Unstacking Agendas

Meetings often make interlocking decisions one at a time through yes-no voting, with or without explicit rules of order, agendas, and votes. Proposals decided early can shut out later options.

Or people may talk about all options at once but never clearly tell (vote) their 2nd and 3rd choices. So a few people pushing a single idea can appear to be the strongest group. And one person with a balanced idea but no avid supporters might drop it.

The best rules avoid all those problems by ranking the rival motions (or budgets) on the same ballot.

In Groups of Any SIze

✓ Anonymous ballots **protect dissidents**.
✓ A good tally **assures equality**; even busy or unassertive people cast a full vote.
✓ Pondering a ballot or survey **educates members** about setting budgets and priorities.
✓ Some issues needn't be adversarial or consensual: **Multi-winner** funding gives everyone a **fair share** of power – without letting anyone block action.

Movable Votes

Get your hands on 5 great voting rules.
See fair-share tallies organize voters.
Vote fast on budgets, rules and projects.

A tally board has

◉ A **chip** for each voter,
◉ A **column** for each option,
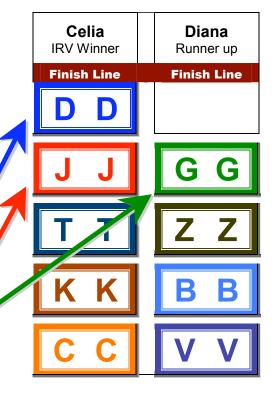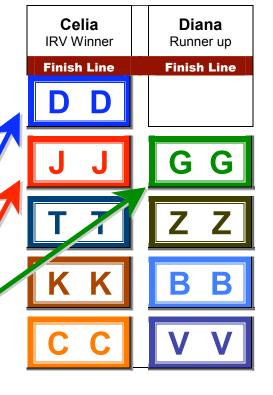◉ A **finish line** for the favorites. ➡

Instant Runoff Voting Elects 1 Winner

☛ A **finish line** marks the height of half the chips+1 That is how many votes a candidate needs to win.

☛ **Eliminate** the weakest candidate if no one wins. Draw names from a hat to break ties.

☛ **Move** your chip if your candidate loses.

☛ **Repeat** until one candidate gets the finish line!

This **chart** shows four columns on a tally board. The rule **dropped** Anna, so **voter JJ** moved. Then Bianca **lost**, so **DD** and **GG** moved.

Anna Eliminated 1st	Bianca Eliminated 2nd
	D D
J J	G G

Celia IRV Winner	Diana Runner up
Finish Line	**Finish Line**
D D	
J J	G G
T T	Z Z
K K	B B
C C	V V

Instant Runoff Voting cont.

By **organizing voters**, Instant Runoffs avoid:
Spoilers *and* the lesser-of-two-evils choice;
Costly runoffs *and* winners-without-mandates.

IRV elects leaders in San Francisco, Burlington...
It elects students at Duke, Rice, Reed, MIT, UCLA...

1. Is a chip that moved bigger than any other?
2. Can two candidates reach the 50%+1 vote line?
3. Can your 2nd choice vote hurt your 1st choice?

Single Transferable Vote Elects 3 Reps

The **finish line** is set at 1/4 of the chips + one.
Give no chips to a candidate who has finished.

Eliminate the weakest candidates one at a time.

Move your chips until three candidates win!

STV is **used in** Australian and Irish elections, at Princeton, Harvard, Berkeley, Oxford, Cambridge, in some labor unions and the Church of England.

STV gives each group their **fair share** of seats. Voters get more **choices**; so more **turnout** to vote. It makes more **effective votes** that elect reps.

4. What total fraction must three STV reps win?

Movable Money Votes Buy Public Goods

Let's say we each put in $1 to buy some items. You get two 25¢ voting **chips** and a 50¢ chip.

We say an item needs modest support from 8 of us to prove it's a public good worth public money. So the **finish line** marks the height of 8 chips.

You may put only one of your chips in a column. So you can't dump all your chips on a private item. Tip: Give your **double chip** to your favorite. This way 4 eager voters can fund a low-cost item.

A costly item must fill several **columns**. Each holds $2, so a $4 item must fill two columns.

When an item wins, the banker hides its chips. We **drop** an item if it costs more than all chips left. Then 1 at a time, we drop the least popular item, with the lowest level of chips in its columns.

Move your chip from a loser to your next choice. Tip: You may save a threatened favorite by briefly **withholding** your chips from lower-choice items.

We **stop** when all items still on the table are paid. Only a few items can win, but all voters can win!

5. Should we let each voter fund private items?

Budget Refill Votes Adjust Departments

A big department has several **columns** to fill.

The columns each need $100... for the dept. to reach last year's budget; that's its **refill line**.

A supporter's **chips** help refill its budget columns. Voters can push it above its refill line. But its gain will be another department's loss.

Let's say a council of 20 decides each dept. needs modest support from 10 voters to restore its funding. So a column needs 10 chips from 10 voters to reach its refill line, or 5 double chips.

They want to budget 4 low-cost activities with 1 column each, plus 3 items with 2 columns each. The 10 columns X 10 chips to refill each =100 chips.

The 100 chips / 20 voters = 5 chips for a voter; that's 1 double and 3 singles. Put just 1 in a column.

Set target budgets and rank your priorities. If a budget goes to high, its **priority** drops. So **move** your chips to under-funded priorities.

We **stop** moving chips when a **timer** sounds. You lose chips that are not on the board. This deters faking votes until a last-second switch.

A two-thirds majority may **reopen** the voting.

Pairwise Tally Centers a Policy example

A policy's flag is **centered** in the class. Three flagpoles surround the first, 6' from it.

We ask, "Are you closer to flag J than flag K? If so, raise your hand." Then J against L, etc. We put each total in the Pairwise **table** below.

The winner must top every rival, **1-against-1**.

against	J	K	L	M
for J	—	3	3	5
for K	4	—	7	5
for L	4	0	—	5
for M	2	2	2	—

A pole stands at our center near the median voter. It holds a short Red ribbon and a long Blue one.

If the Red ribbon gets to you, the Red policy gets your vote with its narrow appeal.

But if the Red cannot touch you, the **wide appeal** of the Blue policy gets your vote. Which 1 wins?

If poles are places for a heater in a cold room:
6. Do we put it at our center or in the biggest group?
7. Do we turn on its fan to spread its heat wide?