Scrubbers

- What is the political issue that has to be decided?
  - The 1972 EPA performance standard for new sources (NSPS) was 1.2 lbs. of sulfur dioxide per million BTU (SO2 → acid rain)
  - ISSUE: how to achieve standard (not set it)
- Given technological constraints, what are alternatives?
  - Low sulfur coal
  - Mandated scrubbers (for new sources)

- In contrast, shift to low sulfur coal reduces emissions 80-90% with no down time

Scrubbers

- How would a policy expert think about this problem?
  - Balance two or more objectives
    - Cleaner air
    - Lowest cost
    - Given technologies available
  - In sum, a public interest perspective
- The following graph shows the problem

Approximation of public policy perspective
scrubbers

• Why is this not a no brainer?
  – Geography
  – Nature of production-economic origin of preferences
  – Distribution and other characteristics of interests
• The answer on a public interest model would be western coal
  – Cleaner and cheaper
• However interests look like this—

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>East</th>
<th>West</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>Intensive</td>
<td>Non-intensive</td>
</tr>
<tr>
<td>States/districts</td>
<td>Five states/66 d W.Va Ky, Ill., Ind, Penn</td>
<td>Two states/3 d Mont., Wyo</td>
</tr>
</tbody>
</table>

scrubbers

• What interests care about this issue?
• What are they likely to do if anything?
  – Remember notes on who becomes active from DST
• Note we have shifted from
  – Public interest or policy approach where we used aggregate costs and benefits to
  – Group level costs and benefits or pluralistic perspective

scrubbers

• This brings us to a prediction
  – Public policy or interest—western coal
  – Pluralism of interests—scrubbers
• What role do the environmental interests play in your prediction?
Two theories of government decision-making

Preferences (interests) \(\rightarrow\) GOVERNMENT \(\rightarrow\) Policy (any constraints on economic or social activity)

Structured pluralism perspective

Public policy perspective

The scrubbers case suggests that decision-making within the black box is driven at least as much by input-side, constituency-specific distributive concerns as by output-side, nation-as-a-whole efficiency concerns.

Distinctions that have emerged

- Efficiency
  - Aggregate welfare
- Public policy analysis
  - What is in the “public interest?”
- Normative analysis
  - What ought to be?
- Distribution
  - Who gets what?
- Interest group analysis
  - Who wins among competing private interests?
- Positive analysis
  - What is?

Progress report

- What determines whether interests will become active on a given issue?
  - Interest group analysis
    - [Wilson/Lowi “nature of politics”]
    - The PD / collective action problem \((p > c/b)\)
    - The interest group spreadsheet

- What determines whether and how policy will change?
  - Collective choice analysis within institutions
    - Voting theory

- What determines whether activity will have an impact?
  - Knowledge about political actors’ concerns
  - Strategies for conveying information and other valued resources

Wilson/Lowi typology and examples

If the proposed policy is adopted, how does the policy change the distribution of costs and benefits?

<table>
<thead>
<tr>
<th>Costs</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentrated</td>
<td>Dispersed</td>
</tr>
<tr>
<td><strong>Interest group politics</strong></td>
<td>Entrepreneurial politics</td>
</tr>
<tr>
<td>telecommunications</td>
<td>loophole closing</td>
</tr>
<tr>
<td>Client politics</td>
<td>Majoritarian politics</td>
</tr>
<tr>
<td>rivers and harbors</td>
<td>welfare (increases)</td>
</tr>
</tbody>
</table>

4/27/2001

OSB-120
The Prisoners' Dilemma, etc. Advice & Overview

- Don't memorize the payoffs
- Do grasp the substantive problem
  - Cooperation is valuable...
  - ... but it is hard to achieve.
- What makes cooperation valuable?
  - Greater social benefits (aggregate payoffs) when it occurs than when it doesn't occur
  - Recent, recurring, personal examples?
- What makes cooperation hard to achieve?
  - The incentive to free-ride, defect, not cooperate, not contribute...
  - Concepts: dominant strategy, equilibrium

Example, generalization, and interpretations

| Prisoner 2
| Cooperate | Defect |
|-----------|---------|-------|
| Cooperate | (1, 1)  | (-1, 2) |
| (b-c, b-c) | (-c, b) |

Interpretation of payoffs:

- 2 = Temptation
- 1 = Reward
- 0 = Punishment
- -1 = Sucker

Condition: T > R > P > S

\[ b - c = 1 = \text{net benefits from cooperation} \]

\[ c = 1 = \text{cost of cooperation} \]

\[ b = 2 = \text{benefit from other (sucker's) cooperation} \]

\[ 0 = \text{benefits from no action} \]

Condition: \( b > c > 0 \)

Extension to n-players: 4 diners

- Tab Rule:
  - Split the tab equally
- After the main course:
  - Everybody is full but not stuffed; waiter offers assortment of $4 desserts.
- Benefits:
  - For each satisfied-but-not-stuffed-diner, the benefit of a dessert is only $2.
- Choice:
  - Each must choose either to have dessert (Yes) or not to have dessert (No).
- Questions:
  - (1) What are the payoffs? (2) What is the dominant strategy? (3) What is the equilibrium? (4) Is it socially optimal?

Some ways to ameliorate the dilemma

- The players themselves
  - Internal moral rules, codes of conduct, norms...
  - Communication
  - Repetition
    - if the probability of continuation is "sufficiently high" then cooperation becomes an equilibrium
- External solutions
  - Privately agreed upon 3rd party monitoring
  - Contract law & its enforcement by courts
  - International organizations (e.g., GATT, WTO)
- These are all either embellishments of -- or not covered within -- the one-shot PD considered above.
More on repetition

- Consider the 2-person PD with generic payoffs
  - Slide #6: \((b-c, b-c), (c, b), (b, -c), (0, 0)\)
- Suppose that after each play of the game, players play another round with probability \(p\).
  - Substance:
    - the greater is \(p\), the greater is your time horizon
    - \(p\) is a measure of patience
- Suppose you know the other player is playing TFT
- Then cooperation is the optimal strategy and only if
  \[ p > \frac{c}{b} \]

- These terms cannot be measured perfectly
- Think of the likelihood of collective action in various situations:
  - individual level: Will a group form?
  - group level: Will a coalition of interest groups form?
- Relative values of the terms, or a marginal change in any one term, affect(s) the likelihood of overcoming the collective action problem.