"This is the site for learning about democracy." -Zoe Weil, author of Most Good, Least Harm, president of the Institute for Humane Education.
"... a huge contribution to the democracy cause."

- John M. Richardson Jr., former chairman of the National Endowment for Democracy.
"Congratulations on a brilliant piece of work." Robert Fuller, former president of Oberlin College author of Somebodies and Nobodies and All Rise.

The primer, games and pictures let you

## Read, Touch and See How

The best types of voting are quick and easy, centered and stable, yet inclusive and fair. They help groups, from classrooms to countries.

versions of a policy. Two tools give fair shares of seats or \$pending.

Share this colorful booklet with friends. Grow support in your school, club or town. Enjoy better relations, politics and policies.



## Fair Shares and Moderates

Chicago elects no Republicans to the State Congress, even though they win up to a third of the city's votes. But for over a century it elected reps from both parties. The state used a fair rule to elect 3 reps in each district. Most gave the majority party 2 reps and the minority 1. So no district was unwinnable and neglected by 1 party, a captive audience for the other party.

Those Chicago Republicans were usually moderates. So were Democratic reps from Republican strongholds. Even the biggest party in a district tended to elect more independent-minded reps. They could work together for moderate policies. ${ }^{3}$


## $\checkmark$ Shares of votes equal fair shares of seats.

New Zealand switched in 1996 from Single-Member Districts to a layer of SMDs within Fair Representation. This is called Mixed-Member Proportional or MMP. A small, one-seat district focuses more on local issues. Fair Rep frees us to elect reps with widespread appeals.

The seats won by women rose from $21 \%$ to $29 \%$. The native Maori reps increased from $7 \%$ to $16 \%$, which is almost proportional to the Maori population. Voters also elected 3 Polynesian reps and 1 Asian rep. ${ }^{4}$

## Glossary and Index

Accurate democracy gives fair shares of seats and spending. It cuts scams and enacts a policy that tops all rivals. 4 goals
a Mandate is the authority effective votes loan to a Pages winner. It is a basic goal. Contrast a wasted vote. ...... 11-17, 57
a Majority is more than half of the votes. ..............11-, 14-, 30-, 56
a Plurality option has the most votes - often not a majority. " rules use yes-no voting; contrast RCV. .......... 6, 11, 23, 31-, 6
a Ranked Choice Vote lets you rank your $1^{\text {st }}$ choice and backups. It is a tool for effective votes and fair shares. $\qquad$ .14, 33, 45
a Voting Rule (system, tally, tool) has a ballot, tally steps, and a level of support needed for a win. ............ 6, 14, 21, 24, 30, 42-
a Wasted vote, for a loser, a winner's surplus, or a powerless rep, discourages voting and weakens democracy. $\qquad$ 12-18, 23, 27
a Wrecking amendment ruins a bill's chances or effects. a Free rider " doesn't relate to the main bill. .. 30,3336

See also the Summary and Index of Benefits on page 34.
Acronyms and Synonyms ..... Pages
Consensus process ..... 33, 36-
CT, Condorcet Tally, Pairwise Tally

$\qquad$
28-30-, 44, 54-56 EC, Ensemble Council of CT plus FR ..........New ......8-, 31, 54-55 FR, Fair Rep, Fair Representation (US); PR, Proportional Representation. (See PRCV, STV below.) ........7, 16-21-, 54, 61 MMP, Mixed-Member Proportional . $\qquad$ 19-20, 55 FSV, Fair Share Voting .......New ................ 22-24-, 36-, 43, 46, 52RCV, Ranked Choice Voting: STV Single Transferable Vote, PRCV Proportional RCV, for Fair Rep.................. 42, 48-51, 54 IRV, Instant Runoff Vote (US), aka Majority Preferential (Aus)
AV, Alternative Vote (UK) or Hare for SMD .........14-, 39-42, 56
SMD, a Single-Member District elects one rep. ......................6, 20,

Votes Transfer, Elect Reps


In 6, a candidate has just enough votes to win a seat. In 8, a winner has surplus votes; a fair share goes to each supporter's next choice

The maps show only two issue dimensions. But a five-seat council can form decisions in 3D, if the reps are diverse. More issues and positions get represented in campaigns and debates, then in policies and budgets - all in 3D! "RCV... gives you proportionality on every axis." ${ }^{2} \leftrightarrow \downarrow$ 々


# Accurate Democracy 

4 Great Tools in Color

by Robert Loring


Voters waiting

Silver Spring, Maryland<br>Fair'Vote<br>2024

## Voting Rules and Policy Results

Local SMDs can elect reps with unequal vote totals. So a majority of reps might not represent most voters. Fair Rep requires more equal votes per rep (page 20). So each majority of reps does stand for most voters, producing policies closer to public opinion. ${ }^{2}$

> Less: Wasted votes, Gerrymandered districts, Momopoly politics, Dubious democracy

Many voters see a woman in a multi-winner race less as fighting her rivals, more as supporting her issues.

Councils with fewer women tend to do less for health care, childcare, education and other social needs. ${ }^{8}$ Then poor health and education weaken workers and children.

If such urgent needs overwhelm us, we neglect the essential need to fix their structural sources. The plurality rule is a key defective part to replace. It wastes votes and underrepresents most voters. It gives the reps less incentive to help most voters.

A more accurate democracy leads toward a better quality of life, as measured for the scores on page 60 . We would all like better quality-of-life results for our country, and for our towns, schools, clubs and co-ops. So help friends talk about and try these voting rules.
B. Workshop Games, hold a vote © a_workshop.htm 1 A voter's ranks may skip, e.g. $1^{\text {st }}$ left, $2^{\text {nd }}$ far right, $3^{\text {rd }}$ center. 2 Loring, Robert. A Simple Tally @p_tally.htm\#tech Other Budget Rules ©q_other.htm
3 FairVote, "Ranked Voting and Election Integrity", 2013. fairvote.org/ranked-voting-and-questions-about-election-integrity/ www.nationalacademies.org/news/2018/09/securing-the-vote-new-report Election Audits, http://electionaudits.org/ www.verifiedvoting.org 4 Portland Voters Overwhelmingly Support Ranked Choice, 2015 fairvote.org/portland_voters_overwhelmingly_support_ranked_c hoice_voting
5 Krosnick, Jon A. "In the Voting Booth, Bias Starts at the Top", http://nytimes.com/2006/1 1/04/opinion/04krosnick.html

+ A ballot used for FSV http://tupelo-schneck.org:8080/tag/
6 https://AccurateDemocracy.com/a_teach.htm
7 youtube.com/watch? $\mathrm{v}=\mathrm{oHRPMJmzBBW}$ or $\mathrm{v=}$ _5SLQXNpzsk
C. Simulation Examples, @ d_stv2d.htm @ p_tools.htm 1 Loring, Robert. simelection.com 1996 http:politicalsim.com https://accuratedemocracy.com/d_stv2d.htm (a) p_tools.htm
2 Lorence, Stella; "Massachusetts Voters May Face Ranked Choice Voting Question...". BU News Service. 3/3/2020. Quote from Dr. Moon Duchin, MGGG Redistricting Lab, Tufts U.
3 See entries for Chamberlin et al; or Merrill; or Green-Armytage. Brady, Henry E. "Dimensional Analysis of Ranking Data", American Journal of Political Science. 34 (11/90).
* Back Matter @ a_goals.htm @ z_review.htm 1 https://en.wikipedia.org/wiki/Democracy_voucher
Ackerman, Bruce; and Ian Ayres. Voting with Dollars: A New Paradigm for Campaign Finance; (New Haven: Yale U. Press, 2002).
2 Gifts to "spoilers" are less effective under Ranked Choice Voting.
Multi winner districts make it hard to target money on just one seat.
3 nytimes.com/2018/06/23/opinion/sunday/james-e-hansen-climate-global-warming.html. See "conservation ... depends on effective governance" https://www.nature.com/articles/nature25139. 66


The four best voting tools are fast, easy and fair. Parts A, B, and $\mathbf{C}$ reveal how tools steer power.
A. Voting Primer tells the stories of the four tools
Tragedies, Eras and Progress of democracy1. Ranked Choice Voting elects a majority Leader4
10
2. Fair Representation elects a balanced Council ..... 16
3. Fair Share Voting sets optional Budgets ......New ..... 22
4. Condorcet Tally enacts a balanced Policy ..... 28
Rigged votes, gerrymanders and gridlock ..... 32

* Social Effects of group-decision tools ..... 34
(3) Consensus on one Policy or many Budgets ..... 36
龟 How to try a group-decision tool ..... 38
B. Workshop Games let us be inside the four tallies1. Leader, 2. Reps, 3. Budgets, 4. Policy ..........New!39
C. SimElection ${ }^{\text {TM }}$ maps make tally patterns visible

2. Reps, 3. Budgets, Council, 4. Policy ..... New. ..... 48

* Back Matter: Voting reforms aid more reforms ..... 57
Tables, Endnotes and References ..... 60
(6) Glossary and index, About us ..... 68


## One Fair Representation Election

A better idea, "Keep the class whole. Change the votes needed from $1 / 2$ of a section to $1 / 4$ of the class plus 1 . To win here, you need to get the ballots of 7 voters. A voter may rank a first choice and a backup choice. If his first choice loses, his vote counts for his backup."

> Now the minority gets 1 rep and the majority gets 2 . Their mandate is fair, accurate, popular and strong.

4 Roberts, Nigel. NEW ZEALAND: A Long-Established Westminster Democracy Switches to PR, (Stockholm, IDEA) www.nigel-roberts.info/NSR-in-Reynolds-\&-Reilly-1997.pdf 5 Mathews, Dylan. "3 Reasons New Zealand has the Best Designed Government in the World" www.vox.com/2014/9/23/6831777/new-zealand-electoral-system-constitution-mixed-member-unicameral
6 Richie, Rob and Andrew Spenser. "The Right Choice for Elections" University of Richmond Law Review; vol. 47 \#3, (March 2013) https://lawreview.richmond.edu/files/2013/03/Richie-473.pdf
7 Krook, Mona Lena. Quotas for Women in Politics: Gender and Candidate Selection Reform Worldwide; Oxford U. Press 2009, 123 Healy, Andrew and Jennifer Pate. "Can Teams Help to Close the Gender Competition Gap?" Economics Journal, 121: 1192-1204 https://web.archive.org/web/20170706034311/http://myweb.lmu. edu/ahealy/papers/healy_pate_2011.pdf
$8 \mathrm{http}: / / \mathrm{www} . n y t i m e s . c o m / 2016 / 11 / 10 / u p s h o t / w o m e n-a c t u a l l y-d o-$ govern-differently.html
nytimes.com/2020/05/15/world/coronavirus-women-leaders.html
紋 3. Allocating Budgets, Fair Share Voting (a) p_intro.htm FSV=PRCV if \$\# =voters\#, 1 share $=\$ 1$ and 1 seat costs \$\# / (seats+1) 1 Shah, Anwar ed., Participatory Budgeting; The World Bank; siteresources.worldbank.org/PSGLP/ Resources/ParticipatoryBudgeting.pdf
2 Moore, Joe Participatory Budgeting in the $49^{\text {th }}$ Ward, http://participatorybudgeting49.wordpress.com/ In 2014, voters in Cambridge, MA saw a similar pattern.
3 Tupelo-Schneck, Robert and Rob Loring. Fair Share Voting, for Participatory Budgeting Conference slideshows, NYC, 2012. https://accuratedemocracy.com/p_intro.htm
4 News of the Oaks, Leaves of Twin Oaks, Louisa, VA; 1995.
5 Oaks, Adder. "Participatory Budgeting in an Income Sharing Community", Communities: Life in Cooperative Culture; \#175, 6/2017 www.ic.org/participatory-budgeting-in-an-income-sharing-community/
Leaves of Twin Oaks, 2013. To cut a budget level needed support from $55 \%$ of the voters. So no one tried to protest a cut.
pbstanford.org/dieppe2015/ranking pbstanford.org/nyc8/knapsack

## Budget Levels and Long Ballots

True-life stories that say,"Avoid very long ballots."
We have seen Ranked Choice Voting for reps is easy. It cuts worries about wasted votes, from your own ballot up to whole districts gerrymandered to waste thousands. The worries in the cases below didn't occur in elections. Each of us had to adjust too many budgets at once.

We can't afford items we rank below a costly favorite: Our ballot had 40 items. Most of us ranked a few higher than the costly sure winner. But, as we picked from so many items, most got just a few shares. So most lost, even some that a few of us ranked over the sure winner. Then that costly fave won and left us with little money.

Wise voters ranked it high only at its low budget levels. So they had money left to help more items each reach the base number of votes and qualify for funding.

## Adjusting the Big Ongoing Budgets

Each year, we reset the levels of 50 ongoing budgets. Some voters said the long ballot was too hard and slow. So now any..5.of us may propose a plan for the budgets. Most voters say it is easier to rank a few complete plans. Ranking plans evaluates more than each budget alone; some plans give more or less than the sum of their parts. And changing budget $B$ may call for changing budget $P$.

A Condorcet Tally then picks one plan. ${ }^{4}$ It is likely to coordinate all of the budgets and it has majority support. But it might be much nicer to a majority than to others.

## What's Wrong

We all know how to take a vote when there are only two candidates: Each of us votes for one or the other. In this simple contest, the yes or no votes say enough.

But as soon as three candidates run for one office, the contest becomes more complicated. Then that old yea or nay type of voting is no longer suitable. ${ }^{3}$

It's even worse at giving fair shares of council seats, setting many budgets, or finding a balanced policy. Our defective voting rules come from the failure to realize this

## There are different uses for voting, and some need different types of voting.



Will their votes be effective?

## Patterns of Unfair Spending

Participatory Budgeting (PB) lets neighbors research, discuss and vote how to spend part of a city's budget. In South America, it spread from one city in 1989 to hundreds today. Progress most often advances this way. The World Bank reports PB may reduce corruption and raise a community's health and education. ${ }^{1}$

In 2010, a Chicago alderman gave $\$ 1,300,000$ to PB . ${ }^{2}$ But a plurality rule made the votes and voters unequal. For example, in 2011 each vote to help a park won $\$ 501$. That was its cost divided by its voters. But if cast for bike racks, each vote won a mere $\$ 31$. That's too unfair. Even worse, most of the votes were wasted on losers. ${ }^{3}$


A bad election rule gets worse when it picks projects. It is not cost aware, so it often funds a very costly item and cuts a bunch that get many more votes per dollar. To win this bad tally, load various proposals into one. Keep raising its cost if that attracts more votes.

One year, a scholarship fund got many surplus votes. These were wasted votes because they had no effect. So the next year, many supporters chose not to waste a vote on this "sure winner." It lost! They saw the need for a voting rule that would not waste surplus votes. ${ }^{4}$

## Endnotes by Chapter

For each chapter the endnote numbers restart at one． The website and free ebook have more complete citations． I favor online sources that use data from real elections or realistic sims．This is essential for realistic research．
This is the first book about Ensemble Councils，Fair Share Voting，and rules of order for Condorcet Policies． AccurateDemocracy．com（a）has pages about each rule． They add animations，links and software：© z＿tools．htm．
FairVote．org has model ballots and bylaws，editorials， research reports，voter－education stories，videos and more． Further RCV resources are at rankedchoicevoting．org

## A．Voting Primer，Tragedies，Eras and Progress

＋AAAS．Our Common Purpose，American Democracy for the $21^{s t}$ Century．amacad．org／ourcommonpurpose／recommendations
＋Braun，Andrés and Cabrera，Alejandro．Nosotros，la gente． （Córdoba：El Emporio Ediciones，2021）
1 Amy，Douglas J．Proportional Representation：The Case for a Better Election System．North Carolina is on page 30．Out of print．
2 Durbin，Kathy．Tree Huggers：Victory，Defeat \＆Renewal in the Northwest．．．，（Seattle，The Mountaineers，1996）
3 Hoag，Clarence and George Hallett．Proportional Representation，（NYC，The Macmillan Company，1926）．
4 Duverger，Maurice．＂Factors in a Two－Party and Multiparty System＂Party Politics and Pressure Groups（NYC：Thomas Y． Crowell，1972），pages 23－32．
Rein Taagepera，and Mathew Soberg Shugart．Seats and Votes：the Effects and Determinants of Electoral Systems．Yale U Press， 1989.
$5 \mathrm{http}: / / f$ airvote．org／monopoly＿politics\＃overview
6 Lijphart，Arend．Electoral Systems and Party Systems：A Study of Twenty－Seven Democracies（Oxford U．Press，1994）
7 See pages 30－31 and 54－56． 8 Statistics on page 60－61． 62

## 4．Condorcet Tally Centers a Policy

In a Condorcet tally，the winner must top all rivals， one－against－one．Two games show how it works．

1）将 Flag L stands at our center，by the median voter． Flags J，K and M surround L， 2 m ．or yards from it．

将 We asked 9 voters：＂Are you closer to J than to K ？ If so，please raise a hand．＂Only one raised a hand． We entered J vs．K，etc．in the pairwise table below．

| against |  | J | K | L |
| :--- | :---: | :---: | :---: | :---: |
| mor J | - | 1 | 3 | 4 |
| for K | 8 | $8+1=9$ | 4 | 5 |
| for L | 6 | 5 | - | 5 |
| for M | 5 | 4 | 4 | $4+5=9$ |

The nine voters gave L a majority over each rival．
2）类 Flag L has a ribbon 1 or 2 m ．long and a longer rope．
誛 If the ribbon reaches to you，the ribbon policy gets your vote with its narrow appeal．
滕 But if the ribbon cannot reach you，the wide appeal of the rope policy gets your vote．Which one wins？

If the flags mark places for a heater in a cold room：
1．Do we put it at our center or in the biggest group？
2．Do we turn on its fan to spread the heat wide？
3．Do voters on the fringes have any influence？
4．Can the median voter enact any policy alone？
5．Do we get a balanced or a one－sided policy？

\＄\＄\＄Policies \＄\＄\＄
Typical Council Elected By Fair Representation

Fair Representation was developed around 1900 to end some major problems caused by the plurality rule． Most democracies now use＂Fair Rep＂．It elects several reps from each election district．It gives a group that earns say， $20 \%$ of the votes， $20 \%$ of the council seats． Thus Fair Rep tallies give fair shares of representation．${ }^{6}$ It＇s often called Proportional Representation or PR．

It leads to broad representation of issues and views． But usually there is no central party（ $\mathbf{C}$ above）and the two biggest parties normally refuse to work together． So the side with the most seats forms a ruling majority． Then it enacts policies skewed toward their side．

## Fair Shares and Majorities

If the biggest group controls all of the money，the last item it buys adds little happiness；it is a low priority． But FSV makes some money buy high priorities of other big groups，adding more to their happiness．

In political terms：The total spending has a wider base of support：It appeals to more voters because more see their high priorities get funding．

In economic terms：The social utility of the money and winners tends to rise if we each allocate a share． Fair，cost－aware voting gives more voters more of what they want for the same cost $=$ more satisfied voters． Shares also spread good opportunities and incentives．


Plurality rules let surplus votes waste a big group＇s power，as seen on page 20 ，or let rival items split it． The biggest groups often have the biggest risks．

FSV protects a majority＇s right to spend a majority of the fund．It does this by eliminating split votes，as did RCV，and surplus votes，as we＇ll soon see．

## Better Voting for Better Living

This data suggests: to elect a good government that enacts superb health, education, $\operatorname{tax}^{7}$ and other policies, a country needs effective, not wasted votes.

Does Fair Representation elect more women? page 20 Do they tend to raise health and education results? ${ }^{10}$ Can these lift low incomes and reduce violent crime?

Do voter turnouts or seats won by women tend to be lower in countries with more: people? diversity? religion? polygamy? corruption? militarism? hot weather?! Are those harder to change than the voting rules?


## Data Definitions and Sources

Measures of respectable power and policies, circa 2016
Seats average per election district; Inter-Parliamentary Union Women \% of main legislature; Inter-Parliamentary Union Turnout \% Int'l. Inst for Democracy \& Electoral Assistance Health Rank first is best; World Health Organization Math Score Program for Int' 1 Student Assessment, OECD Poverty \% of children below half of median income; OECD
Murder Rate per million; $7^{\text {th }}$ UN Survey of Crime Trends Scores weighted by population give a voting rule's average.

60 The table's worst numbers are in bold.

## Ranked Choice Voting Quiz

1. How can your group use this voting rule?
2. A card we move counts just like others, True or False?
3. Ranking a backup choice can't hurt your first, T or F
4. Only one candidate can reach $50 \%$ plus a vote, T or F
5. Name four cities or schools that use RCV. Inside cover
6. What benefits does it give them?

See page 14.
Answers: 2) True, each card counts once in each round.
3) True, a backup doesn't count unless your $1^{\text {st }}$ has lost.
4) True, more reps would need over $100 \%$ of the votes.

## 下

Ranked Choice Voting includes RCV1 and PRCV.
The inside cover lists some of the users.
Most of the groups tally their votes easily with apps.
$\swarrow$

## 2. Fair Rep by Proprtional RCV (PRCV)

A tabletop tally to elect three reps works like PRCV.
f We set the finish line at $1 / 4$ of the cards plus one. Don't put your card on a column that is full.
\& One at a time, we drop the weakest candidate.
f If your candidate loses, you can move your card.
F Repeat until three candidates reach the finish line!
Ask the RCV1 questions above again for PRCV, adding:
4. Can only 3 candidates each win $25 \%$ plus a vote?
7. What total do a trio of reps win all together?

Answers for PRCV: 6) See page 16. 7) 75\%
PRCV is also known as Single Transferable Vote, STV.

## Progress of

 DemocracyA centrist policy implements a narrow set of ideas. It blocks rival ideas: opinions, needs, goals, and plans. A one-sided policy also blocks rival ideas.

A compromise policy tries to negotiate all the ideas. But contrary ideas forced together often work poorly.

A balanced policy blends compatible ideas from all sides. This process needs advocates for diverse ideas. And more than that, it needs independent moderators. These swing-voting reps can please their wide base of support by building moderate majorities in the council.


#### Abstract

A broad, balanced majority works to enact broad, balanced policies. These tend to give the greatest chance for happiness to the greatest number of people.


Excellent policies are a goal of accurate democracy. Measure their success by the typical voter's education and income, freedom and safety, health and leisure. ${ }^{8}$

Older rules often skew results and hurt a democracy. An ensemble is inclusive, yet centered and decisive to help make its actions popular, yet stable and quick. The best tools to select budgets or pick a policy will show these qualities in our stories, graphics and games.

## More Merits of Fair Share Voting

${ }^{\boldsymbol{x}} \boldsymbol{1}$ After discussion, a quick poll can pick many items. It reduces agenda effects such as leaving no money for the last items or going into debt for them.

Kix It lets subgroups fund items; so it's like federalism but without new layers of laws, taxes and bureaucracy. And it funds a big group even if they are scattered.

Kiy Each big group controls only its share of the money. This reduces its means and motives for fighting. It makes (hidden) empires less profitable.

K제․ Fairness builds trust in spending by subgroups and raises support for it. This can reduce spending at the extremes of individual and central control.


## Merits of FSV for an Elected Council

$k \geqslant$ FSV could give some funds to reps in the opposition, so Electing them is more effective, less of a wasted vote.

Kix They ease starvation budgets that damage projects. This makes project management more efficient.

Kㅍ. A voter can see grants from his rep to each project, tax cut, or debt reduction; then hold her accountable.

## Voting Reforms Aid Other Reforms

Ballot access rules make it hard for small parties to get on the ballot, because big parties fear "spoilers." To calm that fear, let voters rank their backup choices. Ranked Choice Voting, RCV, opens up elections.

3 A news firm may inform us better if the subscribers steer more parts of it than the owners or advertisers do. There's a low-cost method for any membership group: Fair \$hare Voting can reward the best news bloggers.

3 Public campaign funding lets reps and rivals give less time to their sponsors, more time to their voters. One plan gives each voter $\$ 50$ of vouchers to donate. ${ }^{1}$ Such nameless gifts or FSV can cut corrupt paybacks.
Big \$ponsors aim gifts to buy the few swing districts. ${ }^{2}$ 12 RCV or Fair Representation make that harder. So big business and billionaires may buy fewer seats.
"It's very hard to see us fixing the climate until we fix our democracy." Dr. James Hansen ${ }^{3}$

2 Good schools, taxes and voting may go together. ${ }^{4}$ Schools build our group skills and political know-how.

Sabbatical terms make the current rep run against a former rep returning from rest, reflection and research. Then the candidates include two with records in the job! Two alike do not break apart a group that uses RCV.
4 Citizens' assemblies ${ }^{5}$ and their referendums can get more choices and control by using Condorcet Tallies. The laws on voting rules, reps' pay, \$ponsors, etc. need referendums because the reps have conflicts of interest. 58

## 1. Ranked Choice Voting to Elect One

Tabletop tallies make Ranked Choice Voting lively.

- The finish line is the height of half the cards, plus one. That is how many votes a candidate needs to win.
- If no one wins, we eliminate the weakest candidate. We draw names from a hat to break ties
- If your favorite loses, you can move your card. You can give it to your next backup choice.
- We repeat this to eliminate all but one, the winner!

This chart shows four columns on a tally board. The tally dropped Anna, so voter JJ moved his card. Then Bianca lost, so BB and GG moved their cards.


## Plurality Election

Here we see three rivals step up, asking for votes. Each voter prefers the candidate with the closest position. A voter on the left votes yes for the candidate on the left.

K is the candidate with a stance nearest four voters. $L$ is the nearest to two and $M$ is the nearest to three. Candidates $L$ and $M$ split the voters on the right.
Does anyone get a majority (over half), Yes or No? Who gets the plurality (the largest number), K, L or M? Who gets the second-largest number of votes, $\mathrm{K}, \mathrm{L}$ or M ? Answers to questions are at the bottom of each page.
A mere plurality gives the winner a weak mandate. This is the authority effective votes loan to a winner. Strong mandates support and speed action by consent not coercion, to reach popular goals.

By plurality rule, the one with the most votes wins.

$K$ is nearest four voters.
L is nearest two.
Answers: No. K. M.

## Condorcet Test Number Three

Candidate $L$ wins her last test by six to three. $6>3$ She has won majorities against each of her rivals. So she is the "Condorcet winner." L>M. L $>\mathrm{K}$.
"...such a mandate is no doubt a vital ingredient in the subsequent career of the winner." ${ }^{1}$

Thus a Condorcet Tally picks a central winner.
It can elect a moderator to a council. page 8,
or moderates from districts for MMP, page 17. or senators to make an upper house.
But is it likely to elect diverse reps Yes or No?
It can select the base number for FSV. page 26 But is it likely to spread spending fairly, Yes or No? Do CEOs mostly moderate, or advocate (e.g. a mayor)?


L has six votes. M has three.

## 4. Watch Condorcet Find the Center

This map puts a line halfway between Al and a rival. Voters O on Al 's side of each line are closer to Al , so they rank Al over the rival. The long line has more voters on Al's side than on Joe's. So Al wins that test. Al wins a very different majority over each rival here. To do that, Al's political positions must be central and have widespread support. page 31


In contrast, PRCV requires the most intense support, first-rank votes, to avoid early elimination. See page 48 RCV1 does too, with a high finish line of $50 \%+1$ vote. 56

## How You Can Try a Voting Tool

It's easy to test-drive a decision tool in a survey. Or a council can form a committee of the whole to discuss, vote, tally and report results to enact by its old rules.

Many groups adopt a book of parliamentary rules, then amend it with "special rules of order" to make their decisions more popular, stable and quick. ${ }^{4}$


## Steering Analogy

When choosing a voting rule, a new Mercedes costs little more than an old jalopy. That price is a bargain when the votes steer important budgets or policies.

Does your car have an 1890 steering tiller or a new, power steering wheel? Does your town have an 1890 voting rule or a new, centrally balanced rule? e.g. p. 33

[^0]
## Politics in Two Issue Dimensions

When more issues (or identities) concern the voters, a voting-tally rule keeps its character. ${ }^{1}$

Here we see voters choosing positions spread over two issue dimensions: left to right plus up and down. A person's position on one dimension is little help for predicting his or her position on the other one.

A voter may rank candidates on any issue(s). He prefers the candidate he feels is closest.
"Please step up for more protective regulations. Please step down if you want fewer protections. Take more steps for more change."

The chapter on simulation games and research shows more tallies with two and even three issue dimensions.

Seventeen voters take positions on two issues: more or less regulation $\downarrow$ and taxes for services $\leftrightarrow$


Kay wins a plurality. Em wins a runoff.
For clarity, a candidate is "she" and a voter is "he."

## Policies with Wider Appeal

A plurality or runoff winner gets no votes from the losing side and doesn't need to please those voters. But each CT option needs support from all sides, because every voter can rank it against its close rivals. Thus every voter is "obtainable" and valuable.

So the winner is well balanced and widely popular. ${ }^{2}$ Voters on the center and right give it a majority over any left-wing policy. At the same time, voters on the left and center like it more than a right-wing policy. All sides like it more than a narrowly-centrist policy.


Everyone helps locate our center.

## A Chair with Balanced Support

CT can elect a chairperson or a few reps to be the swing voters in an Ensemble Council, as pictured on pages 8 and 54 . To win, a candidate needs to earn wide support. This gives her strong incentives to help the council balance its process and policies.
RCV has slightly different effects, incentives and uses. ${ }^{3}$ Games will let us inside each tally to feel how it works.

## Contrast 3 Councils，each with 5 seats

角 1．The Loring Ensemble Rule elects a few reps by a Condorcet Tally，the rest by a PRCV tally；see page 8 ． On this next map，Condorcet Tally elects Al；then Fair Rep by four－seat PRCV elects Bev，Di，Fred and Joe． The map shows each winner＇s name in bold．
－2．The Condorcet Series elects the candidates closest to the middle of the voters：$A l, B e v, G G, J o e$ and Fred． The lower right or southeast gets no rep；so the council is not well balanced．Each winner＇s name is in italic．


O 3．Fair Rep by five－seat PRCV elects Bev，Di，Fred，GG and Joe．

Each name is underlined． It eliminated A1！


## Notice Two Surprises

1．Perhaps it＇s surprising that broad Fair Rep helps a central Condorcet winner own a council＇s swing vote． With these tools，political diversity can be a source of moderation as well as balance and a wide perspective．
龟 2．Central reps can lead a broad Fair Rep council to broader majorities with moderates from all sides． This can add to or replace some of the＂checks and balances＂used to moderate a council＇s impacts．
54

## Consensus and Voting

Group decision－making has two linked processes：
A discussion process may have a facilitator，an agenda， some reports and proposals．Members may ask some questions and suggest some changes for each proposal．

A decision process must ask all of the members，
＂Which proposals have enough support to be winners＂？${ }^{2}$
Voting only yes or no leads us to discuss and decide one formal＂motion＂at a time in a very strict sequence． It stifles the sharing of ideas and development of plans．

But both consensus and ranked choice ballots let us decide some closely－related options at the same time． Both reward blending compatible ideas，and polarize less than yes－or－no voting．pages $9,14,31,45,56$ So more members want to help carry out the decision soon and make it work；fewer try to slow it down．

## Why Take a Vote

Discussing an issue well often resolves most parts， with mandates up to $100 \%$ ．Yet we might want to decide some parts with the best voting tools．Why？

The best rules strengthen some reasons for voting：
碌 Choice ballots can speed up meetings．pages 27， 33
类 Secret ballots reduce social pressure and coercion．
f A well－designed ballot and tally promote equality：
Even busy or unassertive people can cast full votes．

Ranked Choice Voting Patterns
Running for president of South Korea，the former aide to a dictator faced two popular reformers．The two got a majority of the votes but split their supporters．So the aide won a weak plurality（ $37 \%, 28 \%, 27 \%, 8 \%$ ）． He claimed a mandate to continue oppressive policies． Years later he was convicted of treason in the tragic， government killing of pro－democracy demonstrators．${ }^{5}$
A voter＇s backup is often like his favorite，but more popular．So by dropping one reformer，RCV might well have elected the stronger one with a majority．


From five factions to a majority mandate．
1）Violet loses，so backup choices get those votes．
2）Amarilla loses；backup choices get those votes．
This chief executive starts in a big band of voters on the biggest side，then builds a majority．She is a strong and widely－popular advocate for their point of view．
$\rightarrow$ For 11 years，Papua New Guinea used RCV，then plurality rule for 27 years；ethnic violence increased． They returned to RCV and violence decreased．${ }^{6}$

Irish and Australian voters have used RCV for decades． They call it the Alternative Vote or Preferential Vote． Some Americans call it Instant Runoff Voting，IRV． The inside cover lists many groups using it in the USA．${ }^{7}$ It often helps women achieve parity in politics．${ }^{8}$

The workshop＇s RCV game starts on page 39.

## A Less Rigged Agenda Now！

Some meetings concoct a policy by a series of yes－no choices，with or without rules of order，agendas or votes． An early proposal might have to beat each later one． An early decision might preclude some later proposals． So＂stacking the agenda＂can help or hurt proposals．

Other meetings discuss the rival options all at once． But often，many members express no backup choices． So similar options split supporters and hurt each other． Then a minority pushing one option might seem to be the strongest group．Even sadder，a member with a well－ balanced option but few eager supporters might drop it．

Too often，a committee chooses all the parts in a bill． Other members can say only yes or no to that bundle． It might include free－rider or wrecking amendments．

Rigged votes often build bad policy and animosity． To reduce these risks，let the voters rank the options．${ }^{6}$

Issue A RCV Ballot A
Rank Option
3 Continue discussion
2 Original bill，the main motion
1 Bill with Amendment 1 （a free rider？）
8 Bill with Amend． 2 （a wrecking amend．？）
7 Bill with Amendments 1 and 2
4 Postpone to a definite time 7 days
5 Refer the bill to a Committee
6 No change（a vote for gridlock exposed？）
Any＂Incidental Motions＂do not wait for the ballot； these include a personal complaint or request．


[^0]:    Some groups offer apps to tally your votes. https://AccurateDemocracy.com/z_tools.htm

