Majority Voting: When It Works

- There are three types of voters in a town: parents, elders, and young couples without children.
- They have different preferences over the level of school spending (high, medium, or low).

<table>
<thead>
<tr>
<th></th>
<th>Parents (33.3%)</th>
<th>Elders (33.3%)</th>
<th>Young Couples (33.3%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First choice</td>
<td>$H$</td>
<td>$L$</td>
<td>$M$</td>
</tr>
<tr>
<td>Second choice</td>
<td>$M$</td>
<td>$M$</td>
<td>$L$</td>
</tr>
<tr>
<td>Third choice</td>
<td>$L$</td>
<td>$H$</td>
<td>$H$</td>
</tr>
</tbody>
</table>
### Majority Voting: When It Doesn’t Work

- **Cycling**: When majority voting does not deliver a consistent aggregation of individual preferences.

<table>
<thead>
<tr>
<th></th>
<th>Public school parents (33.3%)</th>
<th>Private school parents (33.3%)</th>
<th>Young Couples (33.3%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First choice</td>
<td>$H$</td>
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<td>$M$</td>
<td>$H$</td>
</tr>
</tbody>
</table>
9.2

Single-Peaked versus Non-Single-Peaked Preferences

(a)

(b)

Utility

$U_{\text{first}}$

$U_{\text{second}}$

$U_{\text{third}}$

Parents

Elders

Young couples

School spending

L

M

H

G

F

A

Parents

Private school parents

Young couples

School spending

L

M

H

I
9.3 Vote-Maximizing Politicians Represent the Median Voter

(a) Voters for Barack
0% → B_1 → 25% → Voters for Mitt
0% → 25% → M_1 → 50%
Defence spending

(b) Voters for Barack
0% → B_2 → 25% → Voters for Mitt
0% → 25% → M_1 → 50%
Defence spending

(c) Voters for Barack
0% → B_2 → 25% → Voters for Mitt
0% → 25% → M_2 → 50%
Defence spending

(d) Voters for Barack
0% → B_3 = M_3 = 25% → Voters for Mitt
0% → 25% → M_3 = 25% → 50%
Defence spending
The farming sector receives $23 billion in support from the federal government each year in two forms:

- *Direct subsidy* payments ($11 billion)
- *Price supports* ($12 billion)

The average farmer receives more than $10,000/year in support.

The average American pays more than $200/year for this.
Why do American families pay such large costs to support the farm sector?

• One answer: This helps preserve the “family farm.”
  o But most support goes to large farms, and other countries have farming without subsidies.

• More likely answer: free rider problems.
  o Farmers have a strong incentive to support a farm lobby ($10,000/year).
  o Non-farmers have little reason to oppose.
APPLICATION: Contracting Out with Non-Competitive Bidding

Contracting out often takes place without a competitive bidding process.

- Since early 2000s, Wackenhutt Corporation has been the primary security contractor at U.S. weapons plants.
  - Wackenhutt cheated during safety tests, so the inspector general reported the results were “tainted and unreliable.”
  - Hired by the Nuclear Energy Institute in 2004.
9.4 APPLICATION: Contracting Out with Non-Competitive Bidding

- In 2003 and 2004, DHB industries won hundreds of millions of dollars of contracts to supply body armor to troops in Iraq.
  - But in 2002, DHB had to return 6,400 defective vests to the NYPD.
  - In 2003, workers accused DHB of sloppy quality control.
  - 23,000 vests were recalled from Iraq.
Since 2005, the Pentagon awarded more than $50 million of contracts to Applied Energetics.

- Wanted solutions to combat improvised explosive devices.
- Applied Energetics continued to receive funding after failed test.
- Rival company Xtreme Alternative Defense System, with successful anti-IED technology, has received only $1.5 million.
APPLICATION: Government Corruption

• In 2003, former Illinois governor George Ryan indicted for corruption.
  o Sold state contracts in exchange for cash, gifts, loans and trips for his family.

• Replaced by Rod Blagojevich, who campaigned as a reformer.

• In 2008, Blagojevich was arrested on federal corruption charges.
  o Tried to sell Obama’s Senate seat and pressured Tribune Company to fire critical journalists.
be a continuous and smooth function of vote shares everywhere, except at the threshold that determines party membership. There is a large discontinuous jump in ADA scores at the 50 percent threshold. Compare districts where the Democrat candidate barely lost in period $t$ (for example, vote share is 49.5 percent), with districts where the Democrat candidate barely won (for example, vote share is 50.5 percent). If the regression discontinuity design is valid, the two groups of districts should appear ex ante similar in every respect—on average. The difference will be that in one group, the Democrats will be the incumbent for the next election ($t + 1$), and in the other it will be the Republicans. Districts where the Democrats are the incumbent party for election $t + 1$ elect representatives who have much higher ADA scores, compared with districts where the Republican candidate
Single Peaked Preferences

Utility $u_i(a)$

$u_i(a)$ increasing in $a$ for $a < a_i$

$u_i(a)$ decreasing in $a$ for $a > a_i$

preferred spending $a_i$

Public good spending $a$
Median Voter Theorem

Median Voter utility

Preferred spending of median voter

Public good spending a