

Approval Voting

Simple, Effective Voting Method Reform

Neal McBurnett

for the League of Women Voters, Boulder County

2016-02-21

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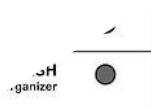
Counting Rules & Problems

We use Plurality Voting, AKA Choose-One Plurality Voting, "First Past the Post", which causes many problems:

- Spoiler effect: getting mad at good candidates...
- Accusations "You're wasting your vote, helping enemy"
- Negative campaigning
- Good candidates avoid running
- Disillusioned voters disengage, low turnout
- Learn very little from the electorate

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Approval Voting Intro



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Approval Voting Advantages

- Ballots are the same

- No changes to standard election systems in wide use
- Voters can show support for all of their preferred candidates
- More positive elections
- Increases participation from candidates and voters
- Generally better outcomes for the electorate as a whole
- Easy to audit

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Approval Voting History





One box per candidate, "No (Oxi)" / "Yes (Nai)".

Voters drop one marble in each box.

Used for parliamentary elections in Greece, 1864-1926

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Approval Voting Recent History

- Re-invented independently several times in 1960's and '70's: Ottewill, Kellett & Mott, Brams & Fishburn, Weber
- Used in straw polls for United Nations Secretary General
- Used by professional societies like the American

- Used by professional societies like the American Mathematical Society, American Statistical Association
- Used to elect University of Colorado student government twice each year

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There is No Perfect Voting Method

- Mathematically proven
- But not by "Arrow's Theorem":
 - Only applies to ranked-choice methods
 - Doesn't apply to Approval Voting, other rating methods
- Gibbard-Satterthwaite theorem does apply

- Strategic voting inevitable outside of dictatorship

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The Best Voting Method

What if we could read voter's minds, know their positions on issues, their honest assessments of the candidates?

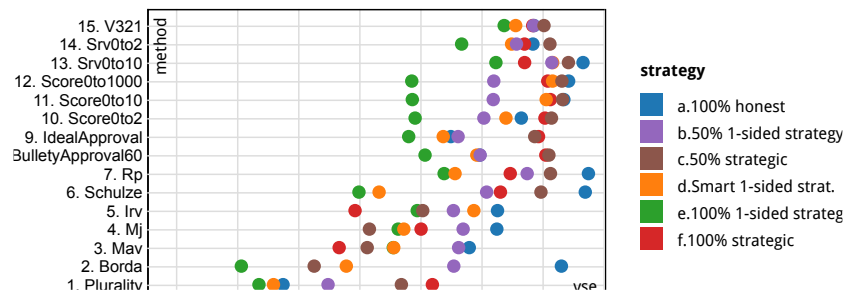
- Pick candidate that represents greatest good for the greatest number of people
- Simulate voters and candidates, see how happy voters are

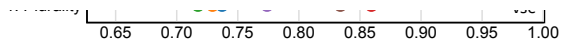
with outcomes. Hope for optimum candidate 100% of the time.

- Need very expressive ballot, very intricate algorithm
- Evaluate impact of strategic voting, even one-sided strategy e.g. if the voters who support the top frontrunner vote honestly, but those who support the runner-up vote strategically.
- Also a "media model": what voters know about candidates

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Effectiveness of Different Voting Systems





Voter Satisfaction Efficiency: Jameson Quinn simulations, 2017

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Approval Voting opportunities

- Start with local elections
- Great for primaries
 - Choose the best candidate
 - More post-primary party unity
- Usable now by vacancy committees and other straw polls

Colorado a Leader in Election Innovation

- Proportional Representation in early 20th century
- Bucklin voting method very popular, invented in Grand Junction
- Risk-Limiting Audits
- Many other innovations; doing well in state comparisons

Approval Voting Bill - Jonathan Singer

- Very modest bill: just defines rules for using Approval Voting
- Use of Approval Voting is optional
- Voluntary use by cities, town, school districts, special districts etc.
- Rob Richie of Fairvote (IRV) recommends passage of our bill

Even Better Methods with Modified Ballots

- Score voting, AKA Range voting
 - Like in the Olympics, Internet Movie Database
 - Voters rate candidates on a scale
 - Candidate with the highest rating wins
 - Approval Voting is Score with just two possible ratings
- Score runoff voting (SRV), also with different possible score levels. This is like score voting, except that you choose the top 2 candidates based on scores, and then find the one of them who's rated higher on more ballots (ie, the winner of a virtual runoff).

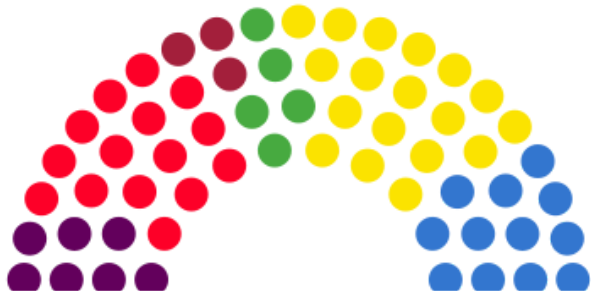
3-2-1 Voting - Highly Robust

- 3-2-1 voting is a voting method where voters
 - give each candidate one of 3 ratings good, acceptable, or bad
 - find the winner in 3 steps: top 3 good; top 2 not bad; best rated
 - First, the 3 semifinalists are the candidates rated “good” the most
 - second, the 2 finalists are the semifinalists rated “bad” the least
 - and third, the winner is the finalist who’s rated higher on more ballots (ie, the winner of a virtual runoff)

Proportional representation

For city council, legislature etc, widespread agreement: use proportional representation

- Single Transferrable Vote
- Proportional Approval Voting: Sweden, 1907-1925
- Reweighted Range Voting (PAV with Score voting):
Berkeley project prioritization



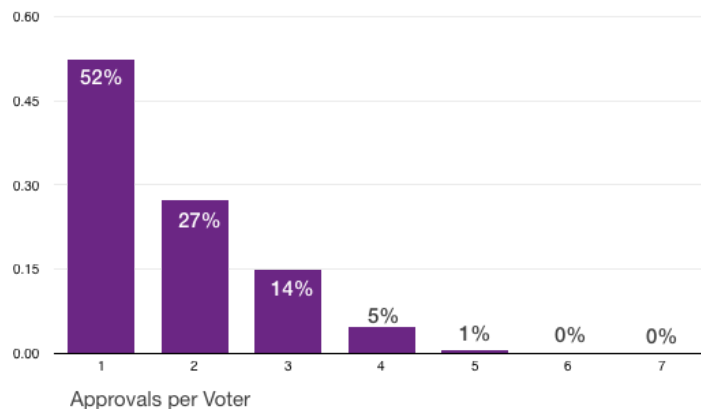
Approval voting criticisms

- What if people "Bullet vote" (vote for just one) anyway?
 - Experience from November, from France and Germany, suggest not a problem
 - Simulations suggest that if up to 70% of the electorate bullet votes, it actually improves the outcomes
- Voting for 2nd choice can help achieve unifying compromises
- In IRV, 2nd choice can be completely ignored until they are eliminated
- In IRV, voting for 1st choice can hurt them!

Approving Multiple Candidates

- CES and GfK: major poll in November using Approval, IRV, Plurality, Score etc

Approval Counts (9 Way)



Summary

- Approval voting: good, simple fix
 - Use with current ballots, current equipment
- With bigger ballots: 3-2-1 or Score Runoff Voting
- Proportional Representation for council, legislature

For more information

- Center for Election Science: electology.org
- Approval Voting for Colorado

Use vs Runoff, e.g. in Denver

Vs Instant-Runoff Voting, aka Ranked Choice Voting

- Much better than Choose-One Plurality Voting!

Instant-Runoff Voting

- Very confusing terminology
 - Alternative vote
 - Transferable vote
- Ballot design issues
- Most of most people's votes don't count
- Most voter preferences aren't reported, or reflected in even the complicated run-off round details
- Hard to understand
- [Maine's Ranked Choice Voting: It's Not Plurality | The Center for Election Science](#)
- Hard to audit IRV

Approval Voting is better than Instant-Runoff Voting

- Better Voter Satisfaction
- Less confusing
- Easy to do with current equipment
- Transparent
- Efficient to audit
- Always good to support your favorite
- Difficult to tally

Better Ranked Choice Voting methods

- Any Condorcet method
 - Ranked Pairs
 - Schulze, aka Beatpath
 - Game Theory (Rivest and Shen)
- Bucklin: accumulate top ranks until majority

Instant-Runoff has been Rejected or Repealed

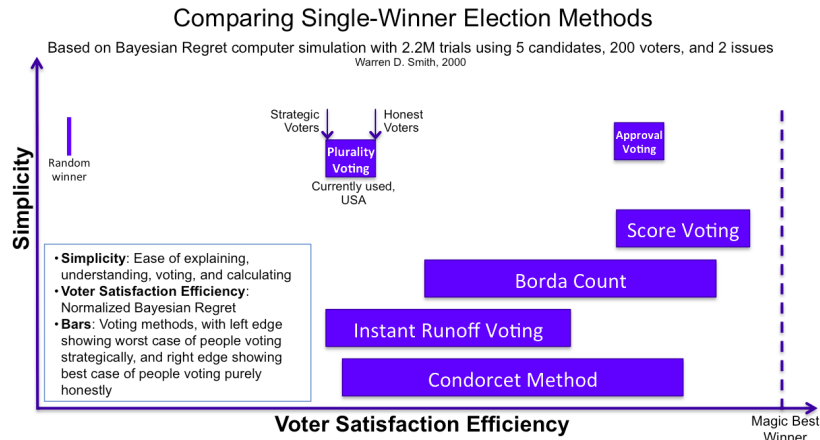
- Fort Collins (2011)
- Aspen (2010)
- Burlington, Vermont (2010)
- Cary, North Carolina (2009)
- Pierce County, Washington (2009)
- Ann Arbor, Michigan (1976)

to cover:

talk about complaint that it is "prone to strategic voting" vs
use for honest

When there's good polling, voters might be more strategic.
Otherwise, don't worry so much about vulnerability to
strategy

Effectiveness of Different Voting Systems



Warren Smith simulations, 2000

- Questions about "One Person One Vote"
 - One voter, one ballot
- The phrase "one person one vote" is about franchise to vote, and voter registration, not about method of voting
- History is different in europe vs US
 - Europe: involve everyone in election - not just property owners
 - and not allow people with property in multiple places to vote multiple times
 - US: about redistricting - senate is not one person one vote
 - Supreme Court requires state and local elections to be one person one vote in redistricting

one person one vote =>

court cases about IRV which answer this objection, which failed

Being able to vote for two candidates does not mean being given two ballots.

each approval voter gives an opinion about each candidate.
equal opportunity to influence outcome they've made an
equal participation about each person on the ballot whether
they vote for 1 or for 5