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| Accurate  Democracy  ***Pass it Along***        ***4 Great Tools in***          ***Games, Graphics & Song***  Cvr43wide.png |
| “[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 voting rules are [fast](#Agenda1Ballot), [easy](#IRV) and [fair](#FairRepPR).  They help groups from [classrooms](#Electing_a_Council) to [countries](#NewZealand).  The results are well centered and widely popular.  They strengthenthe votes supporting  $ $  $ $  [one chairperson or policy](#Condorcet) and  **1**  fair shares [of seats](#Electing_a_Council) or [$pending](#FairShareSpending).  **to Use and Enjoy**  **Share** this illustrated eBook with friends. **Grow** support in your school, club or town.  **Enjoy** better [politics](#IndexMerits), [relations](#Relationships) and [policies](#Stats).  by Robert Loring |
| Contents  **1**  $ $  $ $  Here are **three ways** to learn **four** voting tools  that are inclusive, yet centered, quick and easy  **I. [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 [Instant Runoff 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 **★** 35](#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  **II**[**. Workshop Games** let us be inside the](#II_Workshop) **four** [tallies](#II_Workshop)  and maybe eat some winners***!***  [1. **Leader**, 2. **Reps**](#STV)**,** [3. **Budgets**,](#WSbudgets) [4. **Policy**](#WScondorcet) ***New!*** [39](#II_Workshop)  **[III. 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**,](#End_Matter) [Voting reforms aid others](#RelatedReforms) **🟋**  [58](#V_End_Matter)  Bunting1RBCountries with Plurality, **Runoffs**, [or **Fair Rep**  6](#Stats)0  Bunting1RB [About Us](#AboutUs)[, ©,](#Copyright) [Endnotes](#Notes), [Index & Glossary](#Glossary_Index_Refs)  [62](#V_End_Matter)  Bunting1RB **Music** video at[flip2020.wordpress.co](https://flip2020.wordpress.com/2020/10/16/why-maine-part-2-ranked-choice-voting/)m |
| I[. Voting Prime](#Contents)r  Two of Many Tragedies  **Old ways of adding up votes** **fail** to represent large groups in many places. In the USA, North Carolina had enough Black voters to fill up two election districts. But they were a minority spread out over eight districts. So for over 100 years, they won no voice in Congress. [As voters, they were silenced](#RefIntro)—with [tragic results](#RefIntro).[[1]](#endnote-2)  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](#RefIntro), [and back](#RefIntro) again.[[2]](#endnote-3)  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-4) 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, Rules and Councils  In the 19th Century Winner-Take-All Districts 🡪 Off-Center Councils    $ $ $ Policies $ $ $  Typical Council Elected By Plurality Rule  Some English-speaking countries still count votes by England's old **plurality 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-5) It gets worse: a district's bias often makes it a “safe seat,” a captive audience for *one* party. So, this voting rule gives its voters either a very limited [choice or **no real choice**](#RefIntro).[[5]](#endnote-6)  A few who do get choices can make a council swerve from side to side. Its majority (🚹above) sets all budget$ and policies—in another battle of **winner takes all**.  6 |
| In the 20th Century Fair-Share 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-7)  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 it enacts **policies skewed toward its side**.  7 |
| In the 21st Century Ensemble Councils 🡪 Balanced Majorities      $ $ $ Policies $ $ $  Council Elected By Central And Fair-Share 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 a rule can elect a rep with wide support and views near the [center of the voter](#RefIntro)s.[[7]](#endnote-8) 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 |
| |  |  |  | | --- | --- | --- | | 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-9)  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.  Nine voters spread out along an issue.    High taxes buying Low taxes buying  great gov. services poor gov. services  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 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?  *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, for the reps, budgets and policies,       support and speed action to achieve 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 rule with   more 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?  Runoffs practically ask, “Which ***side*** is stronger?” Later, these voters will use another voting rule to ask, “[Where is our *center*?](#CondorcetMap)” And a bigger group will use  a rule to ask, “Which trio best represents *all* of us?”  In a runoff, the top two compete one against one.    Four **wasted** votes. Candidate **M wins** a runoff.  *Answers: No, each voter has one vote in each tally.  Yes, five votes. Yes. Yes, a majority mandate. Yes, a majority mandate.* 12 |
| Politics in Two Issue Dimensions  When [more issues (or identities) concern the voters,  a voting rule keeps its character.](#RefLeader)[[9]](#endnote-10)  This photo shows voters choosing positions across two issue dimensions: left to right plus up and down. A person's position on the first issue does not help us guess their position on an independent issue.  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.  13 |
| The goal of Instant Runoff Voting is this:  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 Instant Runoff Voting, IRV  **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.  **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.[[10]](#endnote-11)](#RefLeader)  **More civility** [and](#RefLeader) consensus[[11]](#endnote-12) arise as candidates 🡭 ask a rival’s fans for their [backup votes.[[12]](#endnote-13)](#RefLeader), 6 🡭  [\*Pages 33](#Agenda1Ballot) and [46 show ballots](#BallotScan). 14 |
| Instant Runoff 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 killig of pro-democrac[y demonstrators.[[13]](#endnote-14)](#RefLeader)  A voter’s backup is often like his favorite, but more popular. So by dropping one reformer, IRV might well have elected the stronger one with a majority.    1 2 3 4  **From five factions 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 IRV, then plurality rule for 27 years; ethnic violence increased.  They changed back to IRV [and the violence](#RefLeader) decreased.[[14]](#endnote-15)  🡭 Irish and Australian voters have used it for decades. They call it the Alternative Vote or Preferential Vote. In the USA, groups call it Ranked Choice Voting, RCV. The [endorsements](#Endorsements) page lists many groups using it. It may be helping women [achieve parity in](#RefLeader) politics.[[15]](#endnote-16)  [The workshop’s IRV game starts on page 39.](#II_Workshop) 15 |

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| 2. [Electing Representative](#Contents)s  Three Single-Member Districts  A class of 27 wants to elect a 3 member committee. Someone says, “Elect a rep from each seminar section. You need support from just 5 voters to win a seat.”  PV_d_mmMmmmmm  **Sectionİ** **One**  1 vote  **wasted** on a loser  8 M votes; 3 are **wasted** in a surplus  PV_cCccc_kkKk  **Sectionİ** **Two|**  5 C votes elect a rep  4 K  votes **wasted** on a loser  PV_bbBbb_jJjj  **Sectionİ** **Three**  5 B votes elect a rep  4 J  votes **wasted** on a  loser  ▶ An 11 voter minority gets 2 reps; that’s majority power. But with 3 or 4 voters in each section they’d get no reps. It can waste many votes so it’s erratic and easy to rig. 16 |
| **One Three-Member** District  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. You need support from 7 voters to win a seat.  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  M wins; her surplus helps each voter’s backup  **All 3**  sections together  **🞦**  **8 voters rank M > K > J.**  PV_cCccc_kkKk  5 votes help elect C  4 votes help elect K  **🞦**    **6 rank C > B.**  PV_bbBbb_jJjj  B loses; these backup choices  help elect C  J loses;  these backup choices help elect K  **K**  **C**  **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. 17 |

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| The principle of Fair Representation is:  Majority rule by representing the groups in proportion to their voters.  That is, 60% of the vote gets you 60% of the seats,  not all of them. And 20% of the vote gets you 20% of  the seats, not none of them. These are **fair shares**.  How does it work? There are three basic ingredients:  We elect more than one rep from an electoral district.  You vote for more than one; you vote for a list. You pick a group's list, or you list your favorites.  The more votes a list gets, the more reps it elects.  Why Support Fair Representation, Fair Rep  **Fair shares** of reps go to the rival groups so **Diverse candidates** have real chances to win so Voters have **real choices** and **effective** **votes** so [**Voter turnout** is strong](#RefReps).[[16]](#endnote-17)  **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-18)  Many people call this Proportional Representation, PR.  18 |
| 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](#RefReps).[[18]](#endnote-19)  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. They call this 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 Maoris 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-20)  19 |
| Why It Elects More Women  **New Zealand and Germany** elect half of their MPs  in Single-Member Districts and half from Fair Rep lists.  Theirs is the best rule to elect a parliament, some say.[[20]](#endnote-21) 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 party in a Single-Member District, is from the dominant gender, race, religion, etc. So SMDs often lead to poor representation of others.  Fair Rep leads a party to nominate a **balanced team** of candidates to attract voters. [This promotes](#RefBudgets) women.[[21]](#endnote-22) 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 their own side, so it likely loses. But Fair Rep gives every big party its share of seats.  This credible threat made a big 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](#RefBudgets) won.[[22]](#endnote-23) Now they are incumbents with experience, power and allies.  20 |
| 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** requires more equal votes per rep. [(page 15)](#Electing_a_Council) So each majority of reps *does* stand for most voters, producing **policies** [**closer to public opinion**](#RefReps).3  *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**.  Councils with fewer women tend to do less for health care, childcare, education and [other social](#RefBudgets) needs.[[23]](#endnote-24) Then the poorest schools and clinics are a **blight**; so are citizens and workers hurt by poor health or education.  If such urgent needs overwhelm us, we neglect the  essential need to reform their **structural source**:   We often get poor results from poor policies due to  poor representation largely due to poor voting rules.  The countries with the best voting rules give the best **quality of life**, as measured for [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.  The [Fair Rep games](#II_Workshop_Games) and [sims will show](#III_Simulations_STV) more.  21 |

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| 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 even occur in many groups with no elections.  The members of clubs, co-ops, colleges, grant givers and more can enjoy the merits of Fair Share Voting.  Fair Representation distributes council seats fairly. Likewise, votes can distribute some funding fairly.  **Democratic rights progress.** Each step is more fair, thus accurate, responsive, widely supported and strong.  **✓** Voting by rich men, poor men, Black men, women  Fair Representation of all big political groups  Fair Share Voting by big groups of voters or reps    **$** $ $ $ 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 and it tends to raise a community’s [health and educa](#RefBudgets)tion.[[24]](#endnote-25)  In 2010, a Chicago alderman g[ave $1,300,000 to](#RefBudgets) PB.[[25]](#endnote-26) But a plurality rule made the votes and **voters unequal**. For example, in 2011 each vote to help a park won $501. That was its cost divided by its voters. But if cast for bike racks, each vote won a mere $31. That's too unfair. Even worse, most of the votes were [wasted on loser](#RefBudgets)s.[[26]](#endnote-27)  **✓✓**  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-28)  A voter’s PB share is sometimes over $1,000. 23 |
| The principle of Fair Share Voting is:  Spending power for groups,  in proportion to their voters.  So 60% of the voters can spend 60% of the fund, not all of it. Your ballot’s share from the fund lets you vote to pay your shares of the costs for your favorite items.  Voting is easy: simply rank your choices, [like in IRV](#IRV).  Your ballot pays one share 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.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.](#RefBudgets)  So, a ballot's money can help more low-cost items. This motivates a voter to give his top ranks to the items he feels give **the most joy per dollar**.  See RCV [points 1 and 3](#IRV) on [page 14](#IRV). 24 |
| 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 that money can buy a high priority of another big interest group, adding more to their happiness.  **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.  **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.  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 and let rival items **split** it, as [seen on page 16](#Electing_a_Council). The biggest groups often have the highest risks.  **FSV protects a majority’s** **right** to spend a majority of the fund. It does this by eliminating split votes, [as did IRV,](#IRV) and surplus votes, as [we’ll soon see](#BudgetLevels).  25 |
| 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  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 concur, this cost  is a high priority within my budget.**  A group with 100 members set our **base** number at 25 votes.[[28]](#endnote-29) 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; so it’s **like federalism** but without new layers of laws, taxes and bureaucracy. And it funds a big group even if they are scattered.  Each big group controls only its share of the fund. This reduces their means and motives for **fighting**.  **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 ease starvation budgets that damage projects. This makes project management more **efficient**.  A voter can see grants from his rep to some project,  tax or debt changes, then hold her **accountable**.  In games, we may vote for treats and eat the winners*!*  27 |

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| 4. [Enacting a Pol](#Contents)icy  Condorcet Test Number Two  [The Runoff on page 12 was a one-against-one contest](#WastedVotes) between the positions of candidates M and K. Five voters preferred 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.  Candidate L wins by five votes to four. 5 > 4  Each person votes once with a ranked choice ballot. [Pages 33 and](#Agenda1Ballot) 46 show two different kinds of ballots.  A workshop page shows a pairwise tally table.  And a simulation map shows 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 6 to 3. 6 > 3  She has won majorities against each of her rivals. So she is the “**Condorcet winner**.” L > M. L > K.  “…such a mandate is no doubt a vital ingredient  in the subsequent [career of the win](#RefPolicy)ner.” [[29]](#endnote-30)  [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 19](#NewZealand). But is it likely to elect diverse reps, yes or no?  It can sellect [the base number for **FSV**, see page 26.](#BudgetLevels) But is it likely to spread spending fairly, yes or no? Does a PM mostly moderate or advocate, and a CEO?  **1**  Here is the center.    L has six votes. M has three.  *Answers: L. No. No. Discuss this.* 29 |
| The goal in a Condorcet Tally is this:  Majority victories, over every single rival.       The winner must top every rival, **one-against-one**.  The sports **analogy** is a “round-robin tournament.” A player has one contest with each rival. If she wins all her tests, she wins the tournament.  Each voting test sorts all the ballots into two piles. If you rank option *A* above *B*, your ballot goes to *A*.  The option that gets the most ballots wins this test. If one wins all its tests, it wins the Condorcet Tally.  In a rare “voting cycle” *A*>*B, B*>*C, C*>*A*.  Then we can [use IRV to break](#RefPolicy) the tie.[[30]](#endnote-31)  *A B*  *C*  **Why Use a Condorcet Tally, CT**  **No split-vote** worries as duplicates don't help or hurt [each other](#RefPolicy).2b The ad hoc majority ranks *all* of their favorites over the other options. Their top one wins.  **Choice ballots**: rank the related options on one ballot. **Simplify** the old rules of order and **speed up** voting. **Reduce agenda effects**, from simple errors and **gridlock**, to “free-rider” and “[wrecking” amendments.\*](#Glossary_Index_Refs)  **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.  \* [See pages 33](#Agenda1Ballot) and [68.](#Glossary_Index_Refs) 30 |
| 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 a **CT** candidate 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](#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 center **and left** 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*!"*  **✓** Where is our center?  **Chairs with Balanced Support**  **CT** can elect a chairperson and vice chairs to be the **swing voters** in [an **Ensemble Council**](#EnsembleCouncil), as pictured on [pages 8](#EnsembleCouncil) [and 54.](#Compare3Councils) The broad base of support they need to win their CT election gives them strong incentives to help the council balance its process and policies.  **IRV** has slightly different effects, [incentives and](#RefPolicy) uses.[[31]](#endnote-32)  Games will put us inside each tally to feel how it works.  31 |
| Resist Rigged Votes  By **plurality** rule, candidate M los[t on page 11](#Mandate). Now let's say her party **gerrymanders** the borders of her election district. It adds in 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 a less central candidate who might [**polarize** the](#RefPolicy) council.[[32]](#endnote-33)  But this gerrymander didn’t change the **CT** winner, L. So policies stay stable and take big swings less often.  Many wasted votes often can expose gerrymanders; **Fair Rep** [reduces](#RefPolicy) both,[[33]](#endnote-34) as shown on [pages 16 and 17](#Electing_a_Council).    3 rank K>L>M. 2 rank L>M>K. 4 rank M>L>K.  To steal a CT or IRV seat via ads, bots and news stories, I must **mislead** a majority, not just a plurality.  And my gifts to the other side’s “**spoilers**” fail to split it.  Foul **manipulations** of plurality rules are not rare. And point voting invites extreme high and low votes, as voters worry, “Do my lower choices hurt my top choice?” But a chance to manipulate **IRV** or **Condorcet/IRV** in a real election is [rare, risky and hard.2](#RefPolicy) So you don’t need to worry about your own or other voters’ tactics. 32 |
| A Less Rigged Agenda  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**.  **Rigged votes** often build bad policy and animosity. To reduce these risks, let the voters [rank more](#RefPolicy) options.[[34]](#endnote-35)  Ballot On Issue A  **Rank Option** 1 2    3  Continue Discussion    2  Original Bill, the main motion    1  Bill with Amendment 1 [(a free rider?)](#Glossary_Index_Refs)    8  Bill with Amend. 2 [(a wrecking amend.?)](#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?)  T[he “Incidental Motions” do not wait for the ballot](https://accuratedemocracy.com/l_motion.htm), [*e.g.*](https://accuratedemocracy.com/l_motions.htm) a personal complaint or request. 33 |
| Summary and Index of Benefits  Ranked Choice Voting has proven to pages  **Make voting easy** and more often [effectiv](#End_Matter)e. [**14**,](#IRV) 57 Give you power to rank a backup [choice; so 33](#Agenda1Ballot), 46 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)-17, [57](#End_Matter)  [**Reduce** **attack ads** that scare, anger and polarize. 14](#IRV) **Weaken** [**gerrymanders**](#GerrymanderBribes) [and spoilers](#IRV). [14](#IRV), 16, [32](#GerrymanderBribes)  **Give** **fair shares** of reps to the [rival groups; so **18**](#FairRepPR) Give diverse candidates [real chances to win; so 20](#Germany) Give voters real choices [and effective votes; so 17](#Electing_a_Council) **V**[**oter turnout is stronger.** 61](#Stats)  [**Elect women** two or three times more often; so **20**](#Germany) Accurate majorities win–[also due to more: choices, 17](#Electing_a_Council) turnout, effective votes and [equal votes per rep; so 21](#EqualReps) **Policies match** **public opinion better**. [21](#EqualReps), 60  Related Legislative Rules can  New  [**Elect a central chair** whose](#Chairperson) swing vote pulls [**31**](#Chairperson), 56 reps from many factions [to **moderate policies**.](#EnsembleCouncil) 8, [54](#Compare3Councils)  **Give** [**Fair Share Voting** for projects, savings, etc. **24**](#FairShareVoting) Let v[oters see each rep’s FSV **spending**.](#FairShareMerits)  27  [**Reduce** **agenda effects** and scams](#Agenda1Ballot). [27,](#FairShareMerits) 30, [**33**](#Agenda1Ballot), [36](#Consensus), [54](#Compare3Councils) **Streamline group decision making.** 27, 33, 36  34 |

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| ★ [Social Effects and Use](#Contents)s  These Are Tools Between People  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 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 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 and hap](#RefClasses2INGOs)piness[.[[35]](#endnote-36)](#RefCostBenefit) Voting is an exemplary tool between people.  35 |
| Consensus and Voting  Group decision-making has two linked processes.  A **discussion process** may have an agenda, a facilitator some reports and proposals. Plus the members may suggest some questions and changes for each proposal.  A **decision process** asks all members which proposals have enough [support to be winners.[[36]](#endnote-37)](#RefClasses2INGOs)  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**](#Agenda1Ballot) let us decide someclosely-related [options at the same time.](#Agenda1Ballot) Both reward [blending compatible ideas. pages 9](#Progress4Democracy), [31](#Chairperson) They’re [less divisive than yes-or-no voting. p. 14](#IRV)[, 45, 56](#BallotScan) So more members want to help [carry out the decision](#Chairperson).  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 bunch 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 weighs dozens of desires, of varied cost and priority, from dozens of intersecting groups. We may modify our FSV results through our usual process.  [**All majorities prefer the Condorcet winner.**](#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 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. (Unlike power tools, nice voting tools are [free and easy](#Cost_Benefit).) The power tools speed cutting through piles of boards or issues, and cutting through a steel-hard one. The high-touch tools help us discover and [develop](#RefClasses2INGOs) insights into [new](#RefClasses2INGOs) options.[[37]](#endnote-38) So most of us want both kinds of tools.  This primer told the *stories* of the best voting tools. The games will let us *touch* 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 vote, tally and report results to enact by their 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](#RefClasses2INGOs) quick.[[38]](#endnote-39)  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 organization have an 1890 voting rule or a new, centrally balanced rule?     Many groups offer **apps to tally your votes**.       <https://AccurateDemocracy.com/z_tools.htm>  38 |

II[. 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,**

**A finish line for the favorites.**



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| [1. Instant Runoff Voting Elects](#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-40)   |  |  |  | | --- | --- | --- | | **Anna** **Eliminated 1st** |  | **Bianca** **Dropped 2nd** | |  |  | B B | |  |  |  | | J J |  | G G |   JJ ranked Anna > Celia. GG ranked Bianca > Diana.  40 |
| |  |  |  | | --- | --- | --- | | **Celia** **IRV 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*. 41 |
| Instant Runoff Quiz  **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 IRV. [*Endorsements*](#Endorsements)  **6**. What benefits does it give them? [*See page 14*](#IRV).  **Answer** questions 1, 2 and 3 for each voting rule.  **2)** *True, we count each card once in each round.*  **3)** *True, a backup doesn't count unless your 1st has lost.*  **4)** *True, two reps would need over 100% of the votes.*  **🡭**  **🡬**  Ranked Choice Voting, **RCV**, includes **IRV** and **STV**  The [endosements](#Endorsements) page lists some of the users. **🡯** Most of the groups tally their votes easily with apps.  2. Fair Rep by Single Transferable Vote  A tabletop game to elect three reps works like **STV**.  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*!*  **1**. What [benefits does Fair Rep by STV give them](#FairRepPR)?  **2**. Can only 3 candidates each win 25% plus a vote?  **3**. Added together, what total must a trio of reps win?  [*STV answers: See page 18.*](#FairRepPR) *Yes. 75% + 3 votes.*  42 |
| [3. Fair Shares Buy Shared Goods](#FairShareVoting)  For our tabletop tally of [**Fair Share Voting (FS**](#FairShareVoting)**V)**  We each get three 50¢ voting **cards** to buy treats.  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 must fill several **columns**. A column here holds $3, so a $6 item must fill two columns.  ⇨ Rule B lets you vote an average 50¢ card, a short 25¢  and a tall 75¢ to let you help your top choice more. Four eager voters can fill a column.  p_clouds  When an item wins, the treasurer hides its cards. We **drop** items that cost more than all the cards left. Then, one at a time, we drop the least popular item, the one with the lowest level of cards in its columns.  **Move** your cards from a loser to your lower choices.  **Stop** when we’ve paid up all items still in the game.    Only a few items can win, but all voters can win*!*  Rule C *software* has 60¢ ‘columns.’ (A $3 item now fills 5.)  It gives 17¢ to the first column of each voter’s favorite. Every voter’s next column gets 16¢, etc. to a round of 3¢ ‘cards.’ A ballot’s cards average 10¢ but still total $1.50. 43 |
| Setting Budget Levels  A budget level needs enough cards to pay its cost. A $3 bag of apples needs its voters to fill one column; a $6 size just needs some voters to fill one more.  I can’t afford to help items I rank below a **costly** **item**. Some of us might rank it high only at low-budget levels. This leaves money in our ballots to help more favorites get [the base number of votes](#FairShareVoting) and so qualify for funding.      **Similar options**, like 🡩 various fruits for treats  (or trees for a park 🡪) may split their voters;  so, by plurality rules, / \ they may lose to a plain nut*.*  Adjusting Ongoing Budgets  Levels for all of the ongoing budgets can make a ballot too long and hard for many voters. So instead of FSV, any 5 members may offer an ongoing-budgets plan. Most voters feel it is easier to rank these few plans.[[40]](#endnote-41)  A **Condorcet Tally** picks a plan; it is coherent and has majority support, but it might not be fair to some groups.  A management team’s plan won every year . Voters complained, “My ballot had no effect!” Turnout fell.  So now that team may present a few plans. 44 |
| [4. Condorcet Tally Centers a Polic](#Condorcet)y  To win a Condorcet tally, an item must top each rival, **one-against-one**. Two games show how it works.  1. A_In4c Flag C stands at our **center**, by the median voter. Flags A, B and D surround C, 2 m. or yards from it.  A_In4c We asked 9 voters, “Are you closer to A than to B? If so, please raise a hand.” Only one raised a hand. We entered A vs. B, etc. in a **pairwise table** below.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **against** | **A** | **B** | **C** | **D** | | **for A** | — | 1 | 3 | 4 | | **for B** | **8** | 8+1=9 | 4 | **5** | | **for C** | **6** | **5** | — | **5** | | **for D** | **5** | 4 | 4 | 4+5=9 |   **The nine voters gave C a majority over each rival.**  2. A_In4c Flag C has a short Red ribbon and a long Blue one.  A_In4c If the Red ribbon gets to you, the Red policy gets your vote with its narrow appeal.  A_In4c But if the Red cannot touch you, the **wide appeal** of the Blue policy gets your vote. Which one wins?   If the flags mark places for a heater in an icy 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?  *Usually: Blue. Center. Yes. Yes. No. Balanced.* 45 |
| Ranked Choice Ballots  A tally board might serve 30 voters. It’s easier to mark **paper ballots** or webpages and tally by computer.  Some groups need the secure paper ballots or printouts used by [“risk-limiting audits”](https://en.wikipedia.org/wiki/Risk-limiting-audit) to catch [frauds and errors.[[41]](#endnote-42)](#RefWorkshop)  🗷 **Yes-or-no ballots** badly oversimplify most issues.  They often highlight only two factions: “us versus them.” So they tend to **polarize** and harden conflicts.  **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-43)](#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** OOOOOO  **6 Apples** OOOOOO  **6 Apricots** OOOOOO  **6 Bananas** OOOOOO  **6 Peaches** OOOOOO  **6 Oranges** OOOOOO  Which 1 wins by plurality? Hints: 5 sweets vs. 1 nut, and the first name on a ballot gets [a 2% to 9%](#RefWorkshop) boost.[[43]](#endnote-44) Which treat wins by **IRV** or by **Condorcet**? With treats, we could adjust their quantities so the costs are equal. [**FSV**](#FairShareVoting) helps when the costs vary; [see page 24](#FairShareVoting).  More serious ballots are [online](https://accuratedemocracy.com/a_teach.htm).646 |
| Workshop Finale Notes  **It’s easy to host a workshop** in [a class or a](#RefWorkshop) club.[[44]](#endnote-45) In an hour, 20 voters can review plurality, try IRV, then try **STV** for [colors as shown](#RefWorkshop) below or **FSV** for treats:[[45]](#endnote-46)  **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.](#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.     Many groups offer **apps to tally your votes**.       <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, very simple simulations and national statistics will reveal each tool’s *effects*.  The [political effects on pages 54-57](#Compare3Councils) and institutional or societal effects on pages [58-61 are very important](#RelatedReforms).  47 |

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| III[. SimElection Game](#Contents)s  2. [Watch Full Rep Balancing](#STV) a Council  These maps show **Choice** ballots electing **five** reps. A little shape is a voter’s ballot; a big one is a candidate. Each little ballot has the color and shape of its current  top-ranked choice, the closest [remaining cand](#RefSims)idate[.[[46]](#endnote-47)](#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 will lose and get an **X**. Which one will be the first to lose?  ⬥ *Answer* ⬥ 3**.**7% 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. So the nearby fields of color grow. ● ◼ ● (Game maps may portray places or political positions.\*)  In 1, the gray box holds half the ballots. The 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 box.  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**!  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)1  In 13, the box holds half the voters and all but one rep. So did STV 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 different groups to  give money, labor, water or another resource to one- time projects or optional items in ongoing budgets; eg. FSV can choose repairs for roads but not new routes.  *One-Time Resource Allocations  OTRAs*  This map shows the public plants proposed by voters on a campus. Often, the site closest to a voter is most useful to him and is his top choice. But this case has four distinct interest groups: **Red, Yellow, Green,** and **Blue.** Items can be close together on the map and yet be far apart in color. So 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 passionflower vine $60.** A group with only a few, low-cost proposals might be able to fund them all. Did that happen here?  *Answers: $60, $60, $60, $60. Yes for sunflowers.* 52 |
| Campus Map  FS Map Pocket_q6_c4.png  Any big group can **focus** or **spread out** their spending.  **Loring Allocation Rule** uses a Condorcet Tally to fund some 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. The Fair Share tally then funds items with narrower, more intense appeals.  53 |
| Contrast 3 Councils, each with 5 seats  Bunting1RB 1. The **Loring Ensemble Rule** elects a few reps by  a Condorcet Tally, the rest by an STV tally; [see page 8.](#EnsembleCouncil)  On this next map, a Condorcet Tally elects **Al**; then Full Rep by four-seat STV 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 souteast gets no rep, so the council  is not well balanced. Each winner’s name is in *italic.*  CMY96176bTriangle al.pngCMN96164CFN96168bDot3c 3. Full Rep [by five-seat STV](#STV)  elects Bev, Di, Fred, GG and Joe.  Each name is underlined.  It eliminated Al**!**  CFY96167  **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). It shows political diversity can be a source of balance and moderation as well as 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 action.  🟋 [**MMP** too may elect a few swing-voting reps, page 19](#NewZealand). 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 an [issue such as](#IssueDimensions) budgets, or regulations, can strongly influence those decisions.  STV 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 |
| 4. Watch [Condorcet](#Condorcet) Find the Center  This map puts a line halfway between Al and a rival. Voters on Al’s side of a line are closer to Al and so they rank Al higher than the rival. The long line has more voters on Al’s side than on Joe’s. So Al wins that test. Al wins a very different majority over each rival here. To do that, Al's political positions must be *central* and have [*widespread support*. page 31](#Chairperson)    In contrast, STV requires the most intense support, first-rank votes, to avoid early [elimination. ● page 48](#III_Simulations_STV) IRV does too, with a high finish line of 50% + 1 vote. 56 |

|  |
| --- |
| 🟋 [Back Matte](#Contents)r  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  2020 2022 2024 2026  Campaign  **costs in green**, results in yellow.  Tyrants manipulate weak democracies.  Strengthen Votes, Mandates and 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) 17  **3.** [the **Budgets** from a few power blocs to all voters](#FairShareSpending) 24  **4.** [a **Policy** from a one-sided to an over-all 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,  building up the democracy and its leaders. 57 |
| Voting Reforms Aid Others  **Ballot access** rules make it hard for small parties  to get on the ballot, because big parties fear “spoilers.” To calm that fear, let voters rank their backup choices.  **Ranked Choice Voting, RCV**, opens up elections.  **A news firm** might inform us better if subscribers steer more parts of it than investors or advertisers do. There’s a low-cost method for any membership group: **Fair Share Voting** 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.[[47]](#endnote-48) Such nameless gifts or **FSV** can cut corrupt paybacks. Big sponsors aim gifts to buy the few swing-seat races. [**RCV** and **Fair**](#RefSims) **Representation** make that harder.[[48]](#endnote-49) Stop billionaires from buying elections.  *“It’s very hard to see us fixing the* ***climate*** *until we fix our democracy.”* [*—Dr. James*](#RefClasses2INGOs) *Hansen[[49]](#endnote-50)*  **G**[**ood schools,** taxes7 and voting may go together.](#Statistics)[[50]](#endnote-51) Schools build our group skills and political knowledge.  **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*!* **RCV** does not split up a group with similar candidates.  [**Citizens’**](#RefLast) **assemblies**[[51]](#endnote-52) and their referendums can get more choices and control by using **Condorcet Tallies**. 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**.[[52]](#endnote-53) Now rights can 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** of society. [Now more progressive taxes[[53]](#endnote-54)](#RefLast) can help political equality.  Emigrate Ely Flower Bed n Panels sm  **Move to a more democratic 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**](#RefLast) utilities?[[54]](#endnote-55)  CEOs may need to be [assertive, but not authoritari](#RefLast)an. The latter corrupts commerce and wrecks human rights.[[55]](#endnote-56)    How can voting tools **fight abuses** **of power**?  *Answers:* [RCV rivals act nice](#IRV)r. [Swing-voting reps moderate](#Compare3Councils).  [Fair Rep](#StvBalance) and [FSV](#FairShareVoting) spread power. So do the [related reforms](#RelatedReforms).  But a winner-takes-all tally sets a bad example. 59 |
| Better Voting, 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? p.20](#Germany) Do they tend to raise [health and education](#RefLast) results?[[56]](#endnote-57)  Can these lift low incomes and reduce violent crime?  Do voter **turnouts** or seats won by **women** tend to be lower in countries with more: people? diversity? religion? polygamy? corruption? militarism? hot weather?*!* Are those harder to change than the voting rules?  [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)4 | 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 | | [**STV**,](#STV)  [**IRV**](#IRV) [p 36](#STV), 12 | 34% | 89% | 29 | 517 | 14% | 11 | | Australiaº 6, 1 | 38, 25 | *93* | 32 | 520 | 15 | 10 | | Ireland4.6 4 | **15** | 70 | 19 | 501 | 10 | 10 | | [**Runoff** page 1](#WastedVotes)0 | 27% | 60% | 1 | 496 | 11% | 12 | | France 1 | 27 | 60 | 1 | 496 | 11 | 12 | | [**Plurality** page](#Plurality) 4 | **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\* 1 | **24**, 25 | 66, 49 | 37 | **474** | **21** | **50** |   [º An Australian state elects 6 senators at a time by STV](#STV); [Each Australian House district elects 1 member by IRV](#IRV). \* U.S. turnout often falls ~15% in non-presidential years.  [AccurateDemocracy.com/d\_stats.htm](http://accuratedemocracy.com/d_stats.htm) has more. 61 |
| More Endorsements  **1. RCV elects leaders** in more and more places: Maine, Minneapolis and New York City have adpoted it; plus Duke, Harvard, Princeton, Rice, Stanford, Tufts, MIT, Cal Tech, Carlton, Clark, Hendrix, Reed, Vassar, the Universities of Auburn, CA, Houston, IA, IL, MA, MN, [NC, OK, TX, VA, WA, &](#RefLeader) WY.[[57]](#endnote-58)  **2. Multi-Winner RCV users** include Australian and Irish voters in local and national elections, the Church of England, Cambridge U., Carnegie Mellon, Clark, MIT, Oberlin, Oxford, UC Cal, UC Davis, UCLA, UCSB, UT Austin and Vassar.  [fairvote.org/rcv\_in\_private\_organizations\_and\_corporations](http://www.fairvote.org/rcv_in_private_organizations_and_corporations)  **Many groups endorse ranked choice voting.**  Organizations: Cities and colleges on [pages 15](#IrvPatterns) an[d above.](#STV) The Academy Awards (Oscars), [AAAS](https://www.amacad.org/ourcommonpurpose/), Common Cause, Sierra Club, UUA, Church of England...  Leagues of Women Voters: Arizona, California, Florida, Maine, Massachusetts, Minnesota, North Carolina, Oklahoma, Oregon, South Carolina, Vermont, and Washington.  National Newspapers: [New York Times Sunday 6/10/18](https://www.nytimes.com/2018/06/09/opinion/ranked-choice-voting-maine-san-francisco.html), USA Today, Washington Post 6/14/18; Recent regional editorials: Portland Press Herald, Las Cruces Sun News…  Journalists: [David Brooks 6/1/2018](https://www.nytimes.com/2018/05/31/opinion/voting-reform-partisanship-congress.html), Hendrik Hertzberg…  Celebrities: Jennifer Lawrence 6/5/2018, John Cleese, Dr. James Hansen, Krist Novoselic, …  US Senators: John McCain, Barak Obama, Bernie Sanders…  US Reps: Keith Ellison, John Anderson, Abner Mikva, John Porter, Jamie Raskin, …  Parties: Democrats of CA, CO, MA, and ME; Green Party US, Libertarian Party, Republicans in Alaska, and Utah.  <http://www.fairvote.org/ranked_choice_voting_endorsements> 62 |
| About Us  is a nonpartisan champion of electoral reforms that give voters greater choice, a stronger voice, and a democracy that works for all Americans.  It has a proven record since 1992 as a trailblazer  that advances and wins electoral reforms at the local, state, and national levels through strategic research, communications and collaboration. Today it is the driving force behind advancing ranked choice voting  and fair representation in multi-winner legislative  districts that will open up our elections to better choices, fairer representation and more civil campaigns.  About My Work  In 1990, John R. [Chamberlin and Samuel Merrill](#RefLeader) III each allowed me to use their simulation research results to advance a hybrid [Condorcet-IRV rule](https://accuratedemocracy.com/l_data.htm). In the 1990s, I created [*PoliticalSim*™](http://www.politicalsim.com) and [*SimElection*](http://simelection.com)™.  They compared 30 single- and multi-winner rules from around the world and were used in a few universities. [Pages 48‑56](#III_Simulations_STV) show graphics from the simulation games. My sim research led to [*Democracy Evolves*](https://web.archive.org/web/19991023011241/http:/members.aol.com:80/loringrbt/a_intro.htm)[[58]](#endnote-59) in 1997. Then I helped [FairVote](http://www.fairvote.org) as a webmaster and librarian. For ten years, I’ve cheered Dr. Robert Tupelo-Schneck, Ian Little, [Adder, Kathryn Simmons and Twin Oaks Community](http://www.ic.org/participatory-budgeting-in-an-income-sharing-community/) for developing [Fair Share Voting. (page 24](#FairShareVoting))  My goals are better group-decision results [(page 61),](#Statistics) through systemic [changes (*e.g.* pages 34, 58)](#Benefits2Voters), through better [tools between people (*e.g.* p](#Relationships)ages [24, 27](#FairShareMerits) [and 35)](#Relationships).  63 |
| 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 it free on the Web and print a few 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**: cover Rawpixel, page 5 Kiichiro Sato, page 47 Minnesota  Public Radio, page 38 Mercedes-Benz, page 59 Flickr pool, Local Living Venture. Others not attributed. All photos altered.  **| |**  © CC BY-SA 3.0 2021, Robert 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 |
| Notes  **Some basic questions to ask about any voting rule:** How many groups have used it, with how many voters, repeated over how many years? How competitive were their elections? What percentage of voters turned out to vote? What percentage of votes were wasted? Was its pattern of winners erratic or consistent?  If it was consistent, was it fair share or winner takes all?  If winner takes all, was the winner from [one side or central](#Chairperson)? If it was central, was the winner’s appeal [wide or narrow](#CondorcetMap)? How often in past elections was it manipulated by a “spoiler,” [a gerrymander](#GerrymanderBribes), strategic voting, or [other rigged votes](#Agenda1Ballot)?  **Some basic questions to ask about voting 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 articles, books and web pages [cited](#RefIntro) here use real data or realistic simulations. Other kinds of data risk “garbage in, garbage out,” or might be fascinating mathematically but are usually useless or even misleading for most situations.  This booklet is not about political opinions, or ethical platitudes and admonitions.. Those can inspire action, but they do no change the (balance of) powers for and against democracy. Exhortations \*\*\***Why do this work?** To make life better, don’t just fill a job others would do; improve the “[tools between people;” p. 35](#IV_In_Context). The multiplier effects are huge as a small budget for a voting rule can steer much bigger budgets or policies for many years, set a pattern for other group decisions, and it is often self-reproducing, with little or no added cost per user.  Online, [**my thanks** page](https://accuratedemocracy.com/z_thanks.htm) explains how extremely fortunate I have been to find this project and the wonderful people who have done most of the R&D for it.  [https://en.wikipedia.org/wiki/Thomas\_Piketty](https://en.wikipedia.org/wiki/Thomas_Piketty%20)  65 |

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, analysis, an [**activist\_toolkit**](http://www.fairvote.org/rcv_activist_toolkit), videos and more.

   [**I. Introduction**, Tragedies](#I_Voting_Primer), and Progress

   + AAAS. O[ur Common Purpose, American Democracy 21st C](https://www.amacad.org/ourcommonpurpose/).

   Amy, Douglas J. *Proportional Representation: The Case for a Better Election System*. North Carolina is on page 30; <http://archive.fairvote.org/?page=1606> [↑](#endnote-ref-2)
2. Durbin, Kathy. *Tree Huggers: Victory, Defeat & Renewal in the*

   *Northwest Ancient Forest Campaign*, (Seattle, The Mountaineers, ‘96) [↑](#endnote-ref-3)
3. [Hoag, Clarence](https://en.wikipedia.org/wiki/Clarence_Hoag). and [George Hallett](https://en.wikipedia.org/wiki/George_Hallett), *Proportional Representation*, (NYC, The Macmillan Company, 1926). [↑](#endnote-ref-4)
4. [Duverger, Maurice](https://en.wikipedia.org/wiki/Maurice_Duverger). "Factors in a Two-Party and Multiparty System," *Party Politics and Pressure Groups* (NYC: Thomas Y. Crowell, 1972), pages 23‑32. [↑](#endnote-ref-5)
5. [FairVote, *Monopoly Politics 2020*, fairvote.org/monopoly\_politics](http://fairvote.org/monopoly_politics)  [↑](#endnote-ref-6)
6. [Lijphart, Arend](https://en.wikipedia.org/wiki/Arend_Lijphart). *Electoral Systems and Party Systems: A Study of Twenty-Seven Democracies* (Oxford: Oxford U. Press, 1994). [↑](#endnote-ref-7)
7. See [pages 30, 31](#Condorcet), [and 54-56.](#CondorcetMap) [↑](#endnote-ref-8)
8. [Statistics on pages 60-61 compare stable democracies.](#Statistics) 66 [↑](#endnote-ref-9)
9. [1. Electing a Leader](#Electing_a_Leader), [Instant Runoff](#IRV) ⓐ [c\_irv.htm](http://accuratedemocracy.com/c_irv.htm)

   Chamberlin, John R.; Jerry L. Cohen and Clyde H. Coombs; "Social Choice Observed: Five Presidential Elections of the American Psychological Association" *Journal of Politics*. 46 (1984) 479-502

   "An Investigation into the Relative Manipulability of Four Voting Systems", *Behavioral Science*; 30:4 (1985) 195-203.

   Merrill, Samuel III. *Making Multi-candidate Elections More Democratic*. (Princeton, NJ: Princeton, NJ: Princeton University Press, 1988). [↑](#endnote-ref-10)
10. Wright, Stephen G. “Voter Turnout in Runoff Elections”, *The Journal of Politics*, Vol. 51, No. 2 (May, 1989), pages 385-396.

    “[Randked Choice Voting outperforms runoffs in upholding majority](http://www.fairvote.org/ranked_choice_voting_outperforms_runoffs_in_upholding_majority_rule) rule” Rob Richie, Madeline Brown. (FairVote, 2017) [↑](#endnote-ref-11)
11. The Editorial Board. “The Primaries Are Just Dumb.” [nytimes.com](https://www.nytimes.com/2020/02/26/opinion/democrats-primary-south-carolina.html). [↑](#endnote-ref-12)
12. [Ranked Choice Voting Civility Project](http://www.fairvote.org/rcv_civility_project/) [fairvote.org/rcv\_civility\_project/](http://www.fairvote.org/rcv_civility_project/)

    Reilly, Benjamin. *Democracy in Divided Societies: Electoral Engineering for Conflict Management*, (Cambridge U. Press 2001)

    <nytimes.com/2021/02/25/opinion/elections-politics-extremists.html> [↑](#endnote-ref-13)
13. Korean election <http://en.wikipedia.org/wiki/Roh_Tae-woo> https://web.archive.org/web/20010113205900/http://nimbus.ocis.temple.edu/~jhurewit/history.html [↑](#endnote-ref-14)
14. *Papua New Guinea: Electoral Incentives for Inter-Ethnic Accom­modation*, <http://aceproject.org/ace-en/topics/es/esy/esy_pg> [↑](#endnote-ref-15)
15. [representwomen.org/representation\_and\_rcv\_a\_long\_term\_solution](https://www.representwomen.org/representation_and_rcv_a_long_term_solution) [↑](#endnote-ref-16)
16. [2. Electing Representatives](#Electing_a_Council), [Fair Rep](#FairRepPR) ⓐ [d\_intro.htm](http://accuratedemocracy.com/d_intro.htm)

    and 7 [Statistics on page 60-61 compare demo](#Stats)cracies.  [d\_stats.htm](https://accuratedemocracy.com/d_stats.htm) [↑](#endnote-ref-17)
17. Huber, John D. and G. Bingham Powell, Jr., “Congruence Between Citizens and Policymakers in Two Visions of Liberal Democracy,” *World Politics* vol. 46 #3 (April 1994), pages 291-326. [↑](#endnote-ref-18)
18. “*Illinois Assembly on Political Representation and Alternative Electoral Systems*”, (IGPA University of Illinois, Spring 2001) <http://www.fairvote.org/media/pep/execsum.pdf>

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

    <http://archive.fairvote.org/index.php?page=39&articlemode=showspecific&showarticle=1325> 67 [↑](#endnote-ref-19)
19. Roberts, Nigel. *NEW ZEALAND: A Long-Established Westminster Democracy Switches to PR*, (Stockholm, IDEA)   
    [www.nigel-roberts.info/NSR-in-Reynolds-&-Reilly-1997.pdf](http://www.nigel-roberts.info/NSR-in-Reynolds-&-Reilly-1997.pdf). [↑](#endnote-ref-20)
20. [Mathews, Dylan. “3 Reasons New Zealand has the Best Designed Government in the World” vox.com, Jan. 16, 2015](https://www.vox.com/2014/9/23/6831777/new-zealand-electoral-system-constitution-mixed-member-unicameral) [↑](#endnote-ref-21)
21. Richie, Rob and Andrew Spenser; “The Right Choice for Elections” *University of Richmond Law Review*; v. 47 #3, March 2013.   
    https://lawreview.richmond.edu/files/2013/03/Richie-473.pdf [↑](#endnote-ref-22)
22. 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?”](http://myweb.lmu.edu/ahealy/papers/healy_pate_2011.pdf) *Economics Journal*, 121: 1192-1204 https://web.archive.org/web/20170706034311/http://myweb.lmu.edu/ahealy/papers/healy\_pate\_2011.pdf [↑](#endnote-ref-23)
23. <http://www.nytimes.com/2016/11/10/upshot/women-actually-do-govern-differently.html>  [Statistics of Nations.](#Statistics) ⓐ [d\_stats.htm](http://accuratedemocracy.com/d_stats.htm)

    www[.nytimes.com/2020/05/15/world/coronavirus-women-leaders.](https://www.nytimes.com/2020/05/15/world/coronavirus-women-leaders.html)html [↑](#endnote-ref-24)
24. [3. Allocating Budgets](#Setting_Budgets), [Fair Share Voting](#FairShareVoting) ⓐ [p\_intro.htm](https://accuratedemocracy.com/p_intro.htm)

    FSV=STV if $# = voters#, 1 share = $1, and 1 seat costs $# / (seats+1)

    Shah, Anwar ed., *Participatory Budgeting*; The World Bank Washington, DC; [http://siteresources.worldbank.org/PSGLP/ Resources/ParticipatoryBudgeting.pdf](http://siteresources.worldbank.org/PSGLP/%20Resources/ParticipatoryBudgeting.pdf) [↑](#endnote-ref-25)
25. [Moore, Joe](https://en.wikipedia.org/wiki/Joe_Moore_(politician)) [*Participatory Budgeting in the 49th Ward*](http://participatorybudgeting49.wordpress.com/), <http://participatorybudgeting49.wordpress.com/>  
    In 2014 voters in Cambridge, Massachusetts saw the same pattern. [↑](#endnote-ref-26)
26. Tupelo-Schneck, Robert and Robert B Loring, *Fair Share Voting, Proposing a New Voting Method for Participatory Budgeting*, to *Voting Matters*, Issue 31.2012;   
    [ⓐ download/workshop/fair-share-spending.pdf](https://www.accuratedemocracy.com/download/workshop/fair-share-voting.pdf)  [.ppt](https://www.accuratedemocracy.com/download/workshop/fair-share-voting.ppt)  and [.odp   .](https://www.accuratedemocracy.com/download/workshop/fair-share-voting.odp) [ⓐ download/workshop/gasto-equitativo.pdf](https://www.accuratedemocracy.com/download/workshop/gasto-equitativo.pdf)  [.ppt](https://www.accuratedemocracy.com/download/workshop/gasto-equitativo.ppt) and [.odp     .](https://www.accuratedemocracy.com/download/workshop/gasto-equitativo.odp) [↑](#endnote-ref-27)
27. News of the Oaks, *Leaves of Twin Oaks*, Louisa, VA 1995 [↑](#endnote-ref-28)
28. Oaks, Adder. “Participatory Budgeting in an Income Sharing Com-munity;” *Communities: Life in Cooperative Culture;* #175, 6/2017. 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.

    participatorybudgeting.org [https://pbstanford.org](https://pbstanford.org/dieppe2015/approval?locale=en) 68 [↑](#endnote-ref-29)
29. [4. Enacting a Policy](#Enacting_a_Policy) Condorcet Tally ⓐ [l\_intro.htm](https://accuratedemocracy.com/l_intro.htm)

    [Chamberlin et al above, also Merrill](#RefLeader). ⓐ [c\_data.htm](https://www.accuratedemocracy.com/c_data.htm) [ⓐ l\_data.htm](https://www.accuratedemocracy.com/l_data.htm)  
    If A tops B, B tops C, and C tops A, we have a “voting cycle.” Tally IRV with the motions in the top voting cycle.  [ⓐ l\_cycles.htm](https://www.accuratedemocracy.com/l_cycles.htm) [↑](#endnote-ref-30)
30. Green-Armytage, James. "[Four Condorcet-Hare Hybrid Methods for single-winner elections](http://www.votingmatters.org.uk/ISSUE29/I29P1.pdf)"; votingmatters.org.uk/ISSUE29/I29P1.pdf

    "[Strategic Voting and Nomination](http://link.springer.com/content/pdf/10.1007/s00355-013-0725-3.pdf)"; *Social Choice and Welfare;* 2014

    [Tideman, Nicolaus](https://en.wikipedia.org/wiki/Nicolas_Tideman). *Collective Decisions and Voting;* (Ashgate Publishing Ltd., Hampshire, England; 2006) page 232.

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

    Loring One-winner Rule, LOR ⓐ [c\_data.htm](https://www.accuratedemocracy.com/c_data.htm) ⓐ [l\_lor1.htm](https://www.accuratedemocracy.com/l_lor1.htm)

    2b These follow from the [Later-no-harm](https://en.wikipedia.org/wiki/Later-no-harm_criterion) and [Later-no-help](https://en.wikipedia.org/wiki/Later-no-help_criterion) criteria. [↑](#endnote-ref-31)
31. See the [captions on pages 15](#IrvPatterns) [and 56.](#CondorcetMap) ⓐ [c\_irv.htm#compare](https://www.accuratedemocracy.com/c_irv.htm#compare) [↑](#endnote-ref-32)
32. <https://en.wikipedia.org/wiki/Primary_challenge> [↑](#endnote-ref-33)
33. <https://www.nytimes.com/interactive/2018/11/10/opinion/house-representatives-size-multi-member.html> [↑](#endnote-ref-34)
34. <https://www.accuratedemocracy.com/l_motion.htm> Friedersdorf, Conor. [A Better Way to Look at … Political Issue](https://www.theatlantic.com/politics/archive/2018/02/a-better-way-to-look-at-most-every-political-issue/552752/). [↑](#endnote-ref-35)
35. ★**S**[**ocial Effects and Uses**](#IV_In_Context)

    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*, Vol. 58, #1, October 2005: 41-72 https://projects.iq.harvard.edu/gov2126/files/rothstein\_2005.pdf [↑](#endnote-ref-36)
36. Susskind, Lawrence and Jeffery L. Cruikshank; [*Breaking Robert’s Rules;* (Oxford University Press, 2006)](https://global.oup.com/academic/product/breaking-roberts-rules-9780195308365?cc=us&lang=en&).

    Francis, Fred and Peg [*Democratic Rules of Order*](http://democraticrules.com/tips.html), 2010. pp 19, 24.

    [LiquidFeedback](http://liquidfeedback.org/).org Free software to help groups make decisions

    Christian, Diana Leafe “Radical Governance Changes in Two North American Ecovillages”, IC.org 08/31/2014. [↑](#endnote-ref-37)
37. 3 *Group-Process Pattern Language*, [www.groupworksdeck.org](http://www.groupworksdeck.org). [↑](#endnote-ref-38)
38. [Accurate Democracy motions for Condorcet](https://www.accuratedemocracy.com/l_motion.htm) [ⓐ l\_motion.htm](https://www.accuratedemocracy.com/l_motion.htm)

    <https://en.wikipedia.org/wiki/Committee_of_the_whole> 69 [↑](#endnote-ref-39)
39. [II. Workshop Games, hold](#III_Workshop_Games) a vote ⓐ [a\_workshop.htm](https://accuratedemocracy.com/a_workshop.htm)

    A voter’s ranks may skip around, *e.g.* 1st left, 2nd far right, 3rd center [↑](#endnote-ref-40)
40. Loring, Robert. Other Budget Rules, ⓐ [q\_other.htm](https://accuratedemocracy.com/q_other.htm), [↑](#endnote-ref-41)
41. FairVote, *Ranked Voting and Questions About Election Integrity*, Published October 12, 2013. [http://www.fairvote.org/ranked-voting-and-questions-about-election-integrity/](http://www.fairvote.org/ranked-voting-and-questions-about-election-integrity/0)

    www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=25120

    Election Audits <http://electionaudits.org/> <http://verifiedvoting.org> [↑](#endnote-ref-42)
42. [*Portland Voters Overwhelmingly Support Ranked Choice Voting*; FairVote](http://www.fairvote.org/portland_voters_overwhelmingly_support_ranked_choice_voting), 2015.  [↑](#endnote-ref-43)
43. Krosnick, Jon A. "In the Voting Booth, Bias Starts at the Top", *NY Times*, [nytimes.com/2006/11/04/opinion/04krosnick.html?\_r=0](http://nytimes.com/2006/11/04/opinion/04krosnick.html?_r=0) [↑](#endnote-ref-44)
44. <https://accuratedemocracy.com/a_teach.htm> [↑](#endnote-ref-45)
45. [Workshop video 1](https://www.youtube.com/watch?v=oHRPMJmzBBw), youtube.com/watch?v=oHRPMJmzBBw  
     [Workshop Video](https://www.youtube.com/watch?v=_5SLQXNpzsk) 2. youtube.com/watch?v=\_5SLQXNpzsk

    + https://www.fairvote.org/rcv\_ballot\_design

    + A ballot by the inventor of FSV <http://tupelo-schneck.org:8080/tag/> [↑](#endnote-ref-46)
46. [III. Simulations, compare](#III_Simulations_STV), ⓐ [d\_stv2d.htm](https://accuratedemocracy.com/d_stv2d.htm), [p\_tools.htm](https://accuratedemocracy.com/d_stv2d.htm)

    Loring, Robert, [SimElection](http:politicalsim.com)TM 1996, <http://www.simelection.com>

    See [John R. Chamberlin et al, or Samuel Merrill III](#RefLeader), [or James Green-](#RefPolicy)Armytage above. [.](#RefPolicy)

    99 Brady, Henry E. "Dimensional Analysis of Ranking Data", *American Journal of Political Science*. 34 (11/90) [↑](#endnote-ref-47)
47. 🟋[Back Matter](#End_Matter), compare rules, ⓐ [z\_review.htm](https://accuratedemocracy.com/z_review.htm),

    <https://en.wikipedia.org/wiki/Democracy_voucher>

    Ackerman, Bruce and Ian Ayres, *Voting with Dollars: A New Para­digm for Campaign Finance*; (New Haven: Yale Univ. Press, 2002). [↑](#endnote-ref-48)
48. [Gifts](https://en.wikipedia.org/wiki/Democracy_voucher) to “spoilers” are less effective under Ranked Choice Voting.

    Multi winner districts make it hard to target money on just one seat. [↑](#endnote-ref-49)
49. <https://www.nytimes.com/2018/06/223/opinion/Sunday/james-e-hansen-climate-global-warming.html>   
    See also, “conservation ... depends on effective governance;” https://www.nature.com/articles/nature25139. 70 [↑](#endnote-ref-50)
50. Compare the [math scores on, pages 60-61.](#Stats) ⓐ [d\_stats.htm](http://accuratedemocracy.com/d_stats.htm) [↑](#endnote-ref-51)
51. Chalmers, Patrick. “The People Trying to Save Democracy from Itself”, http:// theguardian.com/world/2016/jul/02/democracy-tarnished-brand-desperate-need-reinvention.

    Bouricius, Terrill G. Democracy Through Multi-Body Sortition: Athenian Lessons for the Modern Day”, New Democracy Institute, *Journal of Public Deliberation*, Vol.9 #1; 04/30/13.

    Navajas, Joaquin et al; “Aggregated knowledge from a small number of debates outperforms the wisdom of large crowds,” Cornell University, 2017. https://arxiv.org/abs/1703.00045 [↑](#endnote-ref-52)
52. Tishman, Shari and Albert Andrade; Thinking Dispositions, <https://pdfs.semanticscholar.org/57cb/278acf38e9da6490d266260f9a9c50d20da3.pdf> Many people use these ways of thinking at times. But fewer have a disposition to use them routinely. learnweb.harvard.edu/alps/thinking/docs/dispositions.htm [↑](#endnote-ref-53)
53. See progressive taxes in Wikipedia pages on Carbon\_tax, Consumption\_tax#Expenditure\_tax, Land (Georgism), Speculation (Financial\_transaction\_tax), and Wealth\_tax.

    [Piketty, Thomas](https://en.wikipedia.org/wiki/Thomas_Piketty) and Arthur Goldhammer; Capital in the 21st Century, Cambridge MA: Belknap Press of Harvard U. Press, 2014. [↑](#endnote-ref-54)
54. <https://cyber.harvard.edu/publications/2018/01/communityfiber> [Institute for Local Self-Reliance](http://www.ilsr.org) <http://www.ilsr.org/> [*On Solar Streets and Wilderness Alleys*](http://www.context.org/ICLIB/IC14/Loring.htm) windsong.bc.ca [↑](#endnote-ref-55)
55. Loring, Robert; “[Egalitarian versus Authoritarian Values](http://accuratedemocracy.com/a_quotes.htm#egal)” <https://accuratedemocracy.com/a_quotes.htm#egal>

    <https://scholar.princeton.edu/sites/default/files/mgilens/files/gilens_and_page_2014_-testing_theories_of_american_politics.doc.pdf> [↑](#endnote-ref-56)
56. Taub, Amanda; “Why Are Women-Led Nations Doing Better with Covid-19?”, *NY Times,* May 15, 2020 [nytimes.com/2020/05/15/world/coronavirus-women-leaders.html](https://www.nytimes.com/2020/05/15/world/coronavirus-women-leaders.html) [↑](#endnote-ref-57)
57. <https://www.fairvote.org/rcv_in_campus_elections>   
    https://www.fairvote.org/where\_is\_ranked\_choice\_[voting\_used](https://www.fairvote.org/where_is_ranked_choice_voting_used) [↑](#endnote-ref-58)
58. <https://web.archive.org/web/19990218104532/http://members.aol.com/loringrbt/elect.htm>

    <https://web.archive.org/web/1999102301124/http:/members.aol.com:80/loringrbt/a_intro.htm>

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    Resources, for education and action

    **AccurateDemocracy.com**, gives you [**free software**](http://accuratedemocracy.com/z_tools.htm), [**animations** of **STV**](http://accuratedemocracy.com/d_stv2d.htm) [or **Fair Share Voting**](http://accuratedemocracy.com/p_tools.htm), and pages on each voting tool, ⓐ [a\_primer.htm](https://accuratedemocracy.com/a_primer.htm), ⓐ [a\_workshop.htm](https://accuratedemocracy.com/a_workshop.htm), [d\_stats.htm](https://accuratedemocracy.com/d_stats.htm), [SimElection.com](http://politicalsim.com), and references [z\_bib.htm](https://accuratedemocracy.com/z_bib.htm)  
    **eBook** [AccurateDemocracy.com/AcDem.pdf](https://accuratedemocracy.com/AcDem.pdf) (or Chrome [app.box.com/s/0ys5eeapqwpa7xrixp6x5di81akz6pch](https://app.box.com/s/0ys5eeapqwpa7xrixp6x5di81akz6pch))

    [****.org**](http://www.fairvote.org/) is a nonpartisan catalyst for electoral reforms. It is the best source for news, analysis and resources about voting reform in U.S. cities, states and colleges. It gives you model ballots, bylaws, editorials, research reports, voter education flyers, testimonials and videos. [Ranked Choice Voting Resource Center](https://www.rankedchiocevoting.org).

    

    ***N€w* *N¥w***

    ***New Tools***

    ***N₤w* *N$w***

    Kindly send any requests, questions,   
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    [](mailto:VotingSite@gmail.com)

    Glossary [and Index](#Benefits2Voters)

    **Accurate democracy** gives [fair shares of seats](#FairRepPR) [and spending](#FairShareSpending). [It cuts scams a](#GerrymanderBribes)nd [enacts a policy that tops all rivals](#Condorcet). *4 goals*

    [a](#Mandate) **[Mandate](#Mandate)** [is the authority effective votes loan to a Pages](#Mandate)

    [winner. It is a basic goal. Contrast a wasted vote.](#Mandate) **[11](#Mandate)**[-17, 57](#Mandate)

    a [**Majority** is more than half of the votes.. **11**,](#Mandate) 14, 30-, 56

    a [**Plurality** has the most votes–often not a majority.  
    " **rules** use yes-or-no voting; contrast RCV. **6**](#Plurality), 11, 23, 31-, 61

    a [**Ranked Choice Vote**](#IRV) lets you rank a 1st choice and backups. It is a tool for effective[votes and fair shares*.*  **14-**](#IRV), [33](#Agenda1Ballot), [46](#BallotScan)

    a [**Threshold**](#STV) to win or finish line is the percentage   
    of the [votes a rule requires for a win](#STV). [6, 14,](#IRV) [17, **42**, [48](#III_Simulations_STV)](#STV)

    a[**Wasted vote**](#WastedVotes) went to a loser, [a surplus or](#Electing_a_Council) a powerless rep.It discourages voting [and weakens democracy. **12**](#WastedVotes)-18, 23, 27

    a [**Wrecking amendment** ruins a bill’s chances or effects.](#Agenda1Ballot)   
    a Free-rider [**"** doesn’t relate to the original bill. 30, **33**,](#Agenda1Ballot) 34

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    **EC** [Ensemble Council: **FR** & **CT** ***New*** **8**](#EnsembleCouncil)-, 31, [54-56](#Compare3Councils)

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    RCV Ranked Choice Voting, [Choice Voting (US), includes:](#BallotScan)

    [**STV** Single Transferable Vote for FR. **42**, 48](#STV)-51, 54

    **I**[**RV** Instant Runoff Vote (US) Majority Preferential Vote (Aus](#IRV))

    A[V Alternative Vote (UK) or Hare for SMD. **14-**](#IRV), [39-42](#II_Workshop), [56](#CondorcetMap)

    **SMD** a [Single-Member District elects one rep. **6**](#Plurality), [16](#Electing_a_Council), [19](#NewZealand) [↑](#endnote-ref-59)