

2 leftover important systems

Sounds silly : Random Dictator

Everybody votes, one vote is selected at random, that ballot determines the winner.

less crazy than it seems.

If $X\%$ of people have some opinion, then this opinion wins $X\%$ of the time.

Works great for repeated low-stakes decisions.

↑
lets the probabilities even out.

Defeats "the tyranny of the majority"

if 51% of the voters agree on something they can get their way 100% of the time.

Approval Voting

Voters don't rank their choices, but just choose which options they approve of.

A ballot looks like:

A —
B ✓
C —
D ✓

Add up all the approvals,
most wins.

	23	37	4	17	21	3	5	7
A	x	x		x		x		
B	x				x	x		x
C			x	x		x		
D		x			x	x		

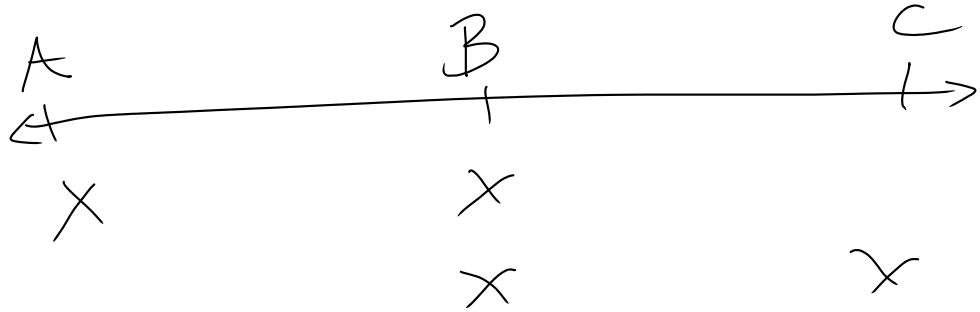
Totals:

A:	$23 + 37 + 17 + 3 = 80$
B:	$23 + 21 + 3 + 7 = 54$
C:	$4 + 17 + 3 = 24$
D:	$37 + 21 + 3 = 61$

A wins!

Approving everybody is equivalent to approving nobody.

Tends to elect middle-ground candidates.



Used by FU faculty.

Weighted Voting

Usually a small # of voters,
each has a different weight.
↑
how much their vote counts.

Like in corporate board votes,
your # of votes depends on your ownership stake.

Also electoral college, think of the states
as 50 individual voters
with different weights.

CA : 55 votes

When someone wins in a state, they win all of that state's electoral votes. (except ME & NE)

TX : 38 votes

FL : 29 votes

NY : 29 votes

:

DE : 3 votes

Focus just on yes/no votes.

Each voter has a weight

There is a quota ← how many votes you need to win.

(not always 50%)

Ex 5 voters, weights: 12, 10, 5, 1, 1

quota: 20

We'll write it like: $[20 : \underbrace{12, 10, 5, 1, 1}_{\begin{array}{l} \text{quota} \\ \text{weights.} \end{array}}]$

Who has the power? & how much?

The answers are not obvious.

Does the 12 have power than the 10.

$[20 : 12, 10, 5, 1, 1]$

To get to 20, we need the 12 and the 10.

12 & 10 have equal power,

the 5, 1, 1 have no power!