

The voting reform and election science communities are in consensus about the many problems we face, the fact that the current system is broken, and our fundimental goals as a movement.



# Traditional Choose-One Plurality and Ranked Choice Voting both suffer from frequent vote splitting

# **Divided and Conquered = The "Spoiler Effect"**



# **Majority Wins**

# **Majority Loses**

# The more candidates on your side the less power your vote has



# **Fully Powerful Voter**

# $\frac{1}{2}$ as Powerful Voter

# <sup>1</sup>/<sub>3</sub> as Powerful Voter

# Voting methods which have vote splitting fail to deliver an equally weighted vote to all voters. This is the legal definition of one-person-one-vote.

# RCV, has been found to be unconstitutional before, and could be challenged on these grounds again.

STAR Voting, Approval, Score, Condorcet, and many other voting methods do guarantee an equally weighted vote to all



# **5 Pillars of a Good Voting Method:**

- Simple: easy to understand, easy to tabulate, easy to implement, easy to audit.
- Honest: safe to vote your conscience.
- **Expressive:** voters able to express their full opinion.
- Accurate: winners accurately reflect the will of the people.
- ★ Equal: The system does not put some types of voters at an unfair advantage.



# RCV seems much simpler than it is.

# Yes. Ranking a few candidates is easy.

# Understanding the tabulation and it's implications is anything but.

# Ranked Choice (IRV) elections are counted in elimination rounds where votes are transferred to the next choice available. Depending on the order of elimination or other factors some ballots can not be transferred and are not counted in the final round.



# Results from Maine's Democratic Gubernatorial Primary: the state's first election using Ranked Choice



# **Exhausted ballots:** The grey stream represents undervotes, spoiled ballots, and exhausted ballots which were not counted in the deciding round.

On average in RCV elections exhausted ballots represent just over 10% of ballots cast. In many cases (incuding here) that's enough to have flipped the election results.

# Flow Chart of 2009 Burlington IRV Mayoral Election



## **DETAIL OF EXHAUSTED BALLOTS**

These ballots were not counted in the deciding round, despite being numerous enough to have flipped the election.

Exhausted

![](_page_9_Picture_5.jpeg)

# Q: Ok, but how common are these sideways outcomes in RCV?

- A: Many RCV elections only publish the ballot data from the rankings which were actually counted, not the full data set.
  - What we do know is that the more often we have competitive elections or multiple viable parties competing, the more often these system failures are likely to occur.
  - Modeling shows these failures are likely to occur around 15% of the time in elections with 3 competitive candidates
  - Those odds get worse the more candidates are competitive.

![](_page_11_Picture_0.jpeg)

JOURNAL ARTICLE

# 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 <u>Vol. 161, No. 1/2 (October 2014)</u>, pp. 1-9 (9 pages) Published By: Springer

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

# "[IRV] can cause spoilers in up to 1 in 5 elections or worse when there are more candidates according to expert analysis."

# 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.

![](_page_12_Picture_0.jpeg)

**Electoral Studies** Volume 37, March 2015, Pages 41-49

![](_page_12_Picture_2.jpeg)

Ballot (and voter) "exhaustion" under Instant Runoff Voting: An examination of four rankedchoice elections  $\star$ 

Craig M. Burnett <sup>a</sup> <sup>∧</sup> <sup>⊠</sup>, Vladimir Kogan <sup>b</sup> <sup>⊠</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 ٠ 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.

https://www.sciencedirect.com/science/article/abs/pii/S0261379414001395

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

![](_page_13_Figure_1.jpeg)

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

THE CALIFORNIA Journal of Politics & Policy

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

Francis Neely and Jason McDaniel San Francisco State University

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, pushed for reform and 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).1 Since then IRV has been used to elect their local officials. 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.2 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. It is a question that continues to echo from the sidewalk cafes to the corridors of city hall in San Francisco. 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).

https://escholarship.org/content/qt8tm3s6hz/qt8tm3s6hz\_noSplash\_a5e40f23074e40a0b8a0be92279918ae.pdf

"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.

THE MAINE HERITAGE POLICY CENTER

# **A FALSE MAJORITY:**

# The Failed Experiment of Ranked-Choice Voting **August 2019**

# **CLAIMS MADE BY PROPONENTS OF RANKED-CHOICE** VOTING

# **CLAIM 1: A CANDIDATE NEEDS A MAJORITY TO WIN**

![](_page_15_Figure_5.jpeg)

Source: The Maine Heritage Policy Center

# "these election results were compiled from 96 races where more than one round of tabulation occurred."

# **A FALSE MAJORITY:**

# The Failed Experiment of Ranked-Choice Voting **August 2019**

# **CLAIMS MADE BY PROPONENTS OF RANKED-CHOICE** VOTING

# **CLAIM 1: A CANDIDATE NEEDS A MAJORITY TO WIN**

![](_page_16_Figure_5.jpeg)

Source: The Maine Heritage Policy Center

# **CLAIM 2: RANKED-CHOICE VOTING REDUCES NEGATIVE CAMPAIGNING AND MITIGATES THE IMPACT OF MONEY IN POLITICS**

Source: Federal Election Commission

# COMMON OVERSOLD CLAIMS UNDERMINE THE MOVEMENT AND PIT REFORMERS AGAINST EACHOTHER

# **FACT CHECK:**

- False: Majority wins
- False: No wasted votes
- False: Eliminates Spoilers and vote-splitting
- False: Upheld by it's sucessful track record
- False: If your favorite is eliminated your next choice will be counted

![](_page_17_Picture_7.jpeg)

FairVote's Executive Director Rob Richie has been notorious for false claims, and "spin" for decades

## A quick Google search of "Spoiler, Ranked Choice" yields many of the false claims which trace back to Fair Vote but are now pervasive

Because ranked choice voting (RCV) is designed to secure a majority victory, it assures that the so-called "spoiler effect" will not result in undemocratic outcomes ...

utahrcv.com > more-choices-more-voices -

archive3.fairvote.org > reforms > irv-and-the-status-guo v

## Correcting the Spoiler Effect - FairVote.org

archive3.fairvote.org > reforms > instant-runoff-voting -

## What is RCV? - FairVote.org

RCV alleviates concerns about the dreaded "spoiler effect" and encourages ... and alleviating the "spoiler effect," which can result in undemocratic outcomes.

www.rcvtheory.com > how-does-rcv-compare > spoiler... -

## Spoiler Resistance Analysis - rcvtheory.com

major candidates will exclude minor candidates from live debates for risk of being spoiled. The end result is fewer options on the ballot, a more limited range of ...

## Eliminates the Spoiler Effect - Utah Ranked Choice Voting

Skewed results. With traditional elections, a less popular candidate can throw off results. If the top two candidates are only 2% apart, then a candidate with 6% of ...

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

![](_page_18_Figure_1.jpeg)

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

# **Ranked Choice Results are Confusing and Not Transparent**

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

Official Final Accumulate	ed resu	ts last	updated	d: Frida	av. Nov	ember 1	9, 2010												F	Round	7		Round	8	l	lound	9	R	ound	10
																			Votes	%	Transfer									
Accumulated Results Deta	il (PDF) *	* Ba	allot Imag	ae File	(TXT)	Master	Lookup	File (T)	хт) В	allot Im	age Hel	D (PDF) **	Co	mprehe	nsive Re	port (PI	DF) **		41364	35.08%	+824	42188	36.13%	+3277	45465	40.16%	+6407	51872	49.04%	0
	,	_			. /	19			1				97 197			,,			0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
		Round	1		Round	2	G	lound	3		Round	4		lound	5		Round	6	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
	Votes	%	Transfer	Votes	%	Transfer	Votes	%	Transfer	Votes	%	Transfer	Votes	%	Transfer	Votes	%	Transfer	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	0
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	30884	26.19%	+771	31655	27.11%	+3378	35033	30.94%	+18864	53897	50.96%	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	15202	12.89%	+260	15462	13.24%	-15462	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	3625	3.07%	-3625	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	0	0.00%	0	0	0.00%	0	0	0.00%	0	0	0.00%	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	26831	22.76%	+644	27475	23.53%	+5244	32719	28.90%	-32719	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	0	0.00%	0	0	0.00%	0	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	401		+15	416		+45	461		+65	526		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	2306		0	2306		0	2306		0	2306	1	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	1655		+1111	2766		+3518	6284		+7383	13667		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	117906	100.00%		116780	100.00%		113217	100.00%		105769	100.00%	
Exhausted by Over Votes	355		+1	356		+6	362		+9	371		+5	376		+4	380		+21	122268	-	0	122268		0	122268		0	122268		0
Under Votes	2306		0	2306		0	2306		0	2306		0	2306		0	2306		0	122200		J	122200		U	TEEE00		J	TEEE00		
Exhausted Ballots	0		+149	149		+113	262		+173	435		+216	651	-	+242	893		+762												
Continuing Ballots	119607	100.00%		119457	100.00%		119338	100.00%		119156	100.00%		118935	100.00%		118689	100.00%													
TOTAL	122268		0	122268		0	122268		0	122268		0	122268		0	122268		0												
REMARKS	*Tie res	olved in a	ccordance	e with ele	ection law	l.	I	I	l	I				I					_											

![](_page_20_Picture_0.jpeg)

The science has been clear that we can do better than RCV since the beginning, and many alternatives have been proposed, but until recently none delivered on all the key goals without sacrificing other priorities. That changed with the invention of STAR Voting...

# STAR stands for "Score Then Automatic Runoff." A hybrid of the ranked and rated voting proposals, **STAR is more than the sum of it's parts!**

![](_page_21_Picture_2.jpeg)

A 5 star ballot shows *both* level of support, and preference order. STAR delivers on the goals of both camps while addressing valid criticisms.

![](_page_21_Picture_4.jpeg)

Score Then Automatic Runoff

![](_page_22_Picture_0.jpeg)

The two highest scoring candidates are finalists. The finalist preferred by the majority wins.

# Voter Í Instructions

![](_page_22_Picture_3.jpeg)

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.

# **Instant Runoff Voting**

Rank your candidates. You can't give the same ranking twice

Rate Candidates:	<b>1</b> st <b>2</b> nd <b>3</b> rd <b>4</b> th
Abby	1204
Carmen	1234
DeAndre	1 2 3 •
Erik	1 2 3 4
Raul	234
Sonya	1 3 4

# **How does STAR Voting work?**

![](_page_23_Picture_1.jpeg)

Score candidates from 0 - 5 stars. Those you leave blank receive a zero. If you don't have a preference you can give candidates the same score.

	Wo	rst			E	Best
Candidates:	0	1	2	3	4	5
Abby	0	1	2	3	•	5
Ben	0	ullet	2	3	4	5
Carmen	0	1	2	3	•	5
DeAndre	0	1	2	3	4	•
Eric	0	1	2	3	4	5

The finalist preferred by the majority wins.

# Scoring

The two highest scoring candidates are finalists.

Your vote goes to the finalist you prefer.

Candidates:	Totals:
Carmen	624,057
Ben	509,742
DeAndre	387,143
Abby	37,708
Eric	2,789

Ca	ndidates:	Wo 0
Ab	ьу	0
Ве	n	0
Ca	rmen	0
De	Andre	0
Eri	с	0

Carmen and Ben advance to the Automatic Runoff.

Whether or not your favorite can win, your vote goes to the finalist you preferred!

![](_page_23_Figure_14.jpeg)

![](_page_23_Figure_15.jpeg)

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

![](_page_23_Figure_17.jpeg)

# Fact Check - Voting Method Talking Points

	Ranked Choice Voting (RCV) aka Instant Runoff	<b>STAR Voting</b> Score Then Automatic Runoff
RCV: "If your first choice is eliminated your next choice will be counted." STAR: "Whether or not your favorite can win, your vote goes to the finalist you prefer."	<ul> <li>Mostly False. Some ballots are not counted in the final round.</li> <li>Counting stops before the election has narrowed it down to one candidate, so not everyone get's their next choice counted, even if their favorite is eliminated.</li> <li>If your favorite is eliminated <i>after</i> your other candidates, your vote will have nowhere to transfer to. These are called "exhasuted" ballots.</li> </ul>	<b>True.</b> All ballots are included in the 2nd and final round. There are no exhausted ballots and if a voter had a preference it will always be taken into account.
<b>RCV:</b> "Elects the majority preferred winner if one exists." <b>STAR:</b> "Elects a majority preferred winner if one exists."	<ul> <li>Half-True. Exhausted ballots are not included in the final round, even when voter preferrences may have been relevent.</li> <li>In some cases multiple candidates may have majority support. RCV finds a majority winner of all remaining ballots. This is not necessarilty the strongest or largest majority.</li> </ul>	<b>Mostly True:</b> STAR elects the majority preferred candidate between the two highest scoring candidates. If the candidate preferred by the most voters is not in the top two highest scoring they will not win.
<b>RCV and STAR:</b> "Eliminates wasted votes"	<ul> <li>False: Some voters will have their first choice eliminated and their next choice counted, but voting for a fairly strong candidate who can't win can prevent your vote from transfering, wasting your vote.</li> <li>Counter-intuitively, votes can be wasted or can actually backfire, meaning that you would have gotten a better winner elected if you hadn't voted at all.</li> </ul>	As true as possible: Every vote is counted in both the scoring round and in the runoff. Whether or not your favorite can't win your vote goes to the finalist you preferred if you had a preference. You can still waste your own vote in the ruoff if you had a preferrence between the finalists but chose not to show it.
<b>RCV and STAR:</b> "Eliminates the Spoiler Effect and Vote-Splitting"	Mostly False: Vote splitting is eliminated in races with only 2 viable candidates, and non-viable candidates can no longer be spoilers. That said, vote-splitting between the multiple viable candidates can still happen, causing them to be eliminated before all their supporters have been counted.	<b>Mostly True:</b> STAR eliminates spoilers because the runoff compares the two strongest candidates head-to-head. Stingy voting with multiple candidates could leave a faction with all low scoring candidates and none strong enough to advance to the runoff.
<b>RCV and STAR:</b> "Safe to vote your conscience"	Half True: Voters tend to vote honestly, but ranking your favorite first can backfire if you prefer a strong underdog.	<b>True:</b> Strategic voting is not incentivised and voters should show their honest preference order and level of support.

## EQUAL.V续TE

Key: Worst to Best

![](_page_24_Figure_5.jpeg)

# In the voting reform space FairVote in particular is notorious for oversold and false claims and sabotaging 'competing' reforms.

Which Articles Do You Want Remo from FairVote's Website? Will Menta · 2 days ago · A Private · Seen by 11	ved or	Мос	lifie	d	~
I know this process has been slow, but we ARE making pro- from people was the removal of certain articles deemed m I've been told that as a show of good faith, FairVote will tak I think that is these 3, is that correct?	gress. One isleading. e down the	of the m articles	nain re s you w	quests vant ren	l got noved.
http://www.fairvote.org/why-approval-voting-is-unworkable http://archive.fairvote.org/rangevoting.pdf http://www.fairvote.org/explaining_fairvote_s_position_on_	-in-contest	ed-elect	ions		
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# Promises to do better or work in solidarity like this one are often broken, despite the best efforts of some RCV activists who try to raise the bar.

In 2017 Equal Vote convened a forum for leaders of different advocacy groups to heal bad blood and better work together. FairVote, Center For Election Science, Represent.Us, and others were included. We found consensus on many points with all other groups, and Equal Vote and others agreed to edit materials and change some talking points as requested, but FairVote refused to walk back false claims or commit to correcting the record when false points are shared.

# **Election Accuracy by Voting Method**

![](_page_26_Figure_1.jpeg)

A Voter Satisfaction Efficiency of 100% would mean an impossibly perfect method which would always elect the candidate who would make as many voters as possible as satisfied as possible with the winner.

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

![](_page_27_Figure_0.jpeg)

Source: <u>http://electology.github.io/vse-sim/VSE/</u> Captions added for clarity.

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# **Single-Winner Voting Method Scorecard**

	Choose-One	Ranked Choice (IRV)	Approval	Score	STAR	
Spoiler Effect / Vote Splitting	YES	YES	NO	NO	NO	
Gives an advantage to some types of candidates	Favors polarizing candidates who are "viable"	Strong underdog candidates are at a disadvantage	Favors candidates seen as more "viable"	Favors "viable" consensus candidates over polarized majority	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	Not voting for a front-runner is a wasted vote	Scoring viable candidates low can make your vote less powerful	Even if your favorites can't win your vote helps prevent your worst case scenario	
Ballots can be tabulated locally?	YES	NO	YES	YES	YES	
Tabulation Complexity	Basic Addition 2 Elections Recommended	Algebra required Multiple Rounds	Basic Addition One Round	Basic Addition One Round	Basic Addition 2 rounds of tabulation	
Accuracy (VSE ie. Voter Satisfaction Efficiency)	<b>72 - 86</b> %	80 - 91%	84 - 95%	84 - 97%	<b>91 - 98</b> %	
Strategy Resistance Factor (VSE)	17 : 1	2.7 : 1	2.6 : 1	3.3 : 1	1:1	

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Statistics from the Center For Election Science

Key: Worst to Best

(1997) (19977) (19977) (19977) (1997) (1997) (1997) (1997) (1997) (1997) (1997)		
1.4		

# When people are fairly presented with the case for all three options STAR Voting comes in as the preferred option most of the time.

![](_page_29_Figure_1.jpeg)

# Even if Choose-One Plurality Voting is used. STAR is RCV 2.0

# The key to great representation is in the ingredients

![](_page_30_Figure_1.jpeg)

# 5 Pillars of a Good Voting Method: A Venn Diagram

![](_page_30_Picture_3.jpeg)

**Simple:** easy to understand, easy to tabulate, easy to implement.

![](_page_30_Picture_5.jpeg)

**Honest:** safe to vote your conscience.

![](_page_30_Picture_7.jpeg)

**Expressive:** voters able to express their full opinion.

![](_page_30_Picture_9.jpeg)

**Accurate:** winners accurately reflect the will of the people.

![](_page_30_Picture_11.jpeg)

**Equal:** The system does not put some types of voters at an unfair advantage.