

Sightline’s Glossary of Methods for Electing an Executive Officer

IRV, SRV, Score, and lots more.

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In the wake of the 2016 US Presidential election, many Americans are [wondering if there is a better way](#) to elect political leaders. During the 2015 Canadian election, voters supported the Liberal party’s claim that [2015 would be the last time Canada would use archaic “first-past-the-post”](#) voting. What other options do we have for electing an executive officer such as president, governor, mayor, secretary of state, or attorney general? This glossary summarizes how different voting systems for electing a mayor or president work, what supporters and critics say about them, and how they have played out in real life.

This document does not describe all the possible voting systems; there are far too many to list here. Nor does it detail all of the quirks of each system. Rather, it is meant as a quick reference guide to the different systems that have been used in Cascadia or that advocates propose for use here. To learn more about Sightline’s recommendations regarding these systems, see our [Guide to Voting Systems for Electing an Executive Officer](#).

This Glossary and Guide are specifically about electing what we are calling “executive” positions that only one person holds at a time, such as a president or mayor. Different electoral systems can be used to elect legislative bodies made up of more than one person, such as a state house of representatives, city or county councils, and school boards. (To learn more about the options for electing legislative bodies, see our Glossary of Voting Systems for Electing a Legislative Body and our recommendations on those options next week.)

Considerations or tradeoffs

No voting system is perfect. Each system involves tradeoffs, which can be measured by how well the system complies with various [mathematical criteria](#). But ultimately, the voting system you prefer will depend on which aspect is most important to you (see what is important to Sightline [in our guide](#)). Below are a few—though again, not all—criteria that supporters and critics may point to when comparing voting systems for electing an executive such as president or mayor.

Is the ballot simple yet expressive?

A simple ballot is easier for voters to understand and easier for counties to count. A more complex ballot gives voters the opportunity to express more nuanced views about the candidates.

Does the system incentivize strategic voting?

If a voter would get a better election result by voting “strategically” or “tactically” instead of “honestly,” that system puts pressure on voters to figure out the best strategy and could give an unfair advantage to voters who do discover the best strategy.

Political scientists and mathematicians have described mathematical properties that might incentivize to some form of strategic voting. They have also described criteria for determining whether a system is immune to that particular strategy (it passes) or could incentivize that type of strategy (it fails):

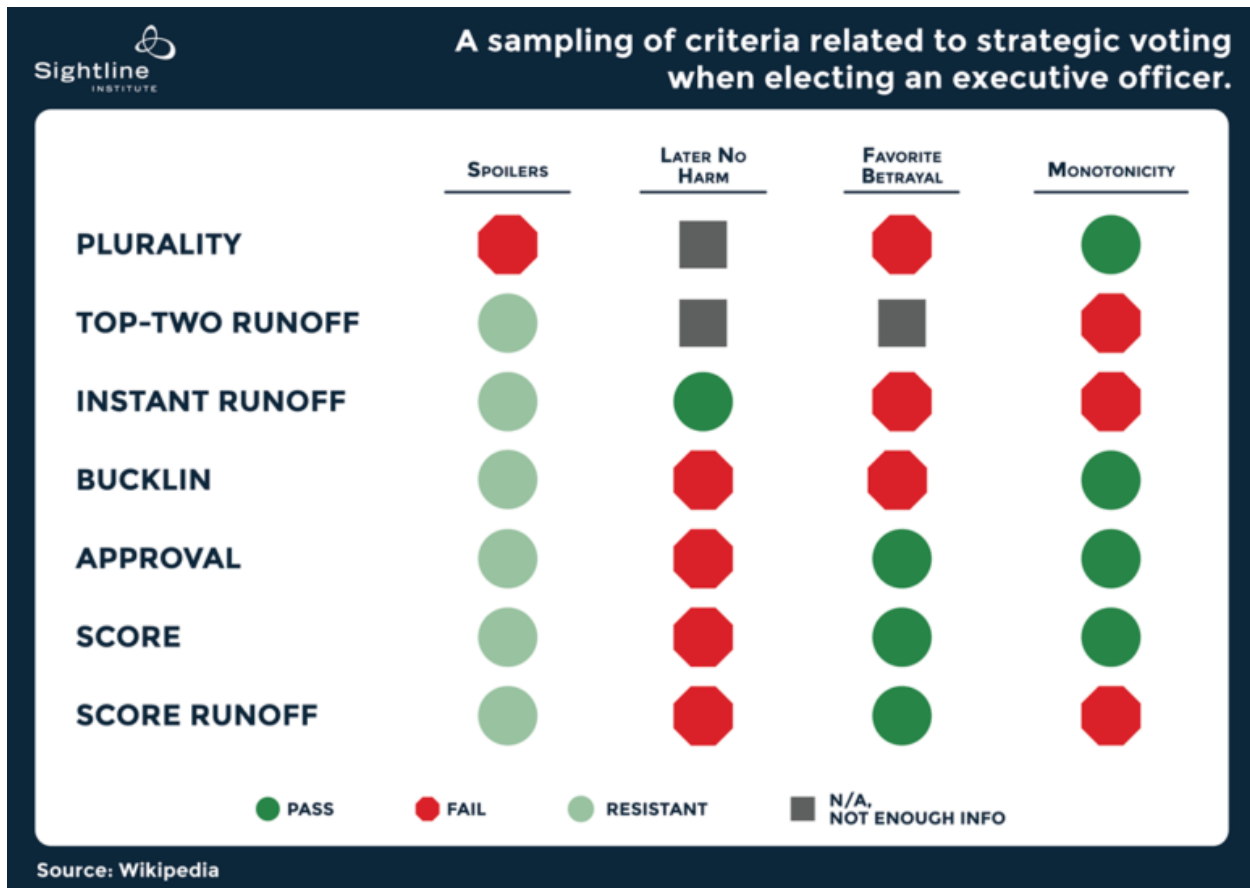
- If you can safely vote for one of two similar or nearly identical candidates you prefer without fear of helping a different candidate win, the system is resistant to **vote splitting, spoilers, and clones**. In systems that fail, voters would need to organize around one of the similar candidates, or prevent similar candidates from running, to prevent a different, less popular candidate from winning. In systems that are resistant, voters can give high scores or ranks to similar candidates, confident that one of them will beat the different, less-preferred candidate.
 - Pass: No system is completely immune to all spoilers, vote splitting, and clones
 - Resistant to spoilers, vote splitting, and clones: Approval, Score, Score Runoff, Top-Two Runoff, Instant Runoff, Bucklin
 - Fail: Plurality
- If you can safely rank or score additional less-preferred candidates without harming your favorite or more preferred candidates, the system passes the **“Later-No-Harm” criterion**. In systems that add your scores for all candidates, scoring a less preferred candidate could boost him past your favorite, causing your favorite to lose. In Approval, Bucklin, and Score, if your favorite was in first place, your vote for your less preferred candidate could vault him to first. In Score Runoff, if your favorite was in second place, your score for your less preferred candidate could vault him to second, bumping your favorite out of the runoff. When voters realize a system fails, they may vote just like they would in a “vote for one” system—**“bullet vote”**—give a maximum score only to their favorite candidate. Voters are less likely to bullet vote in Score Runoff Voting because the runoff provides a countervailing motivation for voters to give at least some score to a backup candidate to make sure they have a vote in the runoff if only their backup makes it.
 - Passes: Instant Runoff
 - Fails: Approval, Score, Bucklin, Score Runoff
 - Not applicable: Plurality, Top-Two Runoff
- If you can safely vote for or give a top-ranking or high score to your favorite candidate, the system passes the **“Favorite Betrayal” criterion**, so called because systems that fail this criterion may encourage voters who know their favorite can’t win to “betray” their favorite and instead vote for or rank a less-preferred but more likely to win candidate higher (for example, to “betray” Bernie and vote for Hillary). If it is clear to voters that their favorite can’t

win but another candidate they like can win, they may strategically vote for their preferred viable candidate instead of their favorite in systems that fail this criterion.

- Passes: Approval, Score, Score Runoff, Bucklin
- Fails: Plurality, Instant Runoff
- If you can be sure that you would not counterintuitively cause a candidate to lose by ranking her higher or cause her to win by ranking her lower, the system passes the **“monotonicity” criterion**. These anomalous results are a product of the runoff: if ranking a candidate lower than a weaker opponent would help that weaker opponent make it to the runoff against her she can win, and if ranking her higher than a weaker opponent helps a stronger opponent instead reach the runoff, she could lose to the stronger candidate. If voters could know exactly how everyone else will vote, a group could strategically try to elevate a weaker opponent to the runoff to help their favorite win in the small number of instances where this criterion comes into play. In reality, it is impossible to have enough information about other voter’s behavior to develop a strategy based on monotonicity.
 - Passes: Approval, Score, Plurality, Bucklin
 - Fails: Instant Runoff, Score Runoff, Top-Two Runoff

“Favorite Betrayal” and “Later-No-Harm” are two sides of the same coin. Which criterion you think is more important comes down to how strongly you think voters feel about their favorite candidate compared to their second-favorite. If you think most voters feel very strongly about their favorite and would not be willing to do anything that might hurt him (“I want Bernie to win, and even though Hillary is not terrible, I would not do anything that might help her beat Bernie”) then you prefer Instant Runoff Voting because it lets the Bernie voter safely express support for Hillary without hurting Bernie. In contrast, with Approval and Score Voting, giving a score to Hillary could hurt Bernie, so voters with a strong preference will only vote for Bernie, just like in a Plurality election.

On the other hand, if you think that voters only weakly prefer their favorite and would be willing for their favorite to lose to their second-favorite (“I like Bernie, but I’d also be happy if Hillary won”) then you prefer Approval and Score Voting, which makes it safe to give your favorite Bernie a top score without hurting your second-favorite, Hillary. In contrast, with Instant Runoff Voting, in the narrow case where Bernie is strong enough to make it to the runoff but sure to lose to Trump and Hillary could beat Trump, Bernie voters who would be happy for Hillary to win would be better off ranking her above Bernie.



Does the system elect the “right” winner?

The winner should be the candidate most voters support, right? But how do you measure what “most voters support” means? That *could* mean the candidate that a majority of voters prefer. Or it could mean the candidate with the most overall *intensity* of support—so a candidate that one group of voters *loves*, but whom the majority dislike, would win instead of a candidate that a majority of voters weakly prefer. Or it could mean victory for the candidate whom many voters love and a majority of voters find at least acceptable.

Different systems can guarantee that candidates meeting certain conditions will always win or never win, including:

- A system that meets the **“Majority” criterion** guarantees that, if a majority of voters choose a candidate as their favorite, she will win.
 - Passes: Instant Runoff, Bucklin, Plurality, Top-Two Runoff
 - Depends on the definition: Approval, Score Runoff
 - Fails: Score
- A system that meets the **“Mutual majority” criterion** guarantees that, if there is a group of candidates that every voter prefers to every candidate outside that group, then one of the

candidates in that group will win. In other words, if a majority of voters lean left, then one of the left-leaning candidates will win.

- Passes: Instant Runoff, Bucklin
- Fails: Plurality, Approval, Score
- A system that meets the **“Condorcet Winner” criterion** guarantees that, if a candidate would beat the other top candidates in a head-to-head contest, she will win. In other words, when offered only two options, most voters prefer her to the other option. This could be the most broadly acceptable candidate, or it could be the “lesser of two evils” for most voters.
 - Passes: None
- A system that meets the **“Condorcet Loser” criterion** guarantees that, if a candidate would lose to the other top candidates in a head-to-head contest, he cannot win. In other words, when offered only two options, voters would never prefer him to the other option.
 - Passes: Top-Two Runoff, Instant Runoff, Score Runoff
 - Fails: Plurality, Approval, Score, Bucklin

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A sampling of criteria for electing the “right” executive officer.

	MAJORITY	MUTUAL MAJORITY	CONDORCET WINNER	CONDORCET LOSER
PLURALITY	●	●	●	●
TOP-TWO RUNOFF	●	■	●	●
INSTANT RUNOFF	●	●	●	●
BUCKLIN	●	●	●	●
APPROVAL	◐	●	●	●
SCORE	●	●	●	●
SCORE RUNOFF	◐	■	●	●

● PASS ● FAIL ◐ DEPENDS ■ N/A, NOT ENOUGH INFO

Source: Wikipedia

Voting systems

Plurality Voting

Also called: "first-past-the-post," "winner-take-all," "simple majority," or "vote for one."

In Plurality Voting, each voter votes for just one candidate. The candidate with the most votes wins, even if he only won a plurality (more than any other candidate) and not a majority (more than half) of the votes. For example, in [Oregon's 1990 gubernatorial race](#) a conservative independent pulled votes from the Republican, allowing the Democrat to win with just 46 percent of the vote.

Supporters say

- The Plurality Voting ballot is simple.
- The vote-counting is simple.
- Americans and Canadians all know how to do it.
- It seems fair: the person with the most votes wins.

Critics say

- Voters can't vote for their favorite candidate under Plurality Voting: you have only one vote, so you may have to hold your nose and strategically give that vote to a candidate you think has a chance to win, which is almost always a major-party candidate. Many people feel they are voting for the lesser of two evils.
- If voters don't strategically vote for a major-party candidate, a third-party candidate can "spoil" the election, splitting the majority of voters who supported either the third-party candidate or the most similar major-party candidate and electing the "wrong" candidate—the major-party candidate that a majority of voters did not want. The best-known example, of course, is when Nader split votes with Gore, allowing Bush to win the US presidency in 2000.

Experience says

The pressure to strategically vote for your preferred major-party candidate is real and common: commentators often (rightfully) brow-beat voters who consider voting for a third-party candidate, pointing out that by voting their conscience, they can throw the election to the candidate they like least: "A vote for Jill Stein is a vote for Donald Trump," or "a vote for Gary Johnson is a vote for Hillary Clinton." The [spoiler effect is real](#) and can elect a candidate that a majority of voters didn't want.

Top-Two Runoff

*Also called: **Two-Round System**, "majority threshold," "absolute majority," or top-two open primary.*

Top-Two Runoff is also a "vote for one" system. All Washington elections (other than for the US president) and many non-partisan Oregon elections use Top-Two Runoff. Each voter votes for one candidate in an initial or primary election. In many Oregon cities, if one candidate wins a majority in the primary, she wins the race. If not, the top two vote-getters advance to the general election. In most Washington elections, the top two vote-getters in the open primary advance to the general

election. In the general or runoff election, each voter again gets one vote, and the candidate with the most votes wins.

Supporters say

- The Top-Two Runoff ballot is simple.
- The vote-counting is simple.
- Americans and Canadians all know how to do it.
- It eliminates the spoiler effect because there are only two candidates in the general election, and it guarantees that the winner received more than half of the votes cast.

Critics say

- Few voters participate in primaries, and the voters who do participate are usually older, whiter, and more partisan than general election voters. As a result, a small, skewed group of voters selects the two candidates that general election voters must choose between, sometimes yielding unrepresentative or disappointing results. For example, far-right voters in the Republican primary might select a far-right candidate, and in a Republican-leaning city he might win a majority of votes in the general, but the majority of voters would not feel he represents them well.
- A spoiler effect can still occur in the Top-Two primary, forcing general election voters to choose between two unappealing candidates.

Experience says

[In Washington State in 2016](#), the majority of voters split their votes between three Democratic candidates in the open primary election for State Treasurer, leaving two Republicans—who together won less than half the primary votes—to advance to the general ballot. General election voters had no choice but to vote for a Republican, even though all but one other statewide political offices in the state are held by Democrats. The three Democrats “spoiled” the primary for each other, leaving general election voters with an unsatisfactory choice between two candidates who both likely only appealed to a minority of voters.

Instant Runoff Voting, a.k.a. Single-Winner Ranked-Choice Voting

Also called: “single-winner ranked-choice voting,” “preferential voting,” or “the Alternative Vote.”

Instant Runoff Voting (IRV) is a type of Ranked-Choice Voting (RCV). (The multi-winner form, used to elect legislative bodies, is called Single Transferable Vote and you can read more about it in an upcoming article next week.) Other election methods, such as Bucklin, also use a ranked ballot that allows voters to [rank candidates in order of preference](#). Ranked ballots ask voters to make a comparative judgment: whom do you like more—Deborah Democrat or Ronald Republican?

Under Instant Runoff Voting, voters rank their candidates in order of preference. Votes are counted in rounds that simulate a series of runoffs: in the first round, everyone’s first-choice vote is counted. If no candidate wins a majority, the candidate with the fewest first-choice votes is eliminated, and her votes are transferred to her voters’ next-ranked candidate who is still in the race. Candidates

with fewer votes continue getting eliminated and their votes transferred until a candidate wins a majority of the remaining active votes. (Sound complicated? It's not. This [one-minute video](#) explains.)

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Ranked-Choice: Instant Runoff Voting (executive officer)

Sample Ballot (filled)

Rank your candidates in order of preference.

Mark "1st Choice" for your favorite candidate, "2nd Choice" for your second favorite, and so on. Only fill one bubble per candidate and one bubble per column.

Your vote will go to your top-ranked candidate, and if he/she is eliminated, your vote will automatically transfer to your next-ranked candidate who is still in the running.

The candidate who wins a majority of the active votes wins.

	1 ST Choice	2 ND Choice	3 RD Choice	4 TH Choice
Deborah Democrat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Ronald Republican	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Terry Tea Party	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Priya Progressive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Larry Libertarian	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gabriela Green	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Supporters say

Single-winner Ranked-Choice Voting, a.k.a. Instant Runoff Voting:

- has been used in thousands of public elections around the world.
- eliminates the [spoiler effect](#).
- allows third-party candidates to run and voters to safely vote for them.
- elects leaders with majority support.
- encourages positive, inclusive, campaigns.

Psychologists say people are more accurate in making comparative judgments between candidates (“I like Deborah Democrat more than Ronald Republican”) than in making absolute judgments about each candidate individually (“I think Deborah Democrat is an eight, and I think Ronald Republican is a four”).

Ranking candidates allows voters to express their opinions about multiple candidates but also puts a low cognitive burden on voters because they don’t have to weigh who is viable and who is not and formulate a voting strategy accordingly; they only have to say whom they like, in order.

Critics say

Single-winner Ranked-Choice Voting, a.k.a. Instant Runoff Voting:

- does not completely eliminate the spoiler effect.
- does not guarantee a majority winner.
- sometimes elects the “wrong” winner. A candidate with broad but weak support—few give him a top ranking but many consider him an acceptable back-up choice—will lose because he will be eliminated for lack of top rankings.
- does not count all voters’ second and third choices. Voters only get one vote per round, so if their favorite candidate makes it all the way to the final round their second and third rankings will never be counted.
- sometimes creates counter-intuitive situations where ranking a candidate *higher* could cause him to *lose* or ranking him *lower* could cause him to *win*.
- requires votes to be centrally tabulated rather than summed at each precinct, creating added administrative burden. Some voting machines can’t handle a ranked ballot.

Because of these faults, it is vulnerable to being repealed.

More information about supporters’ and critics’ claims

Single-winner Ranked-Choice Voting, a.k.a. Instant Runoff Voting, guarantees that:

- If a majority of voters choose a candidate as their favorite, she will win.
- If there is a group of candidates that every voter prefers to every candidate outside that group, then one of the candidates in that group will win.
- If a candidate would lose to the other top candidates in a head-to-head contest, he *cannot* win.
- The winner received a majority of the active ballots.
- Every voter who expresses a preference between the candidates in any round of runoffs gets one vote in that round (if a voter’s preferred candidate is not eliminated in one round, his vote will count for that candidate again in the next runoff round).

Single-winner Ranked-Choice Voting, a.k.a. Instant Runoff Voting, does **not** guarantee that:

- If a candidate would beat the other top candidates in a head-to-head contest, she will win. (A compromise candidate without enough top ranks to make it to the runoff will be eliminated, even if she could have won in the runoff).

- The winning candidate received votes from a majority of all voters. (The winning candidate must receive votes from a majority of all voters who ranked the candidates in the final round, but some voters may not have ranked either of the final candidates.)

Instant Runoff Voting eliminates what most people think of as the [“spoiler effect”](#)—where two similar candidates split the majority of votes, allowing a different candidate to win. (For example, in [this video, the blueberry and peach are similar candidates splitting the fruit vote](#), allowing the less popular squash to win.) Usually, this happens when a minor-party candidate (Nader) pulls some votes from a similar major-party candidate (Gore), allowing the less popular, other major-party candidate (Bush) to win. Under Instant Runoff Voting, if a majority of voters prefer Gore or Nader over Bush, Bush *cannot* win. As a voter, this means you can safely rank a third-party candidate like Nader first and a major-party candidate like Gore second, knowing that once Nader is eliminated your vote will transfer to Gore, helping him win. If you rank Gore first and Nader second, your vote will count for Gore in the first round and again in the second round after Nader is eliminated.

However, Instant Runoff Voting does not eliminate a situation some call the [“center squeeze.”](#) When three candidates sit along an ideological spectrum and most voters prefer one of the candidates on the ends, the middle candidate who is everyone’s second choice will get squeezed out. For example, imagine a left-leaning city with three candidates for Mayor: Ronald Republican on the right, Deborah Democrat in the middle, and Priya Progressive on the left. In a spoiler situation, the majority of voters would split their votes between Deborah Democrat and Priya Progressive, allowing Ronald Republican to win. That can’t happen with IRV. In a “middle squeeze” situation, if most left-leaning voters prefer Priya Progressive, Priya would win, even though Deborah was more acceptable to the Republican voters.

This “center squeeze” situation happened in an IRV election in Burlington, Vermont, in 2009: the Republican and the Progressive each got a little more than one-third of the votes and the Democrat got about one-quarter and was eliminated. Most Democratic voters ranked the Progressive second, so the Progressive beat the Republican in the final runoff. Critics of IRV say the Republican “spoiled” the election for the Democrat. But if a spoiler is a similar candidate who splits the votes of a majority of like-minded voters allowing a different candidate to win, the Republican was not a spoiler for the Democrat. Democratic and Progressive voters in Burlington were like-minded, giving most of their back-up votes to the other, but Republican and Democratic voters were less similar; less than half of Republican voters chose the Democrat as a back-up and just 19 percent of Democrats chose the Republican as a back-up.

This [video from a group that promotes Approval Voting illustrates a similar so-called “spoiler” effect in IRV from the point of view of a voter in the minority.](#) In the video, imagine your “Ideal” candidate is the Republican, you think the Democrat is “Good” and you oppose the Progressive (“Bad” in the video). You and other voters in the conservative minority in this progressive town are upset that your least favorite candidate won. In Burlington, 17 percent of voters preferred the Republican first and the Democrat second, and were upset that their least favorite candidate, the Progressive, won.

But from the perspective of the electorate as a whole, the result makes sense. Few voters felt strongly about the “center” Democrat, while a majority ranked the Progressive first or second.

Put another way, IRV narrows the field to the two candidates with the strongest support (the most high rankings) and then selects the most popular of those two. In a three-way race, a candidate who would lose in a head-to-head against both other contenders (the Condorcet Loser) can’t win, because he has to go head-to-head in the runoff. But a candidate who would win a head-to-head against both other contenders (the Condorcet Winner) won’t necessarily win, because he has to get enough high rankings to make it to the runoff. If the 17 percent of Burlington voters who preferred the Republican first and the Democrat second could have known that the Republican would be the Condorcet Loser and the Democrat would be the Condorcet Winner, they could have been wary of advancing their favorite to the runoff and instead tried to get their second-favorite to the runoff.

In IRV, votes have to be tabulated centrally, although this is not a problem for local elections in Oregon and Washington, where all vote-by-mail ballots are already sent to one county location for counting. For statewide elections, all counties would transmit their ballot data to the secretary of state. Counties could transmit the entire ballot information, or they could transmit their first-round totals, and then the state could add them and tell all counties which candidates to eliminate. The counties could then transfer the eliminated candidates’ votes and transmit second-round totals and so on.

Experience says

The following places currently use Instant Runoff Voting:

- 12 American cities and one county
- 50 American [colleges and universities](#)
- [Australia](#), to elect members to the federal House of Representatives and some local offices
- [Ireland](#), to elect the president
- The [Academy Awards](#)

In 2017, 18 states introduced ranked-choice voting bills—[11 states have Republican co-sponsors](#), [and 13 states have Democratic co-sponsors](#).

Instant Runoff Voting has been shown to [reduce negative campaigning](#) and produce [more civil, less negative](#) campaigns because candidates have an incentive to broaden their appeal and seek out second- and third-ranked votes.

In US cities that have used Instant Runoff Voting in the past decade, voters in IRV systems have elected more [women](#) and [people of color](#).

In ten recent public IRV elections in US cities, between [54 percent and 85 percent](#) of voters ranked two or more candidates, indicating most voters understand the ranked ballot and make use of it by expressing support for more than one candidate.

Out of hundreds of Instant Runoff Voting elections in the United States and 140 that released full data, the “center squeeze” situation has only occurred once: in the 2009 election for Mayor of

Burlington, Vermont, described above. In that election, 17 percent of voters could have gotten a better result if they had known to strategically “betray” their favorite, the Republican, in order to ensure their second-favorite, the Democrat, won. But they could not have known the weak Democrat was a better bet than the strong Republican candidate. Under Instant Runoff Voting, voters’ safest strategy is always honest rankings.

Nonetheless, candidates or parties may spread misinformation about Instant Runoff Voting. For example, in those parts of Australia where the Green Party regularly wins seats in the senate (elected with [proportional](#) voting) and sometimes in the lower house (elected with IRV), the Labor Party [sometimes warns Green voters not to vote for their favorite Green Party candidate](#) in Instant Runoff Voting elections for the lower house because they could “spoil” the election for the Labor candidate. So far as I can tell, this has never actually happened, and it has not discouraged third-party candidates from running nor voters from voting for them. Australia routinely has 5 or more candidates run for lower house seats, and minor-party candidates receive [between 15 and 23 percent of first-ranked votes](#). But facts don’t stop major parties and critics from fearmongering.

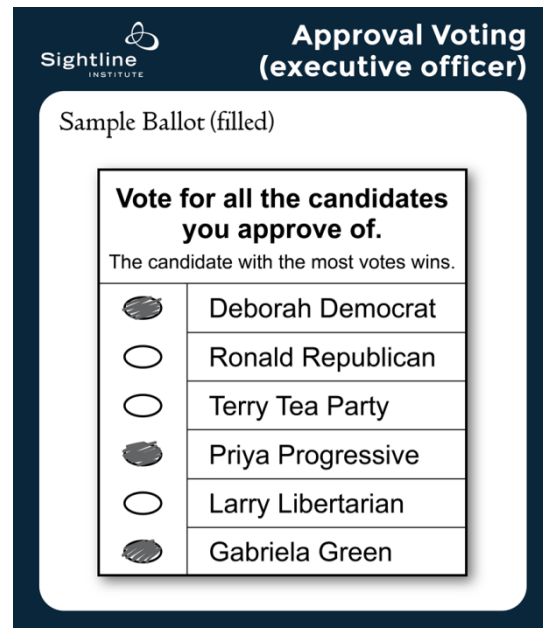
Another example: some [producers spread misinformation](#) around the Academy Awards, erroneously telling people that Instant Runoff uses a “weighted” ballot. (They are basically describing another voting system called [Borda Count](#), which translates ranks to scores and therefore [fails the Later-No-Harm criterion](#).) This is not true; Instant Runoff Voting doesn’t use scores, but instead transfers your vote to your next-ranked candidate if your first-choice is eliminated, so it is always [safe](#) to rank more candidates. But this experience indicates the need for voter education.

Approval Voting

Under [Approval Voting](#), voters can vote for as many candidates as they find acceptable. Voters are implicitly assigning each candidate a score: either a 1 or a 0. All votes are added up and the candidate with the most total votes wins.

Supporters say

- The Approval Voting ballot is simple yet expressive.
- The vote-counting is easy.
- [Voters can always vote for their favorite](#).
- Third-party candidates can run and win votes.
- It [eliminates the spoiler effect](#).
- It tends to elect moderate candidates who would beat all other candidates in a head-to-head.



Critics say

- In practice, in high-stakes elections using Approval Voting, voters will only vote for their favorite candidate and won't vote for third parties because a vote for a less-preferred candidate could cause your favorite to lose. In other words, Approval Voting fails the [Later-No-Harm](#) criterion, meaning that voters cannot honestly vote for a less-preferred candidate without risking causing their more preferred candidate to lose. When voters realize this, they often [bullet vote](#) (vote only for their favorite).
- If enough voters bullet vote, Approval Voting is no better than Plurality Voting: third parties get few votes, and similar candidates can split the majority of votes, electing a candidate whom a majority of voters did not want.
- To know whether it is safe to vote for more than one candidate, voters must figure out which candidates are viable and which are not. Making these calculations [imposes a cognitive burden](#) on voters.

More information about supporters' and critics' claims

When there are only two viable candidates, likely two major-party candidates, voters can safely approve of their preferred major-party candidate and also any weaker or third-party candidates they like but know can't win (it is safe to approve both Nader and Gore, since Nader can't win). But when there are three strong candidates, or if the voter isn't sure who is viable and who is not, or if the voter honestly approves of both major-party candidates, he can only safely vote for his favorite. (In the Burlington example above, voters would most likely approve just one of the three strong candidates, and the Republican would have won with mere plurality support, even though, had voters who mildly approved of the Democrat voted for him in addition to their favorite, he would have won.) Alternatively, if a voter does not care who *wins*, but only wants a particular candidate to *lose*, ([for example, in this video](#), if a voter didn't care whether peach or blueberry won, he only wanted squash to lose), he could vote for everyone other than that one candidate. In most elections, most voters care about who wins.

To make the most of their Approval ballot, voters must know which candidates are viable and only vote for one of those. If they know which candidates can't win, they can safely vote for any and all of those. Without this knowledge, voters' safest strategy—the one that gives their favorite candidate the best chance to win—is to treat the Approval ballot like a Plurality ballot and only vote for one.

Experience says

Approval voting is not used in any governmental election. Although the [Center for Election Science](#) and [Warren Smith](#) say that the United Nations "uses Approval Voting to elect its Secretary General," they don't actually use an Approval Voting election. Rather, the UN Security Council discusses candidates over the course of [many months, periodically using non-binding Approval Voting-style straw polls](#) to help them converge on a candidate no one will veto. They [unanimously recommend that candidate](#) to the larger body to be appointed as the Secretary General.

Colorado Democrats introduced an [Approval Voting bill](#) in the 2017 session.

Several [minor political parties, professional organizations, Dartmouth College](#), and [San Francisco State University](#) use Approval Voting.

Experience indicates that many voters “[bullet vote](#)”—vote for only one candidate—in Approval Voting elections. For example:

- The Institute of Electrical Engineers stopped using approval voting in 2002 because [80 percent of members were bullet voting](#).
- In a Mathematical Association of American election, [79 percent of voters bullet voted](#).
- The Independent Party of Oregon recently held an Approval Voting presidential primary, and more than [70 percent of voters bullet voted](#).
- Dartmouth College’s student body has used approval voting since 2011, and victors often win with [30 to 40 percent of the vote](#), possibly meaning that many voters are bullet voting.
- In a 2009 Dartmouth Alumni Association election that did not release full data, [between 19 and 60 percent](#) of voters bullet voted. However, a faction of Dartmouth alumni with extreme views apparently succeeded in electing several candidates to the Board of Trustees by getting their supporters to bullet vote while others naively approved more candidates. After several of these surprising wins, the association put a referendum on the alumni ballot in 2010, and alumni [voted 81 percent to 19 percent to eliminate approval voting](#). In the 2010 plurality election, the extreme candidate lost by 70 percent to 30 percent, suggesting that strategic approval voting had elected unrepresentative candidates.

Approval Voting works well in many non-election scenarios, such as [polls](#) or ratings where people are expressing an opinion but not electing a single winner. For example, in its online election, the Independent Party of Oregon also asked voters to use Approval Voting to identify multiple policy priorities, and [voters averaged nearly four votes each](#). [YouTube](#), and now [Netflix](#) use thumbs up or thumbs down rating systems where viewers can express approval or disapproval of multiple people, videos, or shows. Approval Voting can also be an easy and fair way to make decisions [in lower-stakes group situations](#).

Bucklin Voting

Also called: “Grand Junction Voting,” “preferential approval voting.”

[Bucklin Voting](#) uses a ranked (preferential) ballot but adds multiple votes together (like Approval Voting does), rather than transferring a single vote as Instant Runoff Voting does. Votes are summed in rounds: in the first round, only first-choice votes are counted. If no candidate wins a majority (at least half) of the votes, then all second-choice votes are added to the first-choice votes, then all third-choice votes are added, and so on until someone wins a majority.

Some versions of [Bucklin Voting](#) only allowed voters to rank two candidates.

Supporters say

- The counting method for Bucklin Voting is fairly easy to explain.

- Because you know your second-choice vote will only be counted after your first-choice, you are less likely to bullet vote than in pure Approval Voting.
- Because your votes for multiple candidates can all get counted simultaneously, it is more fair than Instant Runoff Voting, which only counts your second-choice ranking if your first-choice candidate gets eliminated.

Critics say

Like Approval Voting, voters are likely to revert to bullet voting when they realize giving a rank to less-preferred candidates can hurt your favorite under Bucklin Voting.

Experience says

For a brief period at the beginning of the 20th century, several American cities, including Portland, Oregon, and Spokane, Washington, used Bucklin Voting. In 1932, [Portland voted 81 percent to 19 percent](#) to repeal Bucklin voting. [A 1915 analysis](#) of Cleveland, Columbus, Portland, and Spokane showed that between 27 and 65 percent of voters ranked more than one candidate. However, in 16 Bucklin elections in [Alabama, an average of just 13 percent](#) of voters ranked more than one. Overall, more voters seem to rank multiple candidates under Bucklin Voting than under Approval Voting, but still rank fewer candidates than under Instant Runoff Voting.

Score Voting

Also called: "Range voting."

Score Voting is also called [Range Voting](#) because voters can give each candidate a range of scores. Scoring or rating systems ask voters to make an absolute judgement about each candidate and give each an [independent rating or grade](#): do you think Deborah Democrat is a 0, a 9, or some number in between? Same for every other candidate. Scores could range from 1 to 5 as on Yelp, or from 0 to 9, or some other range. The scores are added up or averaged, and the candidate with the highest total or average score wins.

Score Voting (executive officer)

Sample Ballot (filled)

Score each candidate from 0 (Don't Support) to 9 (Strongly Support).
Leaving a candidate blank will count as a score of 0. Scores will be added together and the candidate with the most total points wins.

	0	1	2	3	4	5	6	7	8	9
Deborah Democrat	0	1	2	3	4	5	6	7	8	9
Ronald Republican	0	1	2	3	4	5	6	7	8	9
Terry Tea Party	0	1	2	3	4	5	6	7	8	9
Priya Progressive	0	1	2	3	4	5	6	7	8	9
Larry Libertarian	0	1	2	3	4	5	6	7	8	9
Gabriela Green	0	1	2	3	4	5	6	7	8	9

Supporters say

The [Center for Range Voting](#) makes stronger claims about Score Voting's benefits than does the [Center for Election Science](#); following is a mix of claims from these two organizations.

- Score Voting, especially with a large range of numbers, allows voters maximal nuanced expression.
- Voters can always express themselves honestly, including always giving a top score to their favorite.
- The "[human impulse for honesty](#)" will ensure many voters will vote honestly, even when it is not in their interest to do so.
- Voters will give high scores to [weak or "infant" third-parties](#) because they know, if that candidate has no chance to win, it is safe to give them a high score.
- There are no "spoilers."
- It will elect the most "[utilitarian](#)" candidate—the one whose win will inspire the highest average intensity of happiness among voters.
- It is the best voting system according to "[Bayesian regret](#)"—a model that proponents consider the "gold standard for comparing single-winner" methods—and its inverse "[Voter Satisfaction Efficiency](#)."
- All voting machines can handle a score ballot.

Critics say

- In Score Voting, it's **irrational to vote honestly**. One [strategy](#), as in [Approval Voting](#), is to give a maximum score to your favorite and minimum to everyone else. Voters who don't follow the strategy and instead give honest scores to all candidates will be at a disadvantage. Some [voters will max out for their favorite](#) *viable* candidate and be done. Voters who don't care which of their preferred candidates win, or who just want to see a particular candidate lose, may give a max score to all candidates they approve of, or to all candidates other than their least favorite. Informed voters will give a max score to any weak third-party candidates, confident that doing so won't sink their preferred viable candidate. What voters won't do is honestly score all the candidates, because voting that way minimizes their influence over the outcome.
- Score Voting **could elect extreme candidates opposed by the majority of voters**. Because [total intensity of voters' support](#) is more important than total numbers of voters who support a candidate, a minority that feels strongly can beat a majority that feels less strongly, an outcome that goes against most notions of democracy. For example, if 45 percent of voters gave the Republican a 9 and the Democrat a 0, and 55 percent of voters give the Democrat an 8 and the Republican a 1, the Republican would win, even though a majority of voters preferred the Democrat. (Note that, in the multi-winner form of Range Voting that could be used to elect legislatures, this is not a flaw because a group in the racial, political, or social minority should be able to have a voice in the legislature.)

- The way that Score Voting works, and the mathematical models used to prove it is the best voting system (Bayesian Regret and Voter Satisfaction Efficiency) are **based on assumptions about voters that don't apply to real people in the real world.**
 - If I don't love her, but she's okay, should I give her a four or a six? Does a one mean "I weakly support" or "I strongly oppose"? Because different voters will interpret the numbers differently, researchers who study measurement generally agree that [raw scores cannot be added and compared](#) across voters in the way Score Voting boosters' models do.
 - In the last election you voted in, for how many candidates did you know whether they were a 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9? Most voters know whom they like and whom they oppose—"I like Republicans" or "I don't like Libertarians"—or [whom they like most and whom they like second-most](#). Asking voters to give each candidate a precise score may be overwhelming.
 - When you look at election results, is your happiness about who won based on their mathematical distance from you on an array of policy issues? Can you even name five policy positions held by your mayor, governor, attorney general, secretary of state, etc.? In reality, many voters' perception of election results is shaped more by [group identity](#)—whether political, racial, religious, or geographic—than by personal views on multiple policy positions. Indeed, voters often [shape their policy views based on their party](#), rather than picking their party or candidates based on unchanging personal policy positions, as evidenced by [Republican's dramatically changed views on Russia](#) and [Democrat's flip-flop on state's rights](#).
- Trying to calculate your honest scores for each candidate, and then also understand the best strategy under Score Voting, would put an even **higher cognitive burden on voters than Approval Voting.**
- No voting machines are yet able or certified to count score ballots.

More information about supporters' and critics' claims

Voters can always safely give their favorite a top score because Score Voting passes the "Favorite Betrayal" criterion. As with Approval Voting, if a voter knows which candidates are not viable (cannot win), he can safely give scores to those candidates, too. However, voters cannot safely give scores to viable candidates other than their favorite because Score Voting fails the Later-No-Harm criterion. Score Voting also fails the Majority, Mutual Majority, Condorcet Winner, and Condorcet Loser criteria, so it does not tend towards the candidate with majority support. Another drawback is that not all vote-counting machines can handle a score ballot.

Experience says

No governmental elections have ever used Score Voting. Amazon, Yelp, and other online platforms use a 5-star Score Voting system. YouTube and Netflix previously used a 5-star Score voting system, but both eventually switched to a simplified thumbs-up/thumbs-down Approval Voting system. In 2009, YouTube realized that most users of its 5-star Score Voting system were giving either [1 star or 5 stars](#). This year, [Netflix also switched](#) from Score to Approval Voting, perhaps in part because the

company realized that a mobilized block of users who intensely disliked a particular show were able to damage its average rating. For example: [far-right activists all gave Amy Schumer's show 1 star](#), overwhelming her other positive ratings.

Even in a low-stakes situation like rating a TV show, users polarized around the highest and lowest scores. In a high-stakes election, the pressure to strategically vote is strong because giving a middling score to a candidate you moderately support could cause your favorite to lose. Voters in an election would likely give their favorite candidate the highest score and all other candidates the lowest.

Score Runoff Voting

[Score Runoff Voting](#) (SRV) is a new hybrid form of voting invented in Oregon. The ballot looks like a [Score Voting ballot](#), where voters can give each candidate a score from, say, 0 to 5. The scores are added up, and the two candidates with the highest total scores advance to an automatic runoff. In the runoff, each voter's vote counts for the candidate he or she rated higher. The candidate with the most votes in the runoff wins.

Sightline INSTITUTE

Score Runoff Voting (executive officer)

Sample Ballot (filled)

Score each candidate from 0 (Don't Support) to 5 (Strongly Support).
 Leaving a candidate blank will count as a score of 0. Scores will be added together and the two candidates with the most total points will advance to an instant runoff. Your vote will go to the one you scored higher. The candidate with the most votes in the runoff wins.

	DON'T SUPPORT	1	2	3	4	STRONGLY SUPPORT
Deborah Democrat	●	○	○	○	○	○
Ronald Republican	○	●	○	○	○	○
Terry Tea Party	○	○	○	○	○	●
Priya Progressive	●	○	○	○	○	○
Larry Libertarian	●	○	○	○	○	○
Gabriela Green	●	○	○	○	○	○

Supporters say

- Score Runoff Voting is the best of both worlds: it lets voters express nuanced opinions about each candidate as in Score Voting, but it improves on Score Voting by ensuring, as does Instant Runoff Voting, that a candidate whom a majority of voters oppose can't win. It improves on Instant Runoff Voting by counting, as Score and Approval do, each voter's opinion of each candidate all at once (instead of just counting one vote for one candidate in each round, as in Instant Runoff).
- It allows voters to always vote honestly without fear of spoilers.
- It ensures that a candidate in the middle—one who is the second choice of most voters on both sides—will win if supporters give him good scores. Or, if supporters give him low scores and he loses, it will be clear that he was only a reluctant backup choice for most voters.
- The runoff incentivizes voters to give a non-zero score to more than one candidate, to ensure they get a vote in the runoff.

Critics say

- Under Score Runoff Voting, voters would likely not fill out their whole ballot with honest, nuanced scores for each candidate. Rather, voters would likely give a maximum score to their favorite and a minimum to their second-favorite, to minimize the chance of helping their second-favorite make it to the runoff instead of their favorite, but to get a vote in the runoff in case their favorite is eliminated. Savvy voters might also give a maximum score to a third-party candidate if they are sure that candidate can't beat their favorite.
- This could lead to the “center squeeze” situation described under Instant Runoff Voting above: if you live in a right-leaning district where Ronald Republican sits in the ideological “center” between Terry Tea Party and Deborah Democrat, but voters give their respective favorites (Terry and Deborah) high scores and give Ronald low scores, then he could get squeezed out of the runoff, allowing Terry to win, even though left-leaning voters would have preferred the Republican to the Tea Party candidate. If voters figure this out, Tea Party voters will give Ronald minimal scores, to ensure he doesn't beat out their favorite. Democratic voters might give Ronald higher scores, to try to keep the Tea Party out of office, but only if they are confident that their second-favorite, Ronald, can't beat their favorite, Deborah Democrat, in the runoff.
- The calculations above put a large cognitive burden on voters.
- Like IRV, SRV does not guarantee that all voters have a say in the runoff or that the winner has majority support; any ballot without a score for either of the final two candidates will not count in the runoff.
- If a voter gives the same score to two candidates, his vote may not count in the runoff.
- No voting machines are yet able or certified to count SRV ballots.

More information about supporters' and critics' claims

Like IRV, SRV narrows the field to the two candidates with the strongest support (the most high scores) and then selects the most popular of those two. This ensures that, in a race with three

strong candidates, one who would lose in a head-to-head against both other contenders can't win (because he has to go head-to-head in the runoff). But it doesn't guarantee that a candidate who would win a head-to-head against both contenders wins, because a candidate who doesn't earn enough high scores to make it to the runoff can't win. For those who are scrutinizing the election results, SRV has the advantage of showing that the head-to-head winner received low scores, making it seem more appropriate that he lost, whereas IRV only tells analysts that voters ranked him second, leaving ambiguity about whether he was a close second or a distant second.

Experience says

Score Runoff Voting has so far been used in a [poll in a group meeting in Portland](#). It should be put to use in an election to see how real voters respond.

Note:

Anyone who wades into voting systems in the United States and Canada will soon discover strong divisions amongst voting advocates.

On one side is [FairVote](#), a national advocacy group pushing for ranked-choice voting, in both its single-winner form (Instant Runoff Voting or IRV) and its multi-winner form (Single Transferable Vote or STV). [FairVote also advocates for](#) the National Popular Vote for US president, modernizing voter registration to ensure all American citizens are able to vote, and improving primaries.

On the other side, the [Center for Election Science](#) champions [Approval Voting and Score Voting](#), and [mathematician Warren Smith](#) and his [Center for Range Voting](#) advocate for Score Voting (a.k.a. "Range Voting").

A new player in the game, Oregon-based [EqualVote Coalition](#), is pushing for [Score Runoff Voting \(SRV\)](#) in Oregon.

Find this full glossary online, including live links to supporting and related materials, at www.sightline.org/ExecutiveGlossary.

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