

# Comparison Chart of RCV (Ranked Choice Voting) & STAR (Score, then automatic runoff – aka ‘Score Runoff’)

(Barbara Klein, in cooperation with the **LWV Oregon Acton Committee**, updated Spring 2021)

Abbreviated comparisons presented here are based primarily on criteria of both National and Oregon state League of Women Voters’ positions. In studies, Leagues have rejected hypothetical arguments, manipulating post-election numbers to theoretically demonstrate possible results, and have instead concentrated primarily on real-world data and elections. This chart is meant as a practical primer to compare the systems based on **established League positions** until further studies are adopted.

**Debate among reformers unfortunately props up the most common current “Vote for One” plurality system.** RCV and other alternative methods **share a common goal – democratic reform.** Expanding our choices is better than status-quo system of FPTP – First-Past-The-Post (a left over British system – without the elegance of Downton Abbey).

Many Leagues have studied and support RCV (the most common alternative). Problems of the RCV system appear few, rare and often overstated. To date, and to our knowledge, no League has studied STAR voting, a new system originating in Oregon.

Both STAR and RCV have the ability to eliminate ‘bother and cost’ of 2<sup>nd</sup> elections when current rules (like Lane County, Oregon) require a Delayed Runoff (2-round runoff). Many advocates point to the fact that such systems could even eliminate primaries, and their cost, if the desire and determination to do so was present. A ballot measure to adopt STAR voting in Lane County was defeated in 2018; however the Independent Party of Oregon used it for their 2020 primary elections.

Delayed (or 2<sup>nd</sup>) runoffs have their own problems, like more money spent (by candidates & taxpayers), inconvenience to voters, and worst, lower turnout, which means fewer people are part of the decision-making election. Both RCV and Star overcome those issues.

	<b>STAR</b> (S.T.A.R. - Score, then Automatic Runoff)	<b>RCV</b> (Ranked Choice Voting)
<b>Expressive Ballot</b>	Excellent – VERY expressive ballot.  Voters can express more nuanced views [“Cardinal” ratings.]	Fairly good ‘Slots’ or Ranks for preferences are clearer than current plurality. One choice ranked per slot for each round, not as nuanced as STAR.
<b>Non-competitive elections</b> <i>LWV has no position</i> on non-competitive elections – only government-related voting.	STAR may be useful for non-competitive elections - with no “governing consequence.” Compared to RCV, STAR ( <b>like Approval</b> ) may show equal or better results for internal or non-profit organizations or private companies, where <b>goals are the same.</b> (Approval would be easier to run in that case.)	Better for <i>competitive</i> governmental elections (as opposed to non-competitive scenarios).  [Opinion: RCV may be a more complicated system than necessary for organizations with like-minded members trying to establish shared goals.]

<p><b>Experience</b></p> <p>Where In use?</p>	<p>Has been used in only a few government “elections of consequence.”</p> <p>STAR was used in a statewide primary election for the Independent Party of Oregon (2020). Additionally, it was used in several counties to pick Democratic Party presidential delegates in 2020.</p> <p>Need to see more real world results even if in private organizations or private companies/ corporations to find out how it works consistently in reality.</p> <p>STAR did NOT pass, but earned 42% in a Lane County, OR close election [currently, Lane uses a 2-election runoff, delayed Runoff.]</p>	<p>Experience in US and around the world.</p> <p>Locations now so many and amassing so quickly, it’s suggested you visit ‘where used’ at the <b>Ranked Choice Voting Resource Center: <a href="http://WHERE IT'S USED - Ranked Choice Voting (rcvresources.org)"><u>WHERE IT'S USED - Ranked Choice Voting (rcvresources.org)</u></a></b></p> <p><b>Examples</b> of current locations:</p> <p>Over 100 years in Australia and Ireland. Also used in New Zealand and Scotland (often with multi-winner type)</p> <p><b>Maine:</b> RCV for federal elections, 1<sup>st</sup> state to elect a U.S. senator and two members of House. (Prior to that was used in Portland Maine.)</p> <p><b>Alaska:</b> 2<sup>nd</sup> state to adopt statewide as part of a Final 4 system.</p> <p><b>New Mexico:</b> Santa Fe. NM has a ‘turnkey’ operation for adopting RCV. Las Cruces NM (2019)</p> <p><b>California:</b> San Francisco (2004), Berkeley, Oakland, San Leandro and others as of 2021, including Albany CA adopting Proportional RCV. San Francisco made history electing its 1<sup>st</sup> African-American woman mayor. Davis and Santa Clara County CA have approval for use.</p> <p><b>Colorado:</b> Basalt, Carbondale, Telluride</p> <p><b>Minnesota:</b> Minneapolis, (22 offices both single &amp; Multi winner) followed by St. Paul. St. Louis Park, MN (2019)</p> <p><b>Maryland:</b> in Takoma Park: (2006)</p> <p><b>Cambridge, MA:</b> almost 80 years (before computers) in multi-winner RCV form for the nine seat city council and six seat school board elected citywide. Amherst, Massachusetts will also use RCV starting 2021</p> <p><b>Michigan:</b> East Pointe adopted and ran Proportional RCV in 2020.</p> <p><b>New York City, NY:</b> adopted and first use in 2021</p>
<p><b>Strategic</b></p> <p><b>Susceptible to voting tactics</b></p> <p>Well-informed voters have an advantage over voters who are less-sophisticated. Advantage to those ‘in the know.’</p> <p>Point of disagreement as to importance. LWV opposes strategic process for elections of consequence.</p>	<p>Just as Approval may lead to bullet voting where voters decide it's in their interest to vote for only one candidate, STAR may lead to voters only giving scores to <b>two</b> candidates. The STAR <i>runoff</i> discourages pure one-candidate type bullet voting, but can still encourage giving a maximum score to your favorite and minimum to your second favorite as a backup. This strategy comes into play with STAR in part due to the complexity of how ratings (ballots) are counted (or not) in 2<sup>nd</sup> round (runoff) (see <b>nullified – “No Preference”</b> votes).</p> <p>* A different strategy is to take a risk rating your 2<sup>nd</sup> (but stronger) candidate much lower – so a weak candidate makes it into runoff against your favorite. VERY risky and not usually recommended. [See note to right.]</p>	<p>Sophisticated &amp; less-sophisticated voters - all the same.</p> <p>No real sense in voting for any candidates but your favorites – in order of preference.</p> <p><b>It pays to vote sincerely.</b></p> <p>There is NO benefit or roadmap for using strategy. Only after the election is over, and results determined, can tactics of “what if....” be evaluated. At that time of course no strategy can be applied.</p> <p>Ranking candidates is straightforward, even if not as ‘expressive’ as STAR or Scoring.</p> <p><b>NOTE:</b> Some reformers believe that strategy (as with STAR) can be good for the informed voter. They may be correct, but the LWV doesn’t agree or support that concept for government elections.</p>

<p><b>Later-No-Harm</b></p> <p>Expressing <b>preference beyond</b> the favorite should not harm the favorite.</p> <p>(Sightline Institute)</p>	<p>STAR has been given a <b>fail grade</b> for Later-No-Harm.</p> <p>On good side– STAR <u>may</u> avoid bullet voting tendency of approval or range - as bulleting might not advance the ballot to 2<sup>nd</sup> round.</p> <p>But there are <b>2 ways that indicating support for a 2<sup>nd</sup> favorite can help defeat favorite.</b></p> <ol style="list-style-type: none"> <li>1. Can help a stronger opponent reach the runoff, who could beat <b>your</b> favorite, rather than a weaker opponent;</li> <li>2. Grading (scoring) others can cause favorite candidate to end up with a lower total score - cutting them out of runoff entirely.</li> </ol>	<p>From study, LWVOR believes this is a very important criterion to consider. RCV has strong (perhaps the best) marks for this. <b>Passes.</b></p> <p>Not all criteria are equally important in the real world of our ballots. In part, the League elevates this criterion because otherwise there are strong incentives for tactical voting.</p>
<p><b>Condorcet Winner –</b> Gold standard. Condorcet winner beats ALL others in one-to-one (or head-to-head) match ups.</p>	<p>Neither RCV nor STAR <i>guarantees</i> election of the Condorcet candidate.</p> <p>It is expected that STAR would elect the Condorcet winner in most situations.</p> <p>Because it has little data to draw upon, it is not known how STAR would consistently perform in real-world elections.</p>	<p>Neither RCV nor STAR <i>guarantees</i> election of the Condorcet candidate.</p> <p>Data shows that RCV tends to elect the Condorcet candidate as a rule (out of 100 elections in Bay area, EACH has elected the Condorcet winner).</p>
<p><b>Inconsistent Translation of Preference into Score</b></p> <p>* <b>“Internal Scoring”</b> *</p> <p><u>A simple example.</u> One 4<sup>th</sup> grade teacher gave bad grades – the 5<sup>th</sup> grade teacher gave good grades. The student didn’t change in the few months between grades but the 4<sup>th</sup> teacher was a <b>tough evaluator</b> – the 5<sup>th</sup> grade teacher wasn’t.</p>	<p>In STAR voting, grading <u>philosophy</u> matters. You and I may totally agree on a candidate, BUT our personal attitude about grades may differ.</p> <p>Despite exact evaluations of a candidate or their platform, I may score a 5, while you only a 4 or 3.</p> <p>This problem was seen with Netflix &amp; some areas of YouTube – both abandoned the 5 score system (replacing it with an Approval type system–thumbs up/down.)</p> <p>■ Note: the above online situations are examples where RCV would be ridiculous, difficult to use, and probably never suggested. Whereas rating systems are better suited because they allow users to express a opinion of an option, regardless of other options.</p>	<p>With RCV, the slot for 1<sup>st</sup> place need not be defined, as it is understood as an ordering, not an evaluation.</p> <p>You only get one choice per round. Thus ‘translation’ into what that choice means doesn’t play into it.</p> <p>RCV does not consider later (lower) ranked candidates while a higher ranked candidate remains an option.</p> <p><b>[There is no honest ‘INTERNAL’ score within us – whereas a position or RCV ‘slot’ is clear.]</b></p> <p>← YouTube and Netflix are examples of when <b>Approval</b> could be more effective. However, they have no <u>governing consequences</u>.</p>

<p><b>Hand Recount Audits</b>  <a href="#">Post-election</a> audits are not all similar. See state-by-state details at <a href="#">VerifiedVoting.org</a>  Types: (Traditional) Hand recount audits (more common).  RLA – Risk Limiting Audit (statically strong).  Recounts requested by candidate not an ‘audit.’  <b>See General notes</b> -&gt;</p>	<p>Most likely doable for traditional recounts. As with RCV, it is more difficult than current ‘vote-for-one’ system.  Opponents question STAR’s compatibility with RLAs since that type of audit requires a margin of victory and each of the 2 rounds has its own statistical margin of error. Supporters disagree and there may be theoretical simulations of such, but more actual elections would provide greater info.  <b>General note:</b> Automatic “hand recount audits” depend on margin of victory (ex. tie or 2% in Oregon). RLA(s) provide strong statistical evidence of outcomes (right or wrong). <a href="#">In Oregon</a>, RLAs are requested by the county clerk for single contests.</p>	<p>RCV is not as easy to recount as current ‘vote-for-one’ plurality but it’s doable. [True even for multi-seat elections. In Cambridge MA, the entire election was counted by hand using RCV/STV for over 5 decades <i>before computers</i>.]  <i>Opponents</i> say RCV is difficult because ballots must be centralized (aggregated – physically or electronically) before results finalized. <i>Advocates</i> point to the many traditional recounts in CA over the years, and the RLA pilot in San Francisco (2019) as well as presidential RLA audits done for three elections in 2020.  <b>General Note:</b> Both systems can be used with a paper trail of ballots, which are vital to a hand recount or audits.</p>
<p><b>Nullified votes</b></p> <p>Both Systems use runoffs, which have inactive ballots, but differ in how that happens and what they are called.</p> <p>Strategic issues resurface.</p> <p>LWV wants every vote to count whenever possible.</p>	<p>Nullified votes are possible – even likely.  STAR – is a nifty idea, using one ballot for both rounds (like RCV) – but it could be a challenge to use these ballots for 2<sup>nd</sup> rounds.</p> <ol style="list-style-type: none"> <li>1) As with RCV, the voter may not have voted for a candidate who makes it to final round.</li> <li>2) For voters who gave equal SCORES to finalists, their votes are disqualified. STAR supporters refer to these ballots as “<b>no preference</b>,” but result is the same. May lead to strategic voting.</li> </ol> <p><b>Only those ballots with different scores for 2<sup>nd</sup> round remaining candidates will count.</b></p> <p>If during ‘runoff’ (2<sup>nd</sup> phase), any voter giving candidates same score will not have their vote count. Supporters say this shows ‘<i>no preference</i>.’ Considering 0-5 scale, in a field of more than 5 candidates this will be frequent. In any race with 6 candidates, this will happen – voters will <i>have</i> to give 2 or more candidates same score if wishing to score all them. [In 2016 Republican primary for president had 15 candidates, 2020 Democratic primary even more. This would have led to many duplicate scores – and likelihood of many discarded or nullified ballots under STAR.]</p>	<p>With RCV, all ballots continue to count for your favorite still in the race.  Only if the voter doesn’t participate in the next round does that vote not count.</p> <p><b>“Exhausted Ballots”</b></p> <p>Exhausted ballots are those <i>no longer expressing a choice</i> for a candidate still in the race, thus nullified. Exhausted ballots happen when a voter stops ranking, or their candidates are already out, and they do not rank a finalist.  This scenario is similar to a <i>Delayed Runoff</i> where the voter refuses to return to the polls (or as in Oregon which has no polls, voter doesn’t vote a 2<sup>nd</sup> ballot).</p> <p>FairVote tracks many of the RCV elections, and how many exhausted ballots were in a race.</p>

<p><b>Monotonicity</b></p> <p>Difficult to explain, but .....</p> <p>After counting the ballots,</p> <p><b>*ranking higher should never HELP towards a loss,</b></p> <p><b>*Ranking lower, should never help elevate.</b></p> <p>---</p> <p>Ranking or rating a candidate higher should never cause that candidate to lose, nor should ranking or rating a candidate lower ever cause that candidate to win, <i>assuming all other candidates remain rated or ranked the same.</i></p>	<p>Score and Range Voting (cousins of STAR) don't have this particular problem. They pass this criterion (although they fail one we think is more important which is <b>Later-No-Harm</b>).</p> <p>STAR <i>may</i> be monotonic, but might have a problem compared to straight Range –or Score-voting.</p> <p>If in the runoff a ballot lists multiple candidates as a '5' then the ballot doesn't count, (see nullified votes above).</p> <p>So rating one candidate higher (but similar to another) might actually help defeat them.</p> <p>A sophisticated voter may rely on this – and would be able to strategically act on it in advance – protecting their own vote.</p>	<p>No system is perfect, including RCV – given a <b>FAIL</b> grade here. It's mathematically possible that RCV can fail this criterion. <i>Frequency is debated.</i></p> <p>In a 2013 paper, Opponents claim that this can happen in up to 15% of RCV elections, based on theoretical models. [<a href="#">"Frequency of monotonicity failure under Instant Runoff Voting: Estimates based on a spatial model of elections"</a>] Joseph T Ornstein (University of Michigan); Robert Z. Norman (Dartmouth College).]</p> <p>In a 2020 paper, supporters demonstrate empirical data contradicting that frequency, presenting disconnect between theory and practice. [<a href="#">"Lack of Monotonicity Anomalies in Empirical Data of Instant-runoff Elections,"</a> Journal of Representative Democracy, Adam Graham-Squire (High Point Univ.); Nick Zayatz (High Point Univ.).]</p> <p><b>How do non-monotonic problems happen with RCV?</b></p> <ol style="list-style-type: none"> <li>1) <i>several</i> candidates have to have very similar vote totals, <u>AND</u></li> <li>2) Their supporters need to split their 2<sup>nd</sup> &amp; 3<sup>rd</sup> choices roughly evenly among remaining candidates.</li> </ol> <p>MORE importantly for LWV considerations – there is no <u>strategic</u> relevance.</p> <ol style="list-style-type: none"> <li>1. <b>Can't really know ahead of time</b> – so doesn't affect sincere voting ....(it would be <b>folly</b> to convince voters to change their votes based on a theory that it would help your particular scenario.) <b>Voter would have to know 'unknowable' information.</b></li> <li>2. Perhaps rare chance this can happen (clearly less than 15%), while conversely, problematic criteria shown in other systems happen (or could) <i>consistently</i>.</li> </ol> <p>To be clear - getting more first preferences, by itself, can <i>never</i> cause a candidate to lose with IRV. The actual cause of a non-monotonic flip with IRV is the shift of support among <i>other</i> candidates.</p>
<p><b>Reduces Negative Campaigning?</b></p>	<p>Not demonstrated to date.</p> <p>May have advantage over plurality, but (due to later-no-harm – see elsewhere), candidates may have incentive to seek bullet votes, and do so by negative campaigning. More substantial amassed data may prove/disprove this.</p>	<p>Expected to reduce negative campaigning.</p> <p>Such has been demonstrated, candidates basically saying "If I can't get your 1<sup>st</sup> vote – how about your second." 2018 - San Francisco Mayor race ran videos and took out ads demonstrating this approach.</p>

<p><b>Machinery issues</b></p>	<p>It is assumed fair to say that STAR requires only the purchase of new software to accommodate the system; no purchase of new hardware.</p>	<p>All the major vendors of election machines now claim they have the ability to run ranked elections. Most continue to charge a big-price tag for software implementation, but they all have the ability. This is improving. [In Oregon, the top 3 voting equipment vendors are Clear Ballot, ES &amp; S, and Hart; all compatible with RCV. In the 2021 Legislative session, there is a bill to make all machines RCV compatible.]</p> <p>The <b>Ranked Choice Voting Resource Center</b> has recently announced a no-cost, federally-tested <a href="#">Universal Tabulator</a>, which performs a round-by-round RCV count after votes are centralized. [Follow link or visit their site, <a href="http://rcvresources.org">rcvresources.org</a> for more info.]</p>
<p><b>Majority and Mutual Majority</b> criteria</p> <p>If more than 50% of voters favor same 1<sup>st</sup> choice candidate, that candidate should win.(Sightline Institute)</p> <p>The highest threshold that can be <b>required</b> for a single seat race is majority.</p>	<p>With STAR it's possible for the 1<sup>st</sup> choice of a majority of voters to lose. (Depends on how other candidates are rated – and if voters score too 'generously'.) Plurality also fails this criterion.</p> <p>While STAR fails the majority criterion, <b>STAR passes the Mutual Majority criterion.</b></p> <p><b><u>Mutual Majority Example</u></b> (from a Congressional district in California): A contest had 5 Democrats &amp; 2 Republicans. Voters in that district strongly favored Democrats, but were divided over which one in particular. In this 'Top 2' case, 2 Republicans won and were on the ballot in the general. Dem. voters had no choice.</p>	<p>For a single seat race, RCV guarantees a majority win in the final round of counting active votes (like a Delayed Runoff).</p> <p><b>RCV passes both criteria.</b></p> <p>As stated earlier, the League rejects hypothetical arguments, manipulating post-election numbers to theoretically demonstrate possible results and has instead concentrated primarily on real-world data and elections.</p>
<p><b>Representation Results</b></p>	<p>STAR results would assure greater representation than plurality. In the final round (runoff portion) it would guarantee only a majority of remaining votes with unique scores (although not necessarily a majority of all 2<sup>nd</sup> round ballots as many could be discarded (see above nullified votes and "no preference").</p> <p>No current examples for multi-seat, at-large elections. Possible use would be multi-seat Bloc (vs. Proportional Representation or semi-PR systems).</p>	<p>Majority guaranteed (for a single winner race) in final round of counting only for ballots going forward with a remaining choice. (See exhausted ballots under nullified votes.)</p> <p>Proportional Representation is the result for at-large or multiple winner elections when 'Proportional RCV' (STV) is used.</p> <p>There are vast, real-world RCV election results to compare for both single seat (IRV) and multi-seat (STV).</p>

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Thanks for info from: CfER (Californians for Electoral Reform), Equal.Vote (Starvoting.us), FairVote (FairVote.org), RCV Resource Center (rcvresources.com) & Sightline (sightline.org).