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| “This is *the* site for learning about democracy.”  —Zoe Weil, author of *Most Good, Least Harm*, president of the Institute for Humane Education.  “... a huge contribution to the democracy cause.”  —John M. Richardson Jr., former Chairman of the  National Endowment for Democracy.  “Congratulations on a brilliant piece of work.”  —Robert Fuller, former President of Oberlin College, author of *Somebodies and Nobodies*, and *All Rise*.  The primer, games and pictures let you  **Read, Touch and See How**  The best voting rules are fast, easy and fair.  They help groups from classrooms to countries.  The results are well centered and widely popular.  They strengthen the votes supporting  $ $ $  $ $ $  $ $ $  one chairperson or policy and  **1**  fair shares of seats or $pending.  **to Use and Enjoy**  **Share** this illustrated booklet with friends.  **Grow** support in your school, club or town. **Enjoy** better politics, relations and policies, pages 34, 35 and 61. | **ACCURATE DEMOCRACY**  **Loring**  **FairVote** | **Accurate Democracy**  **4 Decision Tools with Graphics & Games**  **for Schools, Clubs, Towns & More**  Cvr50wide  **for Schools, Clubs, Towns & More** |

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| More Endorsements  1. Ranked Choice Voting, RCV, elects leaders  in more and more places: New York City, Minneapolis  and Maine, have adopted it; plus Duke, Harvard, Princeton, Rice, Stanford, Tufts, MIT, Cal Tech, Carlton, Clark, GW, Reed, Vassar, UCSC, the Universities of Auburn, Houston, CA, IA, IL, MA, MN, NC, OK, TX, VA, WA and WY.  2. Multi-Winner RCV elects a whole council at Cambridge, Carnegie Mellon, Clark, MIT, Oberlin, Oxford, UC Cal, UC Davis, UCLA, UCSB, Vassar, Whitman, and more. For decades, Australian and Irish voters have used  Ranked Choice Voting in local and national elections. fairvote.org/rcv\_in\_private\_organizations\_and\_corporations  **Many groups endorse Ranked Choice Voting**.  Organizations: Oscars, Church of England, Common Cause, Sierra Club, UUA, American Academy of Arts & Sciences,  Leagues of Women Voters: Arizona, California, Florida, Maine, Massachusetts, Minnesota, North Carolina, Oklahoma, Oregon, South Carolina, Vermont and Washington  National Newspapers: New York Times 6/10/18 & 02/26/20 USA Today, Washington Post 6/14/18; regional editorials: Portland Press Herald, Las Cruces Sun News, and more  Journalists: David Brooks, Hendrik Hertzberg, and more  Celebrities: Jennifer Lawrence, Krist Novoselic, and more  US Senators: John McCain, Bernie Sanders, Obama, more  US Reps: Keith Ellison, Jamie Raskin, Don Beyer, more  Parties: Democrats of CA, CO, ME and MA; Green Party US; Libertarian Party; Republicans in Alaska and Utah.  www.fairvote.org/ranked\_choice\_voting\_endorsements | | |  Front Cover: Initial steps to Efficient Effective democ BottomUp Come together. Form, develop and gather up ideas Mandates. Back cover: Next steps with voting: 1 winner  fairvote.org/rcv\_in\_campus\_elections fairvote.org/where\_is\_ranked\_choice\_voting\_used more = Swarthmore, and the University of Michigan?.  https://t.co/oNhMGOqtCN .  fairvote.org/rcv\_in\_campus\_elections.  fairvote.org/rcv\_in\_private\_organizations\_and\_corporations#multi\_winner\_rcv  Institute of Mathematical Statistics.  https://t.co/oNhMGOqtCN .  fairvote.org/editorial\_board\_support\_for\_rcv\_in\_2018.  Elizabeth Warren, Barak  | | | About Us  About  info@fairvote.org  FairVote is a nonpartisan champion of electoral reforms that give voters greater choice, a stronger voice, and a representative democracy that works for all Americans.  FairVote has a proven record since 1992 as a trailblazer that advances and wins electoral reforms at the local,  state, and national level 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 VotingSite@gmail.com  In 1990, John R. Chamberlin, and Samuel Merrill III each gave me permission to use their sim statistical research results to advance a hybrid Condorcet-RCV rule. In the 1990s, I created *PoliticalSim*™ and *SimElection*™.  They compared 30 single- and multi-winner rules from around the world and were used in a few universities.  Pages 48-56 show maps from these simulation games. My sim research led to *Democracy Evolves*11 in 1997. Then I helped FairVote as a webmaster and librarian.  For 10 years I’ve cheered Dr. Robert Tupelo-Schneck, Ian Little, Adder and Kathryn Simmons with Twin Oaks Community for developing Fair Share Voting. (page 24) This booklet summarizes *Accurate Democracy.com*.12  My goals are better group-decision results (page 61), through systemic changes (*e.g.* pages 34, 58), through better tools between people (*e.g.* pages 24, 27, 33, 35). |

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| Glossary and Index  **Accurate democracy** gives groups fair shares of seats and spending It cuts scams and enacts a policy that tops all rivals.  *4 goals*  a **Mandate** is the authority effective votes loan to a     Pages  winner. It is a basic goal. Contrast a wasted vote. **11**-17, 57  a **Majority** is more than half of the votes. **11**-, 14-, 30-, 56  a **Plurality** has the most votes—often not a majority.  **"** **rules** use yes-or-no voting; contrast RCV. **6**, 11, 23, 31-, 61  a **Ranked Choice Vote** lets you rank your first choice and backups.  It is a tool for effective votes and fair shares **14**, 33, 46  a **Threshold** to win or finish line is the percentage  of the votes a rule requires for a win. 6, 14, 17, **42**-, 48  a **Wasted vote** went to a loser, a winner's surplus or a powerless rep. It discourages voting and weakens democracy.  **12**-18, 23, 27  a **Wrecking amendment** ruins a bill’s chances or effects.  a **Free-rider "** doesn't relate to the original bill. 30, **33**, 36  See also the **Summary and Index of Benefits** on page 34.  Acronyms and Synonyms  Pages  Consensus process 33, **36-**  CT,Condorcet Tally, Pairwise Comparison 28-**30**-, 45, 54-56  **EC**, Ensemble Council ***New*** **8**-, 31, 54-56  **FSV**, Fair Share Voting ***New*** 22-**24**-, 36-, 43-44, 52-  **FR**,**Fair Rep**, Fair Representation (US); see also STV,  PR, Proportional Representation, MMP 7, 16-**18**-, 54, 61  RCV,Ranked Choice Voting, Choice Voting (US), includes: STV,Single Transferable Vote for Fair Rep. **42**, 48-51, 54  **IRV**, Instant Runoff Vote (US), Majority Preferential Vote (Aus),   AV, Alternative Vote (UK) for SMD. **14**, 39-42, 56  **SMD**,a Single-Member District elects one rep. **6**, 16, 19 | 9,000 words / 200 wpm = 45 minutes  Ac Dem Pass It Along 4 Great New Group Tools as Games, Graphics & Songs  Efficient Effective  Spine Rd. Cape Town between 26 and 29 April, 1994. Freedom Day marked the culmination of the four-year process that ended apartheid. Turnout was 86.9%.  Takoma Park, Maryland | AccurateDemocracy  4 Decision Tools with Graphics and Games for Schools, Clubs, Towns and More  Robert Loring    Voters waiting |
| ***N €w* *N ¥w***  ***New Tools***  ***N ₤w* *N $w***  **\ /**  We feel this **information** should be free,  but printing this rare **color** booklet is expensive.  So we print few copies and give away the e-book:  [https://AccurateDemocracy.com/**AcDem**.pdf](https://www.AccurateDemocracy.com/AcDem.pdf) It is always the most up-to-date edition.  **\ /**  Please let others **share** this to improve  voting in your clubs, schools, city and state. What will you do or give to live in a more educated and accurate democracy?  Consider helping **FairVote.org**  **| |**  Photo **credits**: cover Rawpixel;  title page Reflecting Voters, Adrian de Kock, Cape Town SA, 1994; page 5 Kiichiro Sato; page 38 Mercedes-Benz;  page 44 Wikimedia; page 47 Minnesota Public Radio; 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, reprints, and translations.  www.[accuratedemocracy.com/z\_prints.htm](http://www.accuratedemocracy.com/z_prints.htm) preview of ISBN 978-1-7362637-0-9  **/ \**  Kindly send any requests, questions,  comments or compliments to me at | **\*Learn to use**  Head heart moral social  balance parity equity fairness impartiality equality equivalence  spread range  ~~fine~~  optional discretionary some selected  Funds a Set  Selects Sets | Contents  $ $  $  $ $  **1**  Here are **three ways** to learn **four** voting tools  They are inclusive, yet centered, quick and easy  **I. Voting Primer** tells the stories of the **four** tools  Bunting1RBTragedies, Eras and Progress of democracy 4  1. Instant Runoff Voting elects a widely-popular Leader  10  2. Fair Representation elects a balance ofRepresentatives 16  3. Fair Share Voting sets optionalBudgets ***New*** 22  4. Condorcet Tally enacts a balanced **Policy** ***"*** 28  Bunting1RBRigged votes, Gerrymanders and Gridlock 32  ★**Social Effects** of group decision tools  34  Bunting1RB**Consensus** on one Policy or many Budgets 36  Bunting1RBHow you can try a group-decision tool 38  **II. Workshop Games** let us be inside the **four** tallies  1. Leader, 2. Reps, 3. Budgets, 4. Policy ***New!*** 39  **III. SimElection**™ **maps** make tally patterns visible  2. Reps, 3. Budgets, **Council**, 4. Policy ***New*** 48  **Back Matter**:Voting reforms aid other reforms   57  Bunting1RBTables, Endnotes and References 60  Bunting1RBGlossary and Index, About Us 68 |
| I. Voting Primer  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—with tragic results.1  The Northwest tore itself apart by changing forestry laws again and again. In a year with weak forestry laws, hasty logging wastes resources. But sudden limits on logging bankrupt some workers and small businesses. If this **policy pendulum** swings far, it cuts down forests and species, then families and towns, and back again.2  bl2  What can big swings in other policies do?  4 | Funds a ***"*** Set  Selects ***"*** Sets  **Conservative appeal: Risks** of minority rule: A legislature outside the majority’s control is out of control; some of its actions will threaten the general publicA governor or government without the mandate of the majority makes a mockery of democracy.  A collection of tools | What’s Wrong  We all know how to take a vote when there are only two candidates: We each vote for one or the other. In this simple contest, the yes or no votes say enough.  But as soon as three candidates run for one office, the contest becomes more complicated. Then that old yea or nay type of voting is no longer suitable.3  It's even worse at giving fair shares of council **seats**, setting many **budgets**, or finding a balanced **policy**. Our **defective voting rules** come from the failure to realize this:  *There are different uses for voting, and some need different types of voting.*  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 parties.4∵ ∴ Only their candidates have good chances. It gets worse: a district's bias often makes it a “safe seat,” a captive audience for *one* party. So pluralityvoters get either a very limited choice or **no real choice**. 5  The few voters who get a limited choice might flip the council’s majority from one side to the other. If so, many budgets and policies swerve. Fears of such swerves often polarize politics because this a war of **winner takes all**.  6 | to *choose from* only 2 real *contenders*.  A few who do get choices can make a council swerve from side to side, *a cause of political* **hopes***, fears and hysteria*. **Prospects** for **radical** policy **reversals** feed foment **conspiracy** hysteria (**violence**). **polarization** panic, passions.  ...to side, **and** fears of... ,🚹above  budget$ and fierce war  Like a district election  & policy in this **pattern** of wnr  Politically polarized brains share an intolerance of uncertainty  brown.edu/news/2021-05-13/polarization | In the 20th Century Fair-Share Elections ⇒ One-Sided Majorities    $ $ $ Policies $ $ $  Typical Council Elected By Fair Representation  Fair Representation was developed around 1900 to end some major problems caused by the plurality rule. Most democracies now use “Fair Rep.” It elects several reps from each election district. It gives a group that earns say, 20% of the votes, 20% of the council seats. Thus Fair Rep delivers fair shares of representation.6 It's often called Proportional Representation or PR.  It leads to broad representation of issues and views. But usually there is no central party (**C** above) and the two biggest parties normally refuse to work together. So the side with the most seats forms a ruling majority. Then they enact **policies skewed toward their side**.  7 |
| **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.  **Bunting1RB**So the points of view within the council will have a **spread**, and a pivotal **midpoint**, that match the voters more accurately. **O** + • = 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 voters.7 So winners will be near the center of a Fair Rep council. There they can be the council's **powerful swing voters**, with strong incentives to build moderate majorities.  Many voters in this wide base of supportwon’t want narrow centrist policies. They’ll likely want policies to combine the best suggestions from all groups.  8 \* Its colors suggest archery or political bunting. | 7 “It should be in miniature an exact portrait of the people at large.” John Adams, *Thoughts on Gov*, 1776.  The smallest narrowest majority has only C teal and blue reps. That 5 of 9 is more central than PRs. And the C reps need wide support to win their elections.  moderator addressing that of God in everyone  enacts implements, blocks, excludes Policy ideas, views, needs, goals, plans, rules, laws  **grudging** compromise.  wikipedia.org/wiki/Salus\_populi\_suprema\_lex\_esto | |  |  |  | | --- | --- | --- | | 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 needs independent **moderators.** These swing-voting reps can please their wide base of support by building moderate majorities in the council.  wikipedia.org/wiki/Salus\_populi\_suprema\_lex\_esto.  A broad, balanced majority works to enact broad, balanced policies. These tend to give the greatest chance for happiness to the greatest number of people.  Excellent policies are a goal of accurate democracy. *Measure* their success by the typical voter's education and income, freedom and safety, health and leisure.8  Older rules often skew results and hurt a democracy. An ensemble is **inclusive**, yet **centered** and ***decisive***— to help make its actions **popular**, yet **stable** and ***quick***. The best tools to set budgets or pick a policy will also show these qualities in our stories, graphics and games.  9 |
| 1. Electing a Leader  Nine Voters  Let’s think about this election: Nine voters want to elect a leader. The figures in this picture mark the positions chosen by these voters. They stand along a political spectrum from left to right. It is as though we asked them, “If you want high-quality public services and taxes like France or Germany please stand over  🡓 here. Stand here 🡓 if you want to be like Canada.  To be like the USA stand over here 🡓. For Mexico's low taxes and government services stand over there 🡓.”  Throughout this booklet, we're going to show political positions in this compelling graphical way.  Nine voters spread out along an issue.    High taxes buying Low taxes buying great gov. services poor gov. services  10 These colors aid readers less able to see colors. | These voters are part of a spectrum in colors or grays.  .Yellow to dark blue aid some color challenged.  A limited spectrum aids some color challenged.  A political spectrum as light yellow to dark blue  Light yellow to dark blue let some color confused see this spectrum.  Votes have no effect without real choices  A one party district offers little or no choice.  the authority a big base of support loans  authorize energize empower strengthen boost  efforts action | Plurality Election  Here we see three rivals step up, asking for votes.  Each voter prefers the candidate with the closest position. A voter on the left votes yes for the candidate on the left.  Ms. K is the candidate nearest four voters.  L is nearest two and M is nearest three.  Candidates L and M **split** the voters on the right.  Does anyone get a majority (over half), Yes or No? Who gets the plurality (the largest number), K, L or M? Who gets the second-largest number of votes, K, L or M?  *Answers to questions are at the bottom of each page.*      A mere plurality gives the winner a weak **mandate**.       This is the authority effective votes loan to a winner.        Strong mandates –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   of them is more accurate, fair and responsive.  Does the plurality election waste more votes?   Does that discourage members from voting?   Does the runoff make a stronger mandate?  Runoffs practically ask, “Which *side* is stronger?” Later, these voters will use another voting rule to ask, “Where is our *center*?” And a bigger group will use  a rule to ask, “Which trio best represents *all* of us?”  In a runoff, the top two compete one against one.    Four **wasted** votes. Candidate **M wins** a runoff.  *No, each voter has one vote in each tally.*  12 *Yes, five. Yes. Yes, a majority mandate.* | Ranked ballots favor broad appeal, while primaries favor good political organizers.  or “drop or cut”  Who wins this runoff, K or M  are ones that have no effect  You want to cast decisive votes.  A high % *motivates* members to vot  Effective votes are a goal of ac. democracy.  **Measures**: Responsive: Number-of-choices on blt, Proportional-fair-tally, Mandate-size, Policies-match-public-opinion,  A dimension holds related issues.  identitarian Even single-issue voters may see a spectrum of policies: max. caliber permited max. weeks pregnacy termination, $ amount for reparations. | Politics in Two Issue Dimensions  When more issues (or identities) concern the voters, a voting rule keeps its character.1  Here we see voters choosing positions spread over two issue dimensions: left to right plus up and down. A person's position on one dimension is little help for predicting their position on the other one.  A voter may rank candidates on any issue(s). He prefers the candidate he feels is closest.  “Please step up for more protective regulations. Please step down if you want fewer protections.  Take more steps for more change race religion unions.”  The chapter on simulation games and research shows more tallies with two and even three issue dimensions.  Seventeen voters take positions on two issues:  more or less regulation 🡙 and taxes for services 🡘    K wins a plurality. M wins a runoff.  For clarity, a candidate is “she” and a voter is “he.” 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.2  More civility and consensus3 arise as candidates 🡭 ask a rival’s fans for their backup votes.4  14 \*Pages 33 and 46 show ballots. | IRV may be helping women achieve parity in politics.6. representwomen.org/how\_ranked\_choice\_voting\_shaped\_the\_feminist\_vic tories\_of\_the\_2019\_elections  More civility **stability\*** and consensus  *less* *hostility* as...  Courteous campaigns create more consensus.  On page 14, My use of references is a bit sketchy Can you help there?  **False** sometimes: it *is* wasted if you liked the Dem and the R wins.  a majority of *valid votes* support the winner. Mjrty doesn’t incl. kids, adults who did not vote  *returned* to IRV; *civility* & consensus *rose.*  Is there a better use of this space? more compelling? | **Instant Runoff Voting** **Patterns**  Running for president of South Korea, the former aide to a dictator faced two popular reformers. The two got a majority of the votes but split their supporters. So the aide won a **plurality** (37%, 28%, 27%, 8%). He claimed a mandate to continue oppressive policies. Years later he was convicted of treason in the tragic, government killing of pro-democracy demonstrators.5  A voter‘s backup is often like his favorite, but more popular. So by dropping one reformer, 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; 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 decreased.6  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 inside cover lists many groups using it in the USA.7 Some say it helps women achieve parity in politics.8  The workshop’s IRV game starts on page 39. 15 |
| 2. Electing Representatives  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  l l l l l l l  8 M  votes; 3 are  **wasted** in a surplus  **Section  One**  1 vote  **wasted** on a loser  PV_cCccc_kkKk  l = = = = = l =  4 K  votes **wasted** on a loser  **Section  Two**  5 C votes elect a rep  PV_bbBbb_jJjj  l ... ll ... ... ... ... ...  4 J  votes **wasted** on a  loser  **Section  Three**  5 B votes elect a rep  An 11 voter minority gets 2 reps; that is 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 *How many votes were wasted? 12* | Only 3 candidates can win this **percentage** of votes.  The votes needed **let only** three candidates win.  ∆ The votes needed, 26%, **allows** just 3 winners.  The votes needed, 26%, **limits** the winners at 3.  Requiring just over 1/4 leads to 3 winners.  This **requirement** leads to just 3 winners.  The votes needed must allow just 3 winners; 26% does. | **One Fair-Representation** 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  l l l l l l l  **All 3** sections together  **🞦**     **8 voters rank M > K > J.**  PV_cCccc_kkKk  l = = = = = l =  5 votes help elect C  4 votes help elect K  **🞦  6 rank C > B.**  PV_bbBbb_jJjj  l ... ll ... ... ... ... ...  B loses; these backup choices help elect C  J loses;  these backup choices help elect K  K  C  **Final** **11 C** **7 M**  **9 K**  Now the minority gets 1 rep and the majority gets 2. Their mandate is fair, **accurate**, popular and strong.  ∆ The votes needed must allow just 3 winners; 26% does. 17 |
| 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.1  **Women win** two or three times more often1 so **Accurate** **majorities** win—also due to more: choices, turnout, effective votes, and equal votes per rep so  **Policies match** public opinion better.2  Many people call this Proportional Representation, PR.  18 | multiparty requires coalition & compromise. Is it less polarizing for *big* parties**?**  It is called consensual.  Should SMD reps in MMP win a majority ~~or CT~~? | **Fair Shares and Moderates**  **Chicago** elects no Republicans to the State Congress, even though they win up to a third of the city's votes. But for over a century it elected reps from both parties. The state used a fair rule to elect 3 reps in each district. Most gave the majority party 2 reps and the minority 1. So no district was unwinnable and neglected by 1 party, a captive audience for the other party.  Those Chicago Republicans were usually moderates. So were Democratic reps from Republican strongholds. Even the biggest party in a district tended to elect more **independent**-minded reps.. They could work together for moderate policies.3  D_Equals  **✓** Shares of votes equal fair shares of seats.  New Zealand switched in 1996 from Single-Member Districts to a layer of **SMD**s within Fair Representation. This is called Mixed-Member Proportional or **MMP**. A small, one-seat district focuses more on local issues. Fair Rep frees us to elect reps with widespread appeals.  The seats won by women rose from 21% to 29%. The native Maoris reps increased from 7% to 16%, which is almost proportional to the Maori population. Voters also elected 3 Polynesian reps and 1 Asian rep.4  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.5 The SMDs elect few women; but in the same election, the party lists elect two or three times more women.1  The **safest nominee** for a 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 women.6 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 one old party decide job experience was not as important as **gender balance**.  So it dropped some experienced men to raise women higher on their party’s list. And they won.7 Now they are incumbents with experience, power and allies.  20 | often result in ...  **\*PHOTOS** **STORIES\*** and Refs. to show poor results   <- vtg rules is in next ¶.  reform fix the structural  The plurality rule is a key ~~central big~~ defective structure we can fix now. bring up to date,  key big import defect prob we can fix replace now. incentive to neglect vilify  ***So*** it gives the ***council***...  So help friends learn to **use.** | **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) So each majority of reps *does* stand for most voters. This produces **policies closer to public opinion**.2  *Less: ~~Wasted votes,   Gerrymandered districts,   Monopoly politics,  Dubious democracy~~*  Many voters see a woman in a multi-winner race less as fighting her rivals, more as **supporting her issues**.  Councils with fewer women tend to do less for health care, childcare, education and other social needs.8 Then the poorest schools and clinics are a **blight**; so are the citizens and workers hurt by poor health or education.  If such urgent needs overwhelm us, we neglect  the essential need to fix their **structural sources**.  The plurality rule is a key defective part to replace.  It wastes votes and underrepresents most voters.  It gives the reps less incentive to help most voters.  A more accurate democracy leads toward a better **quality of life**, as measured by the scores on page 60. 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 and sims will show more. 21 |
| 3. Allocating Budgets  **Fair Shares to Buy Shared Goods**  Electing reps is the most obvious use of voting rules. Rules to pick projects or a policy are also important.  These group decisions occur more often than elections. They even occur in many groups with no elections.        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 | rights were recognized, pre existed not granted  responsive trustworthy dependable consistent v reliable?  Voters with weak education or info are not ~~reliable.~~ So give free education.  Rights for the “weak” might not be popular. A key word is “**widely**” supported.  re-prioritize our resource distributions  City taxes then pay for the winners as the school or road departments administer the contracts. Every group has spending power; none is shut out. This makes (hidden) empires less profitable.  That may re-balance our private affluence and public squalor | Patterns of Unfair Funding  **Participatory Budgeting**, PB, lets neighbors research,  discuss and vote on how to spend part of a city's budget. In South America, it spread from one city in 1989 to hundreds today. Progress most often advances this way. The World Bank reports PB may reduce corruption and it tends to raise a community’s health and education.1  In 2010, a Chicago alderman gave $1,300,000 to PB.2 But a plurality rule made the votes and **voters unequal**. For example, in 2011 each vote to help a park won $501. That was its cost divided by its voters. But if cast for bike racks, each vote won a mere $31. That's too unfair. Even worse, most of the votes were wasted on losers.3  **✓✓**  **A costly winner makes many**  **lose.**  **.**  **.**    **.** **.**  A bad election rule gets worse when it picks projects. It is **not** **cost aware**, so it often funds a very costly item and cuts a bunch that get many more votes per dollar. To win this bad tally, load various proposals into one. Keep raising its cost if that attracts more votes.  One year, a scholarship fund got many **surplus votes**. These were wasted votes because they had no effect. So the next year, many supporters chose not to waste a vote on this “sure winner.” It lost*!* They saw the need for a voting rule that would not waste surplus votes.4  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.  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 shares or voters or more.  **FSV is fair** to an item of any cost and to its voters: ∵ A ballot pays a costly share to vote for a costly item. cost **/** base=1 share *e.g.* $100/25 ballots=$4 If more ballots divide a cost, each of them pays less.  So, a ballot's money can help more low-cost items.  This motivates a voter to give his top ranks to the items he feels give **the** **most joy per dollar**.  See Ranked Choice Voting points 1 and 3 on page 14.  24 | **So** 60% of the voters can spend 60% of the fund, not all of it. Your ballot’s **~~piece~~** **from** the fund  organizational funds  an item needs our “base number” of shares or more.  it **had** to earn at least  It had to earn shares from our base number *of* ***voters /* shares / ballots**  , to **prove** it is a shared good worth common funds | **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 **.**  *Items*  *Goods*  *Services*  *Projects*  *Programs*  *Budgets*  **.**  **✓** 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 14. The biggest groups often have the biggest risks.  **FSV** **protects a majority’s right** to spend a majority of the fund. It does this by eliminating split votes, as did IRV, and surplus votes, as we’ll soon see.  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 You only pay up to a level you voted for and can afford.  The item with the weakest top level loses that level. Any money your ballot had offered to it moves down your ballot to your highest ranks that lack your support. This repeats until the top level of each item is fully funded by its supporters. Thus, fair shares and backup ranks select a set of winners with **more supporters**.  A_Budgets **✓**  **✓** **✓**  **Many voters must concur, this cost  is a high priority within my budget.**  ⮞ A group with 100 membersset our **base** number at 25 votes.5 My first choice got just enough votes, so \* my ballot paid 4% of the cost. 100% **/** 25 votes = 4%.  My second choice lost; did it waste any of my power?  My third choice got 50 votes, so my ballot paid only 2% of the cost.\* Was there any surplus? Did I waste much of my power by voting for this sure winner?  26 \* These are “reciprocals.” *Answers: None. None. Not much.* | Item Funding Levels  Retrospective accountability  more supporters because the ballots leave few wasted votes.  Ask, “Which are “high-level effects?” I’d say 3 & 4.  Expose *some* **(hidden)** **payoffs** to *big* campaign sponsors. Not for schools, clubs & towns | 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 money.  This reduces their means and motives for **fighting**.  It makes (hidden) empires less profitable.  **Fairness** **builds** **trust** in spending by subgroups and raises support for more. This can reduce spending at the extremes of individual and central control.  ***N €w* *N ¥w***  ***New Tool***  ***N ₤w* *N $w***  **Merits of FSV for an Elected Council**  FSV gives some power to reps in the opposition, so Electing them is more **effective**, less of a wasted vote.  They ease starvation budgets that damage projects. This makes project management more efficient.  A voter can see grants from his rep to each project, tax cut, or debt reduction; then hold her **accountable**.  In games, we may vote for treats and eat the winners*!*  27 |
| 4. Enacting a Policy  **Condorcet** Test Number Two  The Runoff on page 12 was a one-against-one contest between the positions of candidates M and K. Five voters ranked M's policy 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 46 will show two different, simple ballots.  A workshop page will show a Condorcet Tally table. And a simulation map will show Condorcet voters with two issue dimensions.  *People often struggle to find  a group’s center of opinion*  K L    M    K is nearest four voters. L is nearest five voters.  28 | preferred M's **policy** position over K's  or **moderates** from districts for MMP,  or a **middle**-of-the-district rep for MMP,  It can pick a plan for ongoing budgets. page 44.  Could another person top candidate L, Yes or No?  Hint: Is anyone closer to the center, Yes or No? | **Condorcet** Test Number Three  Candidate L wins her last test by six to three. 6 > 3 She has won majorities against each of her rivals.  So she is the “**Condorcet winner**.” L > M. L > K.  “...such a mandate is no doubt a vital ingredient  in the subsequent career of the winner.” 1  Who is the Condorcet winner on page 13, K, L or M?  Thus a Condorcet Tally picks a central winner.  It can elect a **moderator** to a council, see page 8, or moderates from districts for MMP, see page 19. But is it likely to elect diverse reps, yes or no? It can select the base number for **FSV**, see page 26. But is it likely to spread spending fairly, yes or no? Does a CEO mostly moderate or advocate? And a Mayor?  Here is the center.  **1**    L has six votes. M has three.  *Answers: L. No. No. Discuss these.* 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 K above L, your ballot goes to K.  The option that gets the most ballots wins this test.  If one wins all its tests, it wins the Condorcet Tally. In a rare “voting cycle,,” 3 majorities rank K > L, L > M,  and M > K. IRV can break the tie.2  K L    M  ⭮  **Why Use a Condorcet Tally, CT**  **No split-vote** worries as duplicates don't help or hurt each other.2b An ad hoc majority can rank all of their favorites over the other options. Ballots from all voters help decide which one of the majority’s favorites wins.  **Choice** **ballots** rank the related options on one ballot so **Simplify** the old rules of order and **speed up** voting so **Reduce agenda effects**, from simple errors and **gridlock**, to free-rider and wrecking amendments.\*  **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. All this saves time and builds respect for democracy.  30 \* The glossary is on page 68. | ∴  ∝  ≡  **◊** ∆ \* ª ‡  🡓🠗🠛🠃🠇🠋🡣🡳🡇🢃 🠓🠗🠛🠃🠇🠋  help one majority favorite to win.  p32 awful, dirty tricks, nasty, disgusting, evil, foul, hideous, horrible, horrid, Loathsome,  ------------  Everyone helps choose our center. | **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.2, 3  Voters on the center **and right** give it a majority over any left-wing policy. At the same time, voters on the **left** **and** centerlike 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  over here.”  “I *am* the  center*!"*  **✓** Everyone helps locate our center.  Chairs with Balanced Support  **CT** can elect a chairperson and vice chairs to be the **swing voters** in an **Ensemble** **Council**, as pictured on pages 8 and 54. 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 uses.3 Games will put us inside each tally to feel how it works.  31 |
| Resist Rigged Votes  By **plurality** rule, candidate M lost on page 11. 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** politics.4  But this gerrymander didn’t change the **CT** winner, L.  So policies stay stable and make big swerves less often.  Many wasted votes often can expose gerrymanders; **Fair Rep** reduces both,5 as shown on pages 16 and 17.    3 rank K>L>M. 2 rank L>M>K. 4 rank M>L>K.  To capture 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 so it’s not a worry.  32 | **Foul** also implies a sports foul. Deceitful “dirty tricks” include many other kinds of lies, supression.  Do my *votes for* lower choices...  **Bribing**/**buying** 1 rep / seat moves/swings a council’s policy very little. This also cuts the payoff to a big campaign sponsor.  So you don’t need to worry over your own or other voters’ tactics. ------  *Starting* Now!  Several bundles required for CT, like ongoing $.  **gridlock** p30. P6p33, Line8  No option gets a majority. If one is req’d there is gridlock. Line last.  Build bills in a repository like **git**. So we see who made what changes and when, incl. drafts by lobbyists. | A Less Rigged Agenda *Now!*  Some meetings concoct a policy by a series of yes-no choices, with or without rules of order, agendas or votes. An early proposal might have to beat each later one. An early decision might preclude some later proposals. So “**stacking the agenda**” can help or hurt proposals.  Other meetings discuss the rival options all at once. But often, many members express **no backup choices**. So similar options split supporters and hurt each other. Then a minority pushing one option might seem to be the strongest group. Even sadder, a member with a well-balanced option but few eager supporters might drop it.  Too often, a committee chooses all the parts in a bill. Other members can say only yes or no to that **bundle**, which might include free-rider or wrecking amendments.  **Rigged votes** often build bad policy and animosity. To reduce these risks, let the voters rank more options.6  Issue A, RCV Ballot A *New Use!*  **Rank Option**    3  Continue Discussion    2  Original Bill, the main motion    1  Bill with Amendment 1 (a free rider?)    8  Bill with Amend. 2 (a wrecking amend.?)    7  Bill with Amendments 1 and 2    4  Postpone to a Definite Time   7 days    5  Refer the Bill to a Committee    6  No Change (a vote for gridlock exposed?)  The “Incidental Motions” do not wait for the ballot,  *e.g.* a personal complaint or request. 33 |
| Summary and Index of Benefits  **Ranked Choice Voting Has Proven To** Pages  **Make voting easy** and more often effective. **14**, 57 Give you power to rank a backup choice; so∴ 33, 46 Reduce your risk of wasting your vote; so ∴ 12, 16 Vote worry free for your true first choice. 14 **Boost mandates as more voters count.** **11**-17, 57  **Reduce** **attack ads** that scare, anger and polarize. 14, 46 **Weaken** **gerrymanders** and spoilers. 14, 16, 32  **Give** **fair shares** of reps to the rival groups; so **18** Give diverse candidates real chances to win; so 20 Give voters real choices and effective votes; so 17 **Make voter** turnout **stronger.** 61  **Elect women** about twice as often as plurality; so **20** Accurate majorities win—also due to more: choices, 17 turnout, effective votes and equal votes per rep; so 21 **Make policies match public opinion better.** 21, 60  **Related Legislative Rules Can**  **New**  **Elect a central chair** whose swing vote pulls 30-**31**,56 reps from many factions to **moderate policies**. 8, 54  **Give** Fair Share Voting for projects, savings, etc. **24** Let voters see each rep’s FSV **spending**. 27  **Reduce** **agenda effects** and scams. 27, 30, **33**, 36, 54 **Streamline group decision making.** 27, 33, 36  34 | ∵ ∴  effective  Let you // *because* it  freedom and power to *express your opinions*  Similar or Related  payoffs include seats won per $.  Reduce **hidden** **payoffs** to campaign sponsors.  \_\_\_  A group’s decision rules pull its **culture** toward fair shares *or* winner takes all. **Each** **rule** spreads **rewards** wide and **well** balanced *or* narrow and **often** lopsided. \_Relations among members **might** follow their models. | ★Social Effects and Uses  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 may 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. But countries with fair rules tend to rank higher in social trust and happiness.1 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.2  Voting only **yes or no** leads us to discuss and decide *one* formal “motion” at a time in a very strict sequence. It stifles the sharing of ideas and development of plans.  But both **consensus** and **ranked choice** **ballots** let us decide some closely related options at the same time. And both reward blending compatible ideas. pages 9, 31 They are less divisive than yes-or-no voting. '' 14, 46, 56 So more members want to help carry out the decision.  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 because they strengthen some reasons for voting:  Choice ballots can **speed up meetings**. pages 27, 33  Secret ballots **reduce social pressure** and coercion.  Well-designed ballots and tallies **promote equality**: Even busy or unassertive people can cast full votes.  36 | *deliberative* and *aggregative* approaches to democracy  So more members *feel they own and* want to help carry out each decision.  and see it succeed.  *after all that hard work*, a great decision *process* is easy *yet* key  We brainstorm, research, analyze, report and discuss. Our decision tool is quick yet key for high-quality results. Then we may implement, (educate), evaluate, refine and repeat.  For the first time, this year we will use a “list of approval-ready business items” (also known as a “**consent agenda**”)  “...it favors minimally acceptable steps over decisive action.” NYT 21/06/03  (Unlike power tools, nice voting tools are free and easy.) | Complementing Consensus  Groups that seek consensus on basic agreements may vote on other issues: They may vote on a minor **detail** like a paint color or on a bunch of optional **projects**.  **Fair Share Voting gives fair shares of power.**  Inclusive yet fast, it won't let one person block action. It is cooperative, not consensual nor adversarial. It is less about blocking rivals, more about attracting allies. Its ballot guides a voter to limit and prioritize projects. Its tally weighs dozens of desires, of varied cost and priority, from dozens of intersecting groups. We may modify our FSV results through our usual process.  **All majorities prefer the Condorcet winner**.  A proposal needs to top each rival by 50% plus one; and we may require it to win 60% or even 100% over the status quo on issues involving our basic agreements. If so, 41%, or even one voter, may block a Condorcet winner by showing it breaks a basic agreement.  Carpentry Analogy  The nice consensus methods are like nice hand tools, and these nice voting methods are like nice power tools. The power tools speed cutting through piles of boards or issues, and cutting through a steel-hard one. The high-touch tools help us discover and develop insights into new options.3 So most of us want both kinds of tools.  This primer told the *stories* of the best voting tools. The games will let us *be inside* the simple tallies. 🡺 ➲  37 |
| How You Can Try a Voting Tool  It's easy to **test**-drive a decision tool in a survey. Or  a council can form a committee of the whole to discuss, vote, tally and report results to enact by 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 quick.4  A_oldsteam A_mercedes  Steering Analogy  When choosing a voting rule, a new Mercedes **costs** little more than an old jalopy. That price is a bargain when the votes steer important budgets or policies.  Does your car have an 1890 steering tiller or a **new**, power steering wheel? Does your town have an 1890 voting rule or a new, centrally balanced rule? *e.g.* p. 33.   Many groups offer **apps to tally your votes.**  https://AccurateDemocracy.com/z\_tools.htm  38 | They may try a policy ballot, like the one on page 33. their old rules, e.g. p.33.  Today's drivers need the skill to use power steering, but they don't need the math or logic to engineer it. Same with voters and voting rules.  (We moved our own **robot** vote in the workshop games.) | II. Workshop Games  Rule_Board_500  **Get your hands on 4 great voting rules.**  **See how fair-share tallies organize voters.**  **Vote fast on projects, reps, or policies.**  Imag0019 h sized A tally board has **Bunting1RB A card for each voter,**  **Bunting1RB A column for each option,**  **Bunting1RB** **A finish line for the favorites.** |
| **1. Instant Runoff Voting Elects One**  Tabletop tallies make Ranked Choice Voting lively.  The finish line is the height of half the cards, plus one. That is how many votes a candidate needs to win.  If no one wins, we **eliminate** the weakest candidate. We draw names from a hat to break ties.  If your favorite loses, you can **move** your card.  You can give it to your next backup choice.  We repeat this to eliminate all but one, the winner*!*  This **chart** shows four columns on a tally board. The rule **eliminated** Anna, so **voter** **JJ** **moved** his card.Then Bianca lost, so **BB** and **GG** moved their cards.  They were free to choose different backups.1   |  |  |  | | --- | --- | --- | | **Anna** **Eliminated 1st** |  | **Bianca** **Dropped 2nd** | |  |  | B B | |  |  |  | | J J |  | G G |   40 JJ ranks Anna 1, Celia 2. GG ranks Bianca 1, Diana 2. | The winner had no surplus.  The last loser held four votes.  1. Should we let each member fund private items?  2. Should a member who pays more taxes or dues get more power to spend the group's money?  3. Can ranking lower choices hurt your first choice?  4.Should we let everyone see grants made by reps?  Bianca would be the Condorcet Winner if DD, ZZ and CC each ranked Bianca second. | How many votes were wasted on a surplus or a loser?  M, L & V rank Celia #1.D, Z & C rank Diana #1.   |  |  |  | | --- | --- | --- | | **Celia** **IRV Winner** |  | **Diana** **Runner up** |   *Finish Line\_\_Finish Line\_\_Finish*   |  |  |  | | --- | --- | --- | | B B |  |  | |  |  |  | | J J |  | G G | |  |  |  | | M M |  | D D | |  |  |  | | L L |  | Z Z | |  |  |  | | V V |  | C C |   *This winner had no surplus. The last loser held 4 votes.*41 |
| **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 one candidate can reach 50% plus a vote, T or F?  5. Name four cities or schools that use IRV. *Inside cover*  6. What benefits does it give them? *See page 14.*  **Answers**  *2) True, we count each card once in each round.*  *3) True, a backup doesn't count unless your 1st has lost.*  *4) True, more reps would need over 100% of the votes.*  **🡥**  **🡤**  Ranked Choice Voting, **RCV**, includes **IRV** and **STV**.  The inside cover lists some of the users. **🡧** Most of the groups tally their votes easily with apps.  **2. Fair Rep by Single Transferable Vote**  A tabletop tally 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*!*  **Answer** the IRV questions above again for STV.  4. Only three candidates can each win 25% plus a vote.  6. What benefits does STV give us? *See page 18.*  7. What total must a trio of reps win all together? *75%*  42 | **•Senators**  6. What benefits can Fair Rep by STV give us?  A voter may not give an item more cards then its #of columns. An **overflow** doesn’t count.  Rule B lets 4 *enthusiastic* voters fund 1.  RunningTotal3¢:17¢=$**1.50** Median = 10¢ **Average** = **10** 60¢ Col **/**  10¢ ave. vote = **6** ave votes.  If your favorite is about to lose, consider briefly taking your cards off some lower choice(s), so it might lose first—if your group allows this extra step.  lol: Multi Transferable Vote? MTV.  **Rule C** 17¢/3¢ #1 gets 170% Rule B is 3/1. #1 gets 150%. Costs are more accurate,  “front-runners on your ballot, even if you put him or her at the very bottom. That way you are more likely to have a say all the way to the end. “ nytimes.com/2021/06/10/opinion/ranked-choice-voting-nyc-mayor-election.html | **3. Fair Shares Buy Shared Goods**  For our tabletop tally of **Fair Share Voting**, **FSV**:  We each get three 50¢ voting cards to buy treats.  We decided an item needs modest support from six of us to prove it is a *shared*good worth shared funding. So the **finish line** marks the height of six cards, and  You may put only one of your cards into a column.  A costly item must fill several columns. A column  here holds $3, so a $6 item must fill two columns.  ⇨ Rule B lets you vote 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 15 cards still total $1.50 but average 10¢. 43 |
| **Setting Budget Levels**  Each budget level needs enough cards to pay its cost. So 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 and so qualify for funding.        **Similar options**, like 🡩 various fruits for treats  (or trees for a park 🡪)  may split their voters;  Then, by plurality rule, / \ each may lose to a plain nut.  Adjusting Ongoing Budgets  Levels for all 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-budgetsplan. Most voters feel it is easier to rank these few plans.2 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. Many voters complained, “My ballot had no effect!” Turnout fell lower. So now that team may present a few plans.  44 | Budgeting Optional Items  votes **required** to qualify for funding  i.e. full columns.  We could let any voters who want only the $6 size fill that column first. But 1) do they feel it worth its cost? 2) if a little size loses, so do the linked larger sizes.  **🡦** propose a plan *because* some voters  , most with 2 or 3 levels  the directors sanity check the results.  p45  1) JKLM 2) KJLM 3) KJLM 4) LKJM 5) **LM**KJ 6) **ML**KJ 7) MLKJ 8) MLKJ 9) **KM**LJ  Swap any ML & LM other pair. ABCD is too routine. | 4. Condorcet Tally Centers a Policy  In a Condorcet tally, the winner must top each rival, one-against-one. Two games show how it works.  A_In4c1)Flag L stands at our center, by the median voter. Flags J, K and M surround L, 2 m. or yards from it.  A_In4c We asked 9 voters: “Are you closer to J than to K?  If so, please raise a hand.” Only one raised a hand. We entered J vs. K, etc. in the pairwise table below.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **against** | **J** | **K** | **L** | **M** | | **for J** | — | 1 | 3 | 4 | | **for K** | **8** | 8+1=9 | 4 | **5** | | **for L** | **6** | **5** | — | **5** | | **for M** | **5** | 4 | 4 | 4+5=9 |   **The nine voters gave L a majority over each rival.**  A_In4c2)Flag L 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” to find frauds and errors.3   **Yes-or-no ballots** badly oversimplify most issues. They often highlight just two factions: “us versus them.” So they tend to **polarize** and harden conflicts.  Bunting1RBO **Ranked choice ballots** reduce those problems. They let you rank your 1st choice, 2nd choice, 3rd etc. Ranks can reveal a great variety of opinions. Surveys find most voters like the **power** to rank candidates.4  **Our Menu #1** Fill only one “O” on each line.  Best **Ranks** Worst  lbs. **Treats**\* **1**st **2**nd **3**rd **4**th **5**th **6**th  3 **Almonds, Toasted**  OOOOOO  7 **Apples, Honey Crisp** OOOOO  5 **Apricots, Dried** OOOOOO  6 **Bananas** OOOOOO  6 **Peaches, White** OOOOOO  6 **Oranges, Navel** OOOOOO  Which 1 wins by plurality? Hints: 5 sweets vs. 1 nut, and the first name on a ballot gets a 2% to 9% boost.5  Which treat wins by IRV or by Condorcet? With treats, we could adjust their quantities so their costs are equal. **FSV** helps if their costs vary, as on pages 24 and 43.  46 \*Treats are personal but a bulk buy saves money. | Which treat wins by IRV or by Condorcet? Which are the top 3 by those rules, STV or FSV? Which rule is best if the items vary in cost?   :**|**  Budget levels: 2 trees, 4 trees, EcoVillage,  Ballot #2  Walnut  Pecan  Pine Nut  **Hazelnut**, aka, Filberts  Hickory  Chestnut-  -----  The ranked choice ballots let us compare some rules. Hints: 9 fruits vs. 1 nut, and  Which item wins by plurality? Tip: the first item on a ballot gets a 2% to 9% boost; the second gets a little.7  Accurate Democracy and FairVote show more ballots  Sim screens and stats persuade some and bore many. | Workshop Finale Notes  **It’s easy to give this workshop** in a class or a club.6 In an hour, 20 voters can review plurality, try IRV, then  try **STV** for colors, as shown below, or **FSV** for treats.7  **Eat the winners*!*** while you plan to take a poll, for the central majority or fair shares, in a group you know. What qualities do you want in this poll? (See page 34.)  Voter education can be fun to do and it is essential. ***FairVote***.org has model ballots, voter-education flyers, videos, stories and much more to help your voters.  **Music video** for fun: https://flip2020.wordpress.com  Many groups offer **apps to tally your votes.**  https://AccurateDemocracy.com/z\_tools.htm    Hands-on games and shared treats make memories  of how each tool *works*. Next, simple simulations and national statistics show more high-level *effects*. . The effects on pages 54 through 59 are important for the governance of schools, clubs, towns and more.  47 |
| III. SimElection Games  **2. Watch Full Rep Balancing 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 candidate.1  1) STVd1  Sim players position their candidates to get votes (page 56). The numbers on a map show each candidate's current share of top-rank votes; getting 16.7% will win a seat and halo! After this round of counting, the weakest candidate must lose and get an **X**. The 3**.**7%⬥ will be the first to lose.  48 To make close rivals distinct, colors vary from a spectrum. | 🡕🡑 🡔  The candidates depart from a spectrum to make neighbors differ from each other.  1. Should a member who pays more taxes or dues get more power to spend the group's money?  2. Could ranking lower choices hurt your first choice? . This trips more voters if prices differ by over ten to one | **The Weakest Lose, One at a Time**  2)STVd2 3)STVd3  **X**  **X**  In map 2, the first loser gets an X. Her ballots change color and shape when each counts for its new top rank, a close rival. So the nearby fields of color grow. ● ◼ ● (Game maps may portray places or political positions.\*)  In 1, a gray line circles 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 centrists or **moderates** inside that line.  4)STVd4 5)STVd5  **X**  **X**  \* Pages 10 and 13 introduced political dimensions. 49 |
| **Votes Transfer, Elect Reps**  6)STVd6 7)STVd7  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—all in **3D**!  “RCV... gives you proportionality on every axis.”2 🡘 🡙 ⭍  8)STVd8 9)STVd9  **X**  50 | Moon Duchin said. “The thing about RCV is it gives you proportionality on every axis.” **STV** gives you proportionality on every **issue** axis **X, Y, Z.**”   ⮸⇪  Economists, were enamored with elegant math models that ignored *behavior*,politics, institutions and history.  distributed and balanced fairly?  test rules in lifelike...  a graphical procedure of representing three-dimensional objects in 2 dimensions, now known as orthographic **projection**. | **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.3  In 13, the line for half the ballots holds all but one rep. Does 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.* 51 |
| **3. Simulation of Fair Share Voting**  Fair Share Voting helps voters organize many ad  hoc groups large enough to fund their favorite items.  Each voter may try to help a few different groups to  give money, labor, water or another resource, to one- time projects or optional items in ongoing budgets; *e.g.*  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 the map shows a third issue dimension as deep layers of color within the page.  This is a proposed **blue-flower garden.**  It is far from what the **red voters** want,  even if it is next door. A voter prefers  the closest item with his favorite color.  Here a garden club had $240 to buy public plants and each interest group got a quarter of the votes. So how much did each group allocate?  **A red rosebush cost $30, two big sunflowers $15,** **an evergreen bush $20,** **a blue passionflower vine $60.** A group with only a few, low-cost proposals might be able to fund them all. Did that happen here?  52 *Answers: $60, $60, $60, $60.* *Yes for sunflowers.* |  | **Campus Map**  FS Map Shelf_q6_c4  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. One poll may serve both tallies. 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**  Bunting1RB1. The Loring Ensemble Rule elects a few reps by a Condorcet Tally, the rest by an STV tally; see page 8.  On this next map, 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**.  • 2. The *Condorcet Series* elects the candidates closest to the middle of the voters: *Al, Bev, GG*, *Joe* and *Fred*. The lower right or southeast gets no rep; so the council  is not well balanced. Each winner’s name is in *italic*.  CFN96168bCMN96164Dot3c 3. Full Rep by five-seat STV  elects Bev, Di, Fred, GG and Joe.  Each name is underlined.  It eliminated Al***!***  CMY96176b  **X**  CFY96167  **Notice Two Surprises**  Bunting1RB1. It may be surprising that broad Fair Rep helps the *central* *Condorcet* winner be the council's **swing voter**. With these tools, political diversity can be a source of balance and moderation as well as a wide perspective.  Bunting1RB2. *Central reps* can lead a broad Fair Rep council to **broader majorities**, with moderates from *all* sides. This can add to or replace some of the “checks and balances” often used to moderate a council's action.  54 **MMP** could elect diverse & central reps, pages 19 & 29. | |  | | --- | | perspective E pluribus unum  STV works, acts, moves, functions, operates, to succeeds,  p55 last line Which rule does?  Should SMD reps in MMP win a majority or CT? | |  | | **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 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 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. For example, The long line has more voters on Al’s side than on Joe’s. So Al wins that one-on-one test. Al wins a very different majority over each rival here. To do that, Al's political positions must be *central* and have *widespread support.* page 31    In contrast, STV requires the most intense support, first-rank votes, to avoid early elimination. ● page 48 IRV does too, with a high finish line of 50% + one vote.  56 | | \*\* In this case, every voter adds to Al’s majority over at least1 other candidate.  Strong Votes, 🡲 Strong big accurate Mandates, 🡲 Strong Policies, 🡲 Strong Country  We are in a battle of democrats vs autocrats— freedoms vs. tyranny.  Weak democ might fail to defend its freedom and liberty. Autocrats **corrupt** sabotage undermine.  Tyrants topple **easy-to-rig** democracy  Authoritarian powers incl. ...religions, corporations  The many merits of accurate democracy can build respect for it and help it defeat antidemocrats.  “No substantive victories can endure unless democracy is refortified against its foes.” Chris Hayes 2021 *The Atlantic*.\*\* | Back Matter  Voting Reform Is Cost Effective  **Issue campaigns** teach voters and reps for years.  This eases one problem, but rarely fixes the source.  **Election campaigns** cost a lot all at once. The biggest faction can skew all policies for a few years.  **Reform campaigns** can cost less, yet RCV reforms can improve voting and results for many years.  Issue  Election  Reform  2020 2022 2024 2026  Campaign  **costs in green**, results in yellow.  Stronger Votes ∴ Mandates ∴ Policies  RCV expands the base of power, the numbers of  effective votes and voters supporting: Pages  **1**   a **CEO** or a Chair from a plurality to a majority 14, 31  **2**   a Council from a plurality to over three quarters 17  **3**   the Budget from a few power blocs to all voters 24  **4**   a Policy from a one-sided to an over-all majority 30  Votes for real choices tally up real democratic power.  It needs big mandates to govern new nondemocratic powers in big money, media, marketing and more. Mandates aid actions to achieve popular goals,  building up the democracy and its leaders. 57 |
| **Voting Reforms Aid Other Reforms**  **1**  **Ballot access** rules make it hard for small parties  to get on the ballot, because big parties fear “spoilers.” To calm that fear, let voters rank their backup choices. **Ranked Choice Voting**, **RCV**,opens up elections.  **3** **A news firm** may serve us better if the subscribers steer more parts of it than the owners or advertisers do. There’s a low-cost method for any membership group: **Fair $hare Voting** can pay the best news bloggers.  **3** **Public campaign funding** lets reps and rivals give less time to their sponsors, more time to their voters. One plan gives each voter $50 of vouchers to donate.1 Such nameless gifts or **FSV** can cut corrupt paybacks. $ponsors aim gifts to buy the few swing-seat districts.2 **RCV** and **Fair Representation** make that harder.  **1**  **2** Stop billionaires from buying elections.  *“It’s very hard to see us fixing the* ***climate*** *until we fix our democracy.” Dr. James Hansen3*  **1**  **2** **Good** **schools**, taxes4 and voting may go together. Schools build our group skills and political knowledge.  **1**  **Sabbatical terms** make the current rep run against a former rep returning from rest, reflection and research. Then the candidates include two with records in the job! Similar candidates do not split apart a group with **RCV**.  **4**  **Citizens’ assemblies**5 and their referendums can get more choices and control by using **Condorcet Tallies**. The laws on voting rules, reps’ pay, $ponsors, etc. need referendums because the reps have conflicts of interest.  58 | “free and **competitive** **media markets** needed to make democracy work.”  With RCV, similar candidates do not split ***apart*** **their** *party*.  Don’t let billlionaires buy elections.  “We need to *disrupt* the political power of carbon polluters before we can meaningfully reshape economic **incentives**.”  Schools and media *teach* *infuse* *attitudes* about issues.  records *doing* a job.  p59 Bad elections can shield a demagogue  reduce abuse fight  Winner-takes-all is democracy's downfall. | Civil Society Builds Democracy  Merchants and workers in medieval guilds won  some rights by building **group** **skills**, unity, and allies. Now local councils, co-ops and schools can build skills.  Empirical thinking grew in the Age of Enlightenment leading to revolutions for **human rights**.6 Now rights must include Fair Representation and Fair Share Voting.  A big need for workers has often raised their pay and political strength, thus the **political equality** in a society. Now more progressive taxes7 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** utilities?8  CEOs may need to be assertive, but not authoritarian.   The latter corrupts commerce and wrecks human rights.9  Q*:* How can voting tools **reduce abuses of power**?  A: *RCV rivals act nicer p.14, swing reps moderate p.54. Fair Rep p.51, FSV p.24, & reforms on p.58 spread power.  But a winner-takes-all tally sets a bad example.*  59 |
| Better Voting, Better Living  This data suggests, to elect a good government that enacts superb health, education, tax7 and other policies, a country needs effective, not wasted votes.  Does **Fair Representation** elect more women? p.20  Do they tend to raise health and education results?10 Can these lift low incomes and reduce violent crime?  Dovoter **turnouts** or seats won by **women** tend to be lower in countries with more: people? diversity? religion? polygamy? corruption? militarism? hot weather?*!* Are those harder to change than the voting rules?  FairVote IPU_logo http://www.haitilibre.com/images-a/g-9656.jpg  WHO_Logo oecdlogo UN_Logo  Data Definitions and Sources  Measures of respectable power and policies, circa 2016  **Seats** average per election district; Inter-Parliamentary Union  **Women %** of main legislature; Inter-Parliamentary Union  **Turnout %** Int'l. Inst. for Democracy and Electoral Assistance  **Health Rank** first is best; World Health Organization  **Math Score** Program for Int’l. Student Assessment; OECD  **Poverty %** of children below half of median income; OECD  **Murder Rate** per million; 7th UN Survey of Crime Trends  Scores weighted by population give a voting rule’s average.  60 The table's **worst** numbers are in **bold**. | Democracy Index scores column not part of QoL  194 countries by Centre for Econ Policy Research, and World Econ Forum papers.ssrn.com/sol3/papers.cfm?abstract\_id=3617953  **Argentina, Chile**  **RSA**:WHO175, **Korea**:WHO:58, **Taiwan**:WHO\_,  ◊An Australian House district elects 1 member, by IRV.  An Australian state may elect 6 senators at once, by STV.  Freedoms: travel, media, property, class mobility, | **Country**  **Women** **Health** **Poverty**%  **Seats** % **Turnout** **Math** **Murder**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Fair Rep** page 16 | 37% | 75% | 15 | 503 | 13% | 12 | | Sweden9 14 | *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 | 10 | | 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**  page 19 | 36% | 71% | 26 | 505 | 9% | 11 | | Germany 19, 1 | 39, 13 | 72 | 25 | 514 | 16 | 11 | | New Zealand 50, 1 | 45, 15 | 77 | 41 | 500 | 15 | 9 | | **STV**, **IRV** p. 38,14 | 34% | 89% | 29 | 517 | 14% | 10 | | Australia 6, 1 | 38, 25 | *93* | 32 | 520 | 15 | 10 | | Ireland4.6 4 | **15** | 70 | 19 | 501 | 10 | 10 | | **Runoff** page 12 | 27% | **60**% | 1 | 496 | 11% | 12 | | France 1 | 27 | 60 | 1 | 496 | 11 | 12 | | **Plurality** page 6 | **25**% | 66% | **34** | **486** | **19**% | **42** | | Canada 1 | 26 | 68 | 30 | 527 | 15 | 17 | | United Kingdom 1 | 29 | 66 | 18 | 495 | 10 | 12 | | United States, 2020 1 | **24**, 25 | 66, 49 | 37 | **474** | **21** | **50** |   AccurateDemocracy.com/d\_stats.htm will add  Corruption transparency.org, Democracy Index eiu.com, Freedom freedomhouse.org, Purchasing power, Leisure.  U.S. turnout rises >15% in presidential years. 7.24.21 61 |
| Endnotes by Chapter  For each chapter the endnote numbers restart at one. 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**, **Fair Share Voting**, and rules of order for **Condorcet** **policies**. **Accuratedemocracy**.com **(ⓐ)** has pages on each voting rule. They add links, videos and free software:ⓐ [z\_tools.htm](http://accuratedemocracy.com/z_tools.htm).  ***FairVote***.org has model ballots, bylaws, editorials, research reports, voter-education stories, videos and more. RCV Resources https://www.rankedchoicevoting.org/ https://www.fairvote.org/**rcv\_activist\_toolkit**  I. Introduction, Tragedies, Eras and Progress  + American Accademy of Arts and Sciences. Our Common Purpose, American Democracy for the 21st Century. https://www.amacad.org/ourcommonpurpose/recommendations  Amy, Douglas J. *Proportional Representation: The Case for a Better Election System*. North Carolina is on page 30, http://archive.fairvote.org/?page=1606  2 Durbin, Kathy. *Tree Huggers: Victory, Defeat and Renewal in the Northwest Ancient Forest Campaign*, (Seattle, The Mountaineers, 1996)  3 Hoag, Clarence and George Hallett. *Proportional Represen­tation*, (New York City, The Macmillan Company, 1926)  4 Duverger, Maurice. "Factors in a Two-Party and Multiparty System" *Party Politics and Pressure Groups* (New York City: Thomas Y. Crowell, 1972), pages 23‑32.  Rein Taagepera, and Mathew Soberg Shugart. *Seats and Votes: the Effects and Determinants of Electoral Systems*. New Haven: Yale University Press, 1989. | + Katherine M. Gehl and Michael E. Porter; Why Competition in the Politics Industry is Failing America; HBS.edu 9/2017. hbs.edu/competitiveness/research/Pages/research-details.aspx?rid=84  hbs.edu/competitiveness/research/Pages/research-details.aspx?rid=84 | 5 FairVote. *Monopoly Politics 2020*, www.fairvote.org/monopoly\_politics  6 Lijphart, Arend. *Electoral Systems and Party Systems: A Study of Twenty-Seven Democracies* (Oxford: Oxford University Press, 1994)  7 See pages 30-31 and 54-56.  8 Statistics on pages 60-61 compare nineteen stable democracies.  wikipedia.org/wiki/Salus\_populi\_suprema\_lex\_esto 62  **1. Electing a Leader**, Instant Runoff ⓐ c\_irv.htm  1 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): pages 479-502.  "An Investigation into the Relative Manipulability of Four Voting Systems", *Behavioral Science*; 30:4 (Jan. 1985) pages 195-203.  Merrill, Samuel III. *Making Multi-candidate Elections More Democratic*. (Princeton, NJ: Princeton University Press, 1988)  2 Wright, Stephen G. “Voter Turnout in Runoff Elections”, *The Journal of Politics*, Vol. 51, No. 2 (May, 1989), pages 385-396  fairvote.org/ranked\_choice\_voting\_outperforms\_runoffs\_in\_upholding\_majority\_rule  3 *Ranked Choice Voting Civility Project* fairvote.org/rcv\_civility\_project  Reilly, Ben. *Democracy in Divided Societies* (Cambridge University Press, 2001)  http://www.nytimes.com/2021/02/25/opinion/elections-politics-extremists.html  4 The Editorial Board. “The Primaries Are Just Dumb.” https://www.nytimes.com/2020/02/26/opinion/democrats-primary-south-carolina.html  5 Korean election,  web.archive.org/web/20010113205900/http://nimbus.ocis.temple.edu/~jhurewit/history.html https://en.wikipedia.org/wiki/Roh\_Tae-woo  6 Papua New Guinea: Electoral Incentives for Inter-Ethnic Accommodation http://aceproject.org/ace-en/topics/es/annex/esy/esy\_pg |
| 7 https://www.fairvote.org/rcv\_in\_campus\_elections https://www.fairvote.org/where\_is\_ranked\_choice\_voting\_used  8 ttps://www.representwomen.org/representation\_and\_rcv\_a\_long\_term\_solution  John, Sarah; Smith, Haley; Zack, Elizabeth. “The alternative vote: Do changes in single-member voting systems affect descriptive representation of women and minorities?” sciencedirect.com/science/article/abs/pii/S0261379417304006  2. Electing Representatives, Fair Rep ⓐ d\_intro.htm  Statistics on pages 60-61 compare the stable democracies. More at https://accuratedemocracy.com/d\_stats.htm  2 Huber, John D. and G. Bingham Powell, Jr., “Congruence Between Citizens and Policymakers in Two Visions of Liberal Democracy,” *World Politics* v46 #3 (April 1994), pages 291-326.  3 “*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  archive.fairvote.org/index.php?page=39&articlemode=showspecific&showarticle=1325  63  4 Roberts, Nigel. *New Zealand: A Long-Established Westminster Democracy Switches to PR*, (Stockholm, IDEA, 1997)  www.nigel-roberts.info/NSR-in-Reynolds-&-Reilly-1997.pdf  5 Mathews, Dylan. “3 Reasons New Zealand has the Best Designed Government in the World” www.vox.com/2014/9/23/6831777/new-zealand-electoral-system-constitution-mixed-member-unicameral  Mathew Soberg Shugart. Emergency Electoral Reform: OLPR for the US House. fruitsandvotes.wordpress.com/category/american-political-reform/ Jan. 2021. | psypost.org/2018/06/study-finds-less-**corruption**-countries-women-government-51530  theguardian.com/world/2020/aug/18/female-led-countries-handled-coronavirus-better-study-jacinda-ardern-angela-merkel  Francis, Fred and Peg. [*Democratic Rules of Order*](http://democraticrules.com/tips.html), 2010, p.19, 24.  fairvote.org/unite\_america\_calls\_for\_combining\_ranked\_choice\_voting\_with\_**mail\_in**\_ballots  fairvote.org/basalt\_mayoral\_race\_features\_ranked\_choice\_voting | 6 Richie, Rob and Andrew Spenser. “The Right Choice for Elections” University of Richmond Law Review; vol. 47 #3, (March 2013) https://lawreview.richmond.edu/files/2013/03/Richie-473.pdf  7 Krook, Mona Lena. Quotas for Women in Politics: Gender and Candidate Selection Reform Worldwide; (Oxford University Press, 2009) 123.  Healy, Andrew and Jennifer Pate. 2011. “Can Teams Help to Close the Gender Competition Gap?” Economics Journal, 121: 1192-1204 https://web.archive.org/web/ 20170706034311/http://myweb.lmu.edu/ahealy/papers/healy\_pate\_2011.pdf  8 www.nytimes.com/2016/11/10/upshot/women-actually-do-govern-differently.html  https://www.nytimes.com/2020/05/15/world/coronavirus-women-leaders.html  Statistics of nations pages 60-61 above, and ⓐ d\_stats.htm  **3. Allocating Budgets**, Fair Share Voting ⓐ p\_intro.htm  FSV=STV if $# = voters#, 1 share = $1, and 1 seat costs $# / (seats+1)  1 Shah, Anwar ed. *Participatory Budgeting*; The World Bank; Wash. DC; siteresources.worldbank.org/PSGLP/ Resources/ParticipatoryBudgeting.pdf  2 Moore, Joe. *Participatory Budgeting in the 49th Ward*, http://participatorybudgeting49.wordpress.com/ In 2014, voters in Cambridge, Massachusetts saw a similar pattern.  3 Tupelo-Schneck, Robert and Robert B. Loring, *Fair Share Voting*,  for Participatory Budgeting Conference **slideshows**, New York City, 2012. [https://accuratedemocracy.com/p\_intro.htm](http://accuratedemocracy.com/p_intro.htm)  4 News of the Oaks, *Leaves of Twin Oaks*, Louisa, VA, USA; 1995.  5 Oaks, Adder. “Participatory Budgeting in an Income Sharing Community”, *Communities: Life in Cooperative Culture;* #175, June 2017. www.ic.org/participatory-budgeting-in-an-income-sharing-community/  *Leaves of Twin Oaks*, 2013. A budget *cut* required 55% of the voters.  + https://pbstanford.org + participatorybudgeting.org  64 | |
| **4. Enacting a Policy**, Condorcet-IRV Tally ⓐ l\_intro.htm ⓐ l\_motion.htm  1 From Chamberlin, Cohen, and Coombs, cited on page 63 above.  2 If *A* bests *B*, *B* bests *C*, and *C* bests *A*, then we have a “voting cycle.” Tally IRV with the options in the top voting cycle. ⓐ l\_cycles.htm  Green-Armytage, James. "Four Condorcet-Hare Hybrid Methods for single-winner elections"; 2011; votingmatters.org.uk/ISSUE29/I29P1.pdf  "Strategic Voting and Nomination"; *Social Choice and Welfare;* 2014.  Tideman, Nicolaus. *Collective Decisions and Voting;* (Ashgate Publishing Ltd. Hampshire, England; 2006) page 232.  Green-Armytage, James; Nicolaus Tideman and Rafael Cosman. "Statistical Evaluation of Voting Rules" *Social Choice and Welfare;* 2016, 46: 183.  Chamberlin et al above, also Merrill. ⓐ c\_data.htm ⓐ l\_data.htm  Loring One-winner Rule, 1996; ⓐ l\_lor1.htm  2b These follow from Later-no-harm and Later-no-help criteria.  3 See the captions on pages 15 and 56. ⓐ c\_irv.htm#compare  4 https://en.wikipedia.org/wiki/Primary\_challenge  5 https://www.nytimes.com/interactive/2018/11/10/opinion/house-representatives-size-multi-member.html  6 Rules of Order AccurateDemocracy.com/l\_motion.htm  7 fairvote.org/basalt\_mayoral\_race\_features\_ranked\_choice\_voting  + https://www.theatlantic.com/politics/archive/2018/02/a-better-way-to-look-at-most-every-political-issue/552752/ |  | ★Social Effects and Uses  1 Bennett-Smith, Meredith. *World's Happiest Countries 2013,* http://www.huffingtonpost.com/2013/05/28/worlds-happiest-countries-2013-australia\_n\_3347347.html; Cites UN, OECD.  *OECD Better Life Index* http://www.oecdbetterlifeindex.org/  Rothstein, B. and E. Uslaner. “All for All: Equality, Corruption, and Social Trust” *World Politics*, Vol. 58, # 1, October 2005, pp. 41-72 https://projects.iq.harvard.edu/gov2126/files/rothstein\_2005.pdf  2 Susskind, Lawrence and Jeffrey L. Cruikshank, *Breaking Robert’s Rules*; (Oxford, Oxford University Press, 2006). Spanish: *Mejor Que La Mayoria,* with Francisco Ingouville, (Buenos Aires, Obelisco, 2011)  3 *Group-Process Pattern Language*, http://groupworksdeck.org  4 https://www.AccurateDemocracy.com/l\_motion.htm  + wikipedia.org Committee\_of\_the\_whole Special\_rules\_of\_order  65  II. Workshop Games, hold a vote ⓐ a\_workshop.htm  1 A voter’s ranks may skip around, *e.g.* 1st left, 2nd far right, 3rd center.  2 Loring, Robert. Other Budget Rules ⓐ q\_other.htm  3 FairVote. “Ranked Voting and Election Integrity”, 2013. fairvote.org/ranked-voting-and-questions-about-election-integrity/  www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=25120  Election Audits, http://electionaudits.org/ http://www.verifiedvoting.org  4 Portland Voters Overwhelmingly Support Ranked Choice Voting, 2015 fairvote.org/portland\_voters\_overwhelmingly\_support\_ranked\_choice\_voting  5 Krosnick, Jon A. "In the Voting Booth, Bias Starts at the Top", *NY Times*, http://nytimes.com/2006/11/04/opinion/04krosnick.html  + https://www.fairvote.org/rcv\_ballot\_design  + A ballot by a developer of FSV http://tupelo-schneck.org:8080/tag/  6 https://AccurateDemocracy.com/a\_teach.htm  7 www.youtube.com/watch?v=oHRPMJmzBBw or v=\_5SLQXNpzsk  + https://accuratedemocracy.com/d\_stv2d.htm ⓐ p\_tools.htm  + Music video https://flip2020.wordpress.com |
| III. Simulation Examples, compare rules ⓐ [d\_stv2d.htm](http://accuratedemocracy.com/d_stv2d.htm)  1 Loring, Robert. simelection.com 1996 http:politicalsim.com  https://accuratedemocracy.com/d\_stv2d.htm ⓐ p\_tools.htm  2 Lorence, Stella; “Massachusetts Voters May Face Ranked Choice Voting Question...”. *BU News Service*. 3/3/2020. Quote from Dr. Moon Duchin, founder of MGGG Redistricting Lab, Tufts U.  3 See entries for Chamberlin et al; or Merrill III; or Green-Armytage.  + Brady, Henry E. "Dimensional Analysis of Ranking Data",  American Journal of Political Science. 34 (11/90)  Back Matter ⓐ a\_goals.htm ⓐ z\_review.htm  1 https://en.wikipedia.org/wiki/Democracy\_voucher  Ackerman, Bruce; and Ian Ayres. *Voting with Dollars: A New Paradigm for Campaign Finance*; (New Haven: Yale University Press, 2002)  2 Gifts to "spoilers" are less effective under Ranked Choice Voting. Multi winner districts make it hard to target money on just one seat.  3 https://www.nytimes.com/2018/06/23/opinion/sunday/james-e-hansen-climate-global-warming.html also, “conservation ... depends on effective governance;” https://www.nature.com/articles/nature25139.  66  4 See progressive taxes in Wikipedia pages on: [Carbon\_tax](https://en.wikipedia.org/wiki/Carbon_tax), [Consumption\_tax#Expenditure\_tax](https://en.wikipedia.org/wiki/Consumption_tax#Expenditure_tax), [Location\_value\_tax](https://en.wikipedia.org/wiki/Georgism), [Financial\_transaction\_tax (speculation)](https://en.wikipedia.org/wiki/Financial_transaction_tax), and Weath\_tax.  Piketty, Thomas and Arthur Goldhammer. *Capital in the 21st Century*; (Cambridge MA: The Belknap Press of Harvard U. Press, 2014)  5 Compare the Math scores of stable democracies on page 61.  6 Chalmers, Patrick. “The People Trying to Save Democracy From Itself”, https://www.theguardian.com/world/2016/jul/02/democracy-tarnished-brand-desperate-need-reinvention  4 Compare the Math scores of stable democracies on page 61.  5 Chalmers, Patrick. “The People Trying to Save Democracy From Itself”, theguardian.com/world/2016/jul/02/democracy-tarnished-brand-desperate-need-reinvention | Music video flip2020.wordpress.com  On Solar Streets and Wilderness Alleys http://windsong.bc.ca  web.archive.org/web/20020201052854/  http://accuratedemocracy.com/l\_**lor1**.htm | Bouricius, Terrill G. “Democracy Through Multi-Body Sortition: Athenian Lessons for the Modern Day”, New Democracy Inst., *Journal of Public Deliberation*, Volume 9 | Issue 1; 4-30-2013  Navajas, Joaquin et al; “Aggregated knowledge from a small number of debates outperforms the wisdom of large crowds”, (Cornell University, 2017) https://arxiv.org/abs/1703.00045 + info.vtaiwan.tw  6 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.  7 See progressive taxes in Wikipedia pages on: [Carbon\_tax](https://en.wikipedia.org/wiki/Carbon_tax), [Consumption\_tax#Expenditure\_tax](https://en.wikipedia.org/wiki/Consumption_tax#Expenditure_tax), [Location\_value\_tax](https://en.wikipedia.org/wiki/Georgism), [Financial\_transaction\_tax (speculation)](https://en.wikipedia.org/wiki/Financial_transaction_tax), and Weath\_tax.  Piketty, Thomas and Arthur Goldhammer. *Capital in the 21st Century*; (Cambridge MA: The Belknap Press of Harvard University Press, 2014)  8 https://cyber.harvard.edu/publications/2018/01/communityfiber Institute for Local Self-Reliance www.ilsr.org www.windsong.bc.ca  9 Loring, Robert. “Egalitarian versus Authoritarian Values” 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  10 https://psypost.org/2018/06/study-finds-less-corruption-countries-women-government-51530  Damien Cave. “Jacinda Ardern Sold a Drastic Lockdown With Straight Talk and Mom Jokes”. https://www.nytimes.com/2020/05/23/world/asia/jacinda-ardern-coronavirus-new-zealand.html Defines MMP  11 web.archive.org/web/19990218104532/http://members.aol.com/loringrbt/elect.htm **ⓐ**archive/Democracy\_Evolves\_1997/elect.htm  12 web.archive.org/web/19991023011241/http:/members.aol.com:80/loringrbt/a\_intro.htm  Share the **eBook**: AccurateDemocracy.com**/**AcDem.pdf   It is always the most up-to-date edition.      67 |

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| Some Questions to Ask  **Some basic questions to ask about any voting rule:** How many groups use it, with how many voters, how many times, over how many years? How consequential are their decisions? What percentage of voters turnout? What percentage are effective?  Is its pattern of winners erratic or consistent?  If it’s consistent, is it fair share or winner takes all?  If it is winner takes all, is the winner central or from one side?  If it’s central, is the winner’s appeal wide or narrow?  How often were past elections manipulated by a gerrymander, spoiler, stacked agenda, strategic voting, or other rigged votes?  **Some basic questions to ask about** **voting-rule** **research**:  Are the data from: 1) Real competitions, 2) Computer simulations with: A) normal distributions of voters and candidates B) weird distributions, 3) Concocted examples, 4) Mathematical proofs.  Most articles, books and web pages cited 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.  **Manipulations** are best resisted by Condorcet-Hare hybrids.4.2 They are even better than the usual majority IRV. All decisive, non-dictatorial voting systems can be manipulated, sometimes. So the operant questions are, 1) “How often can each voting system be manipulated in a realistic electorate?” 2) “How easy is the manipulation?” and 3) “How damaging is its effect?”  **Why do this work?** To help the most people, give them better tools to make better group decisions, to allocate resources and to reduce conflicts, page 35. The multiplier effect is huge as a small budget for voting can steer much bigger budgets for many years. So, many schools, clubs and towns are adopting RCV.  68 Which works better, exhortations or incentives? | For good behavior, avoid exhortations, advocate incentives. I **advocate** **incentives** built into the system; **avoid** **exhortations**,  Margin of victory, legitimacy  Item Funding Levels:  Quota, Base number,  Threshold to win  Finish line  It measures weakness in a voting result.  More PHOTOS of PEOPLE  Milton Friedman quote | Glossary and Index  **Accurate democracy** gives groups fair shares of seats and spending It cuts scams and enacts a policy that tops all rivals.  *4 goals*  a **Mandate** is the authority effective votes loan to a     Pages  winner. It is a basic goal. Contrast a wasted vote. **11**-17, 57  a **Majority** is more than half of the votes. **11**-, 14-, 30-, 56  a **Plurality** has the most votes—often not a majority.  **"** **rules** use yes-or-no voting; contrast RCV. **6**, 11, 23, 31-, 61  a **Ranked Choice Vote** lets you rank your first choice and backups.  It is a tool for effective votes and fair shares **14**, 33, 46  a **Threshold** to win or finish line is the percentage  of the votes a rule requires for a win. 6, 14, 17, **42**-, 48  a **Wasted vote** went to a loser, a winner's surplus or a powerless rep. It discourages voting and weakens democracy.  **12**-18, 23, 27  a **Wrecking amendment** ruins a bill’s chances or effects.  a **Free-rider "** doesn't relate to the original bill. 30, **33**, 36  See also the **Summary and Index of Benefits** on page 34.  Acronyms and Synonyms  Pages  Consensus process 33, **36-**  CT,Condorcet Tally, Pairwise Comparison 28-**30**-, 45, 54-56  **EC**, Ensemble Council ***New*** **8**-, 31, 54-56  **FSV**, Fair Share Voting ***New*** 22-**24**-, 36-, 43-44, 52-  **FR**,**Fair Rep**, Fair Representation (US); see also STV,  PR, Proportional Representation, MMP 7, 16-**18**-, 54, 61  RCV,Ranked Choice Voting, Choice Voting (US), includes: STV,Single Transferable Vote for Fair Rep. **42**, 48-51, 54  **IRV**, Instant Runoff Vote (US), Majority Preferential Vote (Aus),   AV, Alternative Vote (UK) for SMD. **14**, 39-42, 56  **SMD**,a Single-Member District elects one rep. **6**, 16, 19 |