

# Aspen voters to vote on how they vote — again

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THE ASPEN TIMES  
ASPEN, CO COLORADO,

ASPEN — Aspen voters will be asked this November if they liked the way they voted this past May for mayor and City Council members, which involved Instant Runoff Voting — or if there should be a different kind of election all together.

The Aspen City Council on Tuesday agreed to put an advisory question to voters on the fall ballot on whether the IRV election method — a system never tried before in Aspen until this past May — should be scrapped or kept in place.

If the majority of voters want to do away with IRV, the council will have to explore alternatives, which could include going back to the previous method of the mayor getting 50 percent plus one of the vote, and council members getting 45 percent plus one of the vote. If candidates don't reach that threshold, a runoff election would be held in June as it's been done in the past. Another option could be winner take all, with no majority needed, which was done many years ago in Aspen municipal elections.

Some council members said they didn't have enough confidence in, or an understanding of, the IRV process. As a result, it has opened the city up for liability and voter confusion.

While listening to the nuances of the complex IRV system and the problems associated with tabulating votes, Councilman Steve Skadron questioned whether he understood the process well enough to make an informed decision on choosing the best tabulation method. And if he didn't understand, did the voters? he asked rhetorically.

“This is a level of detail here that I am not connecting,” Skadron said, adding that because different IRV tabulation methods can produce different outcomes, there is a level of subjectivity in analyzing the results. “I'm not confident in this system.”

That's despite City Clerk Kathryn Koch and the city's special counsel, Jim True, telling the council that the IRV method used this past May worked exactly as it was designed to, and closely mimicked the runoff system that voters had been accustomed to. Koch and True, who spent hundreds of hours researching and devising Aspen's system, recommended IRV be used in the 2011 municipal election.

However, True said public education could be improved upon because many voters didn't know how to rank their candidates, or didn't rank all of them, thus reducing their chances to participate in an instant runoff.

“A lot of lessons were learned on those types of issues,” True told the council. “They will only be improved upon.”

Other council members said they think a runoff election with fewer candidates in June after the May vote gives voters a chance to learn more about their choices and the issues confronting the city.

“I've been anti-IRV for a long time,” said Councilman Torre. “The extra month of campaigning gives the voter a chance to figure out the make-up and representation on the board.”

Councilman Dwayne Romero agreed, saying the day after the May 5 election, he had an empty feeling because the results were final and there wasn't enough discourse among candidates to fully understand them or their positions. Another month of campaigning would have satisfied that, he added.

“A lot of people have come up to me and said they also missed out on that discourse,” Romero said.

The majority of Aspen residents in November 2007 voted to adopt the IRV election method in an effort to save time, money and energy that comes with a second election a month after the municipal vote was counted.

Aspen resident Don Davidson said he doesn't think IRV worked as it was intended to, nor did he have a chance to fully grasp candidates' positions.

“A lot of people, including myself, didn't understand the intricacies of IRV when we were voting for it,” he said. “And I wasn't able to get enough information on the candidates ... I viewed the [May election] as a primary and [another month] to have the issues discussed more in-depth.”

After a specific IRV method – the first of its kind in the United States because it incorporated multiple candidates for multiple seats – was chosen by an election committee made up of city staff and citizens, the council adopted it.

But IRV critics and City Hall observers decried the process in which IRV was administered and the lack of a full-blown audit of the results.

Election commissioner Elizabeth Miliias said the election commission that oversaw the IRV process, which included local attorney Chris Bryan, didn't certify the May 5 results because they didn't have confidence in the security and stewardship of the ballots, as well as the auditing and testing of the tabulation system.

“It was squirrely at best,” Miliias said.

Their questions and criticisms have raised enough doubt among some council members that they want voters to decide whether IRV should continue as the official election method in Aspen.

“I think the voters should have a crack at voting on this again,” said Mayor Mick Ireland.

True and Koch will craft draft ballot language and bring it back to the council for consideration. The deadline to place a measure on the November ballot is Aug. 24.

If the majority of Aspen residents decide to do away with IRV, the council will have to choose an alternate election system and present that to voters, which would require a change to the city charter. That could occur in the November 2010 election.

Torre and Ireland voiced support for moving the municipal election to June, when more residents are back in town from their offseason excursions. That also would require a public vote. Ireland noted that the mayor's seat should be a four-year term instead of two, which also could be put to voters in the future.

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# Burlington Vermont 2009 IRV mayor election

## Thwarted-majority, non-monotonicity & other failures (oops)

By [Anthony Gierzynski](#), Wes Hamilton, & [Warren D. Smith](#), March 2009. ([skip to summary](#)) ([Brian Olson's independent analysis](#))

## The Propaganda

Instant Runoff Voting ([IRV](#)) advocates, especially FairVote's Terrill G. Bouricius (who lives in Burlington, formerly served there as alderman, also formerly served as a Vermont state legislator, calls himself a "political scientist," was instrumental in making IRV happen in Burlington starting in 2006, is denoted a "senior analyst" by FairVote, and in 2005 received a contract to design Burlington's IRV voter education program), often hail Burlington's adoption of IRV for its mayoral election as a "great success." Bouricius has also contended in various online posts, print media, and interviews that IRV always elects a "majority winner." E.g.

### Claims made by T.G.Bouricius and FairVote (IRV advocates)

1. Under **instant runoff voting**, if there is no majority winner, you're not done yet. You have a runoff. But instead of calling voters back to the polls, you just declare the bottom candidates defeated, look at those ballots, and transfer those ballots to those voters' second choice. **So you determine which candidate is actually preferred by a majority of voters.** – Terrill Bouricius, January 1999 published interview by Labor Party.
2. Districts with plurality election laws face the prospect of **"spoiler"** candidates throwing an election to a candidate that is not the most preferred by the majority. **IRV solves [this problem]** and offers additional advantages... IRV also **allows voters to vote their true preference without any need for calculating which candidate has the best chance.** You can vote for the candidate you want most, without any fear that you will inadvertently help elect the candidate you can't stand. – Terrill Bouricius, endorsement letter for IRV in Vancouver.
3. Burlington's instant runoff voting (IRV) election went off **without a hitch in 2009.** If anything, it was even more successful [than 2006]. **IRV clearly worked as intended to avoid the "spoiler" dynamic...** While Sore losers in Burlington are complaining about sour grapes, instant runoff voting has proven itself again as a bulwark of democracy. – FairVote blog post by Terrill Bouricius 6 March 2009 titled "Some Analysis of the 2009 Burlington IRV Election." This "analysis" contains no mention of any of the numerous pathologies we shall point out below.
4. The Burlington election was a model of clean, open debate **without "spoiler" concerns...** – FairVote official press release dated 3 March 2009 titled **"Burlington Holds Second Highly Successful IRV Election."**

However, there are [reasons](#) to believe otherwise... We shall show by considering Burlington's 2009 Mayor election that all the claims by Bouricius and FairVote in bold print above are false.

## The votes

This was the second IRV election conducted in Burlington and it was won by Progressive Bob Kiss. (The other 4 candidates were Andy Montroll[Dem], James Simpson[Green], Dan Smith[Indpt], and Kurt Wright[Repub]. Kiss also won the *first* election, held in 2006; in [that election](#) Kiss had been both the plain-plurality and IRV winner, and almost certainly also a "beats-all" and [Borda](#) winner – won by a "landslide" – so there was little basis to dispute his enthronement.)

[Official](#) Burlington Mayoral 2009 IRV race results (election held 3 March) from <http://www.burlingtonvotes.org/20090303/>. 8980 valid ballots (also 4 "invalid" ballots were left uncounted). Smith, Simpson, and Write-ins were eliminated immediately & simultaneously since their "defeat was mathematically inevitable." Then Montroll was dropped. That left Wright vs Kiss in the final round, which was won by Kiss.

Unofficial Burlington 2009 Mayoral race vote data. Votes [counted](#) by Juho Laatu. Also counted independently ([pdf](#)) by Univ. Vermont students in the [Vermont Legislative Research Shop](#) supervised by professor Anthony Gierzynski. (All 8980 ballots included in these counts, but candidates other than Kiss, Wright, and Montroll are ignored. Further data processing by W.D. Smith. There are *disagreements* among the Laatu, UVM, and official counts by up to 5 votes. )

[Sample ballot [\(pdf\)](#)]

Pairwise-defeats matrix: entry says how many voters preferred canddt in that row over canddt in that column.

Candidate(Party)	1st Rd	2nd Rd	Final
<b>Bob KISS(Progr)</b>	2585(29%)	2981	4313 (wins)
<b>Kurt WRIGHT(Repub)</b>	2951(33%)	3294	4061
<b>Andy MONTROLL(Dem)</b>	2063(23%)	2554	
<b>Dan SMITH(Indpt)</b>	1306(15%)		
<b>James</b>	35 (0.4%)		

#Voters	Their Vote
1332	M>K>W
767	M>W>K
455	M
2043	K>M>W
371	K>W>M
568	K
1513	W>M>K
105	W>K>M

Canddt	K	M	W
K	*	3477	4314
<b>M</b>	4067	*	4597
W	4064	3668	*

<b>SIMPSON(Green)</b>	33 (0.4%)	433	WV-TX-IV
<b>(Write-ins)</b>	36 (0.4%)	1289	W

**Remarks on the counts:** Unfortunately, the Official, Laatu, and U.Vermont counts all *disagree*; but never by more than 5 votes (which is small enough that none of our conclusions below will be affected, no matter which count you trust). Laatu's count (done by software inputting official ballot files) is the most complete of the three and is the one we shall use below. The official count (which we downloaded various times, the latest on 27 March 2009 from Burlington's web site; it had not changed) was also done by computer using the same input files; but the U.Vermont count was done manually. We believe we understand the reason for the Laatu-vs-Official discrepancy: it is that the official count treated ballots involving equal-rankings in a stupid manner. Specifically, the official method apparently *discarded* the 4 ballots ranking their top-two candidates equal; but did *not* discard ballots ranking other candidate-pairs equal. This approach is a holdover from the olden pre-computer days when a ballot had to be put in one or the other pile. Since this election was counted by computer there was nothing stopping the computer from putting *half* of the vote in *both* piles. That, it seems to us, would have more-accurately reflected what the voter wanted (versus just discarding her vote entirely). This [subpage](#) gives full details about these discrepancies (as well as the full set of votes, plus many other calculations).

## The pathologies

1. According to the pairwise table, Democrat Andy Montroll was favored over Republican Kurt Wright 56% to 44% (930-vote margin) and over Progressive Bob Kiss 54% to 46% (590-vote margin) majorities in both cases. In other words, in voting terminology, Montroll was a **"beats-all winner,"** also called a "Condorcet winner" – and a fairly convincing one.

However, in the *IRV* election, Montroll came in *third!* Kiss beat Wright in the final IRV round with 51.5% (252-vote official margin).

We repeat: According to the preferences stated by the voters on their ballots, if Montroll had gone head-to-head with either Kiss or Wright (or anybody else) in a two-man race, he would be mayor. This **refutes** Bouricius's claim that IRV "determines which candidate is actually preferred by a majority of voters."

Of course it was a huge success! No voting machines exploded or burst into flames. A majority of voters did not suffer from paper cuts.

A majority of the voters expressed a second preference. We'll assume they were glad to have that opportunity.

Hmm, I wonder if the  $W > M > K$  voters would be pleased to know that their second choices *weren't counted*, or that they could have elected M if they had voted for M as their first choice? I wonder if the Montroll supporters would be pleased to know that the voters preferred Montroll over every other candidate – including the winner that IRV chose?

– Jan Kok, responding to FairVote's claims this IRV election had been a "big success"

like usual.

(Montroll, incidentally, was endorsed by both former VT governor Howard Dean and the *Burlington Free Press*. It is possible in principle for IRV to yield even more dramatic thwarted-majority pathologies, e.g. X defeating every rival pairwise by 99:1 or larger majorities, yet still IRV eliminates X in its first round.)

2. Despite that, IRV still seems to have performed better in this election than plain [plurality](#) voting, which (based on top-preference votes) would have elected Wright. That would have been even worse, since Wright actually was a "lose-to-all loser" among the Big Three, i.e. would have lost head-to-head races versus either Kiss or Montroll.

Incidentally, [plurality](#) also elects Wright with *reversed* ballots (M,K,W only), i.e. paradoxically regards Wright as *both* the best winner *and* worst loser among the Big Three! IRV can [also](#) exhibit such "reversal failures" but did not in this particular race.

3. Also, in this IRV election, Wright was a ["spoiler"](#); if Wright had not been in the race then Montroll would have won (which the Wright voters would have preferred: 1513 were for Montroll versus 495 for Kiss). Any voters who voted for Wright as their favorite "without any fear of inadvertently electing Kiss" were foolish to lack such fear, because, in fact, if they instead had "calculated" right, they could have strategically voted Montroll and thus avoided electing Kiss. (That's an example of **"favorite-betrayal."**) This **refutes** Bouricius's & FairVote's other claims shown in bold print.

4. Another problem with IRV is the fact that it [cannot](#) be counted in precincts because there is no such thing as a "precinct subtotal." That's bad because it forces centralized (or at least centrally-directed) counting, thus making the election more vulnerable to fraud and communication outages. This election also exhibited this kind of **nonadditivity paradox**. There were 7 [wards](#). Apparently, the ward-winners (if IRV had been done in each ward independently) would have been

Ward	Ward#1	Ward#2	Ward#3	Ward#5	Ward#6	Ward#7	Ward#4
<b>IRV Winner</b>	KISS	KISS	KISS	MONTROLL	MONTROLL	WRIGHT	WRIGHT
<b>#Valid Ballots</b>	836	691	1035	1530	1225	1715	1944
<b>Total Ballots</b>	2562			2755		3659	

Let's just say that it is hard to infer from this that Kiss "should" be the overall IRV winner – most people would guess Wright or Montroll before guessing Kiss, especially if they knew that Wright voters expressed a preference for Montroll over Kiss by more than a 3:1 ratio.

It is possible in principle for IRV to yield more-dramatic such pathologies, for example X can be the IRV winner in every district, with Y the IRV winner in the whole country.

5. If we assume that the "W" voters who expressed no preference for K>M or M>K are regarded as (really) favoring one or the other with 50% chance – e.g. if "W"s are regarded as half W>M>K and half W>K>M (or any realistic ratio of W>K>M and W>M>K besides 50-50) – then this election also featured (what voting theorists call) a ["no-show paradox."](#) That is: If 753 Wright voters who favored Montroll over Kiss had simply *stayed home* and refused to vote, they would have gotten, in their view, a better election winner (Montroll) than they got by honestly voting. So for them, a better

"calculation" than voting honestly, was *not* voting! (More [details](#).)

6. Finally – and probably craziest of all – this election also featured [non-monotonicity](#). If 753 of the W-voters (specifically, all 495 of the W>K>M voters plus 258 of the 1289 W-only voters) had instead decided to vote for K, then W would have been eliminated (not M) and then M would have beaten K in the final IRV round by 4067 to 3755. In other words, *Kiss won, but if 753 Wright-voters had switched their vote to Kiss, that would have made Kiss lose!*

With non-monotonicity we can be *100% certain* that IRV *must* have delivered the "wrong winner" in either the election, or in the altered election got by changing the 753 votes (or both) – there is no way to contend both winners were sensible choices. (And the same sort of remark can also be made about no-show paradox elections.)

Further false claims made by T.G.Bouricius and FairVote (IRV advocates).

In terms of the [frequency](#) of **non-monotonicity** in real-world elections: there is **no evidence** that this has **ever played a role in any IRV election** – not the IRV presidential elections in [Ireland](#), nor the literally thousands of hotly contested IRV federal elections that have taken place for generations in Australia, nor in any of the IRV elections in the United States... Monotonicity has little if any real world impact. – FairVote web page on "monotonicity" downloaded 15 March 2009.

Burlington just conducted an election for mayor using Instant Runoff Elections. This method quickly produced a candidate with a **majority** vote in a field of **four** candidates. – Letter by Adam Kleppner to *Caledonian Record* published 13 March 2009 and featured on FairVote web page. Amazingly enough (which was not mentioned in this letter) *Caleb* Kleppner is yet another "FairVote senior analyst" and the vice president of TrueBallot, Inc. and co-founder with Bouricius of Election Solutions Inc, both IRV-voting companies.

## Who would other voting methods have elected?

Method	Winner (full vote set)	Winner (M,K,W only)
Nanson-Baldwin, Black, Raynaud, Schulze-beatpaths, Simpson-Kramer minmax, <a href="#">BTR-IRV</a> , Tideman-ranked-pairs, <a href="#">WBS-IRV</a> , Copeland, Heitzig-River, Arrow-Raynaud, Borda (if combine all write-in canddts into "one" or omit them), Dodgson, Keener-Eigenvector, Brian Olson's IRNR method, Sinkhorn, Bucklin, and ( <a href="#">probably</a> ) Range & Approval	MONTROLL	MONTROLL
AntiPlurality and Coombs	?	MONTROLL
IRV	KISS	KISS
Plain Plurality	WRIGHT	WRIGHT

Notes: There really is no sensible way to run Borda, Coombs, or AntiPlurality elections if there are write-in candidates.

We do not know who **Range & Approval voting** would have elected because we only have rank-

order ballot data – depending on how the voters chose their "approval thresholds" or numerical range-vote scores, they could have made *any* of the Big Three win (also Smith). However it seems [likely](#) they would have elected Montroll. Here's an **analysis** supporting that view: Suppose we assume that voters who ranked exactly *one* candidate among the big three would have approved him alone; voters who ranked exactly *two* would have approved both, and voters who ranked all *three* would have approved the top-two a fraction  $X$  of the time (otherwise approve top-one alone). The point of this analysis, suggested by Stephen Unger, is that voters were allowed to vote "A>B," which while *mathematically* equivalent to "A>B>C" among the three candidates A,B,C, was *psychologically* different; by "ranking" a candidate versus "leaving him unranked" those voters in some sense were *providing* an "approval threshold." Then the total approval counts would be

$$\text{Montroll}=4261+1849X, \text{ Kiss}=3774+1035X, \text{ and Wright}=3694+741X.$$

Note that Montroll is the most-approved (and Wright the least-approved) *regardless* of the value of  $X$  for *all*  $X$  with  $0 \leq X \leq 1$ .

Hence: pretty much every voting method mankind ever invented would elect MONTROLL – making this a pretty easy election to call – *except* that IRV elects KISS and plurality elects WRIGHT. This election thus singles out IRV & plurality as nearly-uniquely bad performers.

**Another** way of looking at it is: among the Big Three, *all* these voting methods, [including](#) IRV, unanimously agree that Wright is the *worst* choice, i.e, they all would elect Wright using *reversed* ballots. (The exceptions: AntiPlurality would select Montroll and Coombs would select Kiss as "worst.") If we agree Wright is clearly worst, then it comes down to Kiss vs Montroll. And the voters prefer MONTROLL over Kiss by 4067 to 3477.

## How will the IRV-propagandists respond?

Our observation is that IRV-propagandists generally follow this 4-step procedure.

1. Contend IRV is the most amazing, best-possible voting method in all sorts of (unfortunately demonstrably [false](#)) ways. This tends to impress those who think about it for  $\leq 3$  minutes or know little about voting theory.
2. When confronted with counterexamples to their claims, sneer those were mere "semantics" of interest only to "mathematicians." (Unfortunately, as we've just seen, these counterexamples have very real democracy-denying consequences.)
3. When that doesn't work (because now they're talking to somebody who actually knows something), contend such counterexamples, while *admittedly* making IRV look bad, only arise incredibly rarely. (E.g. FairVote "senior analyst" Stephen Hill, quoted in W.Poundstone's [book](#) *Gaming the Vote*, compared the rate of occurrence of IRV pathologies like non-monotonicity to that of a "major meteorite strike.") Hill must be amazed how not only non-monotonicity, but 5 other pathologies *as well*, all managed to occur in only the second IRV election Burlington ever tried! What an incredible fluke! This must be like the annihilation of the entire *galaxy*! The amazingness increases to even greater astronomical levels when you realize the number of times such phenomena have already been seen when surveying the [Louisiana governor runoff elections](#) (such as the notorious "[Lizard vs. Wizard](#)" race), or the [Australia 2007 IRV](#) races; and in the (also continually touted by these same IRV propagandists as a "great

success" – as usual they never mention its pathologies when they do that) [1990 Irish presidential](#) election...

4. When *that* too has fallen to the ground, they generally claim the pathology actually was no problem, e.g. it was just *great* that Kiss won this election, and they see no problem with any of the vast number of pathologies here (course, they'd perceived problems back when it was a "rare" artificial election example in step 3, but that was *then*); or contend that better and simpler voting systems such as [range](#) or [approval](#) are somehow bad and/or unobtainable for [mysterious reasons](#) that only they possess, but which cannot be divulged or clearly explained; or falsely contend that somehow [Arrow's theorem](#) means that nothing can avoid these problems, so IRV is doing as well as anything could; or flail around trying to distract attention with some red herring.

(When with a new audience, they revert back to step 1.)

(27 March 2009) IRV propagandists indeed responded roughly as predicted above: Extensive [discussion](#) & compressed [summary](#).

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## The truth

As shown in this election, IRV does *not* "solve the spoiler problem," does *not* "allow voters to vote their true preference without fear of inadvertently electing a candidate they cannot stand," and it does *not* elect candidates "actually preferred by a majority." These and other (e.g. non-monotonicity) [pathologies](#) are *not* rare. IRV in this election did *not* serve as a "bulwark of democracy" – rather the opposite. Our belief is that [range voting](#), also known as "score voting," (and probably also [approval](#) voting) would *not* have exhibited any of these problems and in the present example would have elected Montroll. (Indeed range voting *never* exhibits non-monotonicity or [spoilers](#), and it is [rare](#) that it refuses to elect beats-all winners.)

## Some references

Anthony Quas: Anomalous Outcomes in Preferential Voting, *Stochastics and Dynamics* 4,1 (2004) 95-105;

William H. Riker & Peter C. Ordeshook: *An Introduction to Positive Political Theory* (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1973);

Peter Fishburn & Steven Brams: Paradoxes of Preferential Voting: What Can Go Wrong with Sophisticated Voting Systems Designed to Remedy Problems of Simpler Systems, *Mathematics Magazine* 56,4 (September 1983) 207-214.

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# IRV Failure In The Real World

Well, it has happened. That thing that a few math nerd election theory wankers warned about but nay-sayers said could never happen has happened. **Instant Runoff Voting has elected the wrong person.**

In the [2009 March 3 Burlington Vermont election for Mayor](#) an IRV election was held and you can see [the results](#) on their site. Burlington is very nice in that they publish data of all the votes that I can then feed into my own analysis software.

Here's a histogram of how people voted on the candidates. (Note, I've turned rankings (1st, 2nd, 3rd) around into ratings (higher values better) because that's the native data for my software. "5" == "1st", "4" == "2nd", ...)

<b>Andy Montroll</b>		<b>Kurt Wright</b>		<b>Bob Kiss</b>	
<b>Rating</b>	<b>Votes</b>	<b>Rating</b>	<b>Votes</b>	<b>Rating</b>	<b>Votes</b>
5	2062	5	2949	5	2586
4	2630	4	996	4	1394
3	1398	3	712	3	948
2	497	2	705	2	717
1	119	1	728	1	540
votes	6706	votes	6090	votes	6185
average	3.897	average	3.777	average	3.771
<b>Dan Smith</b>		<b>James Simpson</b>		<b>Write-in</b>	
<b>Rating</b>	<b>Votes</b>	<b>Rating</b>	<b>Votes</b>	<b>Rating</b>	<b>Votes</b>
5	1305	5	35	5	38
4	2102	4	303	4	46
3	1803	3	655	3	42
2	752	2	1041	2	44
1	132	1	1357	1	73
votes	6094	votes	3391	votes	243
average	3.606	average	2.003	average	2.720

When I look at this table I see that Andy Montroll has pretty good 1st-choice support and even broader 2nd-choice support. Kurt Wright and Bob Kiss however are the favorite of substantial but narrow populations with less support at lower levels. However, because IRV only looks at the highest-ranked slot on a ballot, it misses this and produces the following sequence:

<b>Round 1</b>		<b>Round 2</b>		<b>Round 3</b>		<b>Round 4</b>		<b>Round 5</b>	
<b>Name</b>	<b>Count</b>								
Bob Kiss	2585.5	Bob Kiss	2599.5	Bob Kiss	2606	Bob Kiss	2982	Bob Kiss	4314

Kurt Wright	2952.5	Kurt Wright	2956.5	Kurt Wright	2963	Kurt Wright	3297	Kurt Wright	4064
Andy Montroll	2063	Andy Montroll	2067	Andy Montroll	2080	Andy Montroll	2554	Andy Montroll	2554
Dan Smith	1306	Dan Smith	1315	Dan Smith	1317	Dan Smith	1317	Dan Smith	1317
Write-in	38	Write-in	39	Write-in	39	Write-in	39	Write-in	39
James Simpson	35	James Simpson	35	James Simpson	35	James Simpson	35	James Simpson	35

That's a few votes off (less than 5, usually) compared to the copy on the Burlington website, but close enough and shows the same result. My software runs more rounds instead of dropping many low count choices in one round as their software does.

Here's what a virtual round robin election (Condorcet's method) looks like:

	1	2	3	4	5	6
1 Andy Montroll		4067	4597	4573	6267	6658
2 Bob Kiss	3477		4314	3946	5517	6149
3 Kurt Wright	3668	4064		3975	5274	6063
4 Dan Smith	2998	3577	3793		5573	6057
5 James Simpson	591	845	1309	721		3338
6 Write-in	104	116	163	117	165	

**Andy Montroll was preferred over Bob Kiss by 4067 voters. 3477 voters had the reverse preference.**  
 Andy Montroll was preferred over Kurt Wright by 4597 voters. 3668 voters had the reverse preference.  
 Andy Montroll was preferred over Dan Smith by 4573 voters. 2998 voters had the reverse preference.  
 Andy Montroll was preferred over James Simpson by 6267 voters. 591 voters had the reverse preference.  
 Andy Montroll was preferred over Write-in by 6658 voters. 104 voters had the reverse preference.

That first line below the table really says it all. **In a head to head election, Andy Montroll should have beaten Bob Kiss by a 7.8% margin.** A solid win.

This is an IRV failure. The IRV result is clearly not what people actually wanted. More people liked Montroll over Kiss than the other way around, but IRV elected the loser.

Nail this coffin shut, don't implement IRV anywhere else when there are obviously better methods.

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See also my standing page on IRV's shortcomings: <http://bolson.org/voting/irv/>

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Because it's my pet system, here's the [Instant Runoff Normalized Ratings](#) result:

Round 1		Round 2		Round 3		Round 4		Round 5	
Name	Count								

Andy Montroll	3739.74	Andy Montroll	3749.16	Andy Montroll	3826.04	Andy Montroll	4332.18	Andy Montroll	5435.69
Kurt Wright	3499.25	Kurt Wright	3507.25	Kurt Wright	3562.94	Kurt Wright	3970.06	Kurt Wright	4405.94
Bob Kiss	3380.66	Bob Kiss	3388.07	Bob Kiss	3466.98	Bob Kiss	3883.05	Bob Kiss	3883.05
Dan Smith	3116.61	Dan Smith	3122.40	Dan Smith	3191.96	Dan Smith	3191.96	Dan Smith	3191.96
James Simpson	927.82	James Simpson	930.72						
Write-in	96.51								

Aspen, Colorado just had its first experiment with an IRV election. There was plenty of warning beforehand that it wasn't a good idea to be playing with matches without some adult supervision and serious thought. However, in the rush to adopt IRV methods just weeks before the May election, the City got careless. We now have singed hair and blistered fingers as the details of the IRV black box are beginning to belatedly spill out. We managed to get through the election, with no big surprises in two races, but created a perverse puzzlement in one Council race. While there is much more to be analyzed, so far 1) three weeks post election, the City restated the official mayor's race totals after the election was certified, as more votes were found for the winner. The missing votes had been delivered to the loser (that's me), by using Cambridge, Massachusetts rules rather than using Aspen's IRV rules, and 2) that "it will never happen in real life" non-monotonicity bugaboo produced a poster child for why IRV can greatly disenfranchise voters and candidates.

Aspen voters have not yet been informed of the second problem through the press or letters to the editor, but will be aware soon, when the worksheet proving the bizarre answer is ready for the public record. In the meantime, I'm sharing with some friends wise to the wily nature of IRV, the result that occurred here.

Michael Behrendt, Council candidate, got defeated by 75 of his own supporters, doing their best to support him by ranking him #1 on their ballot. Turns out that he lost to candidate Torre by just 43 of 2103 votes cast in IRV tabulation terms. However, two independent analysts have calculated that if Behrendt had only had the foresight to ask 75 of his loyal supporters to rank him #2 and change their lower rank for candidate Jack Johnson to #1, AHEAD of Behrendt, Behrendt would have won. Little did those voters know that they were costing their friend Michael the election by voting FOR him as the number #1 candidate.

Whether you were a Michael, Jack or Torre supporter it has to be a bit disconcerting to know that the order in which you voted for your favorite might have been hurting him instead of helping him get elected. Aspen's flavor of IRV contains mysterious anomalies for us non-mathematicians, which, as demonstrated, can happen in real life, in our local elections. This "Michael Behrendt effect," I'll call it, is one of the side effects of "non-monotonicity". Apparently, the larger the field of candidates, the greater the probability of puzzling outcomes from seemingly minor choices in ranking the candidates. Voters can't simply depend on the normal voting logic we've known since kindergarten.

Did the Council and IRV Task Force know of such possibilities when adopting IRV? The risks were well documented, but in their rush to adopt a IRV system, non-monotonicity passed off as "rare", or acceptable as "no system is perfect." The fact that 2 incumbents (also candidates in the May election) appointed themselves to the IRV Task Force and then voted as Council members on the method their taskforce had recommended, might have had a bit to do with why such anomalies were not thoroughly discussed, although the public raised the issues repeatedly. The lack of independence was rather astounding! Were the voters properly informed as to the risk and the complexity? Ask Michael's supporters, who voted for him first instead of second, thinking that they were definitely helping him get elected. In fact, City Hall

assured us in the public hearings to adopt the IRV procedures that it could not happen, despite warnings from mathematicians.

While it is a shame that Michael was defeated in such a perverse way, his situation will bring the hot spotlight to IRV in Aspen. Michael is a well known long time local citizen, a Council member in the 1970's, and a small lodge owner. He is loved by the entire community and quite active in civic affairs. The fact that the puzzling system defied logic and defeated such well-respected candidate will get additional attention. No doubt he will become the poster child for Monotone Violation in IRV!

I will be posting a review of alternative election results, including the "Michael Behrendt effect," showing some what-if scenarios on [www.TheRedAnt.com](http://www.TheRedAnt.com) . I have also posted Kathy Dopp's Instant Runoff Voting Flaws paper <http://electionmathematics.org/ucvAnalysis/US/RCV-IRV/InstantRunoffVotingFlaws.pdf>, to offer evidence to the skeptics.

For some less technical background arguments in Aspen against IRV see:

<http://theredant.squarespace.com/red-ant-blog/2009/3/1/caleb-kleppner-and-his-kleptomaniacal-machineissue-30.html>

(who knew?? That The Red Ant would be prophetic about that black box.)

and

<http://theredant.squarespace.com/red-ant-blog/2009/2/16/dont-know-much-about-algebra-issue-29.html>

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