, a third-best choice, and so on is an over-simplification of the voter's mindset. For example, if there were four candidates, a voter might feel that two of them are great choices for the elected office, the third is acceptable, and the fourth should never be considered. Viewed in this fashion, a more appropriate method of assigning scores to candidates is the method used by movie reviewers, zero to three stars. As such, the voter could assign three stars each to the two great choices, two stars to the one who's acceptable, and zero stars to the one who shouldn't be considered. If all voters rated candidates in this fashion, using the Three-Star Voting (TSV) method, the winning candidate is simply the one who gets the most total stars from all voters. The method is simple and doesn't force the voter to rank each candidate as better or worse than others.

Let's illustrate. Suppose there are three candidates: B(lue), R(ed), and P(urple), and there are ten voters. If asked to use TSV to give each candidate zero to three stars (3=great, 2=good, 1=fair, 0=poor), the voters might rank the candidates in this fashion:

| Voter: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| R | 3 | 0 | 1 | 3 | 0 | 3 | 3 | 1 | 0 | 3 |
| B | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 3 | 3 | 0 |
| P | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 2 |

For example, Voter 1 believes that R and P are "great" (3) choices, but B is "poor" (0). Voter 2 believes that B is a "great" (3) choice, P is "good" (2), but R is "poor" (0). You can see from this table that candidates R and B elicit some strong negative feelings from voters, three voters feeling that R is a "poor" choice and five feeling that B is a "poor" choice. Candidate P, on the other hand, is viewed positively by all, with one "fair" vote, and the rest "good" or "great". Sure enough, if you add the stars, R gets 17, B gets 13, and P gets 23 and wins the election. None of the voters are sorely disappointed with this result.

Given the same voters and the same sentiments, suppose the voters are asked to use RSV to rank each candidate (1=best, 2=next, 3=worse). The tabulation for these same voters might look like this:

| Voter: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| R | 1 | 3 | 2 | 2 | 3 | 1 | 1 | 3 | 3 | 1 |
| B | 3 | 1 | 3 | 3 | 1 | 3 | 3 | 1 | 1 | 3 |
| P | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |

For example, Voter 1 and Voter 4, who believe that R and P are "great" choices per the TSV table above, must choose just one of them as their 1st choice in the RSV table. Voter 1 may lean a bit toward P but thinks P has little chance of winning and so gives B the 1st ranking, so her vote is not "wasted" on P. Voter 4 feels the same as Voter 1 but votes her conscience, giving P the 1st ranking. Both give their 3rd ranking to B, since they feel B is a poor choice. Per the RSV

methodology, the number of 1st place votes are tallied.  R and B both have four 1st place votes; P has only two and so is eliminated.  With P eliminated, the ranks are adjusted to just 1st and 2nd place ranks, like so:

| Voter: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| R | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 |
| B | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 |

Now, R has six 1st place votes while B has four.  R is the winner.

Finally, given the same voters and the same sentiments, suppose the voters do normal "choose one" voting.  The votes might look like this:

| Voter: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | R | B | P | P | B | R | R | B | B | R |

R and B both have four votes while P has two votes.  It's a tie.  However, if there were ten million voters instead of ten, it's unlikely there would be a tie.  Either R or B would have a slight edge.  Let's imagine the edge goes to B, so B is the winner.

Three voting methods.  Three different results from the same voters.  So which method is best?  Fans of a particular candidate would naturally prefer the method that favors their candidate.  However, if the aim of voting is to choose the candidate who is most generally acceptable to the voters, then TSV must be the method of choice.

Put succinctly, the weakness in the RSV algorithm is that candidates are rejected for a shortage of 1st place votes without considering voter preferences below 1st place.  As such, RSV gives an edge to extreme candidates and to extreme voters.  Candidates viewed moderately are quickly discarded, though they may be broadly acceptable to the electorate.

The ballots for TSV are no more complicated than ballots for RCV:

| RCV | 1st | 2nd | 3rd |
|---|---|---|---|
| R | O | O | O |
| B | O | O | O |
| P | O | O | O |

| TSV | *** | ** | * | (0 stars) |
|---|---|---|---|---|
| R | O | O | O | O |
| B | O | O | O | O |
| P | O | O | O | O |

Next, let's discuss multiple candidates. In most elections in the United States, we have two candidates, one painted blue and the other painted red. Our system is mainly a two-party system. The two parties select their respective candidates. Then the voters choose from that limited list. Even if a third or fourth candidate manages to make the ballot, their chances of winning are small given their minimal exposure to voters and their limited ability to finance such exposure. Consequently, we've come to tolerate a system of two-party inbreeding that makes our political system resistant to evolution. Given the pool of intelligent, creative people we know populate our society, we lack a method for screening them so the best can serve us. Surely, voters would prefer to choose from the best ten minds available than from the two who have kissed the party ring.

We are all accustomed to the two-party system. We know nothing else. But imagine a process like an online dating app, except the applicants are promoting themselves to the constituency rather than to a prospective partner. People interested in serving in a particular political office use such an app to provide their backgrounds, plans, and opinions. Citizens review the profiles and assign "likes." Prospects attaining a certain threshold of likes and/or views are then considered candidates for that office. With multiple candidates, the TSV method is applied in the election. In such a scheme, the task of campaigning is moved online, where the effects of imbalanced funding are less pronounced, and the mind-numbing effects of mudslinging political ads are minimized.

Naturally, the details of such a scheme need to be worked out so the process is simple, fair, and satisfies the will of the people. Current leaders of the major parties may not be enthusiastic about this constituent-controlled approach as it would dilute the parties' control over which candidates are placed on the ballot. However, if major party candidates appeal to voters under this new arrangement, those candidates will still be elected. And, under this method, election results will more likely be embraced by voters, given their greater control over the process.