

Accurate Democracy



4 Great Tools in Color



Help Groups from Classrooms to Countries

Loring

ACCURATE DEMOCRACY

FairVote

“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

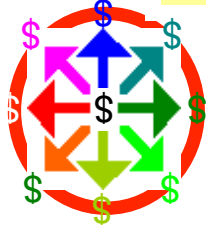
The best types of voting are quick and easy,

centered and stable, yet inclusive and fair.

They help groups, from classrooms to countries.

One tool compares the votes for several
versions of a **policy**. Two tools give

fair shares of seats or \$pending.



to Use and Enjoy

Share this colorful booklet with friends.

Grow support in your school, club or town.

Enjoy better politics, relations and policies.

See pages 34, 35 and 61.

Summary and Index of Benefits

Ranked Choice Voting Has Proven To

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Accurate

Democracy

4 Great Tools in Color

Help Groups from Classrooms to Countries

Robert Loring



Voters waiting

FairVote

A. Voting Primer

Two of Many Tragedies

Old ways of adding up votes often fail to represent large groups. In the United States, North Carolina had enough Black voters to fill two election districts, but, spread out over eight districts, they were a minority. So for over 100 years, they won no voice in Congress. As voters, they were silenced—with tragic results.¹

The Northwest tore itself apart by changing forestry laws again and again. When forestry laws are weak, hasty logging wastes resources. But sudden limits on logging bankrupt some workers and small businesses.² If this **policy pendulum** swings far, it cuts down forests and species, then families and towns, again and again.



What can big swings in other policies do?

4

What's Wrong

We all know how to take a vote when there are only two candidates: We each vote 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.

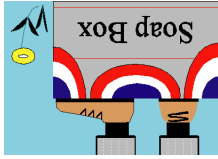


Will their votes be effective?

5



Progress of Democracy



A 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. What's more, it needs strong, independent **moderators**. These swing-voting reps can please their wide base of support by building moderate majorities in the council.

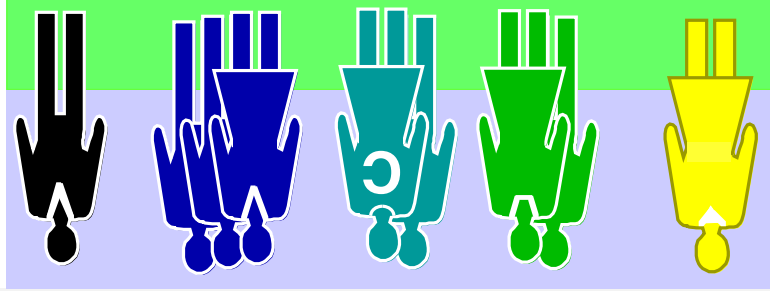
A broad, balanced majority works to enact broad, balanced policies. These tend to give the greatest chance for happiness to the greatest number of people.

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 set budgets or pick a policy will also show these qualities in our stories, graphics and games.



In the 21st Century Ensemble Councils ⇒ Balanced Majorities



\$ \$ \$ Policies \$ \$ \$
Council Elected by Central and Fair-Rep Rules

Ensemble rules will elect most representatives by **Fair Rep** plus a few reps (**C** above) by a **central** rule.

So the points of view within the council will have a **spread** plus a pivotal **midpoint** that match the voters' more accurately. $\bullet + \circ = \odot$ That's the target.*

Later pages will show how we can elect a rep with wide support and views near the center of the voters.⁷ So winners will be near the center of a Fair Rep council. There they can be the council's **powerful swing voters**, with strong incentives to build moderate majorities.

Many voters in this wide base of support won't want narrow centrist policies. They'll likely want policies to **combine the best suggestions from all groups**.

* Its colors suggest archery or political bunting.

Politics in Two Issue Dimensions

When more issues (or identities) concern the voters, a voting-tally rule keeps its character:

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 ↓ and taxes for services ⇔



K wins a plurality.
M wins a runoff.

For clarity, a candidate is “she” and a voter is “he.”

Runoff Election

From the plurality tally, the top two may advance to a runoff. It eliminates the other candidates all at once. The **two voters** who had voted for **L** now vote for **M**. Do they each have more power than some other voter?

Wasted votes fail to turn a loser into a winner.

Effective votes succeed: a voting tally with more

is more fair thus accurate, responsive and strong.

Does the plurality election waste more votes?

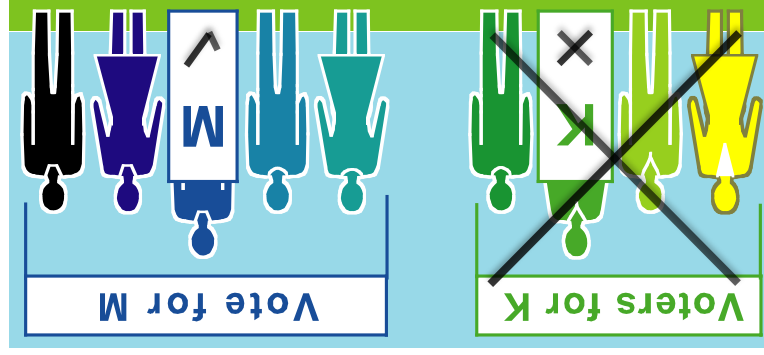
Does that discourage members from voting?

Does the runoff make a stronger mandate?

In effect, runoffs ask, “Which side is stronger?”

Later, these voters will use another voting rule to ask, “Where is our center?” And a bigger group will use a rule to ask, “Which trio best represents all of us?”

In a runoff, the top two compete one against one.



Four wasted votes.
Candidate **M wins** a runoff.

Answers: No, each voter has one vote in each tally.
Yes, five.
Yes.
Yes, a majority mandate.

2. Electing Representatives

The principle of **Fair Representation** is:
Majority rule by representing the groups in proportion to their voters.

That is, **60% of the vote gets you 60% of the seats**, not all of them. And 20% of the vote gets you 20% of the seats, not none of them. These are **fair shares**.

How does it work? There are three basic ingredients:
• We elect more than one rep from an electoral district.
• You vote for more than one; you vote for a list.
• You pick a group's list, or you list your favorites.

• The more votes a list gets, the more reps it elects.

Why Support Fair Representation (Fair Rep)

• **Fair shares** of reps go to the rival groups so

Diverse candidates have real chances to win so

Voter turnout is strong.¹

• **Women win** two or three times more often¹ so

Accurate majorities win—also due to more choices, turnout, effective votes, and equal votes per rep so

Policies match public opinion better.²

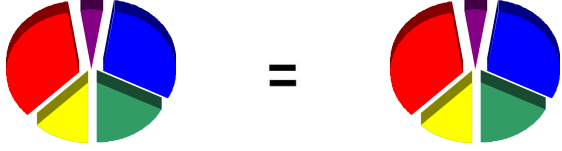
Many people call this Proportional Representation or PR.

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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



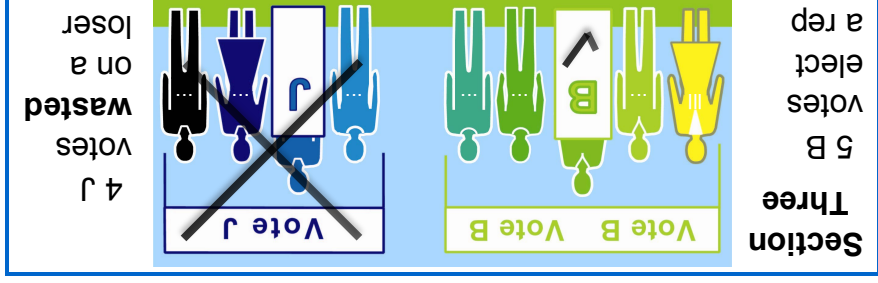
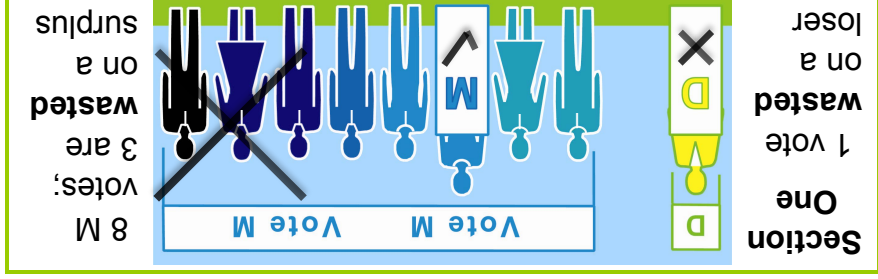
✓ **Shares of votes equal fair shares of seats.**

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

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Three Single-Winner Elections

A class of 27 wants to elect a 3-member committee. Someone says, "Elect a rep from each seminar section. To win here, you need to get the ballots of just 5 voters."



► An 1-voter minority gets 2 reps; that's majority power. If spread out, 3 or 4 in each section, they'd get no rep. It can waste many votes so it's erratic and easy to rig.

20

How many votes were wasted?

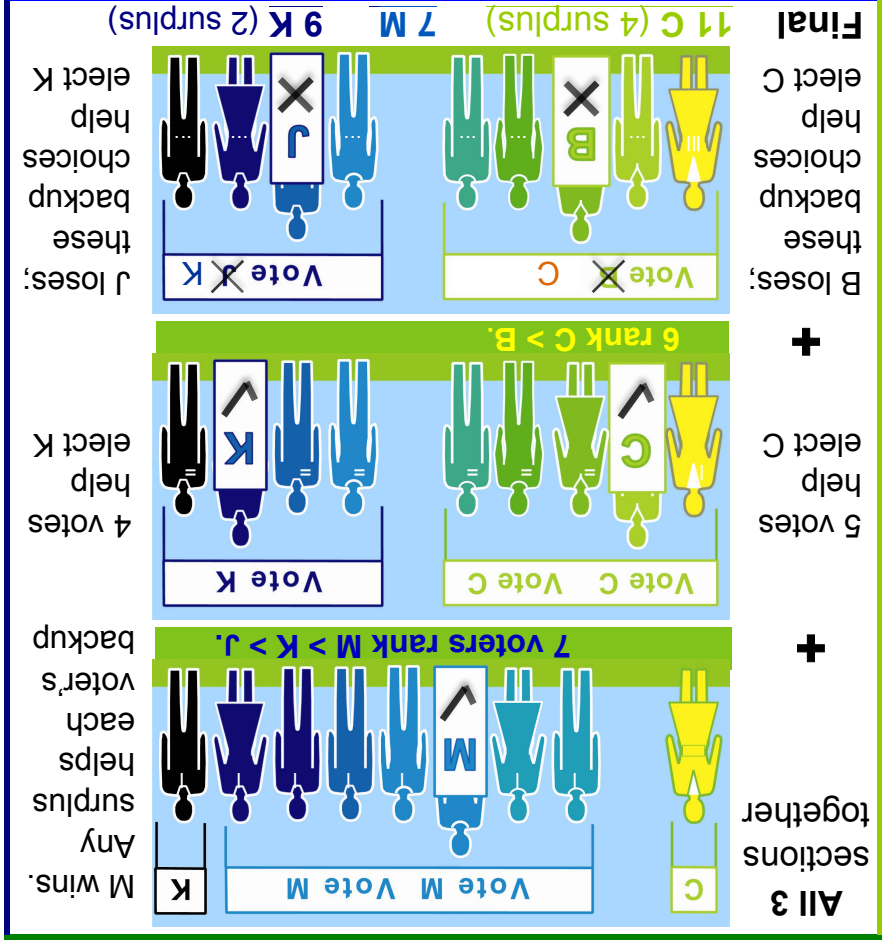
12

How many votes were wasted?

just 6

21

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



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.

One Fair Representation Election

::

The principle of Fair Share Voting is:

**Spending power for groups,
in proportion to their voters.**

So 60% of the voters can spend 60% of the fund, not

all of it. Your ballot's **share** from the fund lets you vote to pay your shares of the costs for your favorite items.

Voting is easy: Simply rank your choices, as in RCV.

Your ballot pays one share of the cost for each of its top ranks—as many as it can afford. A tally of all ballots drops the item with the fewest shares. Those two steps repeat until each remaining item gets full funding.³

Paying one share proves you feel the item is worth its cost and you can afford it in your high priorities.

Some Merits of Fair Share Voting (FSV)

❖ **Each winner is a popular priority worth its cost:** To qualify for funding from our group's source, an item needs our "base number" of voters or more.

❖ **FSV is fair** to an item of any cost and to its voters:

A ballot pays a costly share to vote for a costly item. cost/base = 1 share e.g. \$100 / 25 ballots = \$4
If more ballots divide a cost, each of them pays less.

❖ So a ballot's money can help more low-cost items.

This motivates each voter to give his top ranks to the items that give him **the most joy per dollar**.

❖ See Ranked Choice Voting points 1 and 3 on page 14.

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*.



spread the joy and opportunities.

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.

4. Enacting a Policy

Condorcet Test Number Two

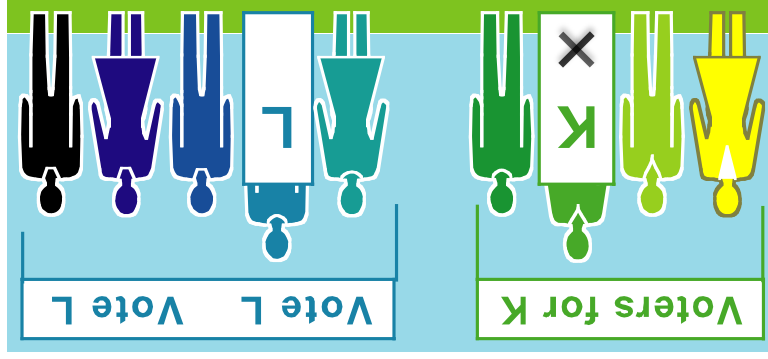
The runoff on page 12 was a one-against-one contest between the policy positions of **M** and **K**. Five voters ranked **M**'s position over **K**'s: $5 > 4$

Here is a second test with the same voters:

K's position loses this one-against-one test. **L**'s position wins by five votes to four: $5 > 4$

Each person votes once with a ranked choice ballot. Pages 33 and 45 show two common, simple ballots. A workshop page demonstrates a Condorcet Tally table. And a simulation map illustrates Condorcet voters with two issue dimensions.

People often struggle to find a group's center of opinion



K is nearest four voters. **L** is nearest five voters.

28

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**." $L > M$. $L > K$.

"...such a mandate is no doubt a vital ingredient in the subsequent career of the winner."¹

Who is the Condorcet winner on page 13, **K**, **L** or **M**?

Thus a Condorcet Tally picks a **central winner**.

It can elect a **moderator** to a council, or moderates from districts for MMP,

see page 8, see page 17,

or senators to make an upper house.

yes or no?

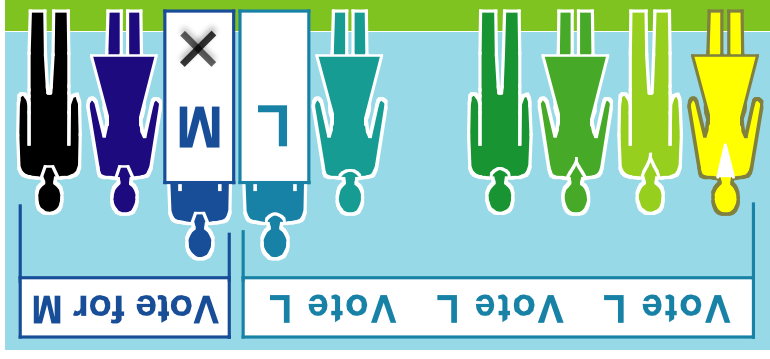
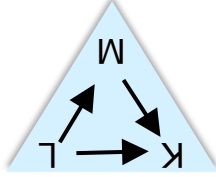
But is it likely to elect diverse reps, It can select the base number for **FSV**,

see page 26,

or one plan for all the ongoing budgets, But is it likely to spread spending fairly,

see page 44,

yes or no? Do CEOs mostly **moderate**, or **advocate** (e.g. a mayor)?



L has six votes.

M has three.

Answers: **L**. No. No. Discuss this.

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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 and 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 members rank the options.⁶

Issue A, RCV Ballot A

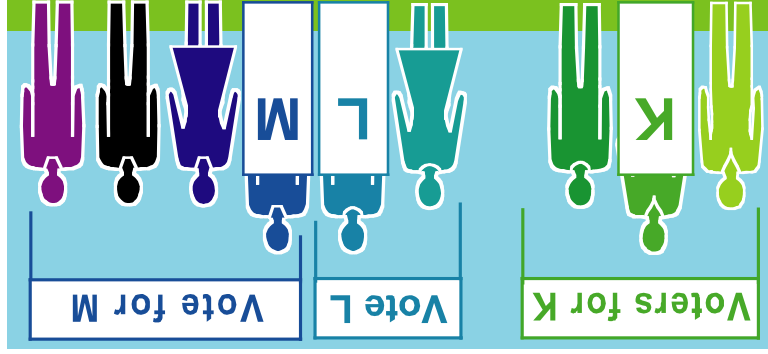
Rank	Option
3	Continue discussion
2	Original bill, the main motion
1	Bill with Amendment 1 (a free rider?)
8	Bill with Amend. 2 (a wrecking amend.?)
7	Bill with Amendments 1 and 2
4	Postpone to a definite time <u>7</u> days
5	Refer the bill to a committee
6	No change (a vote for gridlock exposed?)

Any “Incidental Motions” do not wait for the ballot; these include a personal complaint or request.

Resist Rigged Votes

In the **plurality election** on page 11 candidate **M** lost. Let’s say her party **gerrymanders** the borders of her election district. It adds a voter, pictured here in **purple**, who likes the party and cuts out some who don’t like it. In this **safe-seat** district, **bluish** voters can elect **M** or an even less central person who may **polarize** politics.⁴

But this gerrymander didn’t change the **CT** winner, **L**. So policies stay stable and make big swerves less often.



3 rank $K > L > M$. 2 rank $L > M > K$. 4 rank $M > L > K$.

To steal a one-seat district that uses CT or RCV, \$ponsors must **mislead** a majority, not just a plurality. Help to “**spoilers**” within a rival group fails to split it.

Gerrymanders always increase **wasted votes**.⁵

Proportional RCV avoids both, as shown on page 21.

Foul manipulations of plurality rules are not rare.

And point voting incites *extreme* high and low votes, as I worry, “Can my vote for a low choice defeat my fave?” But a chance to rig real **RCV** or **Condorcet/RCV** is rare, risky and hard. So there’s less danger of rigged votes.²

Consensus and Voting

Group decision-making has two linked processes.

A **discussion process** may have a facilitator, agenda, some reports and proposals. Members may ask some questions and suggest some changes for each proposal.

A **decision process** asks all 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:

Choice ballots can **speed up meetings**. pages 27, 33

Secret ballots **reduce social pressure** and coercion.

Well-designed ballots and tallies **promote equality**:

Even busy or unassertive people can cast full votes.

Complementing Consensus

Groups that seek consensus on basic agreements may vote on other issues: They may vote on a minor **detail** like a paint color or on a list of optional **projects**.

Fair Share Voting gives fair shares of power.

Inclusive yet fast, it won't let one person block action. It is cooperative, not consensual nor adversarial. It is less about blocking rivals, more about attracting allies. Its ballot guides a voter to limit and prioritize projects. Its tally weighs dozens of desires, of varied cost and priority, from dozens of intersecting groups. We may modify our FSV results through our usual process.

All majorities prefer the Condorcet winner.

A proposal needs to top each rival by 50% plus one; and we may require it to win 60% or even 100% over the status quo on issues involving our basic agreements. If so, 41%, or even one voter, may block a Condorcet winner by convincing us it breaks a basic agreement.

Carpentry Analogy

The nice consensus methods are like nice hand tools, and these nice voting methods are like nice power tools. The power tools speed cutting through piles of boards or issues, and cutting through a steel-hard one. The high-touch tools help us discover and develop insights into new options.³ So most of us want both kinds of tools.

This primer told the *stories* of the best voting tools.

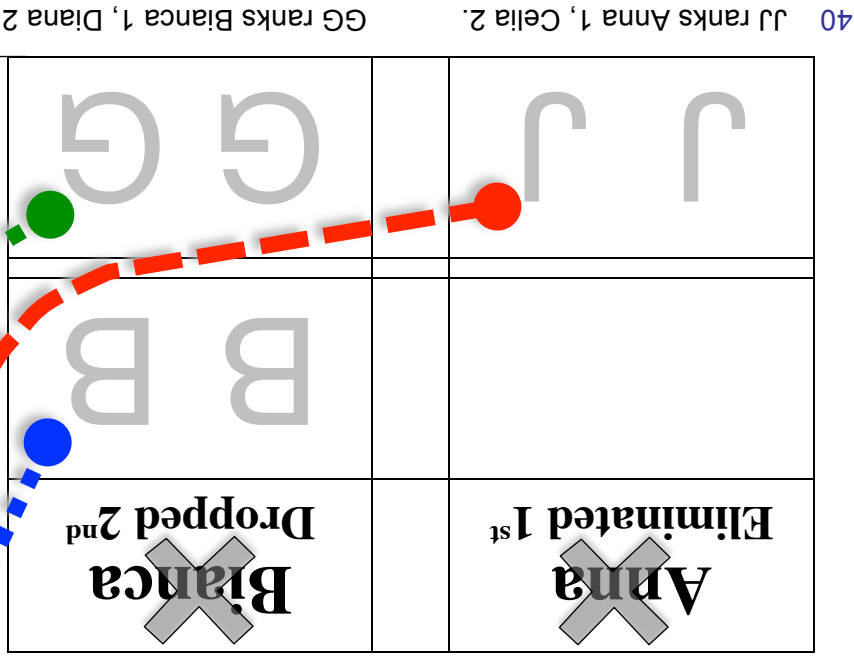
The games will let us *be inside* the simple tallies.

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 **eliminated** Anna, so voter **JJ** moved his card. Then Bianca lost, so **BB** and **GG** moved their cards. They were free to choose different backups!



40 JJ ranks Anna 1, Celia 2.

GG ranks Bianca 1, Diana 2.

How many votes were wasted on a surplus or a loser?
M, L & V rank Celia #1.

D, Z & C rank Diana #1.

Celia RCV Winner	Diana Runner up
----------------------------	---------------------------

Finish Line **Finish Line** **Finish**

B B	J J	G G	D D	Z Z	C C
-----	-----	-----	-----	-----	-----

B B	J J	G G	D D	Z Z	C C
-----	-----	-----	-----	-----	-----

M M	L L	V V	D D	Z Z	C C
-----	-----	-----	-----	-----	-----

M M	L L	V V	D D	Z Z	C C
-----	-----	-----	-----	-----	-----

M M	L L	V V	D D	Z Z	C C
-----	-----	-----	-----	-----	-----

This winner had no surplus.

The last loser held 4 votes.

4. Condorcet Tally Centers a Policy

In a Condorcet tally, the winner must top each rival, **one-against-one**. Two games show how it works.

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

* 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	M
for 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) * Flag L has a ribbon 1 or 2 m. long and a longer rope.

* If the ribbon reaches to you, the ribbon policy gets

your vote with its narrow appeal.

* 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?

44 Usually: Rope. Center. Yes. Yes. No. Balanced.

Rank Choice Ballots

A tally board might serve 30 voters. It's easier to mark **paper ballots** or webpages and tally by computer.

Some groups need the secure paper ballots or printouts used by a **risk-limiting audit** to find frauds and errors.³

Yes-or-no ballots badly oversimplify most issues. They often highlight just two factions: "us versus them." So they tend to **polarize** and harden conflicts.

Ranked choice ballots reduce those problems.

They let you rank your 1st choice, 2nd choice, 3rd etc. Ranks can reveal a great variety of opinions. Surveys find most voters like the **power** to rank candidates.⁴

Our Menu #1

Fill only one "O" on each line.

Best Ranks Worst

lbs. Treats 1st 2nd 3rd 4th 5th 6th

3 Almonds, Toasted O O O O O O

7 Apples, Honey Crisp O O O O O O

5 Apricots, Dried O O O O O O

6 Oranges, Navel O O O O O O

6 Peaches, White O O O O O O

6 Tangerines O O O O O O

Which 1 wins by plurality? Hints: 5 sweets versus 1 nut, and the first name on a ballot gets a 2% to 9% boost.⁵ Which treat wins by RCV or by Condorcet?

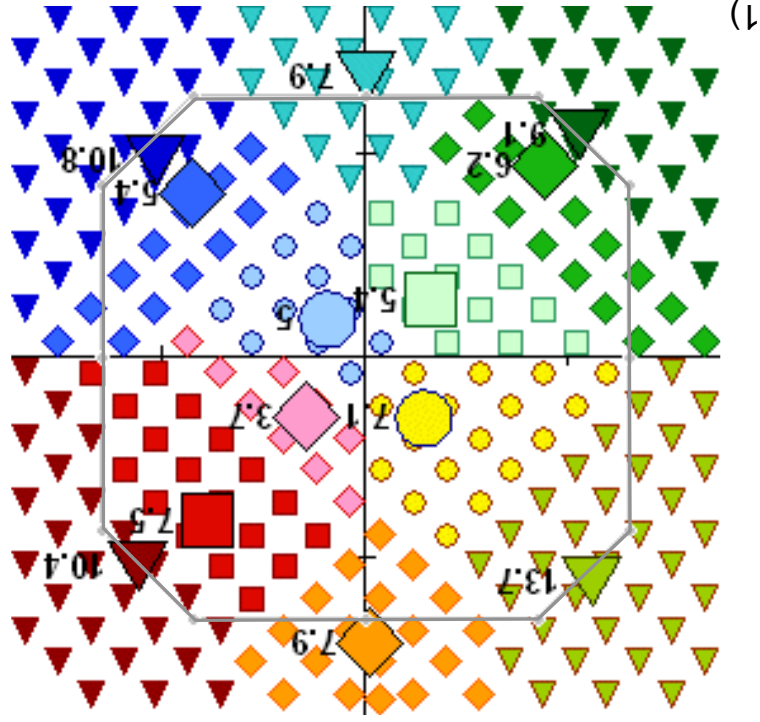
We can vote for a party playlist, menu, drinks and more. **Caution:** ballots with many contests might use up the

mental energy voters need to vote in each contest.

C. Sim Election Games

2. Watch Fair Rep Balancing a Council

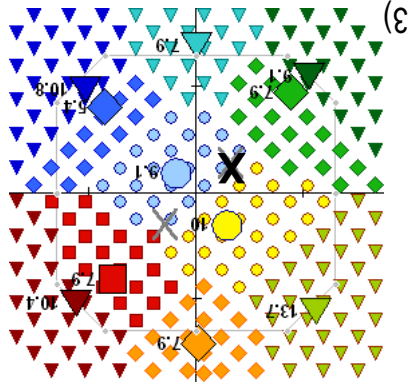
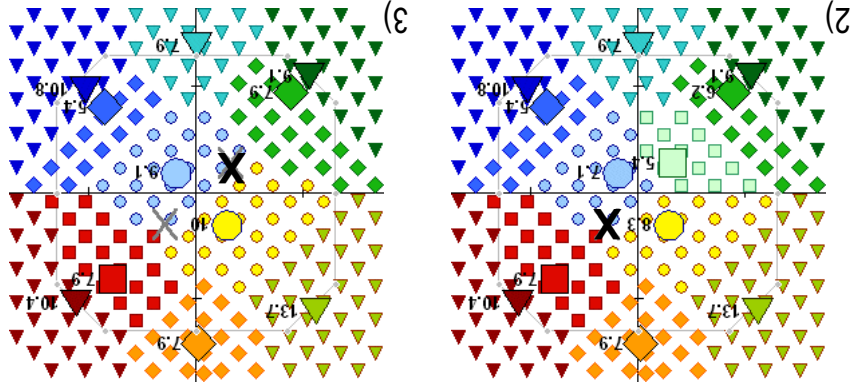
These maps show **PRCV ballots electing five reps.**
 A little shape is a voter's ballot; a big one is a candidate.
 Each little ballot has the **color** and **shape** of its current
 top-ranked choice, the **closest remaining candidate.**



Sim players position their candidates to get votes (page 56).
 The numbers on a map show each candidate's current share
 of top-rank votes; getting 16.7% will win a seat and halo!
 After this round of counting, the weakest candidate must
 lose and get an **X**. The 3.7% **◇** will be the first to lose.

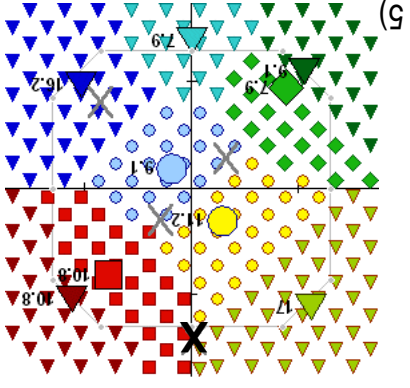
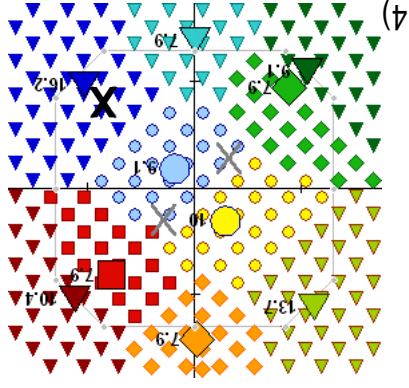
48 To make close rivals distinct, colors vary from a spectrum.

The Weakest Lose, One at a Time



In map 2, the first loser gets an **X**. Her ballots change
 color and shape when each counts for its new top rank,
 a close rival. So the nearby fields of color grow. (*
 (Game maps may portray places or political positions.)*)

In 1, a gray line encloses half of the ballots. Candidates
 outside it lead their close rivals on the first ballot count.
 But in 2 and 3, as weak candidates lose, most of their
 ballots count for centrists or **moderates** inside that line.



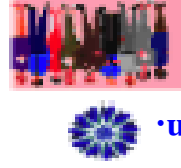
* Pages 10 and 13 introduced political dimensions.

3. Simulation of Fair Share Voting

Fair Share Voting helps voters organize many ad hoc groups large enough to fund their favorite items. Each voter may try to help a few groups give money or labor to one-time resource allocations (OTRAs) or maybe to optional items in some ongoing budgets (e.g., FSV can choose repairs for roads but not new routes.)

To find the best buys for our money, use Participatory Budgeting meetings then Fair Share Voting ballots and tallies.

This map shows the public plants proposed by voters on a campus. Often, the site closest to a voter is most useful to him and is his top choice. But this case has four distinct interest groups: **Red, Yellow, Green, and Blue.** Items can be close together on the map and yet be far apart in color. So the map shows a third issue dimension as deep layers of color within the page.



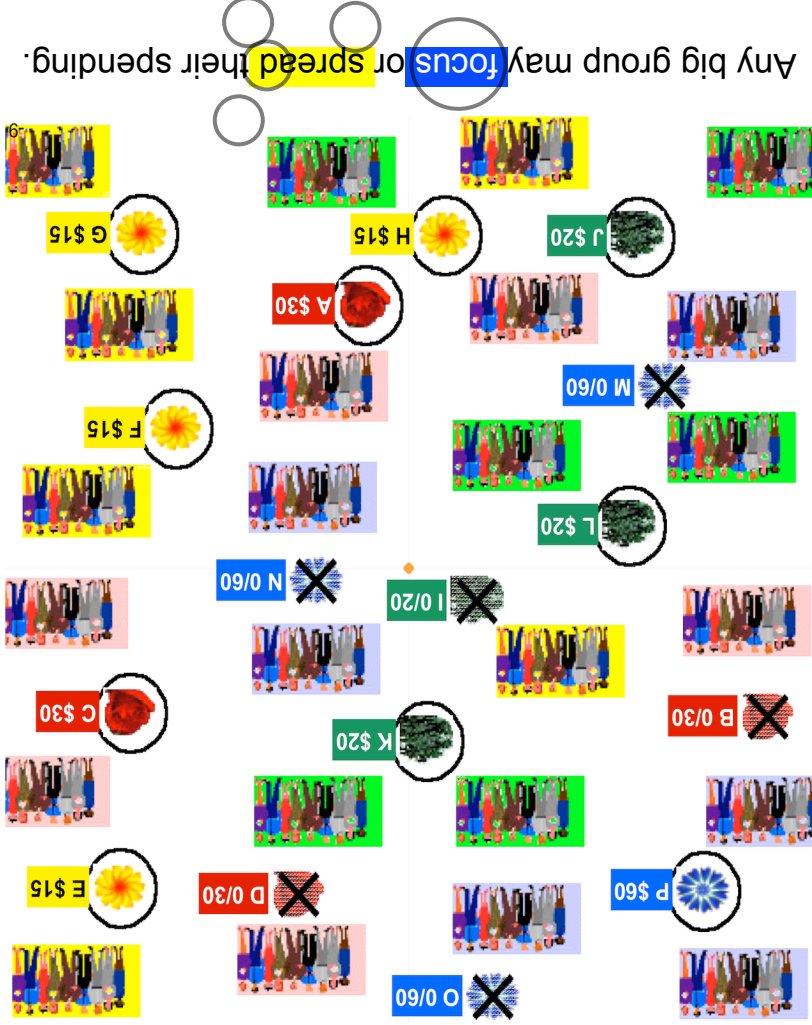
This is a proposed **blue-flower garden**. It is far from what the **red voters** want, even if it is next door. A voter prefers the closest item with their fave color.

Here a garden club had \$240 to buy public plants and each interest group got a quarter of the votes. So how much did each group allocate?

A red rosebush cost \$30, two big sunflowers \$15, an evergreen bush \$20, a blue passionflower vine \$60.

A group with only a few, low-cost proposals might be able to fund them all. Did that happen here?
Answers: \$60, \$60, \$60, \$60, \$60. Yes for sunflowers.

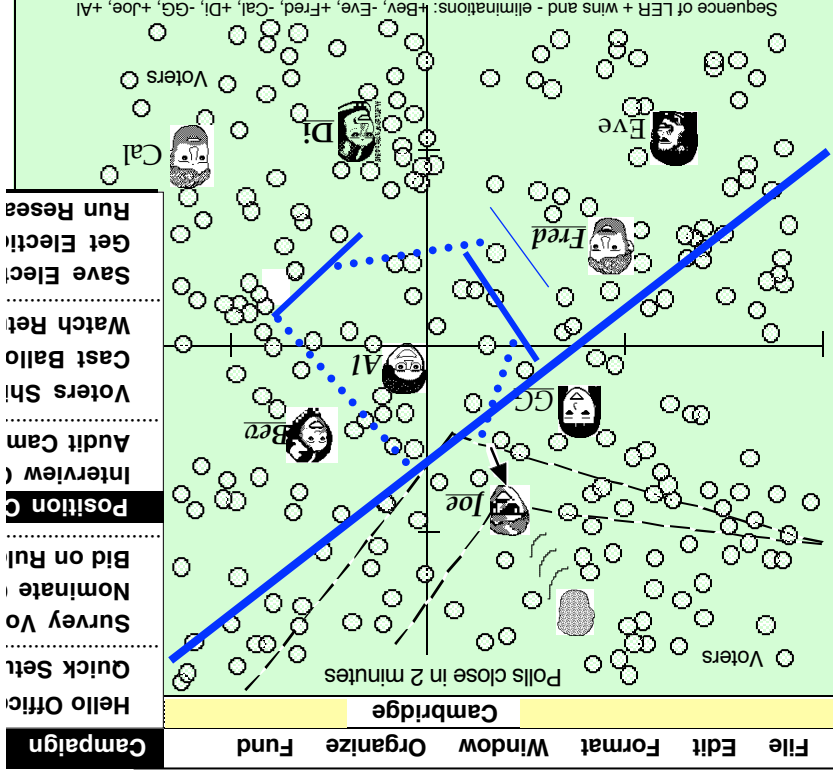
Campus Map



Loring Allocation Rule uses a Condorcet Tally to fund a few items, then a Fair Share tally. The Condorcet Tally funds items with wide appeals to ad hoc majorities. It lets you vote for a sure winner without wasting any of your own power. Then the Fair Share tally funds items with narrower, more intense appeals. Elections, too, may tally Condorcet then fair-share winners.

4. Watch Condorcet Find the Center

This map puts a line halfway between Al and a rival. Voters ○ 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 Finnish line of 50% + 1 vote.

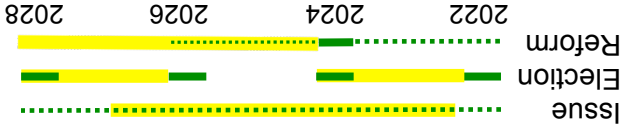
Voting Reform Is Cost Effective

* Back Matter

Issue campaigns teach voters and reps for years. This eases one problem, but rarely fixes the source.

Election campaigns cost a lot all at once. The biggest faction can skew all policies for a few years.

Reform campaigns can cost less, yet RCV reforms can improve voting and results for many years.



Campaign costs in green, results in yellow.

Stronger Votes :: Mandates :: Policies
RCV expands the base of power, the numbers of effective votes and voters supporting:

1 a **CEO** or a **Chair** from a plurality to a majority 14, 31

2 a **Council** from a plurality to over three quarters 21

3 the **Budget** from a few power blocs to all voters 24

4 a **Policy** from a one-sided to an overall majority 30

Votes for real choices tally up real democratic power.

It needs big mandates to govern new nondemocratic powers in big money, media, marketing and more.

Mandates aid actions to achieve popular goals. They build up a democracy and its leaders.

Better Voting for Better Living

This data suggests, to elect a good government that enacts superb health, education, tax⁷ and other policies, a country needs effective, not wasted votes.

Does **Fair Representation** elect more women? p. 18
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 and Electoral Assistance

Health Rank first is best; World Health Organization

Math Score Program for Int'l. Student Assessment; OECD

Poverty % of children below half of median income; OECD

Murder Rate per million; 7th UN Survey of Crime Trends

Scores weighted by population give a voting rule's average.

The table's **worst** numbers are in **bold**.

Country

Women % Turnout % Math Poverty% Murder

Sweden	14	44	86	23	502	8	10
Finland	13	42	67	31	548	4	15
Spain	6.7	41	69	7	480	20	6
Norway	8.7	40	76	11	490	5	5
Belgium	8.4	39	89	21	520	13	16
Denmark	15	38	88	34	513	4	10
Netherlands	150	37	80	17	528	10	5
Austria	19	28	82	9	505	8	7
Switzerland	7.8	28	49	20	530	10	6
Costa Rica	21, 4	19	81	36	407	-	112
Uruguay	30, 2	13	90	65	409	-	111
Mixed	page 17	36%	71%	26	505	9%	11
Germany	19, 1	39, 13	72	25	514	16	11
New Zealand	50, 1	45, 15	77	41	500	15	9
PRCV, RCV	p.38,14	34%	89%	29	517	14%	10
Australia	6, 1	38, 25	93	32	520	15	10
Ireland	4	15	70	19	501	10	10
Runoff	page 12	27%	60%	1	496	11%	12
France	1	27	60	1	496	11	12
Plurality	page 6	25%	66%	34	486	19%	42
Canada	1	26	68	30	527	15	17
United Kingdom	1	29	66	18	495	10	12
United States 2022* 1		24, 25	60, 47	37	474	21	50

AccurateDemocracy.com/_stats.htm will add

Corruption transparency.org, Freedom freedomhouse.org,

Happiness, Leisure, Social trust.

* Voter turnout rises >15% in presidential years. 3.11.24

7 fairvote.org/our-reforms/tanked-choice-voting-information/
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2. **Electing Representatives, Fair Rep @ d_intro.htm**
1 Statistics on pages 60-61 compare the stable democracies. More at https://accuratedemocracy.com/d_stats.htm
2 Huber, John D. and G. Bingham Powell, Jr., "Congruence Between Citizens and Policymakers in Two Visions of Liberal Democracy," *World Politics* 46 #3 (April 1994), pages 291-326.
3 "Illinois Assembly on Political Representation and Alternative Electoral Systems", (GPA University of Illinois, Spring 2001) <http://www.fairvote.org/media/pep/excessum.pdf>
History of cumulative voting, 1870-1970: Three is better than one <http://www.lib.miu.edu/1982/issr04.html>
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4 Roberts, Nigel. *New Zealand: A Long-Established Westminster Democracy Switches to PR*, (Stockholm, IDEA, 1997) 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/2014/9/23/683177/new-zealand-electoral-system-constitution-mixed-member-unicameral
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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. 2011. "Can Teams Help to Close the Gender Competition Gap?" *Economics Journal*, 121:1192-1204 www.archive.org/web/20170706034311/http://myweb.lmu.edu/ahaley/papers/healthy_page_2011.pdf
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Statistics of nations pages 60-61 above, and @ d_stats.htm

3. **Allocating Budgets, Fair Share Voting @ p_intro.htm**
FSV=PRCV if \$ = voters#, 1 share = \$1, and 1 seat costs \$ / (seats+1) + Lani Guinier at Harvard Law, <https://youtu.be/eVsTjpsGBQ?t=3177>
1 Shah, Anwar ed. *Participatory Budgeting*; The World Bank; Wash. DC; siteresources.worldbank.org/PSGLP/Resources/ParticipatoryBudgeting.pdf
2 Moore, Joe. *Participatory Budgeting in the 49th Ward*. In 2014, <http://participatorybudgeting49.wordpress.com/>
voters in Cambridge, Massachusetts saw a similar pattern.
3 Tupelo-Schneck, Robert and Robert B. Loring, *Fair Share Voting, for Participatory Budgeting Conference slideshows*, New York City, 2012. https://accuratedemocracy.com/p_intro.htm
4 News of the Oaks, *Leaves of Twin Oaks*, VA, USA; 1995.
5 Oaks, Adder. "Participatory Budgeting in an Income Sharing Community", *Communities: Life in Cooperative Culture*, #175, 6/17 ic.org/participatory-budgeting-in-an-income-sharing-community/Leaves_of_Twin_Oaks_2013_Cutting_a_budget_needed_55%_of_the_voters
6 Pierczynski, Grzegorz; Skowron, Piotr; Peters, Dominik; page 2 "Proportional Participatory Budgeting with Additive Utilities," 2022 <https://arxiv.org/pdf/2008.13276.pdf>
+ If an FSV tally leaves too many "exhausted ballots," with money but no items, maybe reduce the "base number" of voters. p. 24, 26 pbanford.org/deepe2015/ranking

C. Simulation Examples, compare rules @d_stv2d.htm

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4 Compare the Math scores of stable democracies on page 61.

66

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