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| **Accurate**  **Democracy**    Cvr43wide.png ***4* Great Tools in Color**  **Help Groups from Classrooms to Countries** |
| “[This is *the* site for learning about democracy](#Endorsements).”  [—Zoe Weil,](http://www.youtube.com/watch?v=tSHEV96dluY) author of [*Most Good, Least Harm*,](http://www.amazon.com/Most-Good-Leat-Harm-Meaningful/dp/1582702063)  president of [the Institute for Humane Education.](http://humaneeducation.org/)  “[...a huge contribution to the democracy cause](#Endorsements).”  —John M. Richardson Jr., former chairman of the National Endowment for Democracy  “[Congratulations on a brilliant piece of work.](https://en.wikipedia.org/wiki/Robert_W._Fuller)”  —[Robert W. Fuller former president of Oberlin College, author of *Somebodies and Nobodies*, and *All Rise*](https://en.wikipedia.org/wiki/Robert_W._Fuller)  The primer, games and pictures let you  [**Read**](#I_Voting_Primer)**,** [**Touch**](#II_Workshop) **and** [**See**](#III_Simulations_STV) **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  **1**  **fair** **shares** of seats or $pending.  **to Use and Enjoy**  **Share** this colorful eBook with friends.  **Grow** support in your school, club or town.  **Enjoy** better [politics](#IndexMerits), [relations](#IV_In_Context) and [policies](#Stats).  [by Robert B. Loring](mailto://VotingSite@gamil.com) |
| Contents  **1**  $ $  $  $ $  The **four** best voting tools are fast, easy and fair.  Parts **A,** **B,** and **C** reveal how tools steer power.  **A. [Voting Primer](#I_Voting_Primer)** [tells the stories of the](#I_Voting_Primer) **[four](#I_Voting_Primer)** [tools](#I_Voting_Primer)  [Bunting1RB Tragedies](#I_Voting_Primer), [Eras and Progress of Democracy](#Plurality) [4](#I_Voting_Primer)  1. [Elect a popular **Leader**](#Electing_a_Leader) by [Ranked Choice Voting](#IRV) [10](#Electing_a_Leader)  [2. Elect **Representatives**](#Electing_a_Council) by [Fair Representation](#FairRepPR) [16](#Electing_a_Council)  3. [Set optional **Budgets**](#Allocating_Money) by [Fair Share Voting](#FairShareVoting) ***New*** [22](#Setting_Budgets)  [4. Enact a balanced **Policy**](#Enacting_a_Policy) by a [Condorcet Tally](#Condorcet) **"**  [28](#Enacting_a_Policy)  Bunting1RB [Rigged votes, Gerrymanders](#GerrymanderBribes) [and Gridlock](#Agenda1Ballot)   [32](#GerrymanderBribes)  [**🟑 Social Effects** of group-decision tools **🟑 ★** 34](#IV_In_Context)  Bunting1RB **Cons[ensus](#Consensus)** [on one](#Consensus) **[Policy](#Consensus)** [or many](#Consensus) **[Budgets](#Consensus)**  [36](#Consensus)  Bunting1RB [How you can try a group-decision tool 3](#Steering)8  **B**[**. Workshop Games** let us get inside the](#II_Workshop) **four** [tallies](#II_Workshop)  (and maybe eat some winners***!)***  [1. **Leader**, 2. **Reps**](#STV)**,** [3. **Budgets**,](#WSbudgets) 4. [**Policy**](#WSpolicy) ***New!*** [39](#II_Workshop)  **[C. SimElection](#III_Simulations_STV)**[™ games make tally patterns visible](#III_Simulations_STV)  [2.](#III_Simulations_STV) **[Reps](#III_Simulations_STV),** 3.[**Budgets**](#FSVsim)**,** [**Council**,](#Compare3Councils)  [4. **Policy**](#CondorcetMap) ***New*** [48](#III_Simulations_STV)  **🞼** [**Back Matter**](#BackMatter), [Voting reforms aid more](#RelatedReforms) reforms   [57](#V_End_Matter)  Bunting1RBCountries with Plurality, **Runoffs**, [or **Fair Rep**  6](#Stats)0  Bunting1RB [About Us](#AboutUs)[, ©,](#Copyright) [Endnotes](#RefIntro), [Index and Glossary](#Glossary_Index_Refs)  [62](#V_End_Matter) |
| [A. Voting Prime](#Contents)r  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](#RefIntro)—with [tragic results](#RefIntro).[[1]](#endnote-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. If this **policy pendulum** swings far, it cuts down [forests and species, then families and towns](#RefIntro), again and again.[[2]](#endnote-2)  bl2  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. For such a contest, the yes or no votes say enough.  But as soon as three candidates run for one office,  the contest [becomes more compl](#RefIntro)icated.[[3]](#endnote-3) Then that  old yea or nay type of voting is no longer suitable.  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.*  Kiichiro Sato AP Mirror  Will their votes be effective?  5 |
| Eras, Tally Rules and Councils  In the 19th Century Winner-Take-All Districts 🢧 Off-Center Councils    $ $ $ Policies $ $ $  Typical Council Elected By Plurality Tallies  English-speaking former colonies.  Some of England’s former colonies still count votes by its old **plurality voting rule**. It elects only one rep from each district — and winning 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](#RefIntro) parties.[[4]](#endnote-4) Only their candidates have good chances. It gets 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 very little [choice or **no real choice**](#RefIntro).[[5]](#endnote-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 budget or policy flips polarize politics. Each battle is brutal because it is **winner take all**.  \* Each voting rule or system defines its ballot and its tally steps. (The blue reps 🚹have a majority here.🡡) 6 |
| In the 20th Century Fair-Rep Elections ⇨ One-Sided Majorities  20thC_PR.png  $ $ $ Policies $ $ $  Typical Council Elected By Fair Representation  **Fair Representation** was developed around 1900 to end some major problems caused by 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. So Fair Rep delivers [fair shares of representation](#RefIntro).[[6]](#endnote-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. That side can "capture the capitol" for a term of years. Then it enacts **policies skewed toward its side**.  7 |
| 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** + **●** = Bunting1RB That’s the target\*  Later pages will show how we can elect a rep with wide support and views near the [center of the voter](#RefIntro)s.[[7]](#endnote-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 prefer policies to **combine the best suggestions from all groups.**  Color key: **spread** is in red; **centering** blue; money in green 8 |
| |  |  |  | | --- | --- | --- | | Soapbox | **Progress of  Democracy** | TV |   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 needsindependent **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](#Stats), [health and leisure](#RefIntro).[[8]](#endnote-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](#Setting_Budgets) or pick a[policy](#Enacting_a_Policy) will also show these qualities in our stories, graphics and games.  9 |

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| 1. [Electing a Leade](#Contents)r  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 those 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 ⭣.](#Stats) 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.  ***Legitimacy*** is acceptance / recognition by the public.  of the authority of a government regime, whereby it has .  political power through consent and mutual understandings.  not coercion (including “bribery”? fear-based $ for food, Rx).  Nine voters spread out along an issue.    High taxes buying Low taxes buying  great gov. services poor gov. services  These colors aid readers less able to see colors. 10 |
| Plurality Election  Here we see three rivals step up, asking for votes.  Each voter prefers the one with the closest position.  A voter on the left votes yes for the candidate on the left.  Ms. K is the candidate with a stance nearest four voters.  L is the nearest to two and M is the nearest to three.  Candidates L and M **split** the voters on the right.  Does anyone get a majority (over half), Yes or No?  Who gets the plurality (the largest number), K, L or M?  Who gets the second-largest number of votes?  *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,        by consent not coercion. Strong mandates support       and speed action to reach popular goals.  By plurality rule, the one with the most votes wins.    K is nearest four voters. M is nearest three.  L is nearest two.  *Answers: No. K. M.* 11 |
| 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   of them is more accurate, fair and responsive.  Does the plurality election waste more votes? Does that discourage members from voting?   Does the runoff make a stronger mandate?  In effect, a runoff practically asks, “Which **side** is stronger?” Later, these voters will use another tally tool to ask, “[Where is our **center**?](#CondorcetMap)” And a bigger group will use  a tally to ask, “[Which **trio** best](#FairRepPR) represents us *all?”*  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 votes. Yes. Yes, a majority mandate.* 12 |
| Politics in Two Issue Dimensions  When [more issues (or identities) concern the voters,  a voting-tally rule keeps its character.](#RefLeader)[[9]](#endnote-9)  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.](#IssueDimensions)  Seventeen voters take positions on two issues:  more or less regulation 🡙 and taxes for services 🡘  cap steps 600 c  K wins a plurality. M wins a runoff.  For clarity, a candidate is “she” and a voter is “he.” 13 |
| The goal of Ranked Choice Voting is this  Elect a majority winner, from a single election.  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-ranked 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 your vote*.*  **You can't hurt your first choice** by ranking a backup which 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.  **Civility** [**and**](#RefLeader) **consensus**[[10]](#endnote-10) **rise**[[11]](#endnote-11) as some candidates 🡭  ask the fans of rivals to, “Rank me as your [backup.”](#RefLeader) 3  **A majority winner** from one election, so no winners with weak mandates and **no costly runoff** elections.  **High voter turnout** also creates **strong mandates** The [turnout for an election runoff often goes down](#RefLeader).[[12]](#endnote-12)  [\*Pages 33](#Agenda1Ballot) and [45 show ballots](#BallotScan). 14 |
| Ranked Choice Voting Patterns  Running for president of South Korea, the former aide to a military dictator faced two reformers. The two got a majority of the votes but split their supporters. So the aide won a **plurality**. (37%, 28%, 27%, 8%) Years later, he was convicted of treason in the tragic, government killing of pro-democrac[y demonstrators.[[13]](#endnote-13)](#RefLeader)  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.    1 2 3 4  **From a five-faction debate to a majority mandate** 1) **Violet** loses; so backup choices get those votes.  2) Amarilla loses; so backup choices get those votes.  This **chief executive** starts in a big band of voters on the biggest side, then builds a majority. This helps her work with reps on the biggest side of a typical council.  🡪 For 11 years, Papua New Guinea used RCV, then  plurality rule for 27 years but ethnic violence increased.[[14]](#endnote-14)  They returned to RCV [and the violence](#RefLeader) decreased.  Ranked Choice Voting weakens tribalism.  Irish and Australian voters have used it for decades. They call it the Alternative Vote or Preferential Vote. Some Americans call it Instant Runoff Voting or IRV.  The [endorsements](#Endorsements) page lists many groups using it. It often helps women [achieve parity in](#RefLeader) politics.[[15]](#endnote-15)  [The workshop shows an RCV game on pages 39-42.](#II_Workshop) 15 |

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| 2. [Electing Representative](#Contents)s  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](#RefReps).[[16]](#endnote-16)  **Women win** two or three [times more often](#RefReps)1 so **Accurate majorities** win—also due to more: choices, turnout, effective votes and equal votes per rep so **Policies match** [public opinion better](#RefReps).[[17]](#endnote-17)  Many people call this Proportional Representation or PR.  16 |
| 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, and thus 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](#RefReps).[[18]](#endnote-18)  D_Equals  **✓ 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 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](#RefReps). Voters also elected 3 Polynesian reps [and 1 Asian rep](#RefReps).[[19]](#endnote-19)  17 |
| Why Full Rep 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](#RefReps), some say.[[20]](#endnote-20) The SMDs elect few women; but in the same election, the Fair Rep lists elect two or three [times more](#RefReps) women.1  A **safe nominee** for [a two-party duel in an SMD is](#Plurality) from the dominant gender, race, religion, etc. It leads to a macho duel and poorly represents all others.  Fair Rep leads a party to nominate a **balanced team** of candidates to attract voters. [This promotes](#RefBudgets) women.[[21]](#endnote-21) A team can have class, ethnic, and cultural diversity. And that gives us diverse reps to approach for help.  *MORE: Competition, Real choices, Voter turnout, Effective votes, 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 its own side, so it likely loses.  But Fair Rep gives every big party its share of seats.  This credible threat made one old party decide job experience was not as important as **gender balance**. So it dropped some experienced men to raise women higher on the party’s [list. And the](#RefReps)y won.[[22]](#endnote-22) Now they  are incumbents with experience, power and allies.  18 |
| 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 Representation** has 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**](#RefReps).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](#RefReps) needs.[[23]](#endnote-23) Then the poorest schools and clinics are **blighted**; so are the 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 by the scores on [page 60.](#Stats) 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.  19 |

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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.”  PV_d_mmMmmmmm  **Sectionİ** **One's Election**  1 D vote  **wasted** on loser  l l l l l l l l l  8 M votes; 3 are **wasted** in a surplus  PV_cCccc_kkKk  4 K  votes **wasted** on a loser  **Sectionİ** **Two's Election|**  5 C votes elect a rep.  =  =  =  =  =  =  =  PV_bbBbb_jJjj  **Sectionİ** **Three's Election**  5 B votes elect a rep.  ... ... ... ... ... ... ...  4 J  votes **wasted** on a  loser   ▶ An 11-voter minority gets 2 reps; that’s majority power.   If spread out, 3 or 4 in each section, they’d get no rep.   Plurality rule **wastes votes** so it’s erratic and easy to rig.  *How many votes were wasted?* *12* 20 |
| **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.  PV_c_mmMmmmmk  l l l l l l l l l  **Three**  **Sections Together In One Election**  **🞦** **7 voters rank M > K > J.**  M wins. Any surplus helps each voter’s backup.  PV_cCccc_kkKk  **🞦** **6 rank C > B.**  5 votes help elect C.  4 votes help elect K.  =  =  =  =  =  =  =  PV_bbBbb_jJjj  **C**  **K**  ... ... ... ... ... ... ...  B loses; these backup choices  help elect C.  J loses;  these backup choices help elect K.  **Final** **11 C**(4 surplus) **7 M**   **9 K**(2 surplus)   ▶ Now the minority gets 1 rep and the majority gets 2.  Their mandate is fair, **accurate**, popular and strong. 21 |
| 3. [Allocating Budge](#Contents)ts  **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 occur in many groups that have no elections.  Democracies have worked hard to become more fair, thus accurate, responsive, widely popular and strong:  **✓** Voting by noble men, +most men, +Black men, +women  Fair Representation can give out council seats fairly.  Fair Share Voting can give out some funding fairly.  The voters in a club, a co-op, a college, or a grant giving group all can enjoy using Fair Share Voting.    **$** $ $ $ Policy $ $ $ $ **$**  All big groups have the right to spend some funds.  22 |
| Patterns of Unfair Funding  **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 often advances this way. The World Bank reports PB may reduce corruption  plus it tends to raise a community’s [health and educa](#RefBudgets)tion.[[24]](#endnote-24)  In 2010, a Chicago alderman g[ave $1,300,000 to](#RefBudgets) PB.[[25]](#endnote-25) 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 votes cast for bike racks, each vote won a mere $31. That’s too unfair. Even worse, most of the votes were [wasted on loser](#RefBudgets)s.[[26]](#endnote-26)  WTA solid 600 Blur usm **✓✓✓✓**  **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, some 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 vote](#RefBudgets)s.[[27]](#endnote-27)  A voter’s PB share is sometimes over $1,000. 23 |
| 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 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](#IRV).  Your ballot pays one share of the cost for each of its present 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](#RefBudgets).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)  **A 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.](#RefBudgets)  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 page 16 point 1, plus page 14 points 1, 3 and 4.  24 |
| Fair Shares and Majorities  If a majority controls all the money, the last item they buy is a low priority; so it adds little to their **happiness**. 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.  **PB + RCV + Cost aware 🢧 FSV.**  **✓** **✓**Share Blur USM 2 12 15 600  Projects Programs Budgets  Items Goods Services  **✓ ✓**  **Fair shares spread the joy and opportunities.**  **Plurality** rules let **surplus** **votes** **waste** a big group’s power, [as seen on page 20,](#ThreeSingleWinner) 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,](#IRV) and surplus votes, as [we’ll soon see](#BudgetLevels).  **PB** + **RCV** + **Cost** aware = **FSV** 25 |
| 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**.  **A_Budgets ✓**  **✓ ✓**  **Many voters must prove, “This cost  is a high priority within my budget.”**  My club with 100 members set our **base** number at 25 votes.[[28]](#endnote-28) 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?  \* These are “reciprocals.” *None. None. Not much.*26 |
| 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](#RefBudgets) are scattered.6  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 it. 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 may give some funds to reps in the opposition, so Electing them is more **effective**, less of a wasted vote  They can relieve starvation budgets that hurt projects. 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!*](#WSbudgets) 27 |

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| 4. [Enacting a Pol](#Contents)icy  Condorcet Test Number Two  [Page 12](#Runoff) showed a one-against-one runoff con- test 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](#Agenda1Ballot) 46 show two common, simple ballots.  A workshop page will show a pairwise tally table.  And a simulation map will show 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. This makes her the “**Condorcet winner**.” L > M L > K  “…such a mandate is no doubt a vital ingredient  in the subsequent [career of the win](#RefPolicy)ner.” [[29]](#endnote-29)  [Who is the Condorcet winner on page 13,](#IssueDimensions) K, L or M?  Thus a Condorcet Tally picks a **central winner**:  It can [elect a **moderator** to a council, see page 8](#EnsembleCouncil), or moderates from districts for MMP,  [see page 17](#NewZealand). or senators to make an upper house. But is it likely to elect diverse reps, yes or no?  It can select [the base number for **FSV**, see page 26.](#BudgetLevels) But is it likely to spread spending fairly, yes or no? Do CEOs mostly moderate *or* advocate (*e.g.* a mayor)?  Here is the center.  **1**    L has six votes. M has three.  *Answers: L. No. No. Discuss this.* 29 |
| 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 one 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.  (But in a rare, “voting cycle,” majorities rank K > L,  L > M, and M > K.  [RCV can break](#RefPolicy) the tie.[[30]](#endnote-30) )  K L  ⭮  M  K  L ⭮  ⭮  .  **Why Use a Condorcet Tally (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.](#Glossary_Index_Refs)  **No split-vote** worries as duplicates don’t help or hurt [each other](#RefPolicy).2b An ad hoc majority can rank all of their favorites over the other options. Ballots from all voters help decide which of the majority’s favorites wins.  **A balanced policy** tends to be **stable,** thus decisive. Yet, **a balanced process** can calm some fears about reviewing and **changing** a good policy to improve it. This saves time and builds respect for democracy. 30 |
| Achieve 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 CT voter is “obtainable” and valuable.  So the winner is well balanced and [widely popular](#RefPolicy).2, 3 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 any right-wing policy. All sides like it more than a narrowly-centrist policy.  pw Blur USM 600 “Our center  is near me.”  “I think it’s  right here.”  “I *am* the  center*!”*  Everyone helps locate our center.  **A Chair with Balanced Support**  **CT can elect a chairperson or a few reps** to be the **swing voters** in [an **Ensemble Council**](#EnsembleCouncil), as pictured on [pages 8](#EnsembleCouncil) [and 54.](#Compare3Councils) To win, a candidate needs to earn wide support. This gives her strong incentives to help the council balance its process and policies.  **RCV** has slightly different effects, [incentives](#CondorcetMap) [and uses.](#RefPolicy)[[31]](#endnote-31) [Games will let us inside each tally](II_Workshop) to feel how it works.  31 |
| Resist Rigged Votes  In the **plurality election** [on page 11](#Mandate) 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 one who didn’t like it.  In this **safe-seat** district, bluish voters can elect M or an even less central person who may [**polarize**](#RefPolicy) politics.[[32]](#endnote-32)  But this gerrymander didn’t change the **CT** winner, L. So policies stay stable and take big swings 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** always increase [**wasted**](#WastedVotes) **votes**.[[33]](#endnote-33) **Proportional RCV** avoids both, as [shown on page 21.](#ThreeSingleWinner)  Foul **manipulations** of plurality rules are not rare. And point voting incites *extremist* high and low votes, as I worry, could my points for a low choice hurt my fave? But a chance to rig real **RCV** or **Condorcet/RCV** is [rare, risky and hard. This discourages rigged votes.2](#RefPolicy) 32 |
| 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 can appear 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](#Glossary_Index_Refs).  **Rigged votes** often build a bad policy and animosity. To reduce the risks, let the voters safely [rank](#RefPolicy) the options.[[34]](#endnote-34)  Issue A Ranked Choice Ballot  **Rank Option**    3  Continue discussion    2  Original bill, the main motion    1  Bill with Amendment 1 [(a free rider?)](#Glossary_Index_Refs)    8  Bill with Amendment 2 [(a wrecking amendment?)](#Glossary_Index_Refs)    7  Bill with Amendments 1 and 2    4  Postpone for   7  days    5  Refer the bill to a committee    6  No change (a vote for gridlock exposed?)  [Any “Incidental Motions” do not wait for the ballot](https://accuratedemocracy.com/l_motion.htm). [These include](https://accuratedemocracy.com/l_motions.htm) a personal complaint or request. 33 |
| Summary and Index of Benefits  Ranked Choice Voting has proven to: pages  1,2,3,4. **Make voting easy**, more often [effectiv](#End_Matter)e. [**14**,](#IRV) 57 Give you power to rank a backup [choice; so 33](#Agenda1Ballot), 45 Reduce your risk of [wastingyour vote; so 12](#WastedVotes), 16 Vote worry free for your true first choice. [14](#IRV) [**Boost mandates**](#Mandate) **as** [**more voters count.**](#End_Matter)  [**11**](#Mandate)-21, [57](#End_Matter)  1,2.[**Reduce** **attack ads** that scare, anger and polarize. 14](#IRV) **Weaken** [**gerrymanders**](#GerrymanderBribes) [and spoilers](#IRV). [14](#IRV), 16, [32](#GerrymanderBribes)  2. **Give** **fair shares** of reps to the [rival groups; so **16**](#FairRepPR) Give diverse candidates [real chances to win; so 18](#Germany) Give voters real choices [and effective votes; so 17](#Electing_a_Council) **Make v**[**oter turnout stronger.** 61](#Stats)  [2. **Elect women** about twice as often as plurality; so **18**](#Germany) Accurate majorities win– [also due to more: choices, 17](#Electing_a_Council) turnout, effective votes and [equal votes per rep; so 19](#EqualReps) **Make policies match** **public opinion better**. [19](#EqualReps), 60    Even then, old decision tools push policy [pendulums. 4](#I_Voting_Primer)  🟑 **First Spark to Highest Emotion An RCV Toolbox can do more**  ♥  4.[**Elect a few central reps**, the](#Chairperson) key votes pulling [**31**](#Chairperson) reps of many factions[**to moderate policies.**](#EnsembleCouncil) 8, [54](#Compare3Councils)  3. **Use** [**Fair Share Voting** for projects, savings etc. **24**](#FairShareVoting) [**Reveal** **spending** by each rep;[**cut corruption**](#Civil_Society). 27](#FairShareMerits), [**59**](#Civil_Society)  3,4.[**Reduce** **agenda effects** and scams](#Agenda1Ballot). 27, 30, [**33**](#Agenda1Ballot), 36 **Streamline group** [**decision-making. 27**](#FairShareMerits), 33, [36](#Consensus) |

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| ♥ Social Effects ♥  Tools Can Shape 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. Voting rules are official models for human relations.  Fair rules make **cooperation** safer, faster and easier. This favors people and groups who tend to cooperate. It can lead others to cooperate more often.  Earthball Rect_2  Politics are more **principled** and peaceful when all the rules help us find fair shares and central majorities. This might 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[.](#RefCostBenefit) But countries with fair rules tend to rank [higher in social trust](#Stats) and happiness[[[35]](#endnote-35)](#RefCostBenefit).  Our democracy & rights ≈ your choices & happiness 35 |
| Consensus and Voting  Group decision-making has two linked processes 0) Gather proposals:  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 could close key options before the decision process. [page 33.](#Agenda1Ballot) 2) A **decision** **process** asks the members concerned,  "Which proposals have enough support [to be winners?](#RefSocialConsensus)"[[36]](#endnote-36)  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. Not true: multi-winner Cumulative Voting for PB items.  But both **consensus** and [**ranked choice ballots**](#Agenda1Ballot) let us decide someclosely-related options at the same time. Both reward [**blending compatible ideas**. pages [9](#Progress4Democracy), 31 They’re](#Progress4Democracy) less divisive than yes-or-no voting. “ [14,](#IRV) [45,](#BallotScan) 56 So more members want to help carry out a 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](#Agenda1Ballot)  Secret ballots **reduce social pressure** and coercion.  Well-designed ballots and tallies **promote equality**:  Even busy or unassertive people can cast full votes.  36 |
| Complementing Consensus  Groups that seek consensus on basic agreements may vote on other issues: They may vote on a **detail** like a paint color or on a list of optional **projects**.  [**Fair Share Voting gives fair shares of power.**](#FairShareVoting) Inclusive yet fast, it won’t let one person block action.  It is cooperative, not consensual or 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.**](#Condorcet) A proposal must 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. (Unlike power tools, nice voting tools are free and easy.) 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](#RefClasses2INGOs) insights into [new](#RefClasses2INGOs) options.[[37]](#endnote-37) 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 |
| How You Can Try a Voting Tool  It’s easy to **test**-drive a decision tool in a survey. Or a council can form a committee of the whole to discuss, vote, tally and report results to enact by its old rules.  Many groups **adopt** a book of parliamentary rules; then they amend it with “special rules of order” to make their decisions more popular, [stable and](IV_In_Context) quick.[[38]](#endnote-38)  A_oldsteam A_mercedes  Steering Analogy  When choosing a voting rule, a new Mercedes **costs** little more than an old jalopy. That cost 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?](#Agenda1Ballot) [page 33](#Agenda1Ballot)     Some groups offer **apps to tally your votes**.       <https://AccurateDemocracy.com/z_tools.htm>  38 |

B[. Workshop Game](#Contents)s

**Get your hands on 4 great voting rules.**

**See how fair-share tallies organize voters.**

**Vote fast for projects, reps or policies.**



### A tally board has

**Bunting1RB a card for each voter,**

**Bunting1RB a column for each option,**

**Bunting1RB a finish line for the favorites.**

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| [1. Ranked Choice Voting to Elect](#IRV) One  Tabletop games 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** thisto eliminate all but one, the winner*!*  This **chart** shows four columns on a tally board.  The rule **eliminated** Anna, so **voter JJ moved** his card**.** Then Bianca lost; **BB** and **GG** **moved** to their backups. They were free to ch[oose different](#RefWorkshop) backups.[[39]](#endnote-39)   |  |  |  | | --- | --- | --- | | **Anna** **Eliminated 1st** |  | **Bianca** **Dropped 2nd** | |  |  | B B | |  |  |  | | J J |  | G G |   JJ ranks Anna 1, Celia 2. GG ranks Bianca 1, Diana 2. |
| |  |  |  | | --- | --- | --- | | **Celia** **RCV Winner** |  | **Diana** **Runner up** |   *Finish Line\_\_Finish Line\_\_Finish*   |  |  |  | | --- | --- | --- | | B B |  | Is this a CW? Not if DD, ZZ and CC rank Bianca 2nd.  Delete Last Loser. | |  |  |  | | J J |  | G G | |  |  |  | | M M |  | D D | |  |  |  | | L L |  | Z Z | |  |  |  | | V V |  | C C |   *The winner had no surplus.* *The last loser held 4 votes*. |
| Quiz on RCV to Elect One  **1**. How can your group use this voting rule?  **2**. A card you move counts just like others, True or False?  **3**. Ranking a backup can’t hurt your first choice, T or F?  **4**. Only 1 candidate can reach 50% plus a vote, T or F?  **5**. Name 4 cities or schools that use RCV. [*See page 62*](#Endorsements).  **6**. What benefits does it give them? [*See page 14*](#IRV).  **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 **RCV** and **PRCV.**  The [endorsements](#Endorsements) page lists some of the users. 🡫 Most of the groups tally their votes easily with apps.  2. **Fair Rep by Proportional RCV (PRCV)**  A tabletop game to elect three reps works like **PRCV**.  We set the **finish line** at 1/4 of the cards plus one. Don’t put your card on a column that is full.  One at a time, we **drop** the weakest candidate.  If your candidate loses, you can **move** your card.  Repeat until three candidates reach the finish line*!*  **Ask** the RCV questions above again for PRCV adding:  **4**. Can only three candidates each win 25% plus a vote? **7**. What total does a trio of reps win all together?  **Answers** *for PRCV:*  [*6) see page 16.*](#FairRepPR) *7) 75%.*            PRCV with a cost-aware tally gives us FSV. **🡥**  PRCV is also known as Single Transferable Vote, STV. 42 |
| [3. Fair Shares Buy Shared Goods](#FairShareVoting)  For our tabletop tally of [**Fair Share Voting (FS**](#FairShareVoting)**V)**  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’s 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 has several columns to fill. A column  here holds $3, so a $6 item needs two full 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 as [point](#GerrymanderBribes)-voting ballots do.)  p_clouds  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](#RefWorkshop) pop onto the columns.[[40]](#endnote-40)  It pops a tall card on the 1st column of each voter’s fave.  A shorter card pops onto each voter’s next column, etc. The poping continues until all of the cards are placed. After placing all of the cards, it drops the weakest column and r[estarts, rebuilding the remaining](#RefWorkshop) columns from zero.  43 |
| 4. Condorcet Tally Centers a Policy  To win a Condorcet tally, an item must top each rival, **one-against-one**. Two games show how it works.  1) A_In4c Flag L stands at our **center**, by the median voter. Flags J, K and M surround L, 2 m. or yards from it.  A_In4c 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 a **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) A_In4c Flag L has a ribbon 1 or 2 m. long and a longer rope.  A_In4c If the ribbon reaches to you, the ribbon policy gets your vote with its narrow appeal.  A_In4c 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 cluster?  **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?  *Normally: Rope. Center. Yes. Yes. No. Balanced.* 44 |
| Ranked Choice Ballots  A tally board might serve 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 in [**risk-limiting audit**](https://en.wikipedia.org/wiki/Risk-limiting-audit)**s** to catch [frauds and errors.[[41]](#endnote-41)](#RefWorkshop)  🗷 **Yes-or-no ballots** badly oversimplify most issues.  They often highlight only two factions: “us versus them” and can **polarize** a community.  **Bunting1RB 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.[[42]](#endnote-42)](#RefWorkshop)  **Party Menu 1** Fill only one ‘O’ on each line.  Best **Ranks** Worst  **lbs. Treats\* 1**st **2**nd **3**rd **4**th **5**th **6**th  **3 Almonds, Toasted** OOOOOO  **7 Apples, Honey Crisp** OOOOOO  **5 Apricots, Dried** OOOOOO  **6 Oranges, Navel** OOOOOO  **6 Peaches, White** OOOOOO  **6 Tangerines** OOOOOO  Which one wins by plurality? Hints: 5 sweets vs. 1 nut,  and the top name on a ballot gets [a 2% to 9%](#RefWorkshop) boost.[[43]](#endnote-43) Which wins by [Ranked Choice Voting or by Condorcet](#RefWorkshop)?6  We can vote for a party playlist, snacks, drinks and more. **Caution**: Ballots with many contests might use up the  mental energy a voter needs to vote in each contest.45 |
| 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** all 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 thus qualify for funding.  Adjusting Many Ongoing Budgets  Each year we reset the levels of 50 ongoing budgets. Some voters said **a long ballot** was too hard and slow. Now any**5**of us may propose a plan for these budgets. Most voters say it's easier to rank a few complete plans. This evaluates more than ranking every budget does:  A plan may help more or less than the sum of its 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 nicer to a majority than to others. 46 |
| Workshop Finale Notes  **It’s easy to give this workshop** in [a class or a](#RefWorkshop) club.[[44]](#endnote-44) In an hour, 20 voters can review plurality, try RCV, then try **PRCV** for [colors as shown](#RefWorkshop) below or **FSV** for treats:[[45]](#endnote-45)  **Eat the winners*!*** while you plan to take a poll for the central majority or fair shares, in a g**r**oup you know. What qualities do you want in this poll? ([See page 34.](#IndexMerits))  **Voter education** can be fun to do and it is essential. [**FairVote**.org](http://fairvote.org) has model ballots, voter-education flyers, videos, stories and much more to help your voters.  Here’s a fun **music video** [flip2020.wordpress.co](https://flip2020.wordpress.com/2020/10/16/why-maine-part-2-ranked-choice-voting/)m  Some groups offer **apps to tally your votes**.  There’s a list at [AccurateDemocracy.com/z\_tools.htm](https://AccurateDemocracy.com/z_tools.htm)  [IRV_by_MPR-org.png](https://www.youtube.com/watch?v=oHRPMJmzBBw)  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](#Compare3Councils) [are important](#RelatedReforms) for  the governance of schools, clubs, towns and more.47 |
| C[. SimElection Game](#Contents)s  2. [Watch Fair Rep Balancing](#STV) 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 cand](#RefSims)idate[.[[46]](#endnote-46)](#RefCostBenefit)  1 STVd1  Sim players position candidates to get votes ([page 56](#SimPolicy)). The numbers on a map show each candidate’s current share of the votes; 16.7% will win a seat and a halo! After this round of counting, the weakest candidate must lose and get an **X**. The 3**.**7% ⬥ will be the first to lose.  To make close rivals distinct, colors vary from a spectrum. 48 |
| The Weakest Lose, One at a Time  2STVd2 3STVd3  **X**  **X**  In map 2, the first loser gets an **X**. Her ballots change color and shape as each counts for its new top choice, 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 **moderates** or centrists inside that line.  4STVd4 5STVd5  **X**  **X**  [\* Pages 10](#Electing_a_Leader) and [13 introduced political dimensions](#IssueDimensions). 49 |
| Votes Transfer, Elect Reps  6STVd6 7STVd7  X  Pyramid AIn 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 its reps are diverse. More issues  and positions get represented in campaigns  and debates, then in policies and projects—in **3D**!  “RCV…gives you [proportionality on every](#RefSims) axis.”[[47]](#endnote-47) 🡘 🡙 ⭍  8STVd8 9STVd9  **X**  50 |
| A Diverse and Balanced Council  10STVd10 11STVd11  **X**  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.](#RefSims)[[48]](#endnote-48)  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?  12STVd12 13STVd13  **X**  *No. Over 83%. Yes. Yes.*  [*See page 55.*](#Compare3Councils)  51 |
| [3. Simulation of Fair Share Voting](#FairShareVoting)  **Fair Share Voting** helps voters self organize many  ad hoc groups big enough to fund their favorite items. Each voter may try to help a few groups give money  or labor space 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 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. This map shows a third issue dimension as deep layers of color within your screen.  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 his favorite color.  Here a garden club had $240 for 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 $20, a blue passion flower 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. Yes for sunflowers.* 52 |
| Campus Map  FS Map Pocket_q6_c4.png  Any big group can focus or spread out their spending.  The The **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. 53 |
| Contrast 3 Councils, Each Has 5 Seats  Bunting1RB 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**.  Dot2cList 2. The [*Condorcet*](#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.*  CFN96168bCMN96164Triangle al.pngDot3c 3. Fair Representation [by five-seat Proportional RCV](#STV)  elects Bev, Di, Fred, GG and Joe.  Each name is underlined.  It eliminated Al***!***  CFY96167CMY96176b  **X**  Notice Two Surprises  Bunting1RB 1. It may be surprising that broad Fair Rep helps the *central* *Condorcet* winner be [the council’s **swing voter**](#EnsembleCouncil). With these tools, political diversity can be a source of moderation as well as balance and a wide perspective.  Bunting1RB 2. *Central reps* can lead a broad Fair Rep council to **broader** **majorities**, holding moderates from *all* sides. This can add to or replace some of the “checks and  balances” used to moderate a council’s impacts. 🟋 54 |
| Well Centered and Balanced  An **Ensemble** council combines  the breadth and balance of Fair Representation with the centering of *Condorcet*.  **File Edit Window Organize Fund  Campaign**  Chart Cropped  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   push any rep to please a *central majority* of voters.  *Condorcet* does. 55  Ë |
| 4. Watch [Condorcet](#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 above 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*, as decribed on page 31](#Chairperson).    In contrast, PRCV requires the most intense support, first-rank votes, to avoid early [elimination. ● page 48](#III_Simulations_STV) RCV does too, with a high finish line of 50% + 1 vote.  56 |

|  |
| --- |
| 🞼 Back Matter  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** cost no more than elections. RCV strengthens reps and policies for many years.  Issue  Election  Reform  2024 2026 2028 2030  Campaign  **costs in green**, results in yellow.  Tyrants manipulate weak democracies.  Strengthen Votes ∴ Mandates ∴ Policies  RCV expands the base of power, the numbers of effective votes and voters supporting: Pages  **1.** [a **CEO** or](#IRV) a [**Chair** from a plurality to a majorit](#Chairperson)y 14, 31  **2.** [a **Council** from a plurality to over three quarters](#FairRepPR) 21  **3.** [the **Budgets** from a few power blocs to all voters](#FairShareSpending) 24  **4.** [a **Policy** from a one-sided to an overall majority.](#Condorcet) 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 |
| Voting Reforms Aid Related Reforms  **A top-four primary** then a Condorcet-RCV election puts a focus on four big candidates, with more hopes, fears and plans [than just two rivals](#RefLast) in a macho duel.[[49]](#endnote-49) [**Ranked Choice Voting**](#IRV)**, RCV,** opens up elections.  **A news firm** may serve us better if the subscribers steer more parts of it than investors or advertisers do. There’s a low-cost method for any membership group: [**Fair Share Voting**](#FSV) can reward the best news bloggers.  **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](#RefSims) donate.[[50]](#endnote-50) Such nameless gifts or [**FSV**](#FSV) can cut corrupt paybacks.   Big sponsors aim gifts to buy the few swing districts. [**RCV** and **Fair**](#RefSims) **Representation** [make that](#RefLast) harder.[[51]](#endnote-51)  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*](#RefClasses2INGOs) *Hansen[[52]](#endnote-52)*  **Good schools,** taxes and [voting may go](#RefLast) together.[[53]](#endnote-53) Schools build our group skills and political know-how.  **Sabbatical terms** make the current rep run against a former rep returning from rest, reflection, and [research.](https://en.wikipedia.org/wiki/Field_research) Then the candidates include two with records in the job*!* Two alike do not break apart a group that uses [**RCV.**](#IRV)  [**Citizens’**](#RefLast) **assemblies**[[54]](#endnote-54) and their referendums can get more choices and control by using [**Condorcet Tallies**](#Enacting_a_Policy)**.** The laws on voting rules, reps’ pay, sponsors, etc., need referendums as all reps have conflicts of interest. 58 |
| Civil Society Builds Democracy  Merchants and workers in medieval guilds won    some rights by building **group skills**, [unity and allies.](#RefClasses2INGOs) Now local councils, co-ops and schools can build skills.  Empirical thinkinggrew in the Age of Enlightenment, leading to [revolutions for **human**](#RefLast) **rights**.[[55]](#endnote-55) Now rights must include [Fair Representation](#FairRepPR) and [Fair Share Voting](#FairShareVoting).  A big need for workers has often raised their pay and political strength, thus the **political equality** in a society. [Now more progressive taxes[[56]](#endnote-56)](#RefLast) can help political equality.  Emigrate Ely Flower Bed n Panels sm  **Move to a more democratic place or group.**  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**](#RefLast) utilities?[[57]](#endnote-57)  CEOs may need to be [assertive, but not authoritari](#RefLast)an. That corrupts commerce and wrecks human rights.[[58]](#endnote-58)    How can voting rules **reduce the abuse** **of power**?  *Answers:* [RCV rivals act nice](#IRV)r. [Swing-voting reps moderate](#Compare3Councils).  [Fair Rep](#FairRepPR) and [FSV](#FairShareVoting) spread power. So do the [related reforms](#RelatedReforms).   But a [winner-takes-all](#Plurality) tally starts a bad pattern. 59 |
| Better Voting for Better Living  Data on the next page suggests, to elect reps who enact superb health, [education,](#RefLast) tax7 and other policies, a country needs effective, not wasted votes.  Does [**Fair Representation** elect more women? page18](#Germany) Do they tend to raise [health and education](#RefLast) results?[[59]](#endnote-59)  Can these lift low incomes and reduce violent crime?  Dovoter **turnouts** or seats won by **women** tend to be lower in countries with more: people? diversity? religion? polygamy? corruption? billionaires? militarism? hot days*!* pathogens Are those harder to change than the voting rules?  [FairVote](http://www.fairvote.org/) [IPU_logo](http://www.ipu.org) [http://www.haitilibre.com/images-a/g-9656.jpg](http://www.idea.int)  [WHO_Logo](http://www.who.int) [oecdlogo](http://www.oecd.org) [UN_Logo](http://www.un.org)  Data Definitions and Sources  Measures of respectable power and policies, circa 2016  [**Seats** avg. per election district; Inter-Parliamentary Unio](http://www.ipu.org)n  [**Women %** of main legislature; Inter-Parliamentary Unio](http://www.ipu.org)n  [**Turnout %** Int’l. Inst. for Democracy and Electoral Assistanc](http://www.idea.int)e  [**Health Rank** first is best; World Health Organizatio](http://www.who.org)n  [**Math Score** Program for Int’l Student Assessment, OEC](http://www.oecd.org/pisa/)D  [**Poverty %** of children below half of median income; OEC](http://www.oecd.org)D  [**Murder Rate** per million; 7th UN Survey of Crime Trends](http://www.un.org)  Scores weighted by population give a voting rule’s average.  The table’s **worst** numbers are in **bold**. 60 |
| **Country** **Women** **Health** **Poverty**%  **Seats** % **Turnout** **Math** **Murder**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | [**Fair Rep** page 1](#FairRepPR)6 | 37% | 75% | 15 | 503 | 13% | 12 | | [Sweden9 1](#Sweden)4 | *44* | 86 | 23 | 502 | 8 | 10 | | Finland5 13 | 42 | 67 | 31 | 548 | 4 | 15 | | Spain46 6.7 | 41 | 69 | 7 | 480 | **20** | 6 | | Norway5 8.7 | 40 | 76 | 11 | 490 | 5 | 5 | | Belgium 8.4 | 39 | 89 | 21 | 520 | 13 | 16 | | Denmark5 15 | 38 | 88 | 34 | 513 | 4 | 5 | | Netherlands17 150 | 37 | 80 | 17 | 528 | 10 | 5 | | Austria8.6 19 | 28 | 82 | 9 | 505 | 8 | 7 | | Switzerland8 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, MMP** p1](#NewZealand)7 | 36% | 71% | 26 | 505 | 9% | 11 | | [Germany 19,](#Germany) 1 | 39, 13 | 72 | 25 | 514 | 16 | 11 | | [New Zealand 50,](#NewZealand) 1 | 45, 15 | 77 | 41 | 500 | 15 | 9 | | [**PRCV**,](#STV) [**RCV**](#IRV) [p42](#STV),14 | 34% | 89% | 29 | 517 | 14% | 11 | | Australia 6, 1 | 38, 25 | *93* | 32 | 520 | 15 | 10 | | Ireland4.6 4 | **15** | 70 | 19 | 501 | 10 | 10 | | [**Runoff** page 1](#WastedVotes)2 | 27% | 60% | 1 | 496 | 11% | 12 | | France 1 | 27 | 60 | 1 | 496 | 11 | 12 | | [**Plurality** page](#Plurality) 6 | **21**% | **58**% | **34** | **486** | **19**% | **42** | | Canada 1 | 26 | 68 | 30 | 527 | 15 | 17 | | United Kingdom 1 | 29 | 66 | 18 | 495 | 10 | 12 | | USA 2020 2022 1 | **24**, 25 | 60, 47 | 37 | **474** | **21** | **50** |   [AccurateDemocracy.com/d\_stats.htm](http://accuratedemocracy.com/d_stats.htm) will add data on: [Corruption](https://www.transparency.org) at transparency.org; [Democracy Index](https://www.eiu.com) at eiu.com;  [Freedom](https://freedomhouse.org) at freedomhouse.org, Social trust, and Peace.  U.S. turnout rises ~15% in presidential years. 61 |
| Why Support Accurate Democracy?  Data on the previous page suggests, to elect reps who enact superb health, [education,](#RefLast) tax7 and other policies, a country needs effective, not wasted votes.  Like science, A good democracy develops, improving itself, the quality of social agreements and the society and services. It tends to boost **peace** in a diverse society and world.  [AccurateDemocracy.com/d\_stats.htm](http://accuratedemocracy.com/d_stats.htm) soon will add data on [Corruption](https://www.transparency.org) at transparency.org; [Democracy Index at eiu.com](https://www.eiu.com);  [Freedom at freedomhouse.org](https://freedomhouse.org/), Social trust, and Peace.  Why Support Democracy? DRAFT  *"Democracy is broadly understood to mean ‘rule by the people’.* https://ourworldindata.org/democracy  *In practice, it is often defined as people choosing their leaders in free and fair elections.*  *Other definitions go beyond this. For example, some of them see democracy as people having additional individual rights and being protected from the state.*  *Democracy gives citizens the right to influence important decisions over their own lives and allows them to hold their leaders accountable.*  *But it can have other benefits too: democratic countries seem better governed than autocracies, seem to grow faster, and foster more peaceful conduct within and between them.* <https://ourworldindata.org/democracy>  [See pages 27](#FairShareMerits), [33-35](#IndexMerits) 62 |
| Some Questions to Ask  **Some basic questions to ask about any voting rule:** Has any group used it repeatedly over several years?  How consequential and competitive was their voting?  What were the percentages of turnouts and of wasted votes?  **What incentives does it give to voters and leaders?** Is its pattern of winners erratic or consistent over the years?  If it is consistent, is the pattern fair shares or winner takes all?  If winner takes all, is the winner from [one side or the center](#Chairperson)? If it is from the center, is the winner’s appeal [wide or narrow](#CondorcetMap)? How often was it manipulated by a [gerrymander](#GerrymanderBribes), a “spoiler,” a [stacked agenda](#Agenda1Ballot), strategic voting, or [other rigged votes?](#GerrymanderBribes)  **Some basic questions to ask about voting-rule research**: Are the data from: 1) Real competitions, 2) Computer sims with: A) normal distributions of voters and candidates B) weird distributions, 3) Concocted examples, 4) Mathematical proofs. Only the first really includes human psychology. Most sources [cited](#RefIntro) here **use** **real data** or realistic simulations. Other kinds of data risk “garbage in, garbage out” and may be fascinating mathematically but misleading in real-life.  [**Manipulation is best resisted**](#RefPolicy) **by** [**Condorcet-RCV hybrids**](#Condorcet). They’re even [better than the usual RCV.4.2](#RefPolicy) Any decisive,  non-dictatorial voting rule can be manipulated sometimes.  So the operant questions are, 1) How often can each rule be manipulated in a realistic electorate? 2) How easy is the manipulation? and 3) How damaging is its effect?  **Why do this work?** To help the most people, give them tools to make better group decisions, to [allocate resources](#IV_In_Context) and to reduce conflicts,[page 35](#IV_In_Context). The multiplier effects are huge as a small budget for voting can steer much bigger budgets. That’s why many schools, clubs and towns are adopting RCV. 🡪  But can rules reduce battles of birthrates or indoctrination? 63 |
| Some Users and Endorsers  [**1. Ranked Choice Voting (RCV)**](#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, GWU, Reed, UCSC, Vassar, the Universities of Auburn, Auburn, CA, Houston, IA, IL, MA, MI, MN, [NC, OK, TX, VA, WA,](#RefLeader) WY.[[60]](#endnote-60)  [**2. Multi-Winner**](#FairRepPR)[**Proportional RCV**](#STV) **elects a whole council**  in Cambridge Mass, in Portland Maine and Portland Oregon; plus colleges such as Carnegie Mellon, Clark, MIT, Oberlin, UC Cal, UC Davis, UCLA, UCSB, UT Austin, and Vassar.  For decades, Australian and Irish voters have used  Ranked Choice Voting in local and national elections.  **Many groups endorse ranked choice voting.**  Organizations: The Academy Awards (Oscars), [AAAS](https://www.amacad.org/ourcommonpurpose/), Common Cause, Sierra Club, UUA; for more see link below.  Leagues of Women Voters: : AZ, CA, FL, ME, MA, MN, NC, OR, SC, VT, WA, and more  National Newspaper Editorials: [New York Times Sunday](https://www.nytimes.com/2018/06/09/opinion/ranked-choice-voting-maine-san-francisco.html), USA Today, Washington Post; Recent regional editorials: Portland Press Herald, Las Cruces Sun News.  Journalists: [David Brooks](https://www.nytimes.com/2018/05/31/opinion/voting-reform-partisanship-congress.html), [Hendrik Hertzberg](https://www.newyorker.com/news/hendrik-hertzberg/i-r-v-for-dummies).  Celebrities: Krist Novoselic, [Jennifer Lawrence](https://www.facebook.com/rcvmaine/videos/2098211286875016/), John Cleese, Dr. James Hansen, and more  US Senators: McCain, Obama, Sanders, and more  US Reps: Keith Ellison, Jamie Raskin, Don Beyer, and more  Parties: **Democrats** of CA, CO, MA, and ME; Green Party US Libertarian Party, **Republicans** of Alaska, UT, VA, and more  fairvote.org/our-reforms/ranked-choice-voting-information/ 64 |
| About Us  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.  About My Work  In 1990, John [Chamberlin and Samuel Merrill](#RefLeader) each encouraged me to use their statistical simulation research, cited on [page 67](#RefLeader), to support a hybrid Condorcet-RCV tally. ([See page 30](#Condorcet).) In the 1990s, I coded [*PoliticalSim*™](http://www.politicalsim.com) and [*SimElection*](http://simelection.com)™.  They compared 30 single- and multi-winner tallies and were used in a few universities. [(See pages 48‑56](#III_Simulations_STV).)  My sim research led to [*Democracy Evolves*](https://web.archive.org/web/19991023011241/http:/members.aol.com:80/loringrbt/a_intro.htm)[[61]](#endnote-61) in 1997. Then I helped [FairVote](http://www.fairvote.org) as its webmaster and librarian. For over ten years, I’ve advised some groups developing the use of successfully tested Fair Share Voting. ([See pages 24](#FairShareVoting), 43 and 46.) This eBook summarizes [AccurateDemocracy.com](https://AccurateDemocracy.com)  **Goals:** Make excellent policies. (See [pages 9](#Progress4Democracy) and [61.)](#Stats) Give strong incentives to cooperate for better harmony, even in diverse communities. ([See 24](#FairShareVoting), 27, [33](#Condorcet)-35, [54.)](#Compare3Councils) 65 |
| Copyrights  ***N€w* *N¥w***  ***New Tools***  ***N₤w* *N$w***  **\ /**  We feel this **information** should be free. So we give it a Creative Commons License, make this eBook free and print a few $10 copies.  **\ /**  Please let others **share** this to improve  voting in your clubs, college, city and state*.* What will you do or give to live in a more  educated and accurate democracy?  [Consider helping](https://www.fairvote.org/donate) [**FairVote.org**](mailto:%20FairVote%20info@fairvote.org )  **| |**  Photo **credits** and thanks to: Rawpixel, cover;  Voters Reflecting on “Freedom Day”, Adrian de Kock, title page, Cape Town SA, 1994; Kiichiro Sato, page 5; Mercedes-Benz, page 38;  Wikimedia, page 43; Minnesota Public Radio, page 47; Flickr pool, Local Living Venture, page 59.  **| |**  © CC BY-SA 3.0 2024, Robert B. Loring AccurateDemocracy and its logo are trademarks.  We encourage [reviews](#Endorsements), [reprints](https://www.accuratedemocracy.com/z_prints.htm) and [translations](https://www.accuratedemocracy.com/p/a_primer_es_ed2.pdf). ISBN 9978-1-7362637-2-3  **/ \**  Kindly send any requests, questions,  comments or compliments to me at |

1. [Endnotes by Chapte](#Contents)r

   For each chapter, the endnote numbers restart at one. Good pdf viewers let you click on each entry’s Web link. I abbreviate and format as needed to fit the page width. 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**](#EnsembleCouncil), [**Fair Share Voting**](#FairShareVoting) and rules of order for [**Condorcet** **policies**](#Agenda1Ballot)

   It covers some [**AccurateDemocracy**.com](https://accuratedemocracy.com/a_workshop.htm) (ⓐ) pages including [a\_primer.htm](https://accuratedemocracy.com/a_primer.htm) [a\_workshop.htm](http://accuratedemocracy.com/a_workshop.htm) [d\_stats.htm](https://accuratedemocracy.com/d_stats.htm). The website has *free apps* [z\_tools.htm](https://accuratedemocracy.com/z_tools.htm), animations [d\_stv2d.htm](https://accuratedemocracy.com/d_stv2d.htm) or [p\_tools.htm](https://accuratedemocracy.com/p_tools.htm), and Web links [z\_bib.htm](https://accuratedemocracy.com/z_bib.htm)

   [**FairVote.org**](http://fairvote.org) has model ballots and bylaws, stories, research reports, [voter-education](http://www.fairvote.org/rcv_activist_toolkit) videos and more.

   The RCV Resource Center [rcvresources.org](http://www.rcvresources.org/) has more.

   [**A. Voting Primer**, Tragedies](#I_Voting_Primer), and Progress

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    a [**Plurality** option has the most votes – often not a majority.  
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