2. Electing Representatives

The principle of **Fair Representation** is:

Get true majority rule by representing each group in proportion to its 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 Voters have **real choices** and **effective votes** so **Voter turnout** is strong.[1]

✦ **Women win** two or three times more often[1] 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, PR.
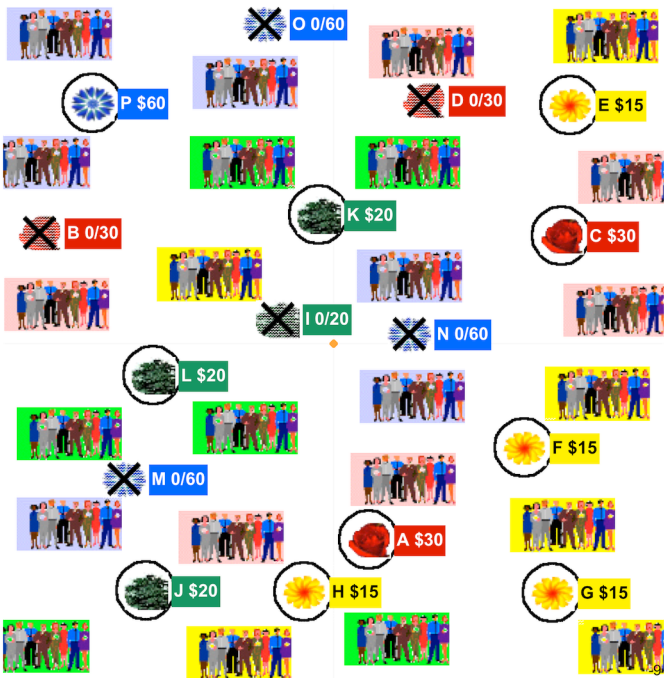
Any big group can **focus** or **spread out** their spending.

The **Loring Allocation Rule** uses a Condorcet Tally to fund some items, then a Fair Share tally. A 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.

Summary & Index of Benefits

Ranked Choice Voting Has Proven To:

✦ ✷ An RCV Toolbox can do more ❀ ♥

Tools That Build Communities

A group's decision rules pull its **culture** toward fair shares *or* toward winner takes all. They spread power wide and balanced, *or* narrow and lopsided. Other relations among members may follow their models.

Fair rules make **cooperation** safer, faster and easier. This favors people and groups who tend to cooperate. It may lead others to cooperate more often.

Politics are more **principled** and peaceful when all of the rules help us find fair shares and central majorities. This could reduce political fears within our community, which helps us to be more receptive, creative and free.

So better tally rules can help us build better decisions, plus better **relationships**. Both can please most people. Fair rules won't please some who get money or self-esteem from war-like politics. But countries with fair rules tend to rank high in social trust and happiness.[1]
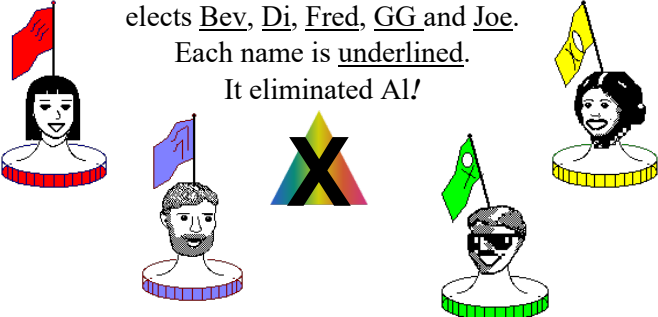
Democracy & rights ≈ choices & happiness

Contrast 3 Councils, each with 5 seats

◉ 1. The **Loring Ensemble Rule** elects a few reps by a Condorcet Tally, the rest by a Proportional RCV tally. On this map, Condorcet Tally elects **Al** then Fair Rep by four-seat Proportional RCV 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: *Al, Bev, GG, Joe* and *Fred*. The lower right or southeast gets no rep; so the council is not well balanced. Each winner's name is in *italic*.

⭕ 3. Fair Representation by five-seat Proportional RCV elects Bev, Di, Fred, GG and Joe. Each name is underlined. It eliminated Al*!*

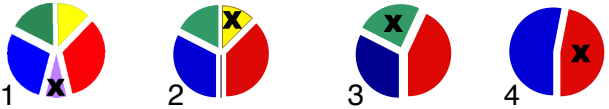### Notice Two Surprises

◉ 1. Perhaps it's surprising that broad Fair Rep helps the *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.

◉ 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.

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 a five-faction debate 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.

→ For 11 years, Papua New Guinea used RCV, then plurality rule for 27 years; ethnic violence increased. They changed back to RCV and violence decreased.[6] Ranked Choice Voting weakens tribalism.

Irish and Australian voters have used it for decades. They call it the Alternative Vote or Preferential Vote. In the USA, some 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]

Consensus and Voting

Group decision-making has two linked processes:

1) A **discussion process** might have a facilitator, an agenda, some reports and proposals. Each participant may ask to add or alter proposals. This process might kill key options before the decision process.   page 33

2) A **decision process** asks the members concerned, "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,   pages 9, 31 and polarize us less than yes-or-no voting.   " 14, 46, 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.

⚖️ A well-designed ballot and tally **promote equality**: Even busy or unassertive people can cast full votes.

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?)

The "Incidental Motions" do not wait for the ballot. These include a personal complaint or request.

Voting is easy. **Rank your favorite** as first choice, **and backup choices**: second, third, etc. as you like.* Your civic duty to vote is done.

Now your vote counts for your top-rank candidate. If no candidate gets a majority, the one with the fewest votes loses. So we eliminate that one from the tally. Your vote stays with your favorite if she advances. If she has lost, then your vote counts for your backup. This repeats until one candidate gets a **majority**.

Why Support Ranked Choice Voting (RCV)

- ☛ **Backups give you more power and freedom** to express opinions with less risk of wasting a vote.
- ☛ **No hurting your first choice** by ranking a backup, that does not count unless your first choice has lost.
- ☛ **No worry about vote splitting** in a faction as votes for its loser(s) can count for each supporter's backup.
- ☛ **More civility** and consensus[2] arise[3] as candidates ask fans of rivals, "Rank me as your second choice." ↗
- ☛ **A majority winner** from one election, so no winner with a weak mandate and **no costly runoff** election.
- ☛ **High voter turnout** also creates **a strong mandate**. The turnout for an election runoff often goes down.[4]

14   *Pages 33 and 45 show ballots.

Well Centered and Balanced

An **Ensemble** council combines the breadth and balance of Fair Representation with the centering of *Condorcet*.

A council's **swing voter** on a regulation or a budget can strongly influence but not dictate those decisions.

Proportional RCV works to elect a balanced council with moderates and often a centrist. But it does not motivate any rep to please *central majorities* of voters. *Condorcet* does.✎   55

Resist Rigged Votes

In the **plurality election** on page 11 candidate M lost. Now let's say her party **gerrymanders** the borders of her election district. It adds voters, pictured in purple, who tend to like the party and cuts out some who don't. 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 take 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. And help to "**spoilers**" in a rival group fails to split it.

Gerrymanders tend to make lots of **wasted votes**.[5] **Proportional RCV** reduces both, as shown on page 21.

Foul **manipulations** of plurality rules are not rare. And point voting incites *extremist* high and low votes, as I worry, "Will my points for a low choice hurt my fave?" But a chance to rig real **RCV** or **Condorcet/RCV** is rare, risky and hard.[2] So there's less danger of rigged votes.

32

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 bunch 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 finds the collective priorities for the intersecting interest 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 that involve basic agreements. If so, 41%, or even one voter, may block a Condorcet winner by showing it breaks a basic agreement.
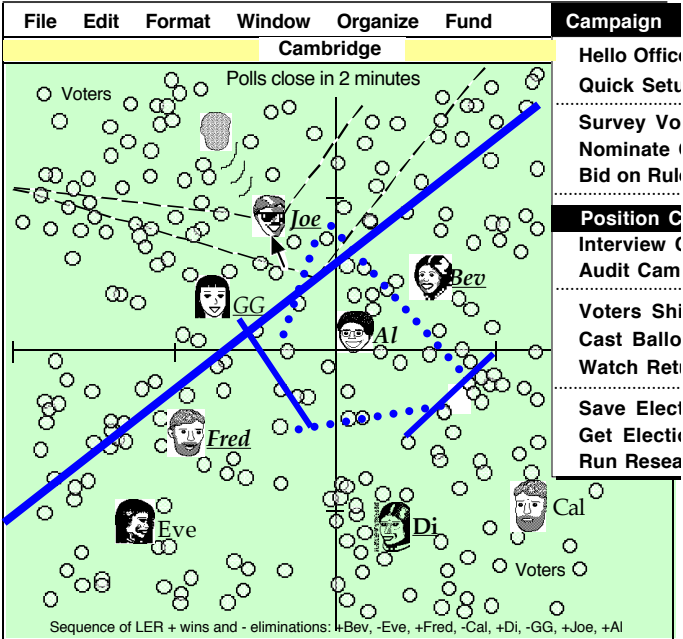
Carpentry Analogy

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 hand 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.

37

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. <mark>Al wins a very different majority over each rival here.</mark> To do that, Al's political positions must be *central* and have *widespread support,* as described on page 31.

File	Edit	Format	Window	Organize	Fund		Campaign

Cambridge

Polls close in 2 minutes

O Voters

Joe

Bev

GG

Al

Fred

Eve

Di

Cal

Voters O

Sequence of LER + wins and - eliminations: +Bev, -Eve, +Fred, -Cal, +Di, -GG, +Joe, +Al

Hello Offic
Quick Setu
Survey Vo
Nominate
Bid on Rul
Position C
Interview
Audit Cam
Voters Shi
Cast Ballo
Watch Retu
Save Elect
Get Electio
Run Resea

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

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 their 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 ↔

Kay wins a plurality.   Em wins a runoff.

For clarity, a candidate is "she" and a voter is "he."   13

How You Can Try a Voting Tool

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

   Many groups **adopt** a book of parliamentary rules, then amend it with <mark>"special rules of order"</mark> 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? page 33.

<mark>Some groups offer **apps to tally your votes.**
https://AccurateDemocracy.com/z_tools.htm</mark>

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.

"Our center is near me."

"I think it's right here."

C

"I *am* the center*!*"
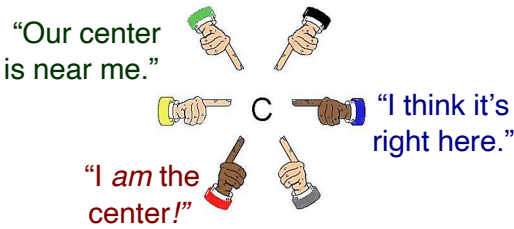
Everyone may help to find our center.

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 54-55. To win, a candidate needs to earn wide support. This gives her strong <u>incentives</u> to help the council balance its process and policies.

   RCV has slightly different effects, <u>incentives</u> and uses.[3] Games will let us inside each tally to feel how it works.

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 wasting votes discourage people from voting?
Does the runoff make a stronger mandate?

Runoffs practically ask, "Which **side** is stronger?" Later, these voters will use another tally tool to ask, "Where is our **center**?" And a bigger group will use a tally to ask, "Which **trio** best represents us *all* ?"

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

Voters for K	Vote for M
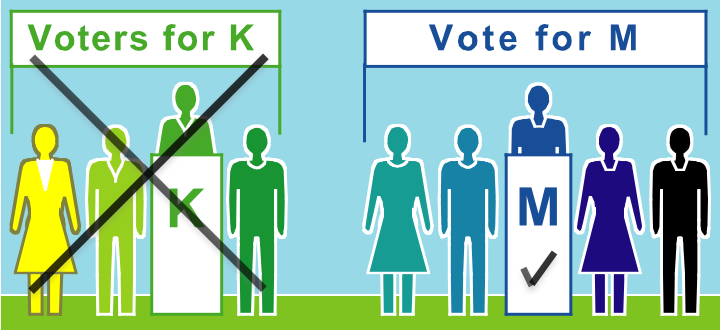
Four **wasted votes**.   Candidate **M wins** a runoff.

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

12

Voting Reform Is Cost Effective

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.

Issue
Election
Reform
2026   2028   2030   2032
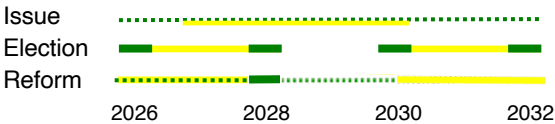
Campaign **costs in green**, results in yellow.

Strengthen Votes ∴ Mandates ∴ Policies

RCV expands the base of power, the numbers of effective votes and voters supporting: Pages

		Pages
1	a **CEO** or **Chair** from a plurality to a majority	14, 31
2	a **Council** from a plurality to over three quarters	17
3	the **Budget** from a few power blocs to all voters	24
4	a **Policy** from a one-sided to an over-all 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.

57

The goal in a **Condorcet Tally** is this:

**Win majority victories,
over every single rival.**

The winner must top every rival, **one-against-one**. A good **analogy** is a round-robin tournament. A player has a test with each rival, one at a time. If she wins all her tests, she wins the tournament.

Each voting test sorts all the ballots into two piles. If you rank option K above L, your ballot goes to K. The option that gets the most ballots wins this test. If one wins all its tests, it wins the Condorcet Tally.

Why Use Condorcet Tallies (CT)

❊ **Choice ballots**: Rank the alternatives on one ballot so **Simplify** the rules of order, **speed up** the process and **Reduce agenda effects**, from simple errors and **gridlock**, to free-rider and wrecking amendments.

❊ **No split-vote** worries as duplicates don't help or hurt each other. An ad hoc majority can rank all of their favorites over the other options. Ballots from all voters help decide which one of the majority's favorites wins.

❊ **Balanced policies** tend to be **stable**, thus decisive. Yet, a balanced process can **calm** some fears about reviewing and **changing** a good policy to improve it. All this saves time and builds respect for democracy.

* In one tally, majorities could rank
  K > L, L > M, *and* M > K. RCV can
  break this unusual tie or "voting cycle." [2]

K → L
↻
M

30
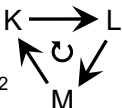
Get your hands on **4** **great voting rules.**
See how fair-share tallies organize voters.
Vote fast for budgets, reps, or policies.

A tally board has

◉ a **card** for each voter,
◉ a **column** for each option,
◉ a **finish line** for the favorites.

Voting Reforms Aid Other Reforms

1 A **Top-Four Primary** then an *RCV election* puts a focus on four big rivals. They offer more hopes, fears and plans than just two rivals in a macho duel. A winner's support is both **intense** and *widespread*.[4.1]

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] **1 2** **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]

1 2 **Good schools**, taxes and voting may go together.[4] Schools build our group skills and political know how.

1 **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 any rep has conflicts of interest.

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.

Ms. K is the candidate nearest four voters. L is nearest two and M is nearest 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, K, 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.

Voters for K   **Vote L**   **Vote for M**
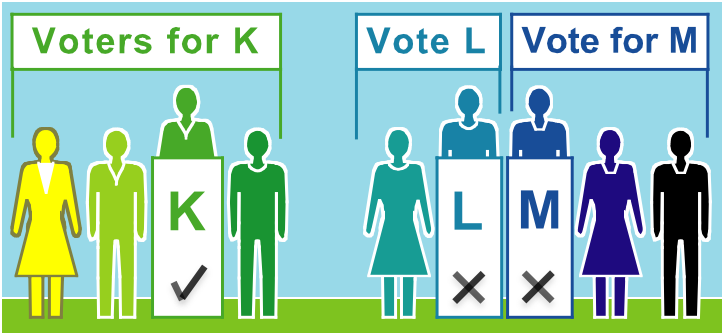
K is nearest four voters.   M is nearest three. L is nearest two.

1. Ranked Choice Voting to Elect One

Tabletop tallies make **Ranked Choice Voting** lively.

- This **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. They were free to choose different backups.[1]

| Anna	Bianca
Eliminated 1st	**Dropped 2nd**
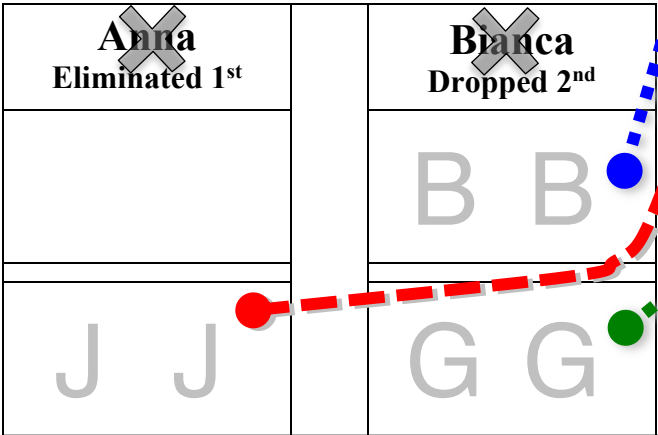
Condorcet Test Number Three

Candidate L wins her last test by six to three. $6 > 3$ She has won a majority over each rival. This makes her the "**Condorcet winner**."

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

We see the Condorcet Tally picks **central winners**.
It can elect a **moderator** to a council.   page 8,
or moderate district reps for MMP,   page 19.
or senators for an upper house.
But is it likely to elect diverse reps   Yes or No?
It can set the base number for **FSV**.   page 26
But is it likely to spread spending fairly,   Yes or No?
Who is the Condorcet winner on page 13?
Do CEOs mostly **moderate**, *or* **advocate**;   *e.g.* a mayor?

Vote L   Vote L   Vote L   **Vote for M**
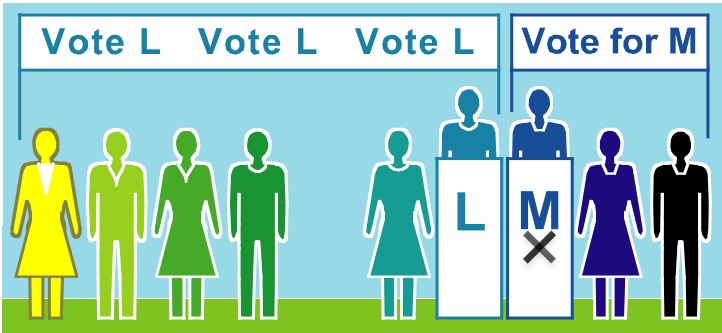
L has six votes.   M has three.

1. Electing a Leader

Nine Voters

Let's think about this election: Nine voters want to elect a leader. The figures in this picture mark the positions chosen by these voters. They stand along a political spectrum from left to right. It is as though we asked them, "If you want high-quality public services and taxes like France or Germany please stand over ↓ here. Stand here ↓ if you want to be like Canada. To be like the USA stand over here ↓. For Mexico's low taxes and government services stand over there ↓."

Throughout this booklet, we're going to show political positions in this compelling graphical way.

Nine voters spread out along an issue.
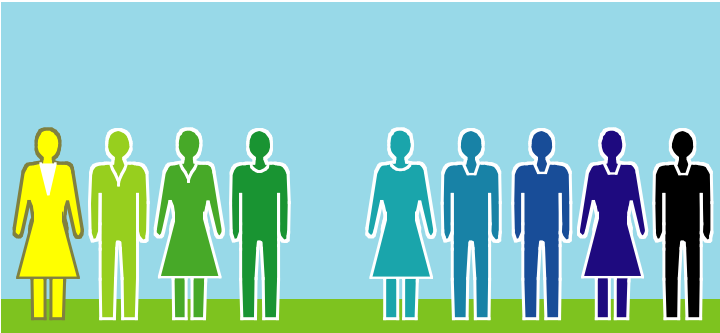
High taxes buying
great gov. services

Low taxes buying
poor gov. services

10   These colors aid readers less able to see colors.

Civil Society Builds Democracy

Merchants and workers in medieval guilds won some rights by building **group skills**, unity, and allies. Now local councils, co-ops and schools can build skills.

Empirical thinking grew in the Age of Enlightenment leading to revolutions for **human rights**.[6] Now rights must include Fair Representation and Fair Share Voting.

A big need for workers has often raised their pay and political strength, thus the **political equality** in a society. Now more progressive taxes[7] can help political equality.
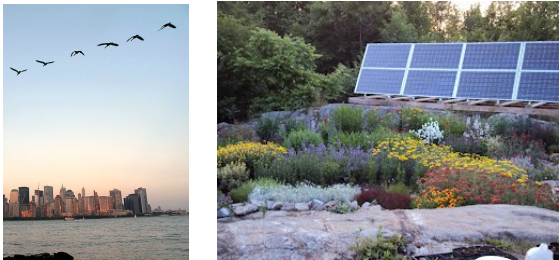
Move to a more democractic place (or .org)

To get good policies quickly, go where they are used. For example, do you want the democratic control and long-term savings of county or **co-op owned** utilities?[8]

CEOs may need to be assertive, but never authoritarian. The later corrupts commerce and wrecks human rights.[9]

Q: How can voting rules **reduce the abuse of power**?
A: RCV rivals act nicer p.14, swing reps moderate p.54. Fair Rep p.16, FSV p.24, & reforms on p.58 spread power. But a winner-takes-all tally starts a bad pattern.   59

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4. Enacting a Policy

Condorcet Test Number Two

Page 12 showed a one-against-one runoff 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 46 show two common, simple ballots. A workshop page demonstrates a Condorcet Tally table. And a simulation map illustrates Condorcet voters with two issue dimensions. This is likely the easiest tool for a group to test drive; see page 38.
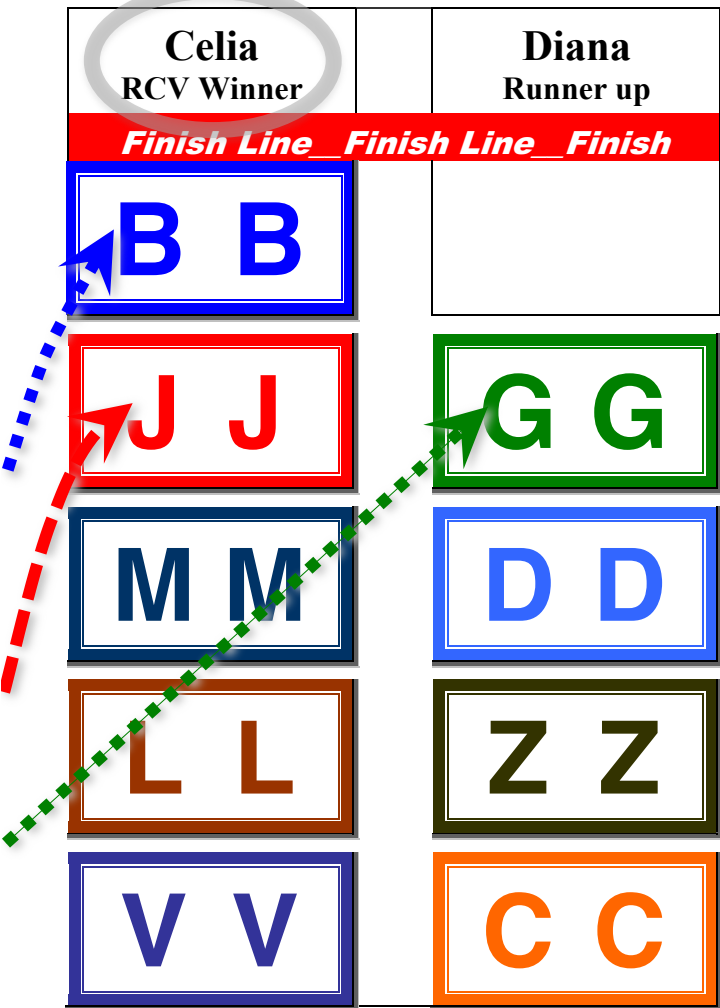
*Folks often struggle to find a group's **center** of opinion*

Voters for K   **Vote L   Vote L**
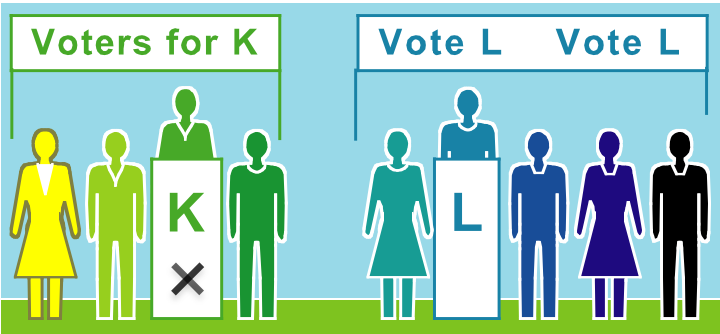
K is nearest four voters.   L is nearest five voters.

28

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

This winner had no surplus.   The last loser held 4 votes.   41

Better Voting for Better Living

This data suggests: to elect a great government that enacts superb health, education, 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? billionaires? militarism? hot days?*!*
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'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**.
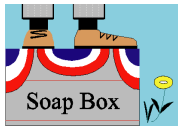
Progress of Democracy

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. 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.

> **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.

Quiz on RCV to Elect One

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 1st has lost.
4) True, more reps would need over 100% of the votes.

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.

2. Fair Rep by Proprtional RCV (PRCV)

A tabletop tally to elect three reps works like **PRCV**.
- We set the **finish line** at ¼ 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.
- If your candidate loses, you can **move** your card.
- **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.

PRCV with a cost-aware tally gives us FSV. ↗

More Merits of Fair Share Voting

- 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.

- It lets subgroups fund items like federalism does but without the layering of laws, taxes and bureaucracy. And it funds a big group even if they are scattered.

- Each big group controls just its share of the money. This reduces the means and motives for **fighting**. It makes becoming the plurality tribe less profitable.

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

N€w   N¥w

New Tool

N£w   N$w

Merits of FSV for an Elected Council

- FSV gives some power to reps in the opposition, so Electing them is more **effective**, less of a wasted vote.

- They can aid a "starvation budget" that hurts a project. This makes project management more **efficient**.

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

Games may let us vote for treats and *eat the winners!*

In the 21st Century
Ensemble Councils ⇨ Balanced Majorities

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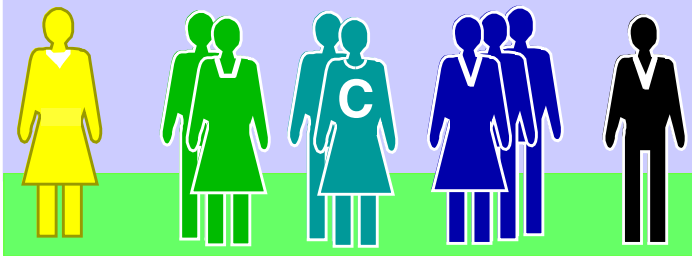
Council Elected by Central and Fair-Rep Rules

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.   O + • = ⊛   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.**

8   * Its colors suggest archery and political bunting.

Country	Seats	Women %	Turnout	Health Math	Poverty%	Murder
Fair Rep page 16		37%	75%	15 503	13%	12
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 pages 14, 42		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
USA, 2022, 2024*	1	**24**, 25	47 64	37 **474**	**21**	**50**

AccurateDemocracy.com/d_stats.htm will add data on:
Corruption transparency.org, Democracy Index eiu.com, Freedom freedomhouse.org, Leisure, Social trust, Peace.

*U.S. turnout rose ~15% in presidential years. 8.15.25   61

Setting Budget Levels

A co-op that helped develop Fair Share Voting lets each voter rank **budget levels** for *some* items.

A budget level needs to get the **base** number of votes. It gets one if a ballot offers to share the cost up to that level or a higher level.   cost / base = 1 share = 1 vote You only pay up to a level you voted for and can afford.

The item with the weakest top level loses that level. Any money your ballot had offered to it moves down your ballot to your highest ranks that lack your support. This repeats until the top level of each item is fully funded by its supporters. Thus, fair shares and backup ranks select a set of winners with **more supporters**.

Each big group must prove, "This item's cost is a high priority and within our budget."

A group with 100 members set our **base** number at 25 votes.[5] My first choice got just enough votes, so my ballot paid 4% of the cost.   100% / 25 votes = 4%

My second choice lost; did it waste any of my power?

My third choice got 50 votes, so my ballot paid only 2% of the cost. Was there any **surplus**? Did I waste much of my power by voting for this sure winner?

26   *None. None. Not much.*

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3. Fair Shares to Buy Shared Goods

For our tabletop tally of **Fair Share Voting (FSV)**

⚡ You get one share, here that's three 50¢ voting **cards**.

⚡ We decided an item needs modest support from six of us to prove it is a *shared* good worth shared funding. So the **finish line** marks the height of six cards, and

⚡ You may put only one of your cards into a **column**.

⚡ A costly item must fill several **columns**. A column here holds $3, so a $6 item must fill two columns.

Rule B lets you vote a 50¢ card, a 25¢ card half as tall, and a 75¢ card to boost your top choice (*without* inciting extreme high and low votes like point-voting ballots do.)

⚡ When an item wins, the treasurer hides its cards, then **drops** any item that costs more than all the cards left.

⚡ Then, one at a time, we drop the least popular item, the one with the lowest fraction of its columns filled.

⚡ **Move** your cards from a loser to your backup choices.

⚡ **Repeat** until we fill all the columns still in the game.
  Only a few items can win, but all voters can win*!*

Rule C: An app shows the cards pop onto the columns.[2] It pops a tall card onto the 1st column of each voter's fave. Then a shorter card pops on each voter's next column, etc. After placing all of the cards, it drops the weakest column and restarts, rebuilding the remaining columns from zero.

43

For each chapter the endnote numbers restart at one. The website and free ebook have more complete endnotes. 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 (@)** has pages about each rule. They add animations, links and software: @ z_tools.htm.

FairVote.org has model ballots, bylaws, editorials, research reports, voter-education stories, videos and more. RCV Resource Center www.rcvresources.org

A. Introduction, Tragedies, Eras and Progress

+ AAAS. *Our Common Purpose, American Democracy for the 21st 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 http://fairvote.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
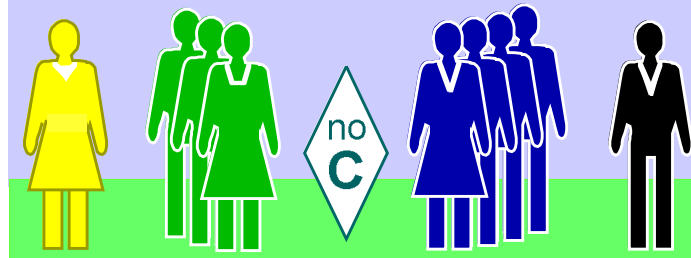
$ $ $ Policies $ $ $

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 (**C** above) and the two biggest parties normally refuse to work together. So the side with the most seats forms a ruling majority. Then they enact **policies skewed toward their side**.

7

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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) ❄ 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 nine 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?

Fair Shares and Majorities

If a majority controls all the money, the last item they choose adds little to their **happiness**; it is a low priority. But FSV makes some money purchase *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.

Items   Projects
Goods   Programs
Services   Budgets

✓ **Fair shares**
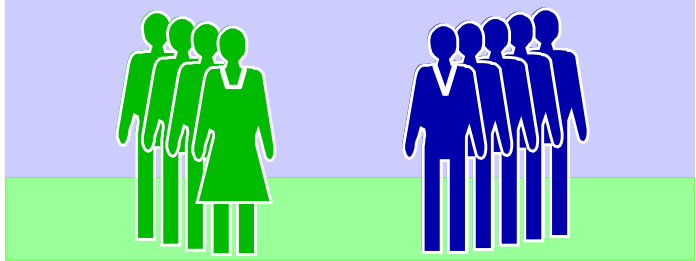**spread the joy and opportunities.**

Plurality rules let **surplus votes waste** a big group's power, as seen on page 20, and 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.

Eras, Tally Rules and Councils

In the 19th Century
Winner-Take-All Districts ⇨ Off-Center Councils

$ $$ Policies $$ $

Typical Council Elected By Plurality Tallies

Some former colonies still count votes by England's old **plurality voting rule**. It elects only one rep from each district and winning it does not require a majority. It merely elects the one who gets the most yes votes.[*]

A district with only one rep tends to develop only two big parties.[4] Only their candidates have good chances. Even worse: a district's bias often makes it a "safe seat," a captive audience for *one* party. So voters in a plurality district are given little choice or **no real choice**.[5]

If the voters in a few districts *are* given real choices, all power might flip from one faction of reps to another. Hopes and fears of sudden policy flips polarize politics. Each battle is brutal in part because it's **winner take all**.

6   * Each voting rule or system defines its ballot and its tally.

◗ **1. Electing a Leader**, RCV, IRV, @ c_irv.htm c_data.htm

1 Chamberlin, John R. et al. "Social Choice Observed: Five Presidential Elections of the American Psychological Association" *Journal of Politics*. 46 (1984), pages 479-502. and "An Investigation into the Relative Manipulability of Four Voting Systems", *Behavioral Science*; 30:4 (1985), pages 195-203.

Merrill, Samuel III. *Making Multi-candidate Elections More Democratic*. (Princeton, NJ: Princeton University Press, 1988).

2 The Editorial Board. "The Primaries Are Just Dumb." nytimes.com/2020/02/26/opinion/democrats-primary-south-carolina.html

3 *Ranked Choice Voting Civility Project* fairvote.org/rcv_civility_project

Reilly, Ben. *Democracy in Divided Societies* (Cambridge U. Press, 2001)

nytimes.com/2021/02/25/opinion/elections-politics-extremists.html

4 Wright, Stephen G. "Voter Turnout in Runoff Elections", *The Journal of Politics*, Vol. 51, No. 2 (May, 1989), pages 385-396

http://www.fairvote.org/ranked_choice_voting_outperforms_runoffs_in_upholding_majority_rule

5 Korean election, web.archive.org/web/20010113205900/http://nimbus.ocis.temple.edu/~jhurewit/history.html wikipedia.org/wiki/Roh_Tae-woo

6 Papua New Guinea: Electoral Incentives for Inter-Ethnic Accommodation http://aceproject.org/ace-en/topics/es/annex/esy/esy_pg

7 https://www.fairvote.org/rcv_in_campus_elections https://www.fairvote.org/where_is_ranked_choice_voting_used

+ representwomen.org/representation_and_rcv_a_long_term_solution

🌐 **2. Electing Representatives**, Fair Rep @ d_intro.htm

1 Statistics on pages 60-61 compare democracies. @ 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* v46 #3 (April 1994), p. 291-326

3 *Illinois Assembly on Political Representation and Alternative Electoral Systems*, IGPA University of Illinois, Spring 2001. http://archive.fairvote.org/op_eds/execsum.pdf

History of cumulative voting, 1870-1970: Three is better than one http://www.lib.niu.edu/1982/iisr04.html

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The principle of **Fair Share Voting** is:

Give spending power to groups, in proportion to their voters.

So 60% of the voters can spend 60% of our fund, not all of it. Your ballot's **share** from our fund lets you vote to pay your shares toward the costs of your favorite items.

Voting is easy: simply rank your choices, like 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**.

🔀 Also point 1 on page 16, plus 1, 3 and 4 on page 14.

Ranked Choice Ballots

A tally board can serve up to 30 voters. But 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 catch frauds and errors.[3]

☒ **Yes-or-no ballots** badly oversimplify most issues. They often highlight only two factions: "us versus them" and can **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]

Party Menu   Fill only one 'O' on each line.

lbs. Treats*	Best 1st	2nd	3rd	4th	5th	Worst 6th
3 Almonds, Toasted	O	O	O	O	O	O
6 Apples, Honey Crisp	O	O	O	O	O	🍎
6 Apricots, Dried	O	O	O	O	O	O
6 Peaches, White	O	O	O	O	O	O
6 Oranges, Navel	O	O	O	O	O	O
6 Tangerines	O	O	O	O	O	O

Which 1 wins by plurality? Hints: 5 sweets vs. 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 a voter needs to vote in each contest.

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 http://www.nytimes.com/2016/11/10/upshot/women-actually-do-govern-differently.html
nytimes.com/2020/05/15/world/coronavirus-women-leaders.html

🔀 **3. Allocating Budgets**, Fair Share Voting @ 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 49th 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

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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?

5

Budget Levels and Long Ballots

These two cases taught us to 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 favorite won, taking a lot of our 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.

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 it tends to 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 the bike racks, each vote won a mere \$31. That's too unfair. Even worse, most of the votes were wasted on losers.[3]

A costly winner makes many lose.

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]

Two of Many Tragedies

Old ways of adding up votes often fail to represent large groups. In the USA, beautiful North Carolina had enough Black voters to totally 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. In a year with weak forestry laws, hasty logging wastes resources. But sudden limits on logging bankrupt some workers and small businesses. If this **policy pendulum** swings far, it cuts down forests and species, then families and towns, again and again.[2]

What can big swings in other policies do?

4

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3. Allocating Budgets

Fair Shares to Buy Shared Goods

Electing reps is the most obvious use of voting rules. Rules to pick projects or a policy are also important. These group decisions occur more often than elections. They even occur in many groups with no elections.

Good democracies work hard to become more fair, thus accurate, responsive, widely popular and strong:

✔ Voting rights for wealthy men, then centuries later for most men, for Black men, for women.

🏳 Fair Representation can give out council seats fairly. But is it fair if its majority controls all the money?

📊 Fair Share Voting can give out some funding fairly. This is a big boost for responsive self-government.

📊 The voters in a club, a co-op, a college, or a grant giving group all can enjoy using Fair Share Voting.
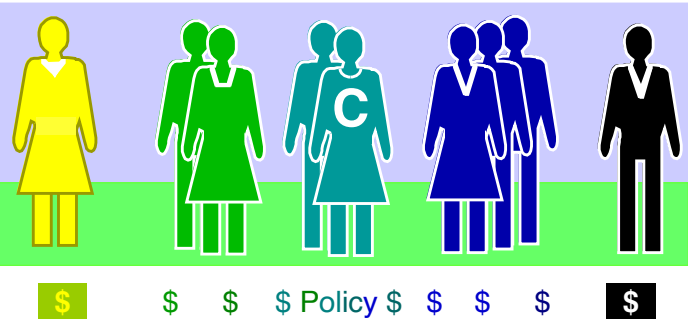
All big groups have a right to allocate some funds.

22

🎌 4. Enacting a Policy, Condorcet Tally @l_intro.htm,

1 From Chamberlin, Cohen, and Coombs, cited on page 63 above.

2 Tally RCV with the options in the top voting cycle.   @l_cycles.htm

Green-Armytage, James. "Four Condorcet-Hare Hybrid Methods for single-winner elections"; 2011; votingmatters.org.uk/ISSUE29/I29P1.pdf

"Strategic Voting and Nomination"; *Social Choice and Welfare;* 2014.

Tideman, Nicolaus. *Collective Decisions and Voting*; (Ashgate Publishing Ltd., Hampshire, England; 2006); page 232.

Green-Armytage, James; Nic Tideman, and Rafael Cosman. "Statistical Evaluation of Voting Rules"; *Social Choice and Welfare;* 2016, 46: 183.

Hill, I.D. "Some Aspects of Elections--To Fill One Seat or Many" Journal of the Royal Statistical Society. Series A. Vol. 151, No. 2 (1988)

Loring One-winner Rule, 1996; @l_lor1.htm @c_data.htm @l_data.htm

3 See captions on pages 15 and 56.   @c_irv.htm#compare

4 https://en.wikipedia.org/wiki/Primary_challenge

5 https://www.nytimes.com/interactive/2018/11/10/opinion/house-representatives-size-multi-member.html

6 Rules of Order   AccurateDemocracy.com/l_motion.htm

7 fairvote.org/basalt_mayoral_race_features_ranked_choice_voting

+ https://www.theatlantic.com/politics/archive/2018/02/a-better-way-to-look-at-most-every-political-issue/552752/

★Social Effects and Uses

1 Bennett-Smith, Meredith. *World's Happiest Countries 2013,* http://www.huffingtonpost.com/2013/05/28/worlds-happiest-countries-2013-australia_n_3347347.html; Cites UN, OECD.

OECD Better Life Index http://www.oecdbetterlifeindex.org/

Rothstein, B. and E. Uslaner. "All for All: Equality, Corruption, and Social Trust" *World Politics*, v. 58, # 1, Oct, 2005, p. 41-72 https://projects.iq.harvard.edu/gov2126/files/rothstein_2005.pdf

2 Susskind, Lawrence and Jeffrey L. Cruikshank, *Breaking Robert's Rules*; (Oxford, Oxford University Press, 2006). Spanish: *Mejor Que La Mayoria,* with Francisco Ingouville, (Buenos Aires, Obelisco, 2011)

3 *Group-Process Pattern Language*, http://groupworksdeck.org

4 https://www.AccurateDemocracy.com/l_motion.htm

+ https://fairvote.org/report/collaborative_policymaking/

+ wikipedia.org   Committee_of_the_whole   Special_rules_of_order

65

Workshop Finale🎼 Notes

It's easy to give this workshop in a class or a club.[6] In an hour, 20 voters can review plurality, try **RCV**, then **PRCV** for colors, as shown below, or **FSV** for treats.[7]

Eat the winners*!* while you plan to take a poll, for the central majority or fair shares, in a group you know. What qualities do you want in this poll? See page 34.

Voter education can be fun to do and it is essential. *FairVote*.org has model ballots, voter-education flyers, videos, stories and much more to help your voters.

Music video for fun: https://flip2020.wordpress.com

Several groups offer **apps to tally your votes**.[7]
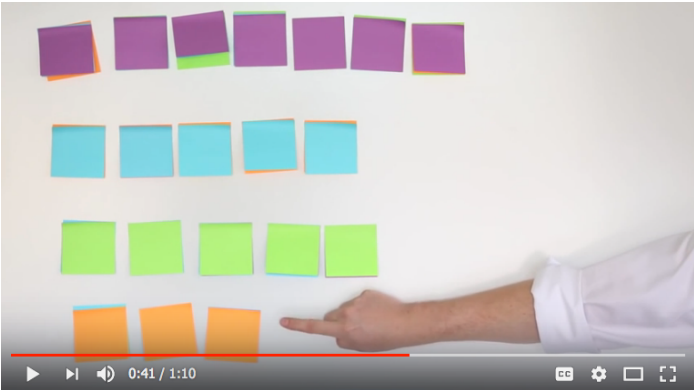
Hands-on games and shared treats make memories of how each tool *works*. Next, simple simulations and national statistics show some of the high-level *effects*. The effects on pages 54 through 59 are important for the governance of schools, clubs, towns and more.

47

B. Workshop Games, hold a vote @ a_workshop.htm

1 A voter's ranks may skip, *e.g.* 1st left, 2nd far right, 3rd 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/2006/11/04/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?v=oHRPMJmzBBw or   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   @ 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.

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Contents

The **four** best voting tools are fast, easy and fair.
Parts **A**, **B**, and **C** reveal how tools steer power.

C. SimElection Games

Watch Fair Rep Balancing a Council

These maps show **Proportional RCV 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 choice, the closest remaining candidate.[1]
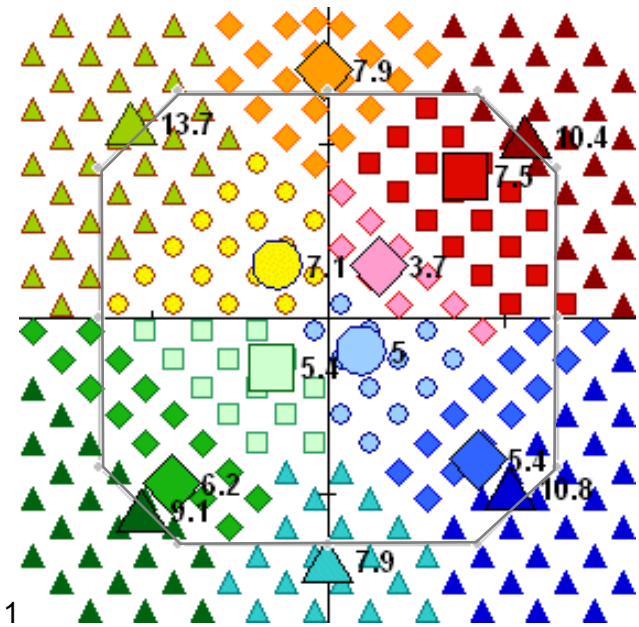

Sim players position their candidates to get votes (page 56). Numbers on a map show each candidate's current share of top-rank votes; getting 16.7% will win a seat and halo! After this round of counting, the weakest candidate must lose and get an **X**. The 3.7% ◇ will be the first to lose.

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

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."
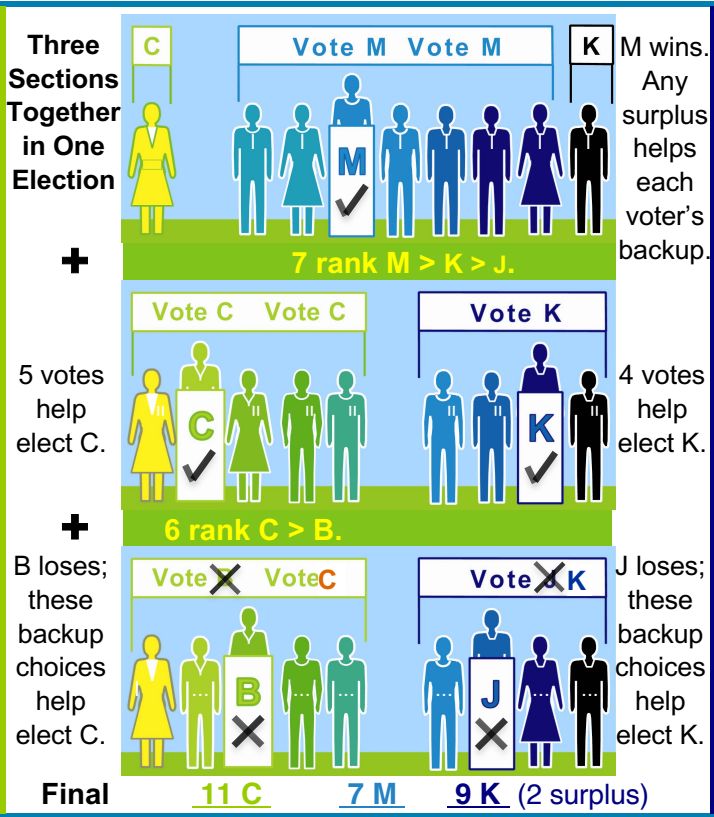
▶ Now the minority gets 1 rep and the majority gets 2.
Their mandate is fair, **accurate**, popular and strong.   21

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

5 Chalmers, Patrick. "The People Trying to Save Democracy From Itself", https://www.theguardian.com/world/2016/jul/02/democracy-tarnished-brand-desperate-need-reinvention

Lerner, Josh. 2024NEW *From Waves to Ecosystems: The Next Stage of Democratic Innovation* SNF Ithaca Research Scholar White Paper No.1. Newark, DE. udspace.udel.edu/handle/19716/34515

Bouricius, Terrill G. "Democracy Through Multi-Body Sortition: Athenian Lessons for the Modern Day", New Democracy Inst., *Journal of Public Deliberation*, Volume 9 | Issue 1; 4-30-2013

Navajas, Joaquin et al; "Aggregated knowledge from a small number of debates outperforms the wisdom of large crowds", (Cornell U., 2017)   https://arxiv.org/abs/1703.00045   + info.vtaiwan.tw

6 Tishman, Shari and Albert Andrade, Thinking Dispositions, pdfs.semanticscholar.org/57cb/278acf38e9da6490d266260f9a9c50d20da3.pdf   Few have a disposition to think this way routinely.

7 See progressive taxes in Wikipedia pages on: Carbon_tax, Consumption_tax#Expenditure_tax, Location_value_tax, Financial_transaction_tax (speculation), and Weath_tax.

Piketty, Thomas and Arthur Goldhammer; *Capital in the 21st Century*; (Cambridge MA: The Belknap Press of Harvard U. Press, 2014.)

8 https://cyber.harvard.edu/publications/2018/01/communityfiber
Institute for Local Self-Reliance www.ilsr.org   windsong.bc.ca

9 Loring, Robert. "Egalitarian versus Authoritarian Values" https://AccurateDemocracy.com/a_quotes.htm#egal

scholar.princeton.edu/sites/default/files/mgilens/files/gilens_and_page_2014_-testing_theories_of_american_politics.doc.pdf

10 Taub, Amanda; https://psypost.org/2018/06/study-finds-less-corruption-countries-women-government-51530

Damien Cave. "Jacinda Ardern Sold a Drastic Lockdown With Straight Talk and Mom Jokes". nytimes.com/2020/05/23/world/asia/jacinda-ardern-coronavirus-new-zealand.html   Defines MMP

11 web.archive.org/web/19990218104532/http://members.aol.com/loringrbt/elect.htm

12 web.archive.org/web/19991023011241/http://members.aol.com:80/loringrbt/a_intro.htm

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."


Section One's Election

1 D vote **wasted** on a loser

Vote M   Vote M

8 M votes; 3 are **wasted** on a surplus

Section Two's Election

5 C votes elect a rep.

Vote C   Vote C

Vote K

4 K votes **wasted** on a loser.

Section Three's Election

5 B votes elect a rep.

Vote B   Vote B

Vote J

4 J votes **wasted** on a loser.
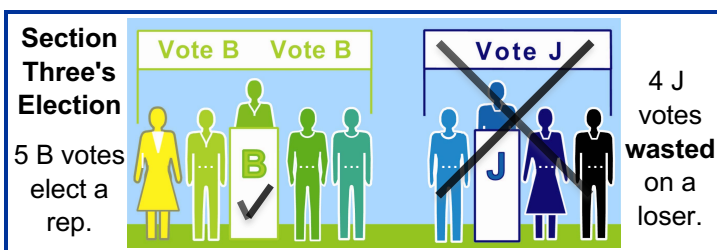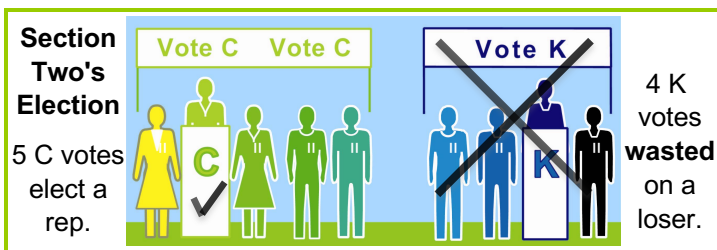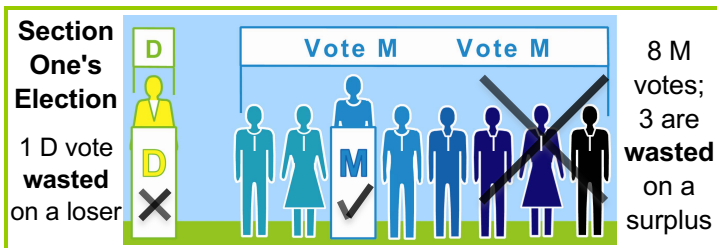
▶ An 11 voter minority got 2 reps; that's majority power. If spread out, 3 or 4 in each section, they'd get no rep. A plurality rule often **wastes** votes so it's easy to rig by changing the borders of election districts.

The Weakest Lose, One at a Time
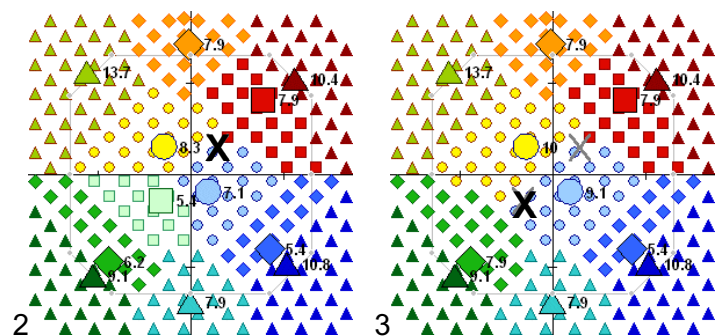
In map 2, the first loser gets an **X** Her ballots change color and shape when each counts for its new top rank, a close rival — whose nearby field of color grows. ● ■ ● (Game maps may portray places or political positions.*)

In map 1, a gray line circles half 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.
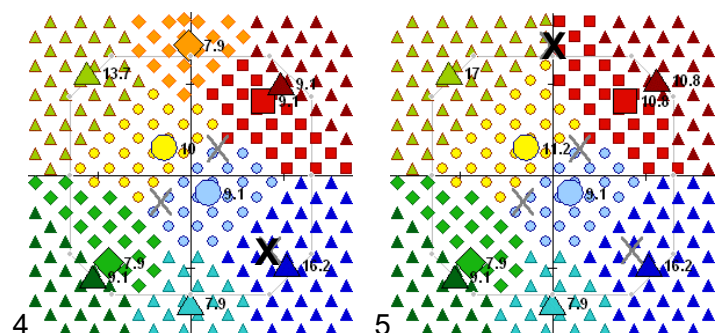
* Pages 10 and 13 introduced political dimensions.

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*

See also the **Summary and Index of Benefits** on page 34.

Accurate Democracy

4 Great Tools in Color
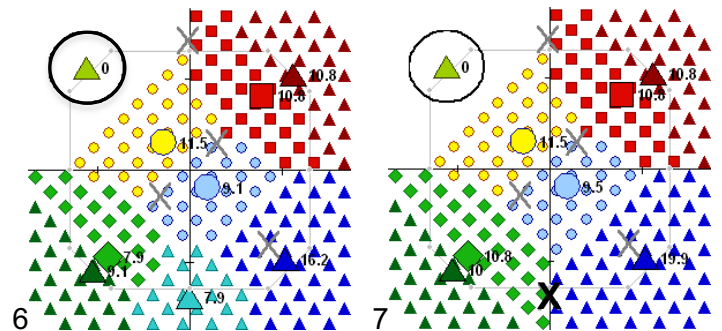Make Group Decisions Better

Robert B. Loring


Voters Cue, Striving for Better Government.

FairVote
Silver Spring, Maryland

Votes Transfer, Elect Reps

6   7

In map 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] ↔ ↕ ↯

8   9
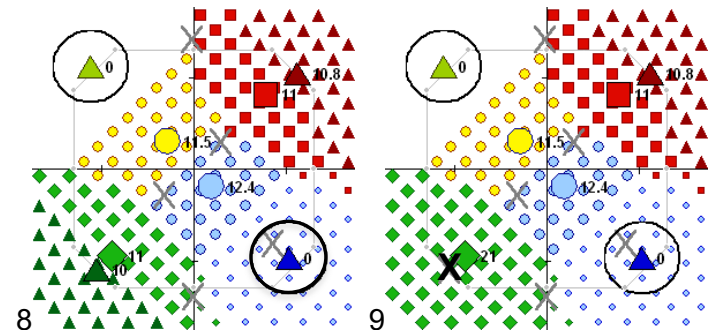
Voting Rules and Policy Results

Local **SMD**s can elect reps with **unequal** vote totals. So a majority of reps might *not* represent most voters. **Fair Rep** uses more equal votes for each rep (p. 20-21). So each majority of reps *does* stand for most voters. This produces **policies closer to public opinion**.[2]

*Less: Wasted votes,
Gerrymandered districts,
Monopoly politics,
Dubious democracy*

Many voters see a woman in a multi-winner race less as fighting her rivals, more as **supporting her issues** – in multi-sided conversations and debates.

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.

Some Users and Endorsers

1. Ranked Choice Voting, RCV, elects leaders
in more and more places: New York City and San Fransico, Alaska and Maine; colleges such as Duke, Harvard, Princeton, Rice, Stanford, Tufts, MIT, Cal Tech, Carlton, Clark, GW, Reed, Vassar, UCSC, the state universities in: CA, IA, IL, MA, MN, NC, OK, TX, VA, WA and WY.

2. Multi-winner PRCV can elect a whole council
Australian and Irish voters have used Proportional Ranked Choice Voting in local and national elections for decades. Users include Cambridge MA, Portland ME and Portland OR; plus colleges such as Clark, MIT, Oberlin, UC Cal, UC Davis, UCLA, UCSB, UT Austin, and Vassar.

Many groups endorse Ranked Choice Voting.
Organizations: Oscars, Church of England, Common Cause Sierra Club, UUA, American Academy of Arts & Sciences,
The League of Women Voters in: AZ, CA, FL, ME, MA, MN, NC, OR, SC, VT, WA, and more
National Newspaper Editorials: New York Times, USA Today, Washington Post; Local Papers: Portland Press Herald, Las Cruces Sun News, and many more
Journalists: David Brooks, Hendrik Hertzberg, and more
Celebrities: Jennifer Lawrence, Krist Novoselic, and more
US Senators: John McCain, Bernie Sanders, Obama, more
US Reps: Keith Ellison, Jamie Raskin, Don Beyer, more
Parties: **Democrats** of CA, CO, ME and MA; Green Party, Libertarian Party; **Republicans** of Alaska, Utah, and more.

fairvote.org/our-reforms/ranked-choice-voting-information/

About Us

About FairVote   info@fairvote.org
FairVote is a nonpartisan organization working for better elections for all. We research and advance voting reforms that make democracy more functional and representative for every American, with a focus on two key reforms: ranked choice voting and the Fair Representation Act.

Through our research and advocacy, we are making the case for reform at the federal, state, and local levels and empowering state and local allies with the resources they need to drive reform in their communities. Working together, we've already made ranked choice voting the fastest-growing nonpartisan voting reform in the nation.

Robert Loring's Work   VotingSite@gmail.com
In 1990, John R. Chamberlin, and Samuel Merrill III encouraged me to use their research, cited on page 63, to support a hybrid Condorcet-RCV tally. (See page 30.) In the 1990s, I created *PoliticalSim™* and *SimElection™*. Pages 48-56 show basic maps from the simulation games. They compared 30 single- and multi-winner tallies from around the world and were used in a few universities. My sim research led to *Democracy Evolves*[11] in 1997. Then I helped FairVote as a webmaster and librarian. For over ten years, I've advised groups developing the use of Fair Share Voting. (See pages 24, 43 and 46.) This booklet summarizes *Accurate Democracy.com.*

Goals: Make better policies. (Seen on pages 9 and 61.) Give more incentive to work together for better harmony even in multi-cultural places. (See 24, 27, 33-35 and 54.).

accuratedemocracy.com/z thanks.htm#project.

Why It Elects More Women

New Zealand and Germany elect half of their MPs in Single-Member Districts and half from Fair Rep lists. This is the best way to elect a parliament, some say.[5] The SMDs elect few women; but in the same election, the party lists elect two or three times more women.[1]

The **safest nominee** for a two-party duel in an SMD is from the dominant gender, race, religion, etc. It can lead to a macho duel and poor representation of all others.

Fair Rep leads a party to nominate a **balanced team** of candidates to attract voters. This promotes women.[6] A team can have class, ethnic and cultural diversity. And that gives us diverse reps to approach for help.

MORE: Real choices, Competition, Effective votes, Voter turnout, Strong mandates, Diverse reps, Women reps, Popular policies

Some leading women spoke of **starting a new party** in **Sweden**, which uses Fair Rep. Under plurality rule, a big new party splits their own side, so it likely loses. But Fair Rep gives every big party its share of seats.

This credible threat made an old party decide job experience was not as important as **gender balance**. So it dropped some experienced men to raise women higher on their party's list. And they won.[7] Now they are incumbents with experience, power and allies.

A Diverse and Balanced Council
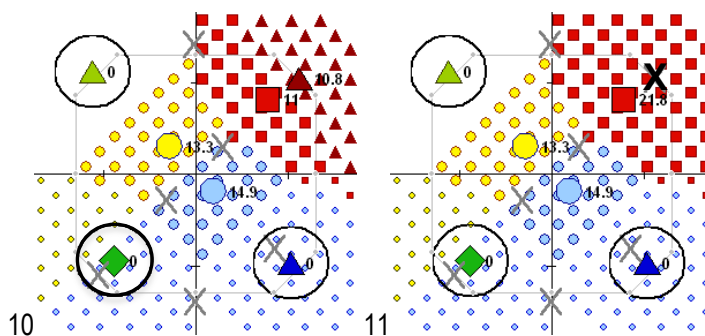
This pattern of voters makes their choices easy to see. SimElection™ also created uniform, random, custom and normal bell-curve patterns for games and research. To learn about life, play in lifelike normal patterns.[3]

In 13, the box with half the ballots holds all but one rep. Does PRCV tend to favor and elect fringe candidates? Five reps together need what percentage of the votes? Are the reps diverse? Balanced fairly? Centered well?

No. Over 83%. Yes. Yes. See page 55.
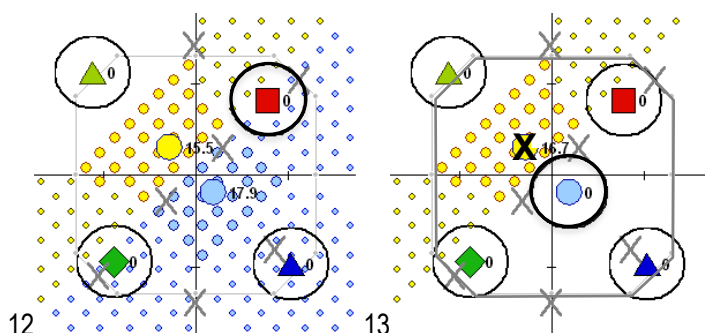
"This is *the* site for learning about democracy."
—Zoe Weil, author of *Most Good, Least Harm*, president of the Institute for Humane Education.

"... 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 responsive and fair.** They help groups, from classrooms to countries.

One fast tool compares the votes for several 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.

Accurate Democracy

4 Great Tools in Color

Make Group Decisions Better

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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 even to optional items in some ongoing budgets; *e.g.* FSV can choose repairs for roads but not new routes.

To find the best uses for our money, hold Participatory Budgeting talks 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. This map shows a third issue dimension as deep layers of color within the page.

Here is a proposed **blue-flower garden.** It's far from what the **red voters** want, even if it is next door. A voter prefers the closest item with his favorite 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 may be able to fund them all. Did that happen here?

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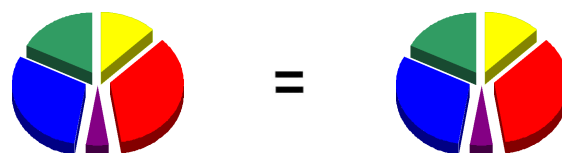
✓ **Shares of votes equal fair shares of seats.**

New Zealand switched in 1996 from Single-Member Districts to a layer of **SMD**s 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 total seats won by **women** rose from 21% to 29%. The native Maori reps increased from just 7% to 16%, which is almost proportional to the Maori population. Voters also elected 3 Polynesian reps and 1 Asian rep.[4]