VOTING SYSTEMS

444 Lecture 8

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2024-02-08

PLAN FOR TODAY

1. Go over some other single election voting systems that are nowadays **not** used for elections.
2. Talk briefly about electing multiple people at a time.

RANGE VOTING

RANGE VOTING

This is an unfamiliar name for a simple system.

Every voter gives as many candidates as they like a score in a range, typically 0-10, or 1-5.

The candidate with the highest average wins.

QUESTION 1

Today will have lots of chance for discussion with people sitting nearby. (You may want to move to somewhere you can talk to more people.)

Real world uses

What real world systems use range voting?

ANSWERS

(To be added after class)

QUESTION 2

Political Impact

What do you think would happen if we used range voting to elect the governor of Michigan?

ANSWERS

(To be added after class)

ICLICKER

Would using range voting be better or worse than the status quo (i.e., plurality voting)? Why or why not?

a. Yes

b. No

The final vote was ___ Yes and ___ No.

APPROVAL VOTING

APPROVAL VOTING

This (again) is an unfamiliar name for a simple system.

Every voter votes for as many candidates as they like.

Intuitively they vote for every candidate they approve of, but this is just an intuition, it isn't part of the rules in any way.

The candidate with the most votes wins.

QUESTION 1

Real world uses

What real world systems use approval voting?

ANSWERS

(To be added after class)

QUESTION 2

Political Impact

What do you think would happen if we used approval voting to elect the governor of Michigan?

ANSWERS

(To be added after class)

ICLICKER

Would using approval voting be better or worse than the status quo (i.e., plurality voting)? Why or why not?

a. Yes

b. No

The final vote was ___ Yes and ___ No.

UP-DOWN VOTING

UP-DOWN VOTING

I don’t know of a standard name for this system, but it’s again one you’re familiar with I think.

For each candidate, each voter can vote yes, or no, or leave blank.

The candidate with the most surplus of yes votes over no votes wins.

QUESTION 1

Real world uses

What real world systems use up-down voting?

ANSWERS

(To be added after class)

QUESTION 2

Political Impact

What do you think would happen if we used up-down voting to elect the governor of Michigan?

ANSWERS

(To be added after class)

ICLICKER

Would using up-down voting be better or worse than the status quo (i.e., plurality voting)? Why or why not?

a. Yes

b. No

The final vote was ___ Yes and ___ No.

BORDA SCORE

TECHNICAL POINT

The previous three systems took more than the **preferences** of the voters into account.

Even if voters vote sincerely (which I suspect you'll have decided was unlikely) just knowing the ranking each voter has of the candidates will not tell you how they vote.

Partially for historical reasons, and partially for technical reasons, there has been a lot of attention paid to systems that do just take preferences, i.e., rankings, as inputs.

BORDA SCORE

Each voter ranks the N candidates from 1 to N.

For each voter, the candidate who is ranked first gets N-1 points, the next gets N-2 points, the next N-3 points, and so on down to last who gets 0 points.

The candidate with the most points wins.

QUESTION 1

Real world uses

What real world systems use the Borda score system (or anything like it)?

ANSWERS

(To be added after class)

QUESTION 2

Political Impact

What do you think would happen if we used the Borda Score system to elect the governor of Michigan?

ANSWERS

(To be added after class)

ICLICKER

Would using the Borda Score system be better or worse than the status quo (i.e., plurality voting)? Why or why not?

a. Yes

b. No

The final vote was ___ Yes and ___ No.

CONDORCET SYSTEMS

I won't go over these in detail, but I wanted to make sure you knew about another class of systems, which are called Condorcet Systems, or Condorecet Methods.

CONDORCET AND BORDA

Jean-Charles de Borda (1733-1799)

Marquis de Condorcet (1743-1794)

CONDORCET CONSTRAINT

If there is a candidate such that a majority of voters prefers that candidate to all other candidates, that candidate shall win.

EXAMPLE

Four candidates, ABCD, 300 votes.

- 100 prefer ADBC
- 100 prefer CDAB
- 100 prefer BDCA

Since 200 prefer D to A, 200 prefer D to B, 200 prefer D to C - D wins.

CONDORCET METHODS

The systems that extend this constraint to a full system, one that issues in verdicts even when there is no Condorcet winner, are more complicated than what we've been using so far.

ELECT MANY PEOPLE

BIG IDEA

Everyone votes for a party - more or less directly.

Each party gets a percentage of the seats matching their percentage of the vote.

If the chamber elects a government, a government is formed by a coalition of parties.

UPSIDES

1. Very representative!
2. Encourages sincere voting.
3. Avoids gerrymanders.

DOWNSIDES

1. Leads to weak, or even non-existent, governments.
2. Hard for voters to know who to vote for to express dissatisfaction with government. (This is also a problem in very divided systems like the US.)

OTHER EFFECTS

I'll leave these for you to say whether they are upsides or downsides.

1. Extreme groups are represented, and can become powerful if two coalitions are near a majority.
2. Superpowers parties as opposed to individual representatives.
3. Can leave areas without local representatives.

VARIATIONS

We could spend all day on any one of these.

1. Single district or many districts?
2. Only proportional, or also have single-member districts.
3. If you have single-member districts, are the proportional seats additional, or top-up?
4. Is there a threshold?
5. Do voters get a choice between candidates, or just parties?
6. Do voters just make a single vote, or express a

FOR NEXT TIME

FOR NEXT TIME

We'll go over Kenneth Arow's famous proof that no system can do everything one wants in an electoral system.