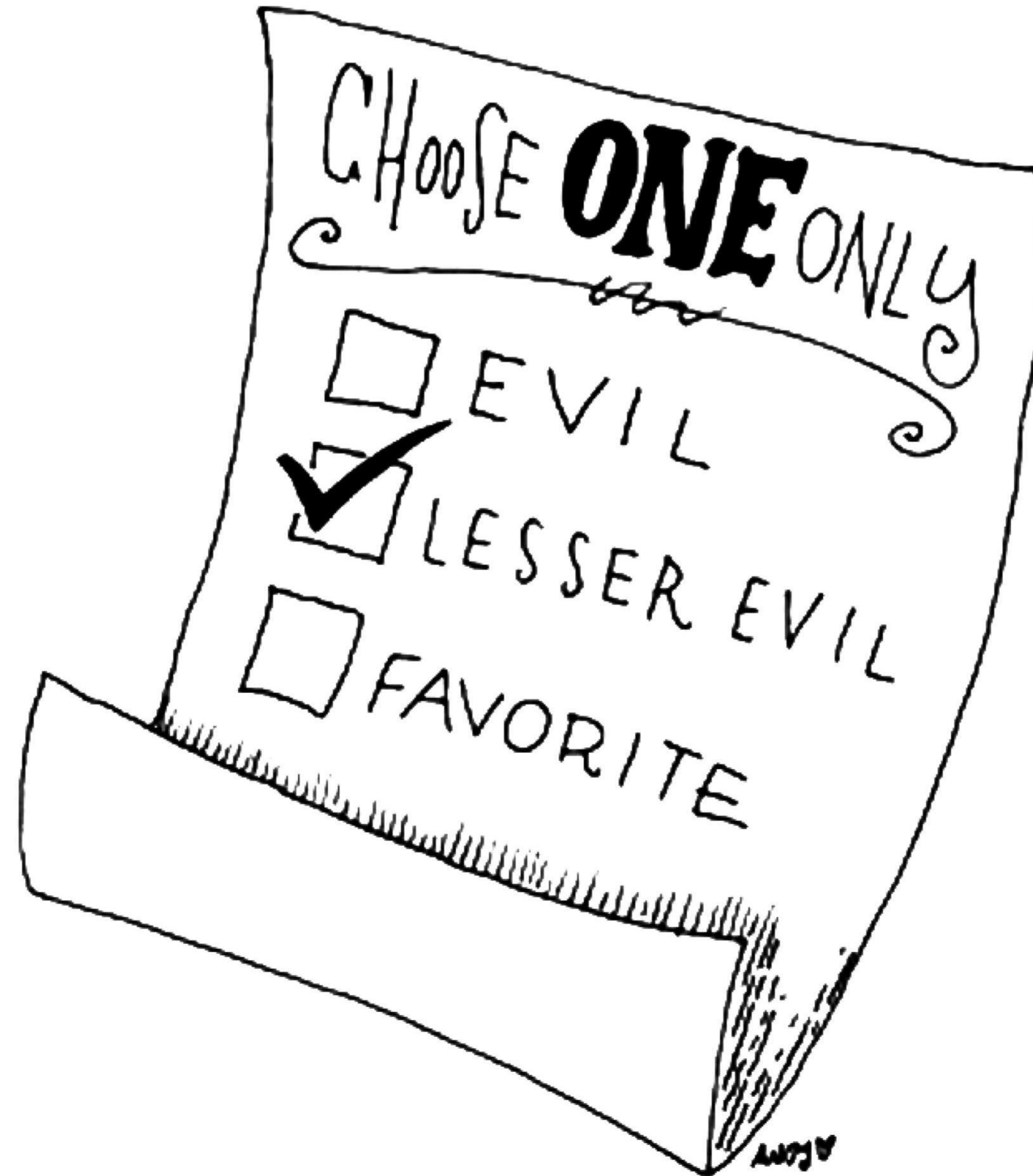


# EQUAL.VOTE



**"To level the playing field we need elections where voting your conscience doesn't waste your vote, and where every voter is equally powerful. That's why we recommend STAR Voting.**

# TRADITIONAL VOTING





# How does STAR Voting work?



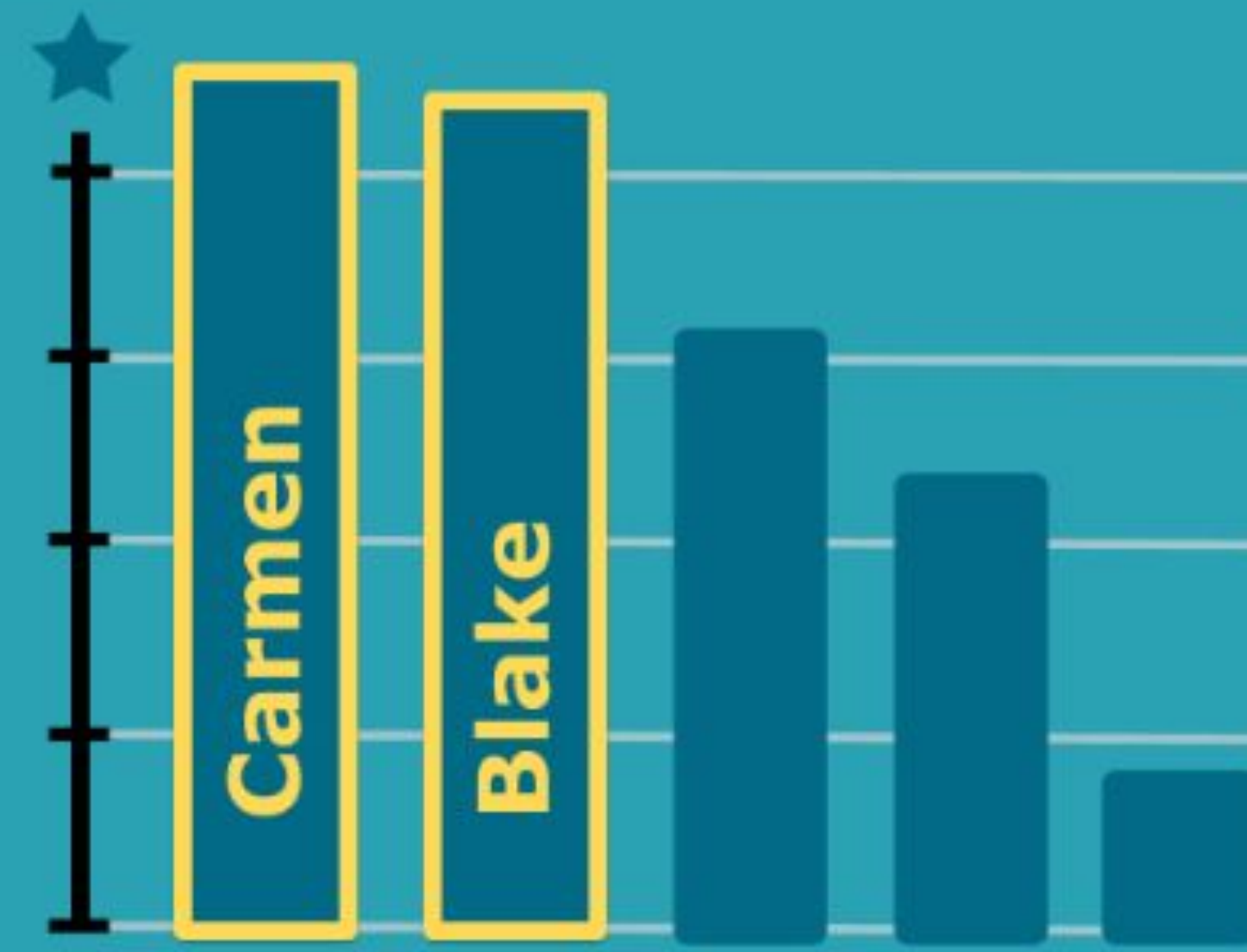
## Instructions:

Give your favorite(s) 5 stars, your last choice(s) 0 stars, and vote your conscience.

|        | Worst | 1 | 2 | 3 | 4 | Best |
|--------|-------|---|---|---|---|------|
|        | 0     | 1 | 2 | 3 | 4 | 5    |
| Andre  | 0     | 1 | 2 | 3 | 4 | 5    |
| Blake  | 0     | 1 | 2 | 3 | 4 | 5    |
| Carmen | 0     | 1 | 2 | 3 | 4 | 5    |
| David  | 0     | 1 | 2 | 3 | 4 | 5    |
| Ella   | 0     | 1 | 2 | 3 | 4 | 5    |

## Scoring Round

The two highest-scoring candidates are finalists.



Carmen and Blake advance to the next round.

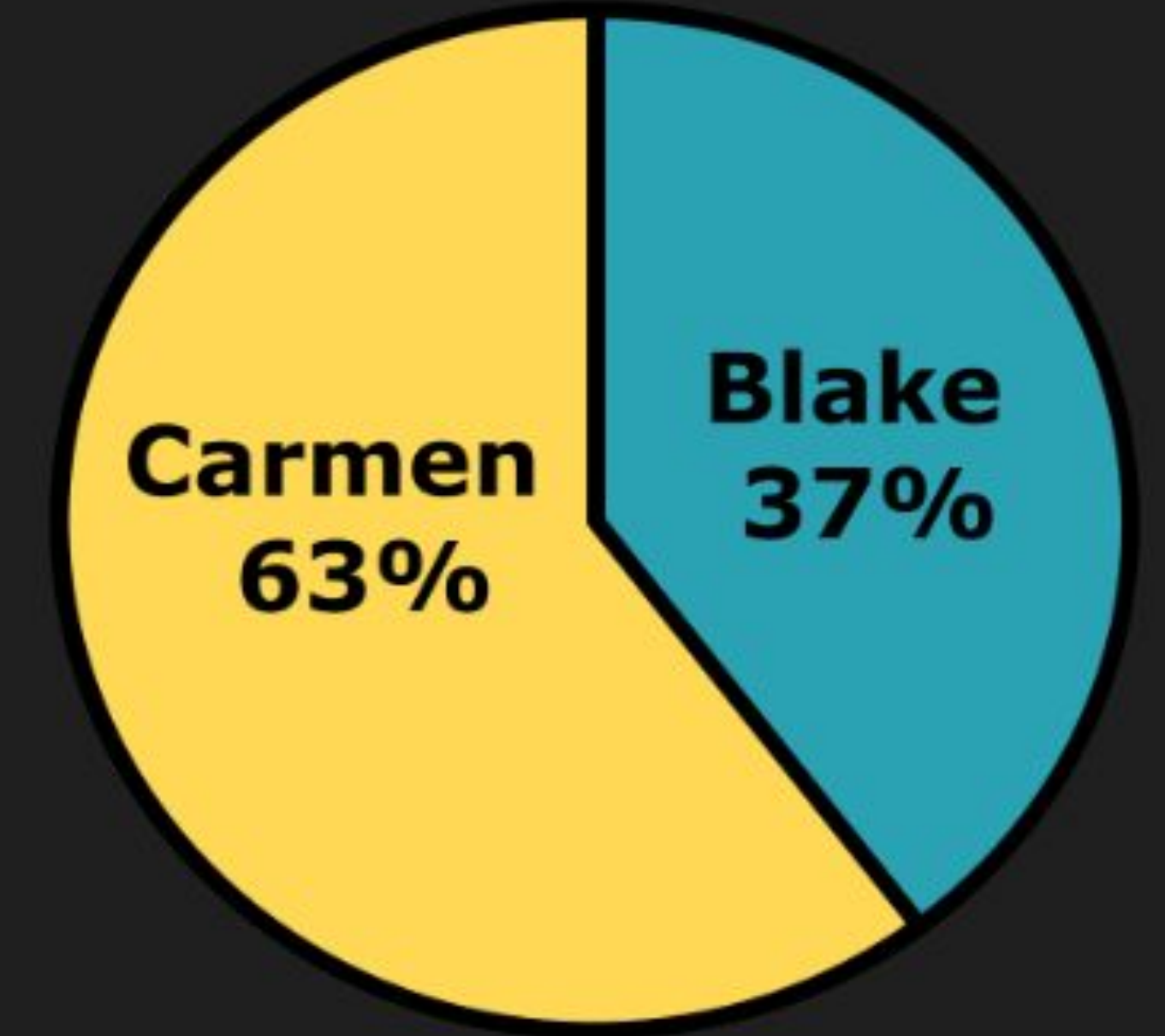
## Automatic Runoff

In the runoff, your ballot counts as one vote for the finalist you prefer.

|        |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|
| Blake  | 0 | 1 | 2 | 3 | 4 | 5 |
| Carmen | 0 | 1 | 2 | 3 | 4 | 5 |

This vote goes to Carmen because she was scored higher than Blake.

## Results

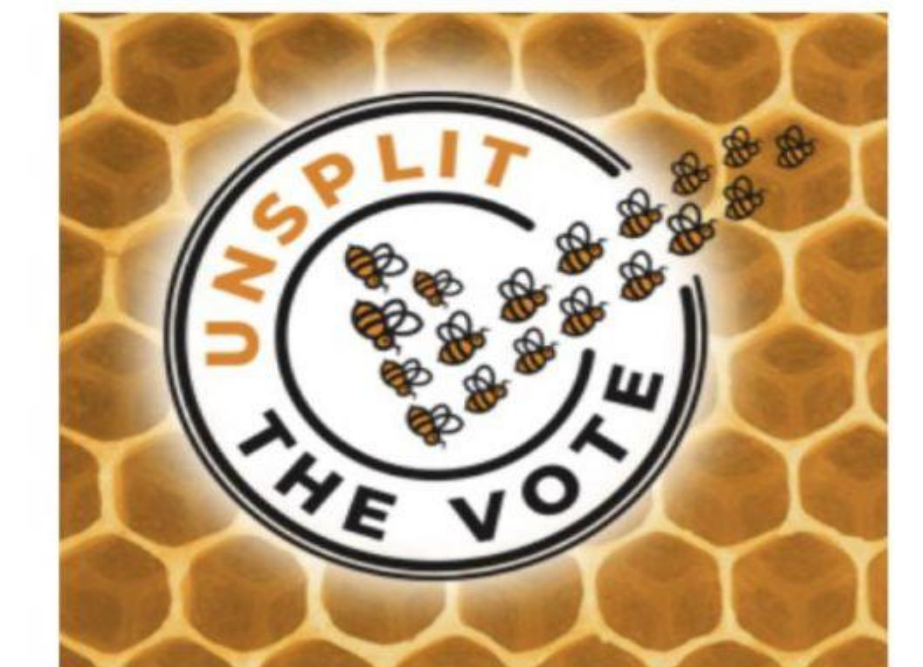
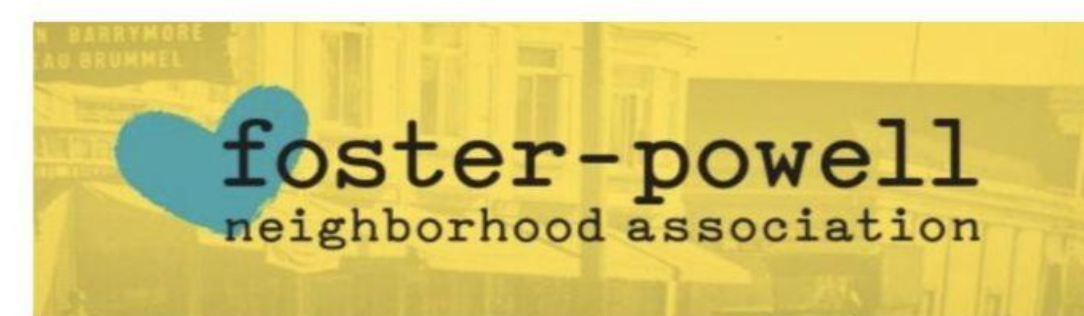


The finalist with the most votes wins!

**Add up the stars, then add up the votes!**



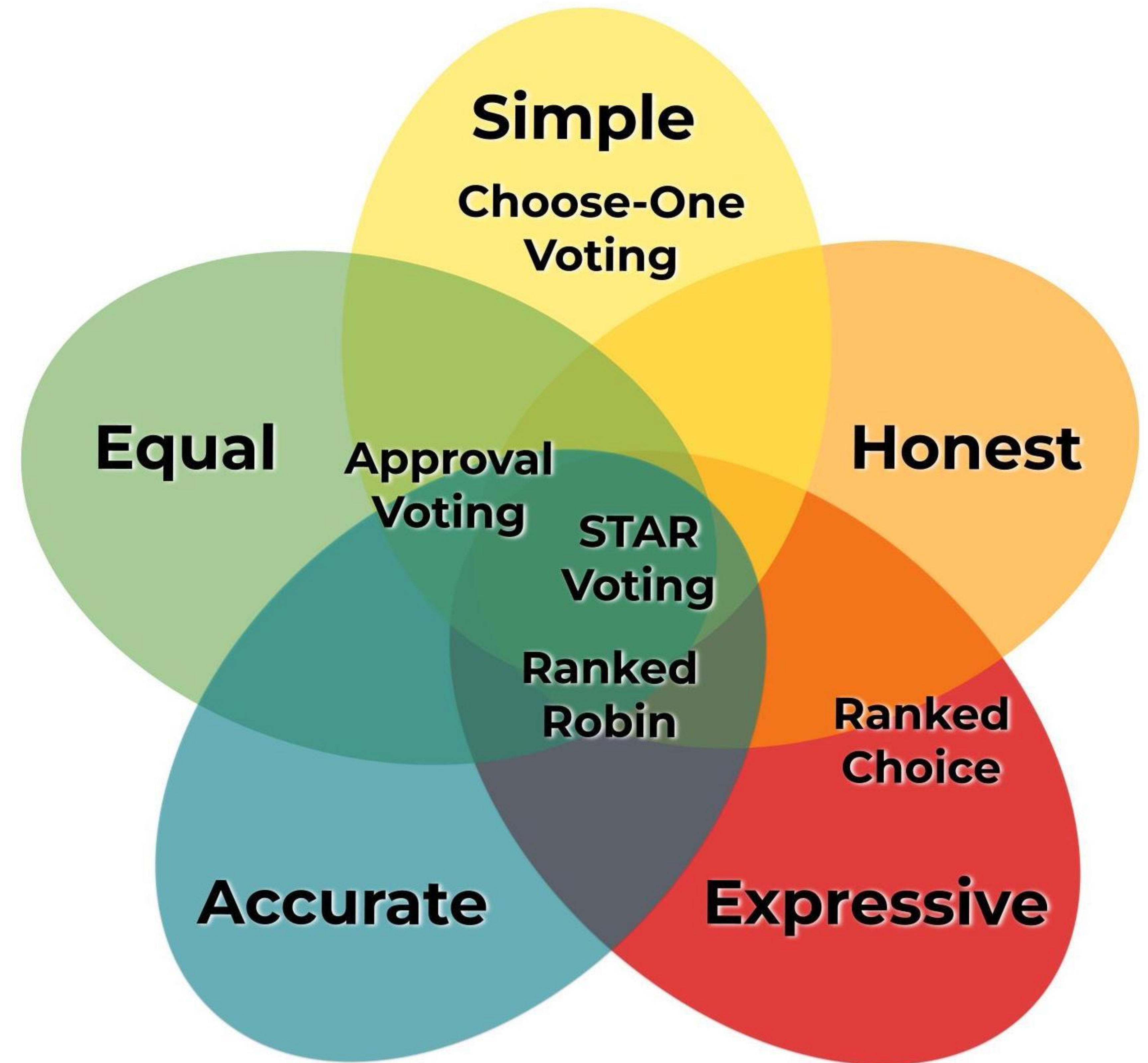
# The STAR Voting Coalition





# WHAT DO WE WANT IN A VOTING METHOD?

- ★ **Simple:** easy to vote, easy to understand results, easy to tally, implement, and audit.
- ★ **Honest:** safe to vote your conscience. Incentivizes good voter behavior.
- ★ **Expressive:** voters are able to express their full opinion.
- ★ **Accurate:** winners reflect the will of the people as best as possible.
- ★ **Equal:** Eliminates vote-splitting. The system does not put some types of voters or candidates at an unfair advantage.





# WHAT IS RANKED CHOICE VOTING?

**Voters rank candidates in order of preference**  
**Votes are tallied in a series of elimination rounds**

## Round 1:

- 1st choice votes are counted to see if any candidate has a majority.
- If not, the last place candidate is eliminated, and those ballots are reallocated to their next choice, *if possible*.
- Votes that cannot be reallocated are discarded. (Exhausted Ballots.)

## Round 2:

- Each remaining ballot counts as one vote for their top ranked candidate.
- If nobody has a majority of *remaining ballots* the last place candidate is eliminated, and those ballots are reallocated to their next choice, if possible.

## Round 3, etc:

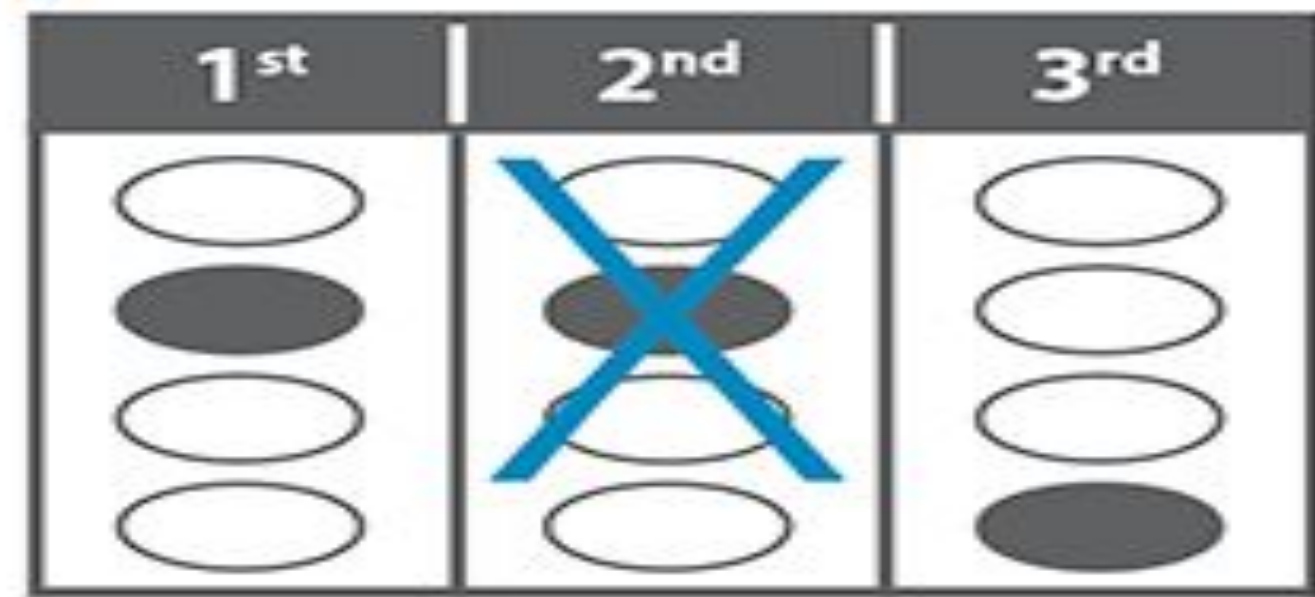
- The process continues until one candidate has a majority of remaining ballots.





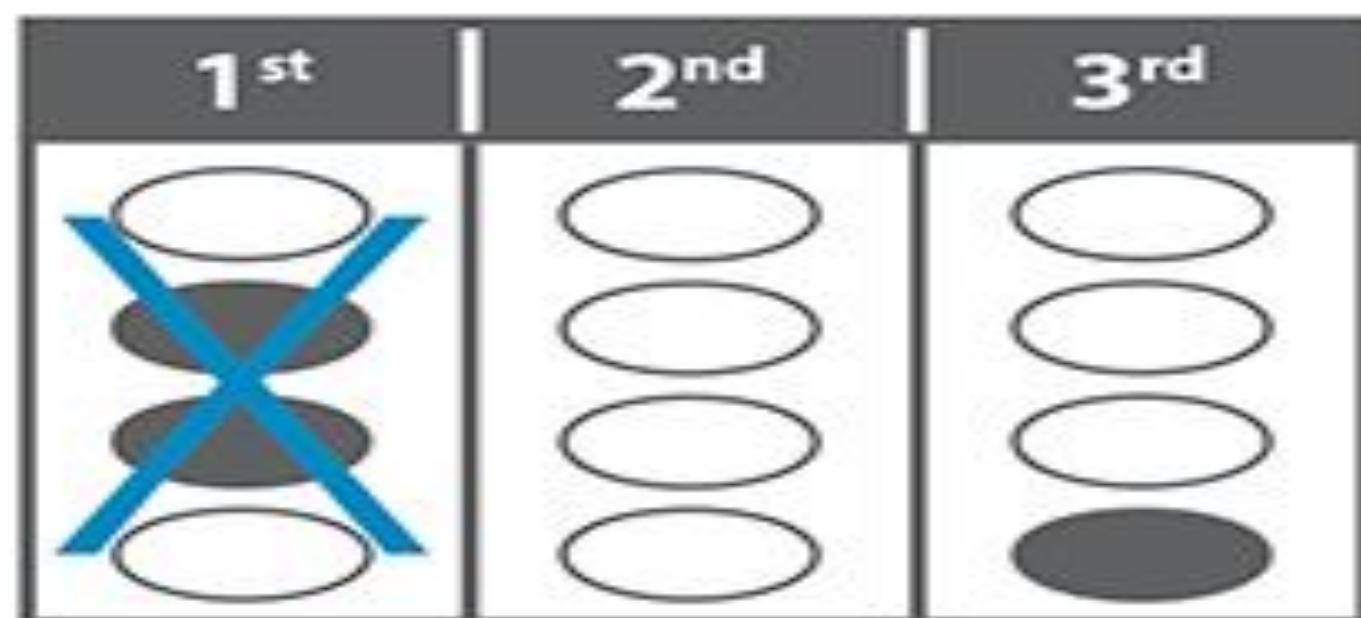
# VOIDED BALLOTS - Ranked Choice

## ERROR 1



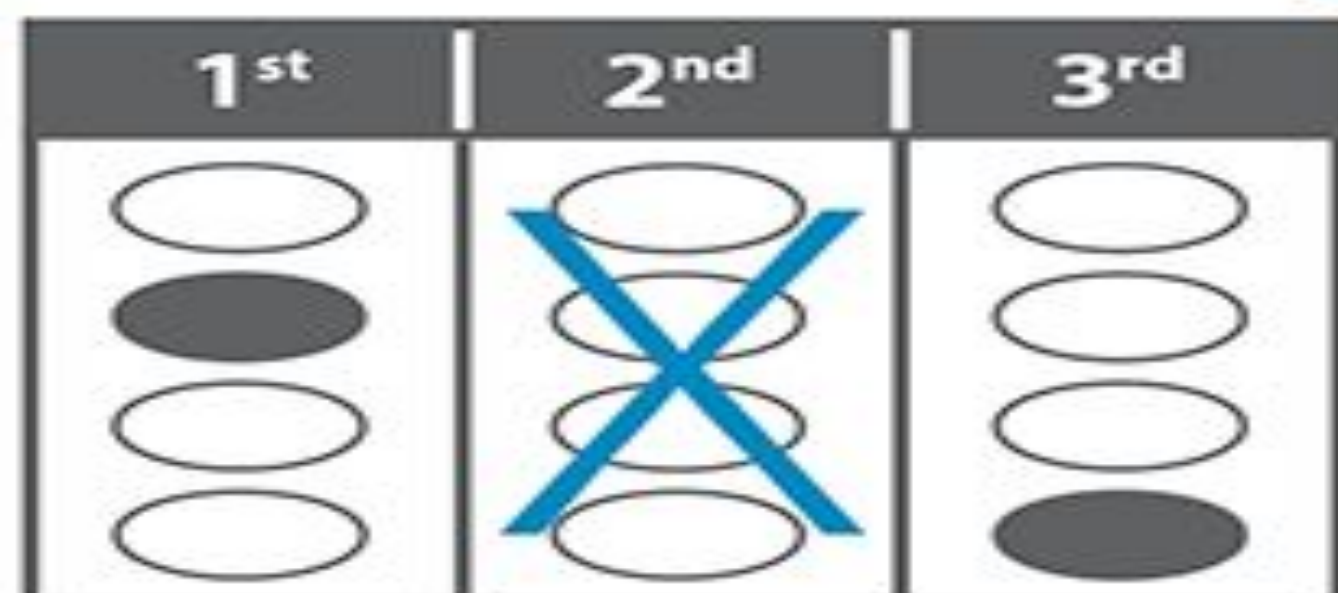
This is a voided ballot.

## ERROR 2



This is a voided ballot.

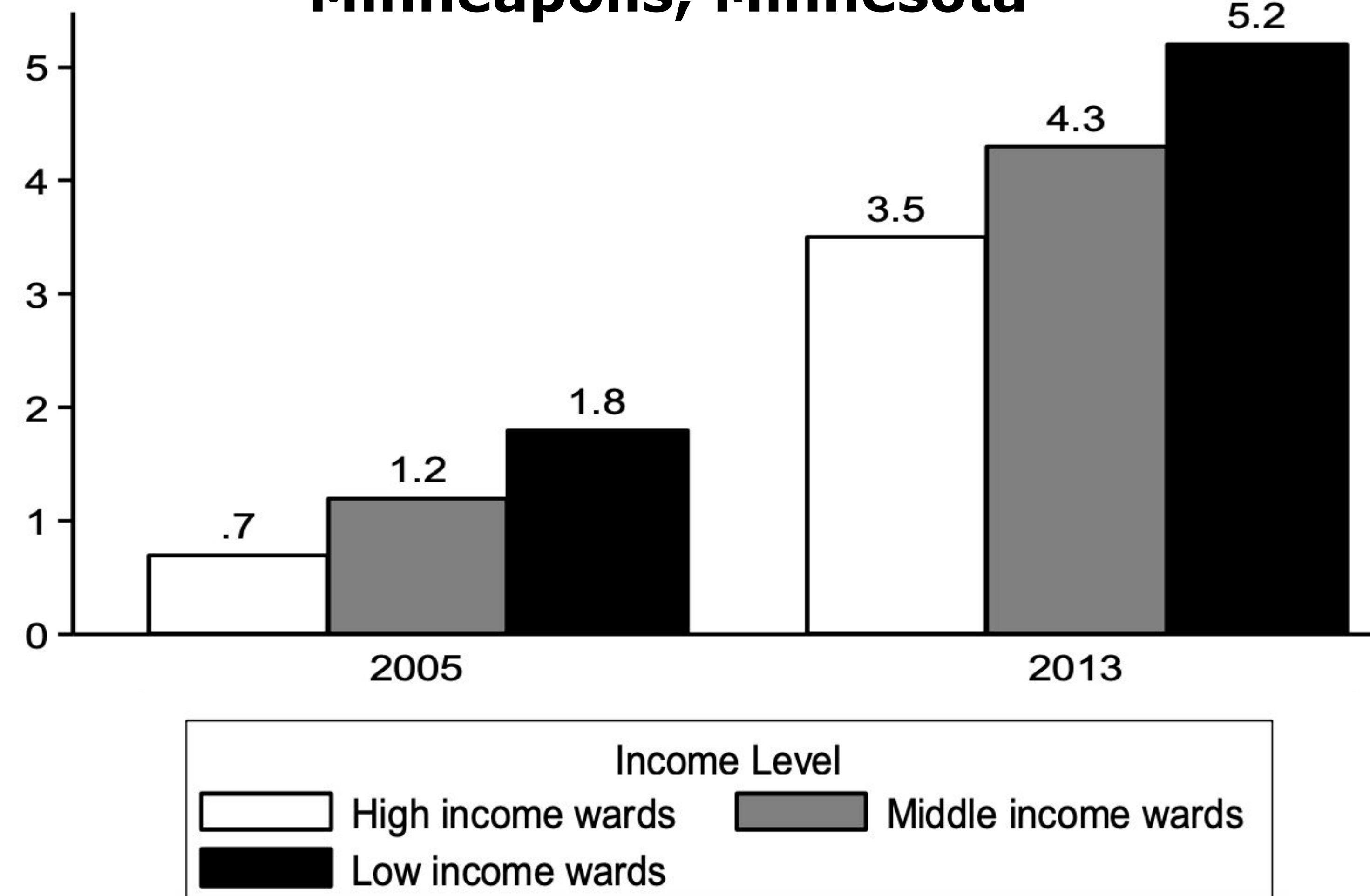
## ERROR 3



This may be a voided ballot.

In RCV, voters can not give candidates equal rankings and can not give multiple rankings to a single candidate. Skipped ranks may or may not be countable. These rules lead to a high rate of "spoiled" or "voided" ballots.

## Voided Ballot Rates by Ward Before and After RCV Adoption Minneapolis, Minnesota



Source: David Kimball. University of Missouri, St. Louis. Conference on Electoral System Reform. Stanford University. March 14-15, 2014. Voter Participation with RCV in the USA



# RANKED CHOICE RESULTS

**Tabulation requires as many round as there are candidates, -1.**

- Top ranks are counted and votes transfer *if possible*.
- In this election, 13,667 ballots were exhausted by the final round. Another 526 were voided due to voter error.
- Over 10% of ballots are exhausted on average.

## Ranked-Choice Voting Official Final Accumulated Results - Mayor of Oakland

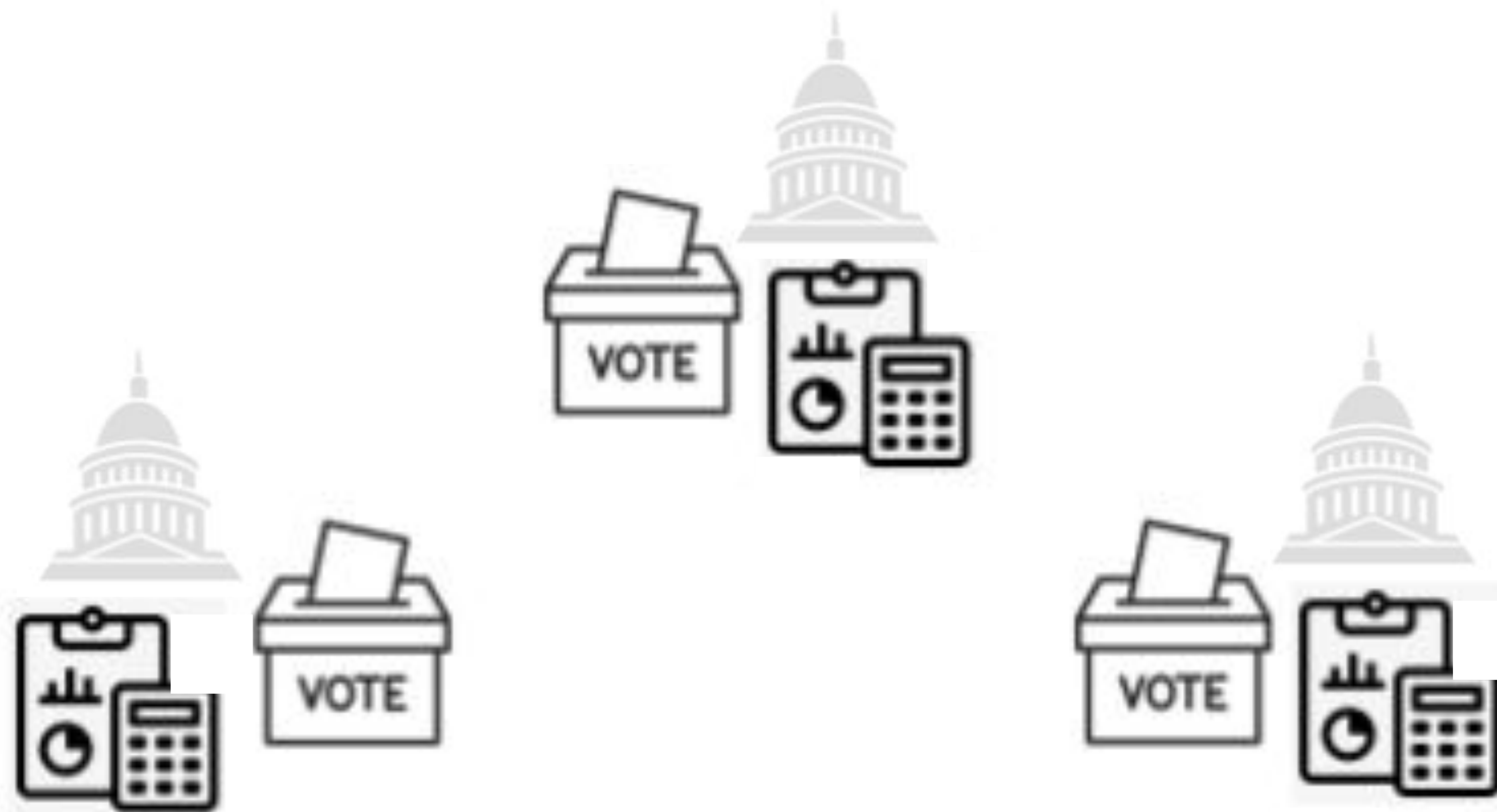
Official Final Accumulated results last updated: Friday, November 19, 2010

[Accumulated Results Detail \(PDF\) \\*\\*](#) [Ballot Image File \(TXT\)](#) [Master Lookup File \(TXT\)](#) [Ballot Image Help \(PDF\) \\*\\*](#) [Comprehensive Report \(PDF\) \\*\\*](#)

|                             | Round 1  |         |          | Round 2       |         |          | Round 3       |         |          | Round 4       |         |          | Round 5       |         |          | Round 6       |         |          | Round 7       |         |          | Round 8       |         |          | Round 9       |         |          | Round 10      |         |          |
|-----------------------------|--|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|---------------|---------|----------|
|                             | Votes  | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer | Votes         | %       | Transfer |
| DON PERATA                  | 40342  | 33.73%  | +32      | 40374         | 33.80%  | +81      | 40455         | 33.90%  | +151     | 40606         | 34.08%  | +122     | 40728         | 34.24%  | +86      | 40814         | 34.39%  | +550     | 41364         | 35.08%  | +824     | 42188         | 36.13%  | +3277    | 45465         | 40.16%  | +6407    | 51872         | 49.04%  | 0        |
| TERENCE CANDELL             | 2315   | 1.94%   | +1       | 2316          | 1.94%   | +70      | 2386          | 2.00%   | +111     | 2497          | 2.10%   | +116     | 2613          | 2.20%   | +67      | 2680          | 2.26%   | -2680    | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| GREG HARLAND                | 966  | 0.81%   | +2       | 968           | 0.81%   | +91      | 1059          | 0.89%   | +28      | 1087          | 0.91%   | -1087    | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| DON MACLEAY                 | 1630   | 1.36%   | +6       | 1636          | 1.37%   | +41      | 1677          | 1.41%   | +42      | 1719          | 1.44%   | +133     | 1852          | 1.56%   | -1852    | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| JEAN QUAN                   | 29266  | 24.47%  | +33      | 29299         | 24.53%  | +92      | 29391         | 24.63%  | +123     | 29514         | 24.77%  | +131     | 29645         | 24.93%  | +855     | 30500         | 25.70%  | +384     | 30884         | 26.19%  | +771     | 31655         | 27.11%  | +3378    | 35033         | 30.94%  | +18864   | 53897         | 50.96%  | 0        |
| ARNOLD FIELDS               | 733  | 0.61%   | +5       | 738           | 0.62%   | -738     | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| JOE TUMAN                   | 14347  | 12.00%  | +10      | 14357         | 12.02%  | +114     | 14471         | 12.13%  | +81      | 14552         | 12.21%  | +228     | 14780         | 12.43%  | +169     | 14949         | 12.60%  | +253     | 15202         | 12.89%  | +260     | 15462         | 13.24%  | -15462   | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| MARCIE HODGE                | 2994   | 2.50%   | +5       | 2999          | 2.51%   | +34      | 3033          | 2.54%   | +122     | 3155          | 2.65%   | +45      | 3200          | 2.69%   | +50      | 3250          | 2.74%   | +375     | 3625          | 3.07%   | -3625    | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| LARRY LIONEL "LL" YOUNG JR. | 933  | 0.78%   | +6       | 939           | 0.79%   | +37      | 976           | 0.82%   | -976     | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| REBECCA KAPLAN              | 25813  | 21.58%  | +18      | 25831         | 21.62%  | +59      | 25890         | 21.69%  | +136     | 26026         | 21.84%  | +91      | 26117         | 21.96%  | +379     | 26496         | 22.32%  | +335     | 26831         | 22.76%  | +644     | 27475         | 23.53%  | +5244    | 32719         | 28.90%  | -32719   | 0             | 0.00%   | 0        |
| Write-In                    | 268  | 0.22%   | -268     | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        | 0             | 0.00%   | 0        |
| Exhausted by Over Votes     | 355  |         | +1       | 356           |         | +6       | 362           |         | +9       | 371           |         | +5       | 376           |         | +4       | 380           |         | +21      | 401           |         | +15      | 416           |         | +45      | 461           |         | +65      | 526           |         | 0        |
| Under Votes                 | 2306   |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        | 2306          |         | 0        |
| Exhausted Ballots           | 0  |         | +149     | 149           |         | +113     | 262           |         | +173     | 435           |         | +216     | 651           |         | +242     | 893           |         | +762     | 1655          |         | +1111    | 2766          |         | +3518    | 6284          |         | +7383    | 13667         |         | 0        |
| Continuing Ballots          | 119607   | 100.00% |          | 119457        | 100.00% |          | 119338        | 100.00% |          | 119156        | 100.00% |          | 118935        | 100.00% |          | 118689        | 100.00% |          | 117906        | 100.00% |          | 116780        | 100.00% |          | 113217        | 100.00% |          | 105769        | 100.00% |          |
| <b>TOTAL</b>                | <b>122268</b>                                  |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> | <b>122268</b> |         | <b>0</b> |
| REMARKS                     | *Tie resolved in accordance with election law. |         |          |               |         |          |               |         |          |               |         |          |               |         |          |               |         |          |               |         |          |               |         |          |               |         |          |               |         |          |

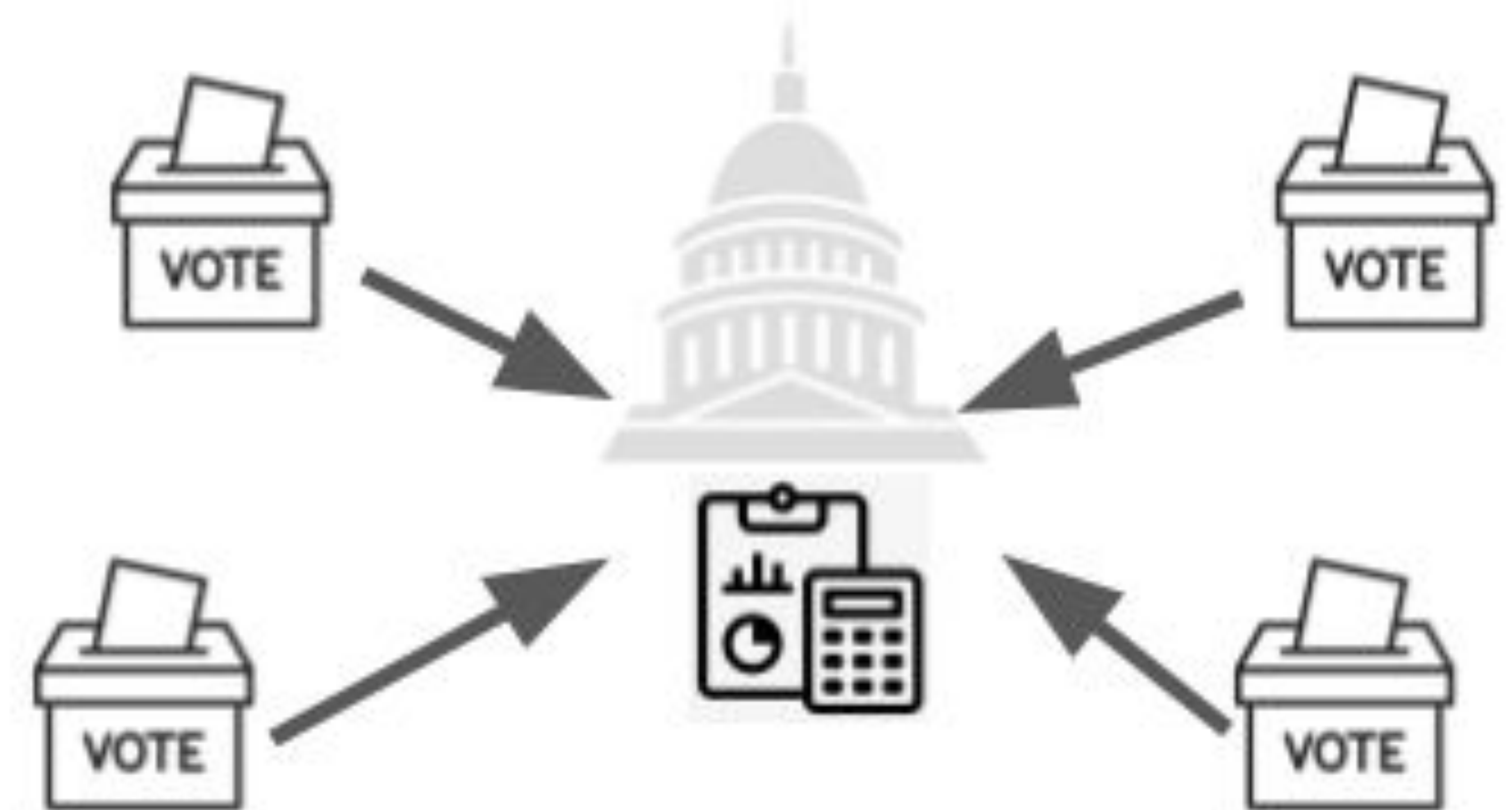


## With STAR Voting ballots are tallied locally



- All ballot data is counted
- Early returns can be fully tallied
- Precinct level results are available
- Tabulation is simple addition
- Auditable with current protocols

## RCV ballots require centralized tabulation



- Not all rankings are counted
- Early returns can't be fully tallied
- Precinct level results aren't available
- Tabulation errors are more likely to occur and harder to catch
- Expensive and difficult to audit



# RCV PROS AND CONS

## PROS:

- Voters can be more expressive.
- More positive campaign incentives.
- Mitigates vote-splitting in races with only two frontrunners.



## CONS:

- More wasted votes.
- Centralized Tabulation.
- More expensive and less secure.
- Doesn't solve the Spoiler Effect in competitive races.
- Outcomes on par with Top-2, not notably better.
- Long delays before results are published.
- Widespread misinformation misrepresents what the system can and can't promise.
- Highly polarized and partisan public opinion.
- Long history of repeals.



# RCV Misconceptions and False Claims

## Most people incorrectly assume, or were incorrectly told that:

- If your favorite can't win, your next choice will be counted.
- It's safe to vote your conscience.
- Your vote won't be wasted
- RCV is as easy as 123.
- Winners will have a true majority.
- RCV is non-polarizing.
- RCV breaks two party domination.

**These claims are all false or oversold.**

## Ranked Choice Voting

- Rank candidates in order of preference.
- Equal ranks are not allowed.
- Candidates left blank are ranked last.

|        | 1st | 2nd | 3rd | 4th | 5th |
|--------|-----|-----|-----|-----|-----|
| Andre  | ●   | ②   | ③   | ④   | ⑤   |
| Blake  | ①   | ②   | ③   | ●   | ⑤   |
| Carmen | ①   | ●   | ③   | ④   | ⑤   |
| David  | ①   | ②   | ●   | ④   | ⑤   |
| Ella   | ①   | ②   | ③   | ④   | ●   |

Votes are counted in rounds. If a candidate has a majority of remaining votes in a round, they are elected; otherwise, the candidate with the fewest votes is eliminated. In each round, your vote goes to the remaining candidate you ranked highest. If your vote is unable to transfer, it is discarded.



# REAL WORLD RCV FAILURES

## **Tabulation Failures** (Jurisdictions which miscalculated and reported incorrect election results):

- NYC, New York mayoral election. Democratic primary 2021: It was discovered that 135k test ballots had been added to the official reported results. Board of Elections did not catch the error.
- Alameda County, California. 2022 General Election: In all races, the steps in RCV were conducted out of order, causing the wrong candidate to be certified as the winner in one race. Board of Elections did not catch the error.

## **Results Failures** (Jurisdictions where RCV failed to elect the candidate preferred over all others):

- Alaska House Special Election, Aug. 2022. The candidate preferred over all others lost. The two Republicans split the vote and the seat flipped Democratic for the first time.
- Burlington, Vermont, 2009. The candidate preferred over all others lost.

## **Implementation and Legal Failures** (Jurisdictions that passed RCV but have been unable to implement it.):

- Vancouver, WA. Santa Clara County, CA. Memphis, TN. Sarasota, FL. Ferndale, MI. Austin, TX. Hoboken, NJ

## **Bans** (Jurisdictions that have banned RCV):

- Tennessee, Florida, Idaho, Montana. (In North Dakota the legislature passed an RCV ban but it was vetoed by the Governor because it also included Approval Voting, which was already in use in Fargo.)

## **Repeals** (Jurisdictions that implemented and then repealed RCV):

- Cary, NC. Aspen, CO. Ann Arbor, MI. Pierce County, WA. Sunnyvale, CA. Burlington, VT (later re-adopted). North Carolina. Hendersonville, NC. Eastpointe, MI. 10 cities in Utah.



# RANKED CHOICE VOTING: Alaska US House '22 Special Election

## Candidates:

- Nich Begich (R)
- Sarah Palin (R)
- Mary Peltola (D)

## At a glance:

- 60% voted for a Republican 1st choice.
- Nick Begich (R) would have defeated Palin (R) or Peltola (D) head-to-head.
- Mary Peltola, the Democrat, won.
- 8% of votes were exhausted (not able to be counted in the final round between Peltola and Palin.)

## Vote totals\*:

- 53% preferred Begich over Peltola
- 61% preferred Begich over Palin
- 51% preferred Peltola over Palin

\* Not counting exhausted ballots.

## Takeaways:

- Palin was a 'Spoiler'. She split the Republican vote, causing them to lose.
- The Republican majority could have won if they had:
  - a. not run two candidates.
  - b. voted strategically for Nick Begich, the lesser evil.
- Ranking Palin 1st backfired and helped elect her supporters' last choice. If they hadn't voted at all, or had voted strategically, their 2nd choice would have won.
- Rather than electing the moderate from the majority faction, RCV fueled polarization by electing the minority faction candidate and flipping the seat.

## Voters were wrongly told that:

- a. it was safe to vote their conscience
- b. their votes wouldn't be wasted
- c. their 2nd choices would be counted if their first choice couldn't win
- d. the majority preferred candidate would win
- e. RCV isn't polarizing
- f. RCV eliminates the Spoiler Effect

These misleading claims spurred a wave of statewide RCV bans in 2023, with Idaho and Montana banning RCV outright. Similar bans were attempted in N. Dakota, Arizona, and Missouri. Tennessee and Florida had banned RCV previously.

**Advocates have to stop selling RCV with false claims!**



## *New York Mayor's Race in Chaos After Elections Board Counts 135,000 Test Ballots*

The extraordinary sequence of events threw the closely watched Democratic primary contest into a new period of uncertainty and seeded further confusion about the outcome.



A new vote tally released by the Board of Elections suggested that Eric Adams's lead in the mayoral primary had winnowed; the results were later taken down. James Estrin/The New York Times



By **Katie Glueck**

Published June 29, 2021 Updated Nov. 4, 2021

The [New York City mayor's race](#) plunged into chaos on Tuesday night when the city Board of Elections released a new tally of votes in the [Democratic mayoral primary](#), and then removed the tabulations from its website after citing a “discrepancy.”

Then, around 10:30 p.m., the board finally released a statement, explaining that it had failed to remove sample ballot images used to test its ranked-choice voting software. When the board ran the program, it counted “both test and election night results, producing approximately 135,000 additional records,” the statement said. The ranked-choice numbers, it said, would be tabulated again.

The extraordinary sequence of events seeded further confusion about the outcome, and threw the closely watched contest into a new period of uncertainty at a consequential moment for the city.

...

The results released earlier in the day had suggested that the race between [Eric Adams](#) and his two closest rivals had tightened significantly.

But just a few hours after releasing the preliminary results, the elections board issued a [cryptic tweet](#) revealing a “discrepancy” in the report, saying that it was working with its “technical staff to identify where the discrepancy occurred.”

By Tuesday evening, the tabulations had been taken down, replaced by a [new advisory](#) that the ranked-choice results would be available “starting on June 30.”

...

A comparison between first-place vote totals released on primary night and those released on Tuesday offered some insight into how the 135,000 erroneous votes were distributed. The bottom four candidates received a total of 42,000 new votes, roughly four times their actual vote total; the number of write-in ballots also skyrocketed to 17,516 from 1,336. Mr. Adams and Mr. Yang received the highest number of new votes.

It was not known, however, how the test votes were reallocated during the ranked-choice tabulations, making it impossible to determine how they affected the preliminary results that were released and then retracted. ...



## Alameda County admits tallying error in ranked-choice voting, flips one result and raises big questions

Jill Tucker, Jordan Parker, J.D. Morris, Nami Sumida

Dec. 28, 2022 | Updated: Jan. 3, 2023 11:36 a.m.



More than 50 days after the November election and days before winners take office, Alameda County election officials announced that a programming error led to a miscount across all ranked-choice contests, including a race in which an Oakland school board candidate was wrongly declared the winner.

The revelation came well after the county certified the results and raised questions not only about what happens next, but whether the mistake could further erode faith in fair elections.

...

San Francisco political consultant Jim Ross said he had never seen anything like the vote-count reversal in his three decades of political work in numerous states.

More than 50 days after the November election and days before winners take office, Alameda County election officials announced that a programming error led to a miscount across all ranked-choice contests, including a race in which an Oakland school board candidate was wrongly declared the winner.

The revelation came well after the county certified the results and raised questions not only about what happens next, but whether the mistake could further erode faith in fair elections.

“As somebody who does politics for a living, I’m kind of shocked, outraged and just dismayed about it all,” he said. “You count on the registrar of voters to conduct the election in a way that’s fair and competent.... It really feeds into the distrust that so many people have in our electoral system when this sort of thing happens.”

...

FairVote, an election reform group, alerted Alameda County to the problem with November’s vote, and officials subsequently confirmed the miscount.

...

The Alameda County registrar explained that if a voter didn’t select a candidate as first choice, then the second choice should have been counted as the first choice in the first round. The same would occur in subsequent rounds moving lower choices up into the empty slot. Instead, the erroneous algorithm didn’t count any vote in a round if a space was blank.

...

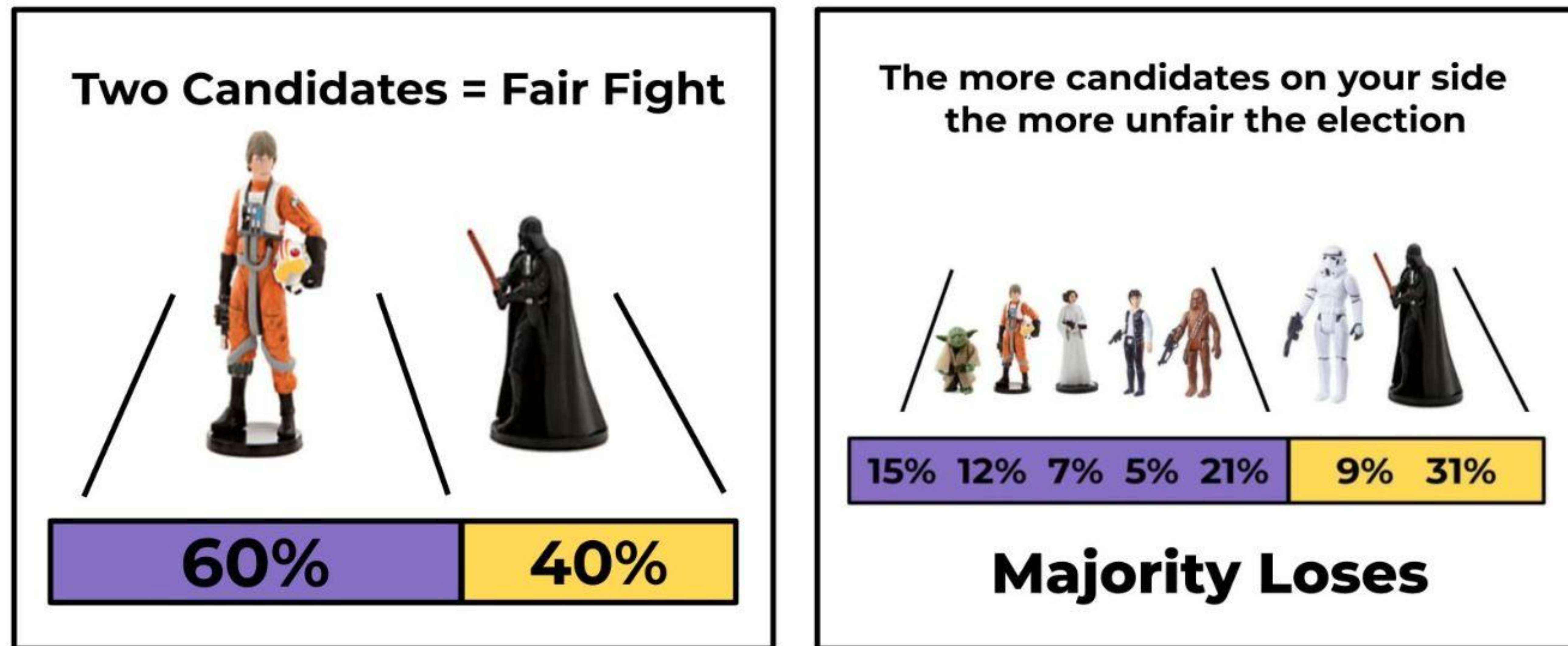
More than 200 ballots were considered suspended and not counted correctly in the Oakland District Four school director race. A majority of these suspended votes, 115, were for Hutchinson.

Without the suspended votes in the first-round results, the ranked-choice voting algorithm incorrectly determined that Hutchinson had the fewest votes and eliminated him in the first round. But with the suspended votes, Hutchinson’s vote tally grows to 8,227, making him the second-highest vote-getter in the first round after Resnick. Hutchinson then won by a few hundred votes in the second round.



# DIVIDED AND CONQUERED

In systems where voters can only support one candidate, *or only one at a time*, vote-splitting can allow a candidate who is opposed by the majority to win.



RVC works just like a series of Choose-One elections, so it can have vote-splitting in any or every round.



# INTRODUCING ... STAR VOTING!

**STAR Voting was invented to address valid concerns with RCV, and go further to deliver on its goals.**

|        | Worst |   |   |   |   | Best |
|--------|-------|---|---|---|---|------|
|        | 0     | 1 | 2 | 3 | 4 | 5    |
| Andre  | 0     | 1 | 2 | 3 | 4 | 5    |
| Blake  | 0     | 5 | 2 | 3 | 4 | 5    |
| Carmen | 0     | 1 | 2 | 3 | 5 | 5    |
| David  | 0     | 1 | 2 | 3 | 5 | 5    |
| Ella   | 5     | 1 | 2 | 3 | 4 | 5    |

- Ballot shows level of support *and* preferences.
- Easier for voters, especially with larger fields of candidates
- Counted using simple addition
- Compatible with current election protocols and equipment
- Highly accurate and representative results.
- Eliminates vote-splitting
- Elects majority preferred winners.
- Winners have strong and broad support.



# HOW DOES STAR VOTING WORK?



- Give your favorite(s) five stars.
- Give your last choice(s) zero stars.
- Show preference order and level of support.
- Equal scores indicate no preference.
- Those left blank receive zero stars.

|        | Worst |   |   |   |   | Best |
|--------|-------|---|---|---|---|------|
|        | 0     | 1 | 2 | 3 | 4 | 5    |
| Andre  | 0     | 1 | 2 | 3 | 4 | 5    |
| Blake  | 0     | 1 | 2 | 3 | 4 | 5    |
| Carmen | 0     | 1 | 2 | 3 | 4 | 5    |
| David  | 0     | 1 | 2 | 3 | 4 | 5    |
| Ella   | 0     | 1 | 2 | 3 | 4 | 5    |

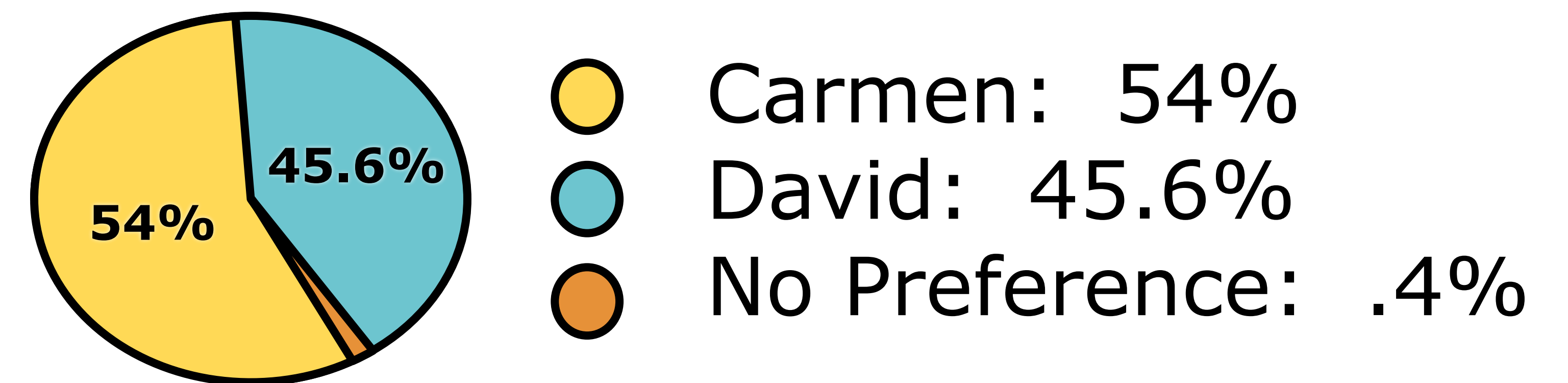
The two highest scoring candidates are finalists.  
Your full vote goes to the the finalist you prefer.

## Score • Then • Automatic • Runoff

With STAR Voting you only have to vote once, and the ballots are counted in a two step process:

**Scoring Round:** The two highest scoring candidates are finalists.

**Automatic Runoff:** Your vote automatically goes to the finalist you scored higher. The finalist preferred by the majority wins.



For multi-winner Bloc STAR elections the process repeats until all seats are filled.



# STAR RESULTS

**STAR Voting is tallied in 2 rounds:**  
**1.) Add up the stars.      2.) Add up the votes.**

|   |           |                    |                     |                          |  |
|---|-----------|--------------------|---------------------|--------------------------|--|
| Number of voters: 2909  | 5/30/2020 | Justin Amash wins  | with STAR Voting    |                          |  |
| <b>OFFICIAL RESULTS: Libertarian Party 2020 Presidential Nomination - STAR Voting Poll: May</b> |           |                    |                     |                          |  |
|   |           | <b>Total Score</b> | <b>Runoff Votes</b> | <b>% of Runoff Votes</b> |  |
| Justin Amash  |           | 8018               | 1404                | 55%                      |  |
| Jim Gray  |           | 7220               | 1138                | 45%                      |  |
| Jacob Hornberger  |           | 3193               |                     |                          |  |
| Jo Jorgensen  |           | 2625               |                     |                          |  |
| Adam Kokesh   |           | 2324               |                     |                          |  |
| Daniel Behrman  |           | 1941               |                     |                          |  |
| John Monds  |           | 1707               |                     |                          |  |
| Sam Robb  |           | 1315               |                     |                          |  |
| Sorinne Ardeleanu   |           | 929                |                     |                          |  |
| Arvin Vohra   |           | 919                |                     |                          |  |



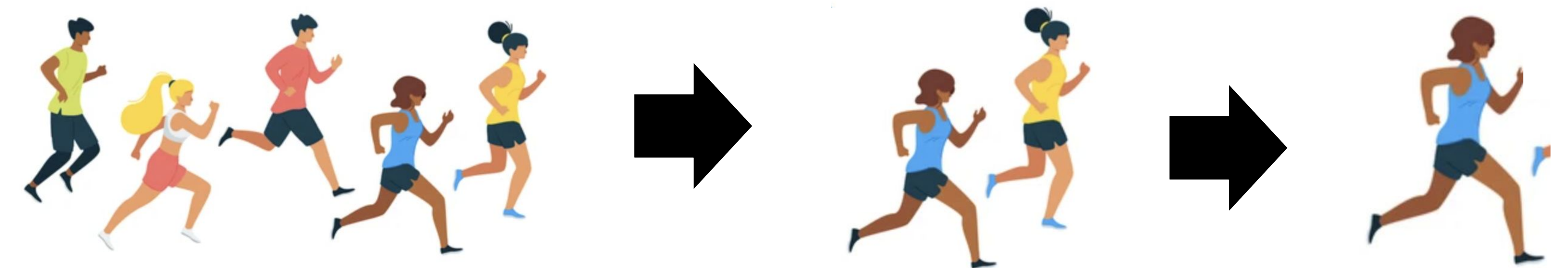
# EMPOWERING VOTER VOICE

## The 5 Star Ballot

|                   | Worst |   |   |   |   | Best |
|-------------------|-------|---|---|---|---|------|
| Score Candidates: | 0     | 1 | 2 | 3 | 4 | 5    |
| Andre             | ○     | ○ | ○ | ○ | ● | ○    |
| Blake             | ●     | ○ | ○ | ○ | ○ | ○    |
| Carmen            | ○     | ○ | ○ | ○ | ○ | ●    |
| David             | ○     | ○ | ○ | ○ | ● | ○    |

- Allows voters to easily show both preference order, and level of support.
- Stars and votes are both tallied with addition.
- Best for cognitive load.

## The Top-2 Runoff



- Eliminates vote-splitting.
- Your ballot is your vote, and your *full* vote goes to the finalist you prefer.
- If your favorite can't win, your full vote still makes a difference.



# Single-Winner Voting Method Scorecard

|  | Choose-One Plurality                            | Ranked Choice (IRV)  | STAR   |
|--|---|--|--|
| Spoiler Effect / Vote Splitting?                   | YES   | YES - With 3 or more viable candidates.                                      | NO   |
| Gives an advantage to some types of candidates?    | Favors polarizing candidates who are "viable".  | Strong underdog candidates are at a disadvantage.                            | NO   |
| Wasted Votes and Exhausted Ballots?                | Not voting for a front-runner is a wasted vote. | Exhausted Ballots are not counted in the final round.                        | NO   |
| Ballots tabulated locally?                         | YES   | NO   | YES  |
| Tabulation Complexity                              | Add up votes.<br>2 Elections Needed.            | Multiple elimination rounds and vote transfers.<br>Only one election needed. | Add up stars,<br>then add up votes.<br>Only one election needed. |
| Accuracy measured by Voter Satisfaction Efficiency | 72 - 86%  | 80 - 91%   | 91 - 98%   |
| Strategic Voting Incentives                        | 17 : 1<br>Strongly incentivised                 | 2.7 : 1<br>Weakly incentivised   | 1 : 1<br>Not incentivised  |

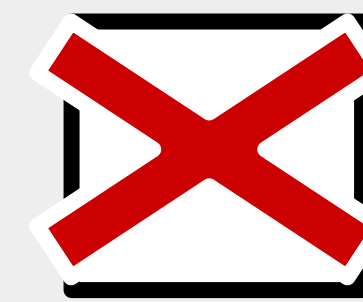




# WHICH METHODS ELIMINATE VOTE-SPLITTING?



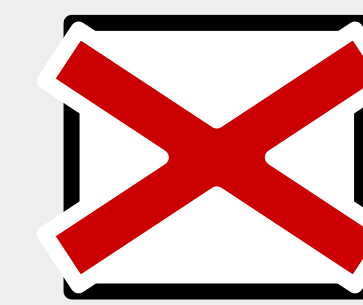
**STAR Voting**  
(Single-Winner and Proportional)



**Choose-One Plurality**  
(Current System)



**Ranked Robin**  
(Condorcet voting)



**Ranked Choice Voting \***  
(Single-Winner and Proportional)



**Approval Voting**

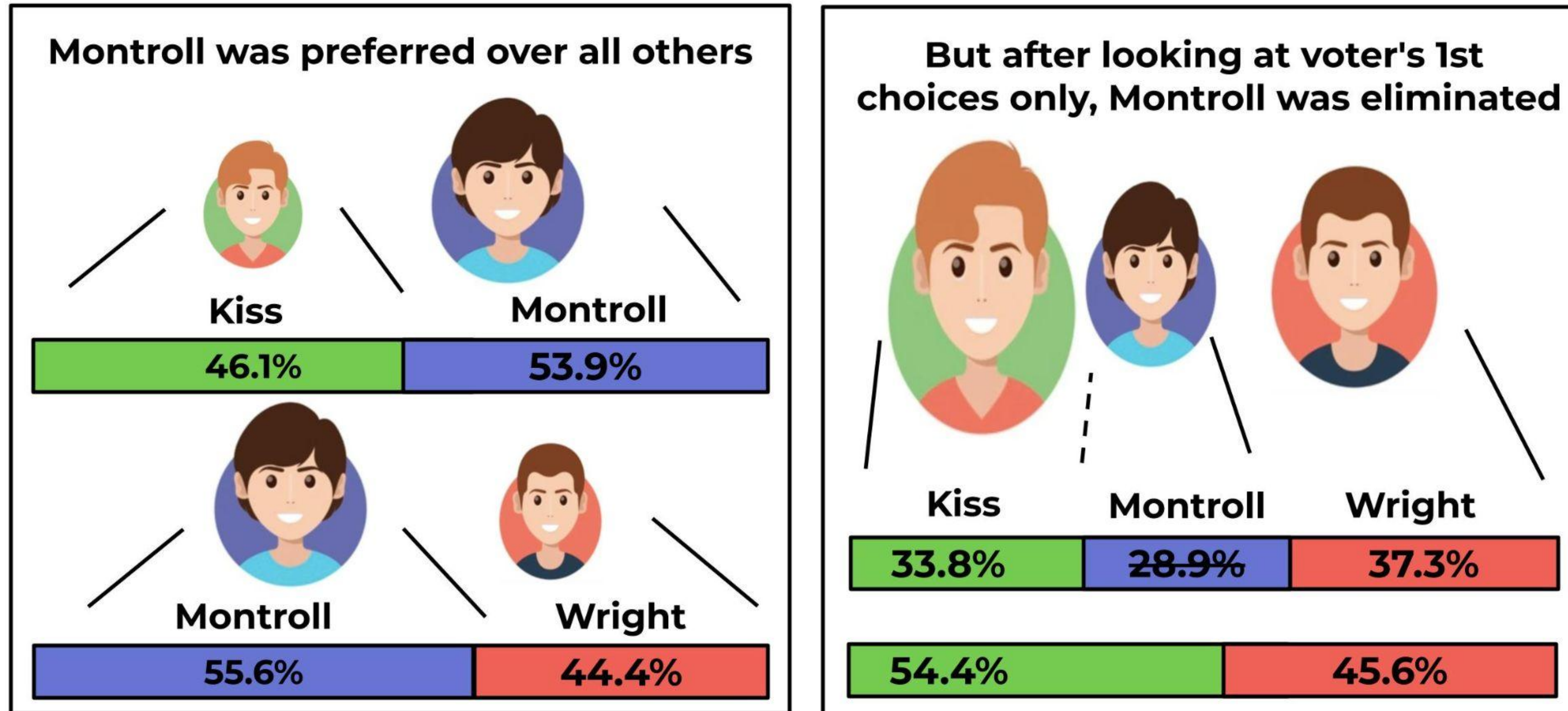
**Voting methods *eliminate* vote-splitting if they:**

- 1. Allow voters to support as many candidates as they like.**
- 2. Allow voters to support candidates equally.**
- 3. Count all ballot data given.**

\* Instant Runoff and Single Transferable Vote do *mitigate* vote-splitting in less competitive elections, but the claim is often oversold.



# Ranked Choice Voting and the Spoiler Effect in the 2009 Burlington Mayoral Election



Montroll was preferred over both his opponents, but because he had less first choice votes than either, he was eliminated first. Voter's rankings which showed the full size of his base were never counted.



# COMBATTING STRATEGIC VOTING

## Ensuring that it's safe to support your favorite

- In our current system and in Ranked Choice, it's not necessarily safe to vote for your favorite.
- Voters don't want to waste their vote on a candidate who can't win, and voting for the "lesser of two evils" is incentivised.
- In STAR Voting you should always give your honest favorite 5 stars.

## Incentivising voters to show their preference order

- In STAR Voting the runoff creates strong incentives for voters to show their preference order between the candidates.
- Showing your preference order ensures that your vote makes a difference whether or not your favorite makes the runoff.



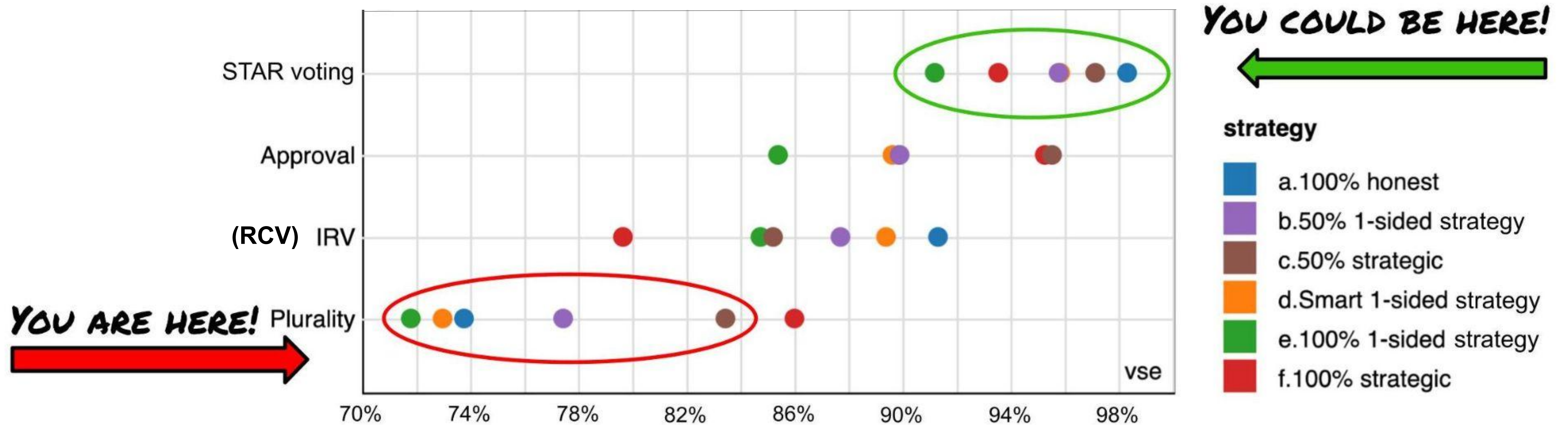
### VOTING THEORY FACTS:

- No voting method can eliminate strategic incentives in every scenario.
- No voting method can pass every desirable criteria.
- Many criteria are mutually exclusive, including "Favorite Betrayal" and "Later No Harm."
- The goal is to ensure good incentives and good outcomes in practice.



# VOTING METHOD ACCURACY

Studies like this one simulate realistic election scenarios and measure how often each voting method can be expected to pick the most representative winner.



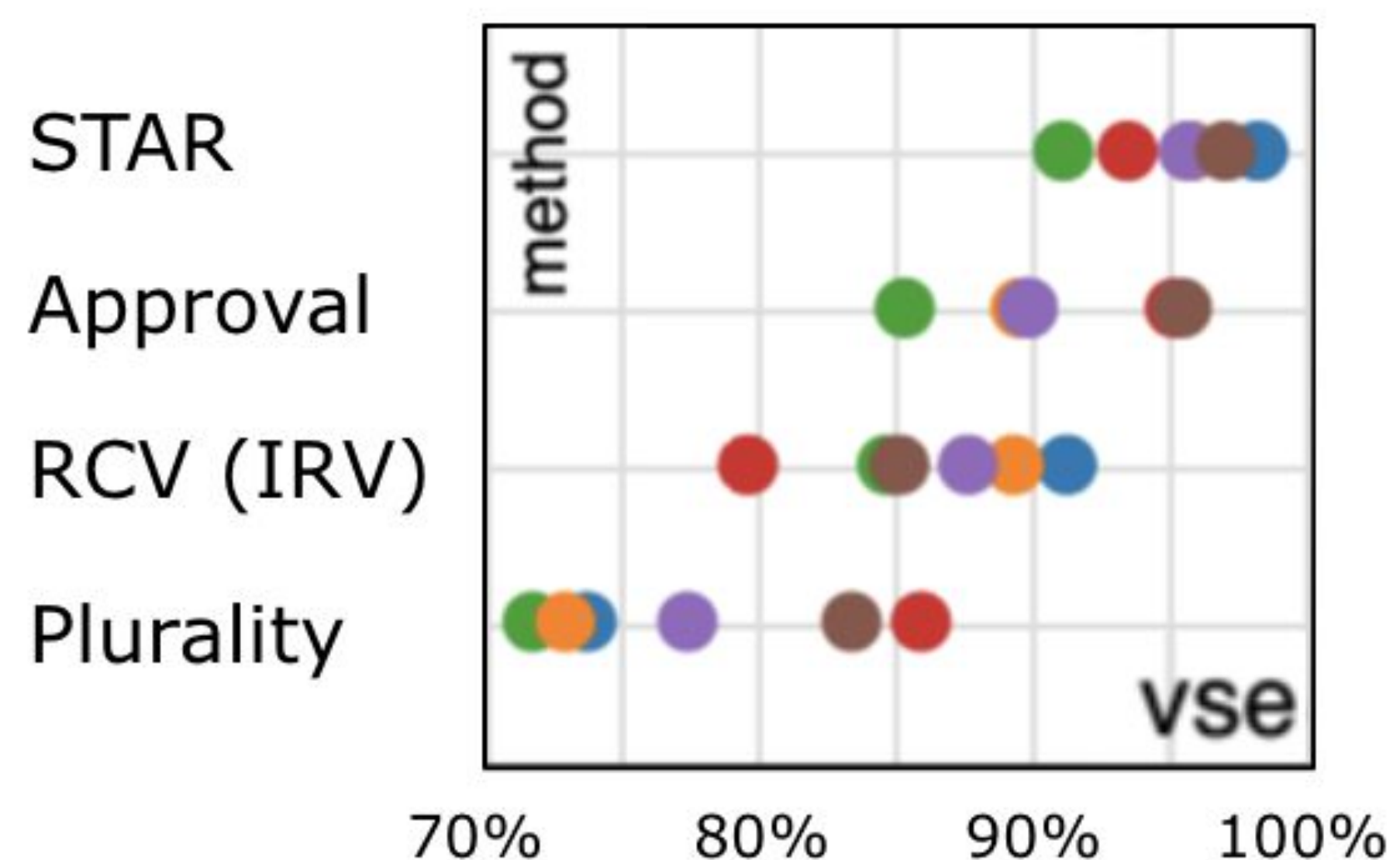
Voter Satisfaction Efficiency by Dr. Jameson Quinn, PhD in Statistics, Harvard



# FAIR - ACCURATE - EQUAL

## STAR Voting is the next generation in voting reform.

- STAR tops the charts in every study and statistical analysis of voting method accuracy.
- The star ballot collects the best quality data possible on voter opinion, and then it uses all that data.
- No ballot data is wasted or ignored. Every ballot is counted in both rounds.
- The Scoring Round measures level of support - how much do voters like each candidate.
- The Automatic Runoff measures number of supporters - how many voters prefer each finalist.
- STAR voting eliminates vote-splitting and the spoiler effect and guarantees that the voting method passes the highest bar for One-Person-One-Vote.



### VOTING THEORY FACTS:

- The invention of STAR Voting was predicted in 2000 when studies on "Bayesian Regret" showed that Score voting when combined with a top two runoff was the best at electing the candidate who best represents the will of the people.
- The legal definition of one-person-on-vote requires ensuring an equally weighted vote when possible, which can only be done by eliminating vote-splitting.

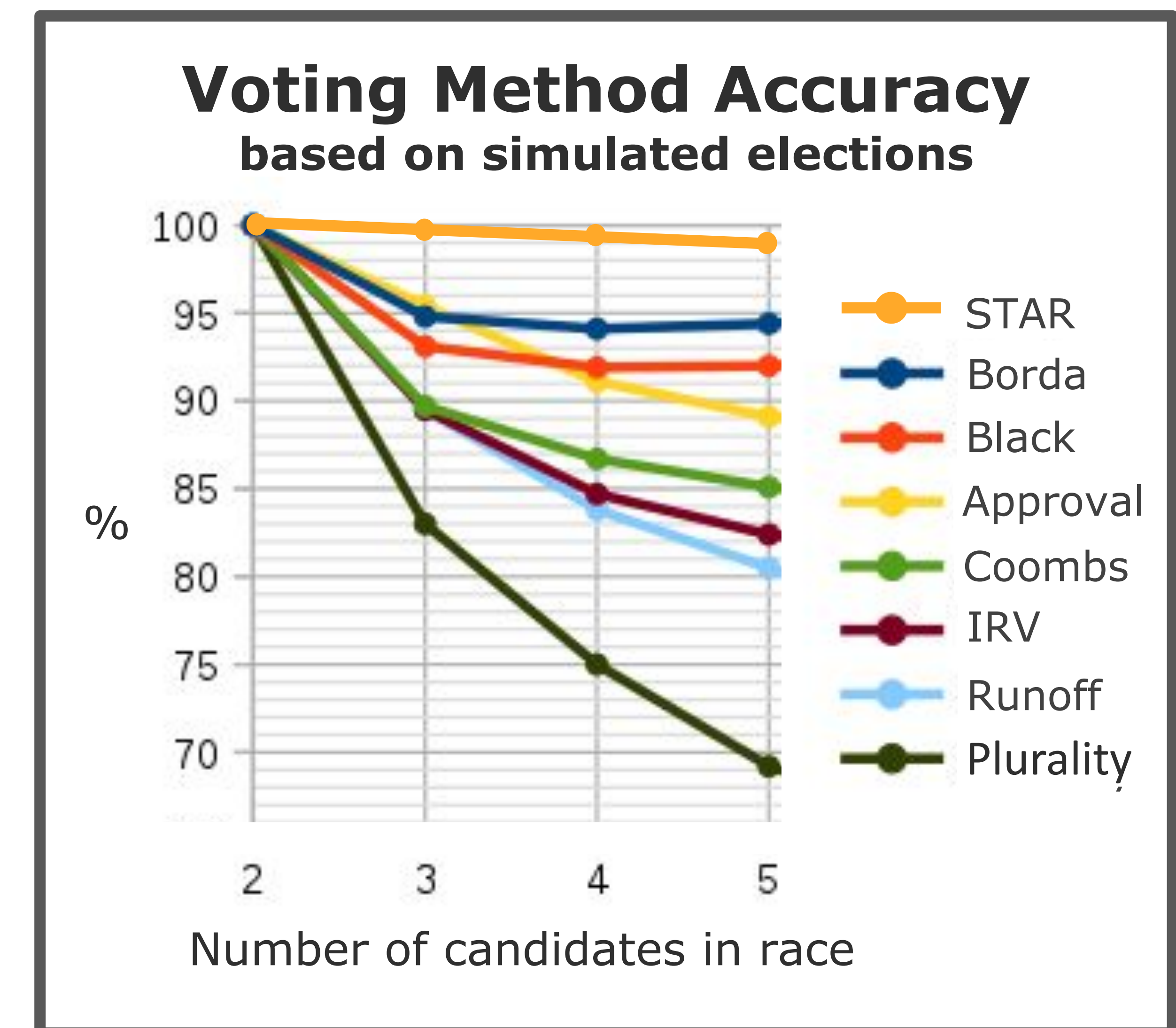


# ACCURACY IN COMPETITIVE ELECTIONS

The accuracy of our current voting method (Plurality) declines dramatically when we have elections with more than two candidates, which is why most places use a two round system with a primary and general election (Runoff) to narrow the field.

Ranked Choice Voting ("IRV") uses a ranked ballot, but only counts one ranking per round, so results closely mirror that of the current system.

When there are three or more competitive candidates RCV deteriorates significantly and vote-splitting in any round can cause candidates to be eliminated in the wrong order. The more viable candidates there are in the race, the more likely unrepresentative outcomes are to occur.





# WHERE IS STAR VOTING UNDER CONSIDERATION?



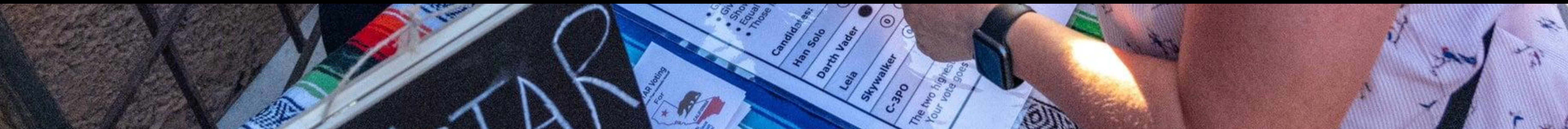
*\*Map slightly squished*



# LET'S LEAD ON THIS ISSUE!

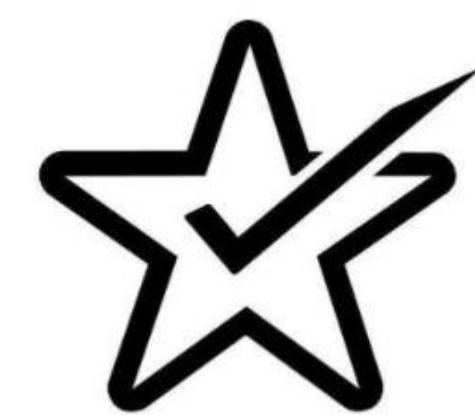


Learn more at [starvoting.us](https://starvoting.us)





# COMPARING STAR AND RANKED CHOICE



## STAR VOTING

SCORE - THEN - AUTOMATIC - RUNOFF

- Give your favorite(s) five stars.
- Give your last choice(s) zero stars.
- Show preference order and level of support.
- Equal scores indicate no preference.
- Those left blank receive zero stars.

| Score Candidates: | Worst |     |     |     |     | Best |
|-------------------|-------|-----|-----|-----|-----|------|
|                   | 0     | ★ 1 | ★ 2 | ★ 3 | ★ 4 | ★ 5  |
| Abby              | 0     | 1   | 2   | 3   | 4   | 5    |
| Ben               | 0     | 1   | 2   | 3   | 4   | 5    |
| Carmen            | 0     | 1   | 2   | 3   | 4   | 5    |
| DeAndre           | 0     | 1   | 2   | 3   | 4   | 5    |
| Eric              | 0     | 1   | 2   | 3   | 4   | 5    |

The two highest scoring candidates are finalists.  
Your vote goes to the the finalist you prefer.

←→  
Voter  
Instructions

←→  
Tabulation

## Ranked Choice Voting aka Instant Runoff Voting

Rank candidates in order of preference.  
You can't give the same ranking twice.

| Rank Candidates: | 1st | 2nd | 3rd | 4th | 5th | 6th |
|------------------|-----|-----|-----|-----|-----|-----|
| Abby             | 1   | 2   | 3   | 4   | 5   | 6   |
| Ben              | 1   | 2   | 3   | 4   | 5   | 6   |
| Carmen           | 1   | 2   | 3   | 4   | 5   | 6   |
| DeAndre          | 1   | 2   | 3   | 4   | 5   | 6   |
| Eric             | 1   | 2   | 3   | 4   | 5   | 6   |

First choice votes are counted and the candidate who came in last place is eliminated. This process continues in tournament style rounds. In each round, ballots for the eliminated candidate are reallocated to the voter's next remaining choice, if possible. If the next choice has already been eliminated then the ballot is 'exhausted' and does not count in subsequent rounds.



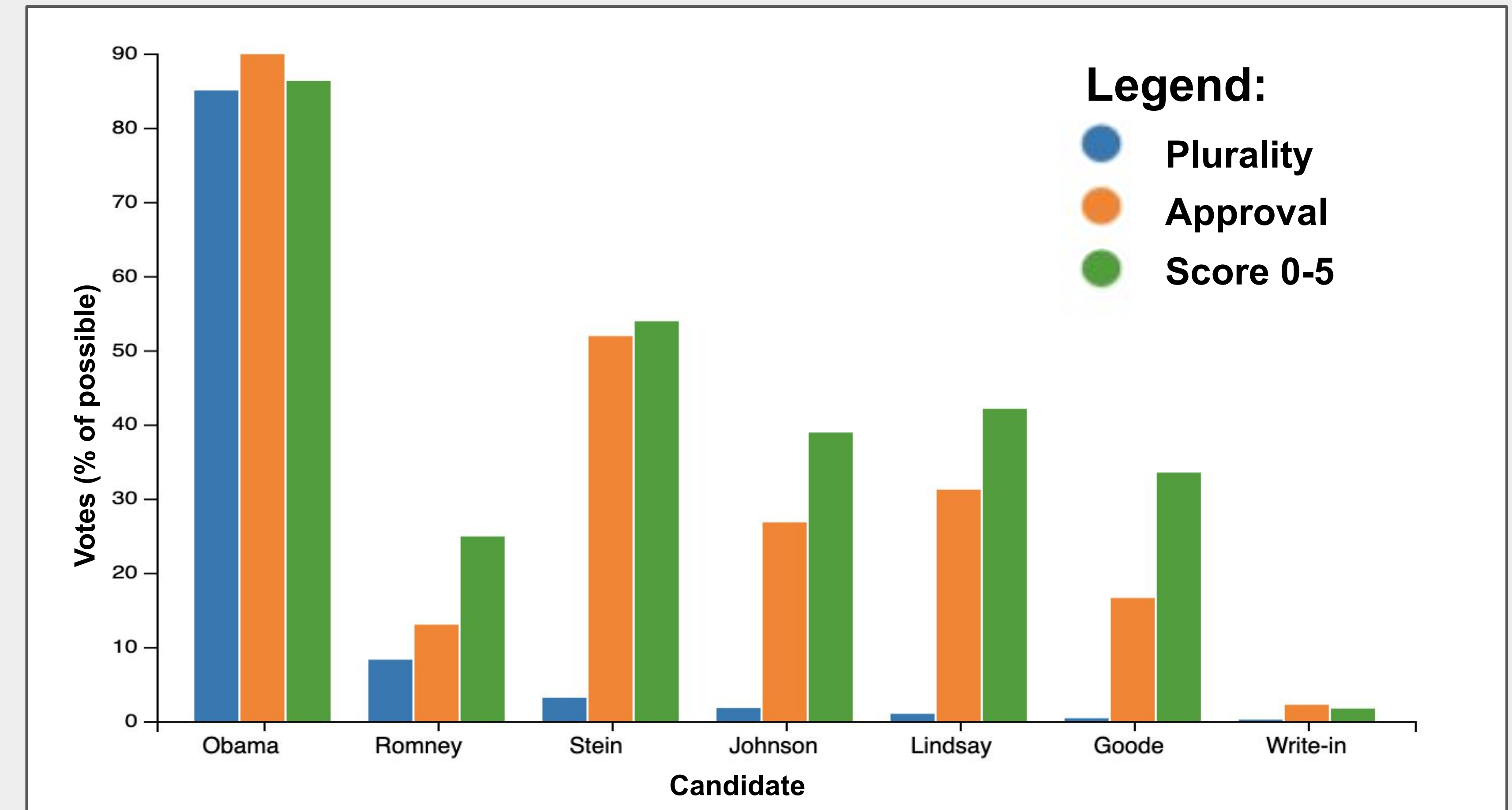
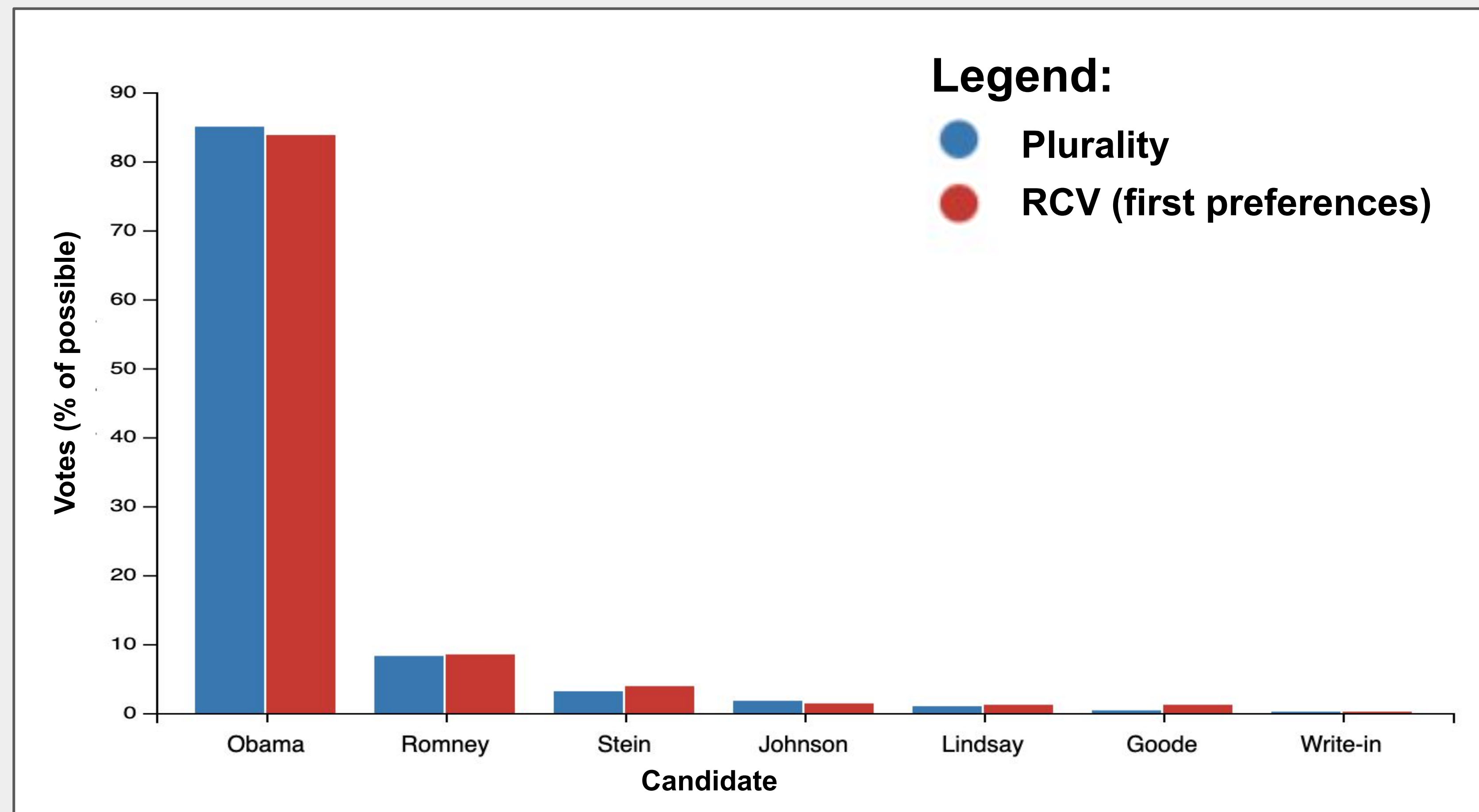
# RANKED CHOICE DEAL BREAKERS

- **Wasted votes:** RCV wastes votes in serious ways that are rare or non-existent in other methods.
  - Highest rate of voided ballots
  - Exhausted ballots
  - On average 10.9% of ballots are not counted in the deciding round
  - Voters from already marginalized communities are more likely to have their votes wasted or voided.
  - Voting for your favorite can backfire and hurt
- **Equality of voice:** RCV does not adequately address vote-splitting or ensure an equally weighted vote.
  - Vote-splitting causes inequity
  - Factions who run more candidates are statistically disadvantaged
  - Unlike gerrymandering, vote-splitting is easy to solve
- **Centralized Tabulation:** With RCV most rankings will not be counted, and so you need to have all ballots in hand to determine the order of elimination and thus which information is relevant.
  - Ballots must be all compiled in one place
  - Tabulating ballots locally or by the batch is impossible
  - Reporting preliminary results is impossible
  - Not compatible with our current auditing and security standards
  - Statewide election integrity laws would have to be weakened for RCV to be viable for races that cross county lines.



# MEASURING PUBLIC OPINION

- A 2012 exit poll in NYC looked at **voter behavior** under alternative voting methods; Plurality was compared to Approval, 5 Star, and Ranked Choice.
- The winner had over 50%, so in the RCV election only the first choice votes were counted. As a result the **Plurality and RCV results are nearly identical**. (left)
- The **Approval and 5 Star results show the full breadth of voter support**. (right)
- For candidates and their supporters it's critical to know how competitive they actually are.



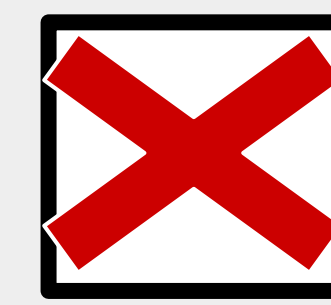


# THE EQUAL VOTE CRITERION

Voting methods that pass the Equal Vote Criterion eliminate vote-splitting



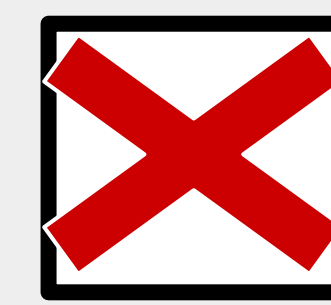
**STAR Voting**



**Choose-One Plurality**  
(Current System)



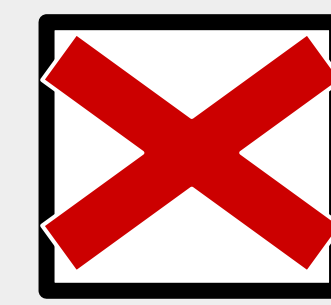
**Ranked Robin**  
(Condorcet voting)



**Ranked Choice Voting**  
(Instant Runoff Voting version)



**Approval  
Voting**



**Single Transferable Vote**  
(Proportional Ranked Choice)

**Ensuring an Equal Vote can be done with any ballot if you:**

- Allow voters to support as many candidates as they like.
- Allow voters to support candidates equally.
- Count all ballot data given.



# STAR VOTING IS ADAPTABLE

## Electoral System



Nonpartisan Elections



Partisan Elections

## Number of Winners



Single-winner



Multi-winner



Proportional Representation

## Primaries



Without primaries



STAR Voting  
top 5 primary and  
general election

## Districting



Single-winner  
districts



Multi-member  
districts

## Election Integrity



No centralized  
tabulation



Risk-Limiting  
Auditable



No new voting  
machines or  
new hardware



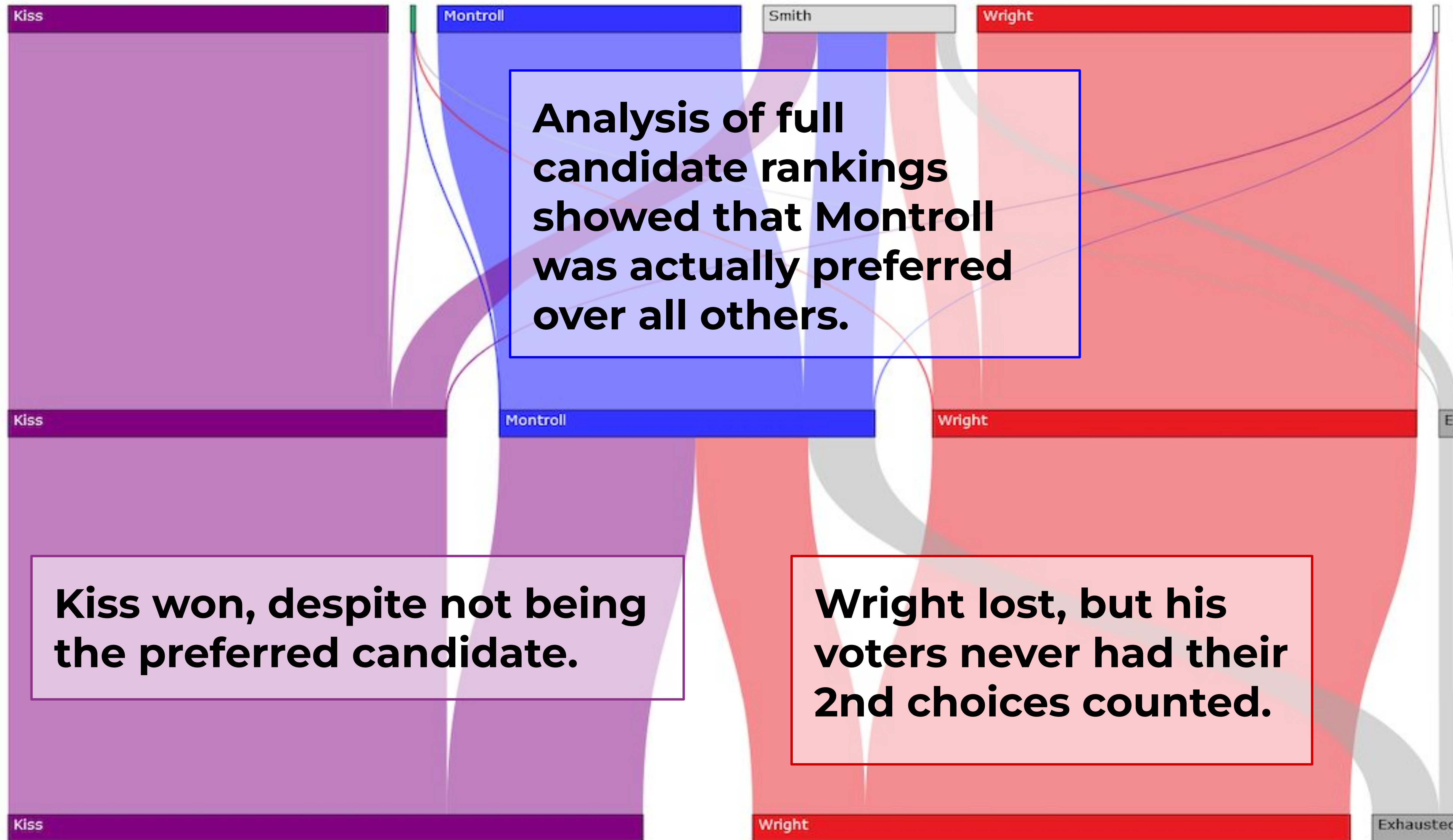
Vote By Mail



Quick and  
transparent  
results



# Wasted Votes in the 2009 Burlington RCV Mayoral Election



Analysis of full candidate rankings showed that Montroll was actually preferred over all others.

Kiss won, despite not being the preferred candidate.

Wright lost, but his voters never had their 2nd choices counted.

**DETAIL OF EXHAUSTED BALLOTS**  
These ballots were not counted in the deciding round, despite being numerous enough to have flipped the election.

The detail shows a red bar at the top and a grey bar at the bottom labeled 'Exhausted'. A grey arrow points from the top of the red bar down to the 'Exhausted' bar. A small box labeled 'E' is located to the right of the red bar.

**Kiss Wins**

Montroll was also the majority preferred candidate. If all ballot data had been counted he would have won.



## A FALSE MAJORITY

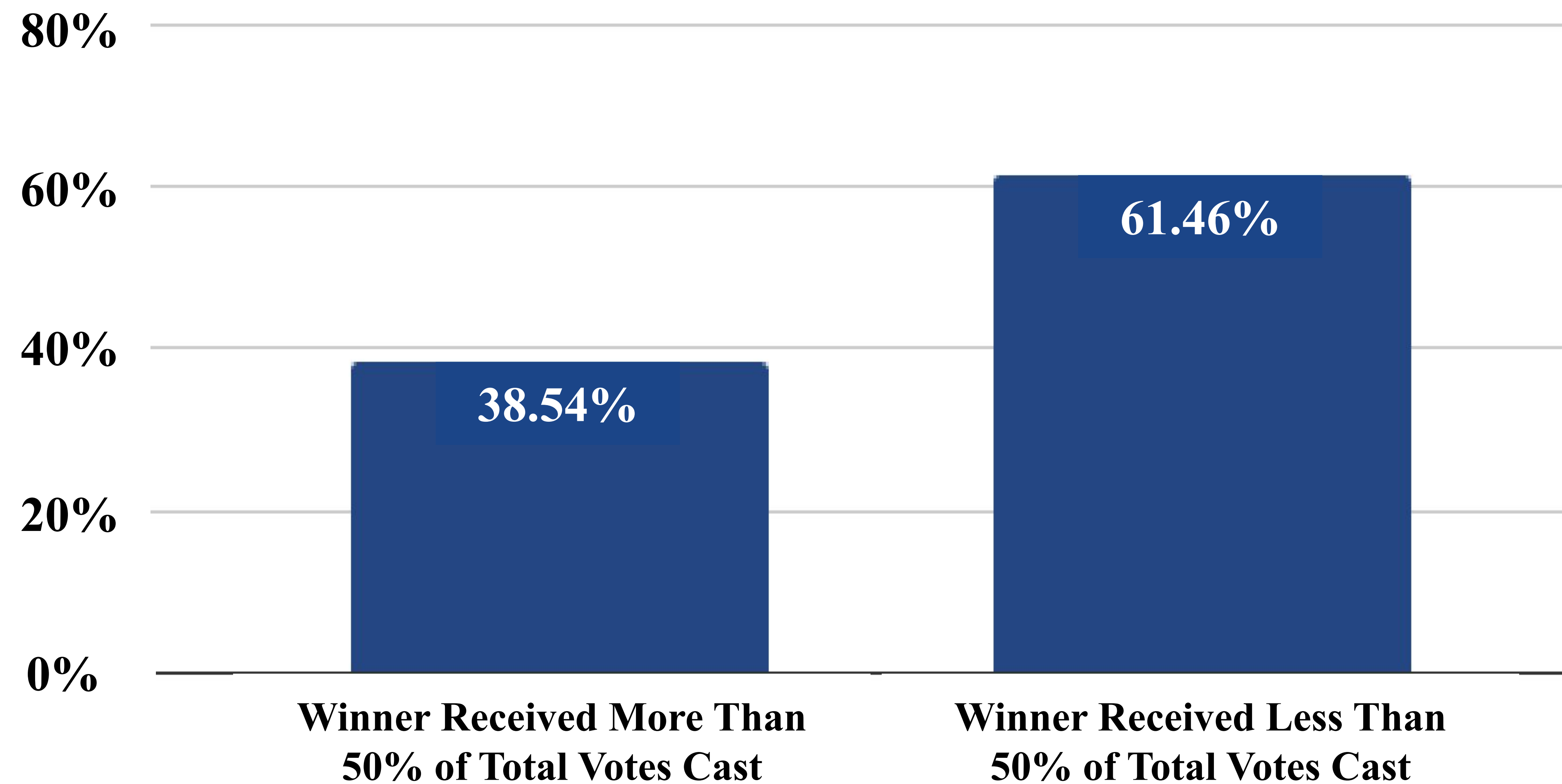
"Too often, proponents of ballot initiatives advance lofty claims to win support at the ballot box."

"In examining 96 ranked-choice voting races from across the country where additional rounds of tabulation were necessary to declare a winner, The Maine Heritage Policy Center concludes that the eventual winner failed to receive a true majority 61% of the time."

"the claim that ranked-choice voting always provides a majority winner ... is false and deserves further scrutiny from voters."

"While candidates sometimes do receive a majority of the total votes cast, a winner is often declared only after a large number of exhausted ballots have been removed from the final denominator."

**Figure 5: Percentage of Competitive RCV Elections That Did Not Result In A Majority Winner**



Source: The Maine Heritage Policy Center



# BULLET VOTING

In both Ranked Choice and STAR Voting some voters may "bullet vote" and **only vote for their favorite**. In both systems, if the voter did have a more nuanced opinion this is **not effective** and their vote is **less likely to make a difference**.

| Ranked Choice Voting<br>aka Instant Runoff Voting |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|
| Rank Candidates:                                  | 1st | 2nd | 3rd | 4th | 5th |
| Abby  | ①   | ②   | ③   | ④   | ⑤   |
| Ben   | ●   | ②   | ③   | ④   | ⑤   |
| Carmen  | ①   | ②   | ③   | ④   | ⑤   |

| ★ <b>STAR VOTING</b><br>SCORE - THEN - AUTOMATIC - RUNOFF |       |     |     |     |      |     |
|---|-------|-----|-----|-----|------|-----|
|   | Worst |     |     |     | Best |     |
| Score Candidates:   | 0     | ★ 1 | ★ 2 | ★ 3 | ★ 4  | ★ 5 |
| Abby  | ①     | ②   | ③   | ④   | ⑤    |     |
| Ben   | ①     | ②   | ③   | ④   | ●    |     |
| Carmen  | ①     | ②   | ③   | ④   | ⑤    |     |


## Who are Bullet Voters?

- Voters who have a polarized opinion and only like one candidate.
- Voters who only have one candidate on their side.
- Lazy or rushed voters who don't take the time to vote expressively.
- Voters who strategically decide not to show support for other candidates, even though this is not a good strategy in either STAR or RCV.



# NO-PREFERENCE VOTES IN THE STAR RUNOFF

- With STAR, voters can score as many or as few candidates as they want because **equal scores are allowed**.
- Allowing voters to give equal scores in STAR helps **prevent spoiled ballots**, and it's also key for *eliminating vote-splitting* between similar candidates and **maintaining election accuracy in larger fields of candidates**.
- Ballots counted as no-preference in the runoff **are counted** in both the scoring round and the runoff, and they **do make a difference** to help advance these voter's candidates who were more preferred.

 **STAR VOTING**  
SCORE - THEN - AUTOMATIC - RUNOFF

- Give your favorite(s) five stars.
- Give your last choice(s) zero stars.
- Show preference order and level of support.
- Equal scores indicate no preference.
- Those left blank receive zero stars.

| Score Candidates: | Worst |   |   |   |   | Best |
|-------------------|-------|---|---|---|---|------|
|                   | 0     | 1 | 2 | 3 | 4 | 5    |
| Andre             | 0     | 1 | 2 | 3 | 4 | 5    |
| Blake             | 0     | 1 | 2 | 3 | 4 | 5    |
| Carmen            | 0     | 1 | 2 | 3 | 4 | 5    |
| David             | 0     | 1 | 2 | 3 | 4 | 5    |
| Ella              | 0     | 1 | 2 | 3 | 4 | 5    |
| Fernando          | 0     | 1 | 2 | 3 | 4 | 5    |
| Gabe              | 0     | 1 | 2 | 3 | 4 | 5    |
| Helena            | 0     | 1 | 2 | 3 | 4 | 5    |
| Ira               | 0     | 1 | 2 | 3 | 4 | 5    |



# WASTED VOTES - Ballot Limitations

## Ranked Choice Voting aka Instant Runoff Voting

Rank candidates in order of preference.  
You can't give the same ranking twice.

| Rank Candidates: | 1st | 2nd | 3rd | 4th | 5th |
|------------------|-----|-----|-----|-----|-----|
| Abby             | ①   | ②   | ③   | ④   | ⑤   |
| Ben              | ①   | ②   | ③   | ④   | ●   |
| Carmen           | ①   | ②   | ●   | ④   | ⑤   |
| DeAndre          | ①   | ●   | ③   | ④   | ⑤   |
| Eric             | ①   | ②   | ③   | ●   | ⑤   |
| Francisco        | ①   | ②   | ③   | ④   | ⑤   |
| Graham           | ●   | ②   | ③   | ④   | ⑤   |
| Hector           | ①   | ②   | ③   | ④   | ⑤   |
| Irma             | ①   | ②   | ③   | ④   | ⑤   |

- RCV ballots only allow voters to rank a limited number of candidates.
- Limiting the number of ranks in RCV helps prevent spoiled ballots, but increases the number of exhausted ballots in races with large fields of candidates.
- With STAR, voters can score as many or as few candidates as they want because equal scores are allowed.

## **STAR VOTING** SCORE - THEN - AUTOMATIC - RUNOFF

- Give your favorite(s) five stars.
- Give your last choice(s) zero stars.
- Show preference order and level of support.
- Equal scores indicate no preference.
- Those left blank receive zero stars.

| Score Candidates: | Worst | 0 | 1 | 2 | 3 | 4 | Best | 5 |
|-------------------|-------|---|---|---|---|---|------|---|
| Andre             | ①     | ② | ③ | ④ | ● | ⑤ |      |   |
| Blake             | ●     | ① | ② | ③ | ④ | ⑤ |      |   |
| Carmen            | ①     | ② | ③ | ④ | ⑤ | ● |      |   |
| David             | ①     | ② | ③ | ④ | ⑤ | ● |      |   |
| Ella              | ①     | ● | ② | ③ | ④ | ⑤ |      |   |
| Fernando          | ①     | ② | ● | ④ | ⑤ |   |      |   |
| Gabe              | ①     | ② | ③ | ④ | ⑤ | ● |      |   |
| Helena            | ①     | ② | ③ | ● | ⑤ |   |      |   |
| Ira               | ●     | ① | ② | ③ | ④ | ⑤ |      |   |



# Peer Review and Academic Articles on RCV

Ranked Choice was invented 150 years ago and there is a wealth of data on where it delivers and where it falls short.

RCV does well in races where only two candidates are competitive, and successfully eliminates "The Nader Effect" if a 3rd party candidate is truly non-viable.

But, in elections with multiple viable candidates Ranked Choice Voting breaks down, producing non-representative and counterintuitive results. For this reason RCV has not broken two party domination in the countries where it's been used the longest. RCV is not suitable for primary elections or general elections with multiple viable parties or candidates.

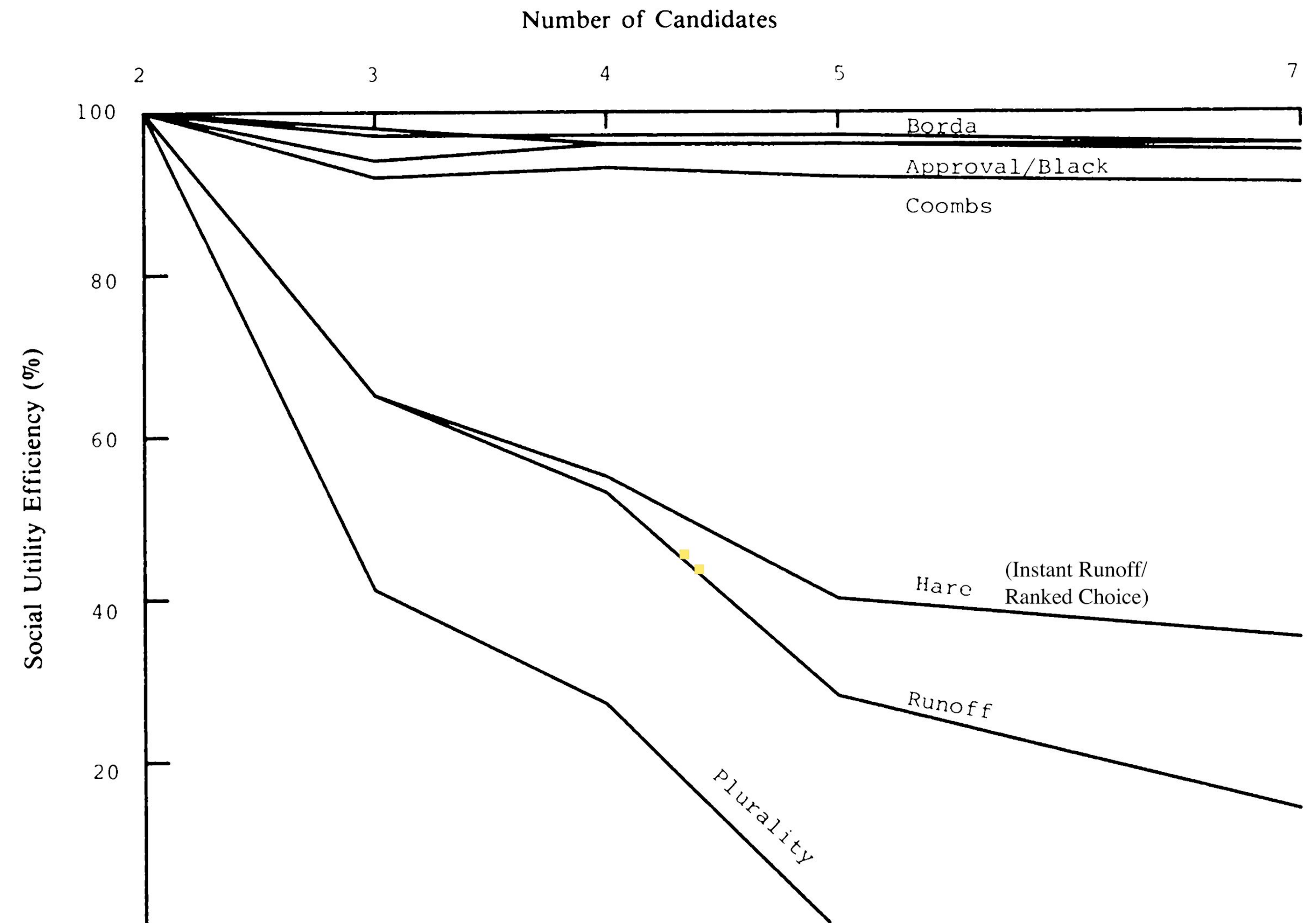


FIGURE 4.b

Social Utility Efficiency under Spatial Model Assumptions  
(201 voters, two dimensions, correlation = .5, relative dispersion = .5)

Merrill, Samuel (1984). "A Comparison of Efficiency of Multicandidate Electoral Systems".



# Frequency of monotonicity failure under Instant Runoff Voting: estimates based on a spatial model of elections

Joseph T. Ornstein and Robert Z. Norman

Public Choice

Vol. 161, No. 1/2 (October 2014), pp. 1-9

(9 pages)

Published By: Springer

<https://www.jstor.org/stable/24507512>



"Instant Runoff Voting (IRV) suffers from a defect known as nonmonotonicity, wherein *increasing support* for a candidate among a subset of voters may *adversely affect* that candidate's election outcome"

<https://www.jstor.org/stable/24507512?seq=1>

## Abstract

It has long been recognized that Instant Runoff Voting (IRV) suffers from a defect known as nonmonotonicity, wherein increasing support for a candidate among a subset of voters may adversely affect that candidate's election outcome. The expected frequency of this type of behavior, however, remains an open and important question, and limited access to detailed election data makes it difficult to resolve empirically. In this paper, we develop a spatial model of voting behavior to approach the question theoretically. We conclude that monotonicity failures in three-candidate IRV elections may be much more prevalent than widely presumed (results suggest a lower bound estimate of 15 % for competitive elections). In light of these results, those seeking to implement a fairer multi-candidate election system should be wary of adopting IRV.





## Ballot (and voter) “exhaustion” under Instant Runoff Voting: An examination of four ranked-choice elections ☆

Craig M. Burnett <sup>a</sup> ✉, Vladimir Kogan <sup>b</sup> ✉

### Highlights

- Instant runoff voting does not guarantee winners who receive an absolute majority.
- The rate of ballot exhaustion was high in each election, ranging 9.6%–27.1%.
- Voters' inability to rank multiple candidates contributes to ballot exhaustion.

## Abstract

Some proponents of municipal election reform advocate for the adoption of Instant Runoff Voting (IRV), a method that allows voters to rank multiple candidates according to their preferences. Although supporters claim that IRV is superior to the traditional primary-runoff election system, research on IRV is limited. We analyze data taken from images of more than 600,000 ballots cast by voters in four recent local elections. We document a problem known as ballot “exhaustion,” which results in a substantial number of votes being discarded in each election. As a result of ballot exhaustion, the winner in all four of our cases receives less than a majority of the total votes cast, a finding that raises serious concerns about IRV and challenges a key argument made by the system's proponents.



## **Overvoting and the Equality of Voice under Instant-Runoff Voting in San Francisco**

"The controversy surrounding the 2000 U.S. presidential race fueled a variety of efforts to improve the administration of elections. Activists, benefiting from that momentum ... found some purchase at the local level in San Francisco, California. Proposition A passed in a 2002 March primary and replaced a two-round runoff system with instant-runoff voting (IRV).<sup>1</sup> ... As the largest and longest-running application of IRV in the States, this serves as both a vanguard on the reform front and a test case for interested parties.<sup>2</sup>

"One concern in the discussion of any electoral reform is how well the public will understand a new system and what that implies for the equality of political voice. This is our focus. ... Concerns about the fairness of IRV led at least four jurisdictions to repeal similar reforms shortly after enacting them: Burlington, VT (2006–2009), Cary, NC (2007–2009), Pierce County, WA (2006–2009), Aspen, CO (2009).

"Higher counts of overvotes were also found, at times, among San Francisco communities with more Latino residents (Neely and Cook 2008), something shown in a similar analysis of voters in Los Angeles (Sinclair and Alvarez 2004), and in areas with more foreignborn residents."

"What has not changed is the nature of the discrepancies in who tends to overvote: consistently, precincts where more African-Americans reside are more likely to collect overvoted, voided ballots. And this often occurs where more Latino, elderly, foreign-born, and less wealthy folks live. The additional years of data show no meaningful increase or decline in these tendencies but rather bolster the earlier study's findings. In all of the elections we examined, some voters were more at risk than others of making disqualifying errors."



# A FALSE MAJORITY

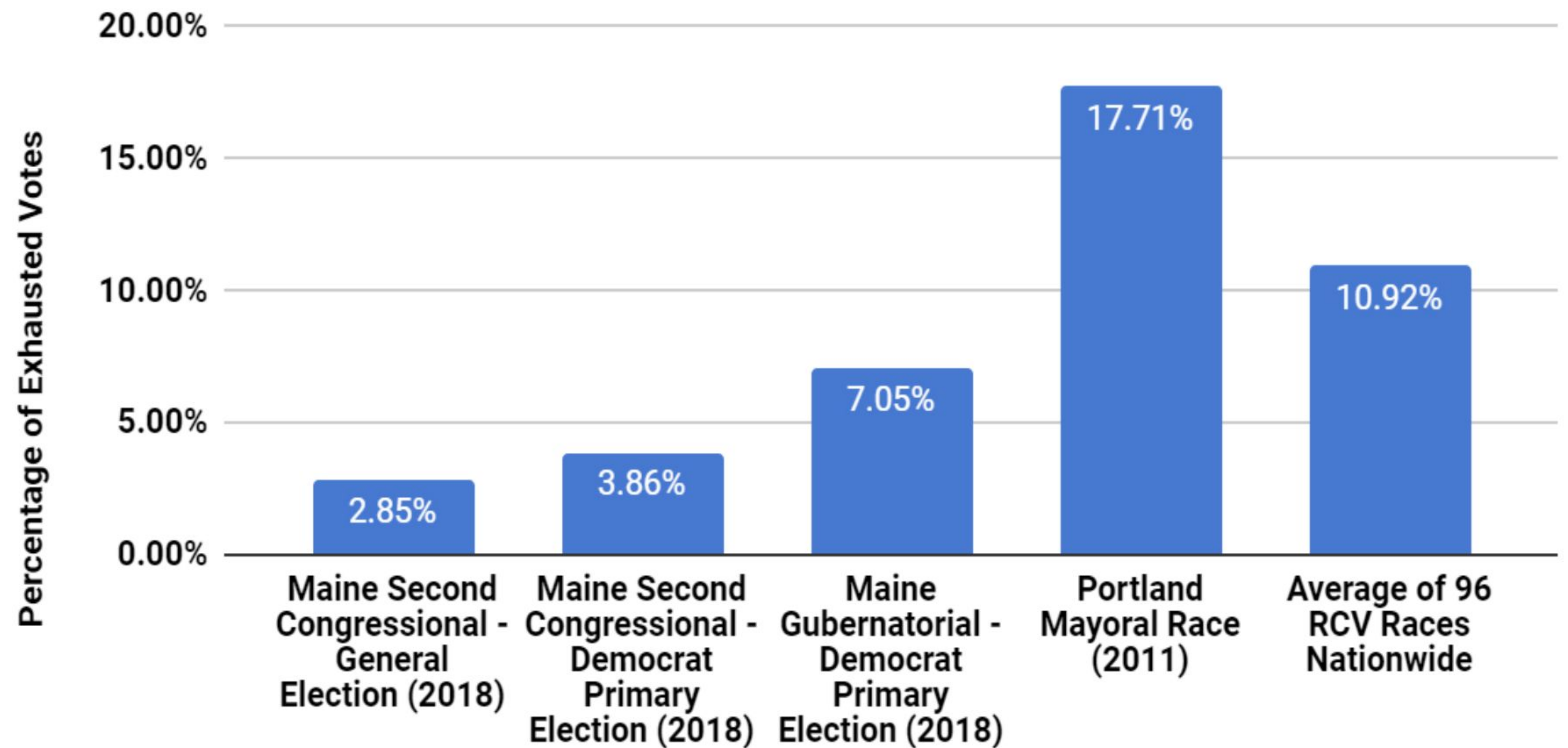
"African Americans, Latinos, voters with less education, and those whose first language is not English are more likely to be disenfranchised with a ranked-choice voting system."

When individuals leave columns blank on their ballots and the candidate(s) they vote for are eliminated from contention, their ballot is not counted in the final tabulation... thereby giving those who fully complete their ballot more influence over the electoral process."

"only 50 percent of African Americans and 53 percent of Latinos ranked three candidates whereas 62 percent of whites ranked a candidate in all three columns."

"When we examined the 96 ranked-choice voting races in our sample from across the nation, our analysis found an average of 10.92 percent of ballots cast are exhausted by the final round of tabulation."

**Figure 1: Percentage of Exhausted Votes in Ranked-Choice Elections (Maine and Nationally)**



Source: Maine Secretary of State, The Maine Heritage Policy Center