

Political Process – voting outcomes and decisions – taxes you pay, services you receive, spending on highways, welfare, and defense. Environmental quality, health care, pot legalization? The list goes on and on...

Median – half of the distribution lies above, half of the distribution lies below. If we wanted to know what the median height was in our class, we would line up everyone from tallest to shortest. The median height would be the height of the student in the middle of the line. Half of the class would be taller, half of the class would be smaller.

The median voter is the voter whose views on a policy issue is in the middle of the spectrum; half of the other voters fall on one side of this voter's views, and half fall on the other side.

Example – amount to spend on a statue in New York City honoring Bill Buckner...

Voter A wants to spend \$10
Voter B, \$20
Voter C, \$30
Voter D, \$40
Voter E, \$100

Suppose that you are running for Mayor of NYC. This is the only issue voters care about. Would it be a wise idea to go around town with the campaign promise to spend \$100 on the statue? Probably not, as another candidate could choose to spend \$40. You would lose the election 4-1. What about saying you want to spend \$10? Again, you lose. It turns out a very sensible plan would be to choose the policy of the median voter, in this case Voter C. If you choose to spend \$30, you'd have a good shot at winning the election. Perhaps your opponent chooses \$31. You get voter A, B, and C, he gets D and E, you win. Perhaps your opponent chooses \$29. You get C, D, and E, he gets A and B, you win. The point here is that you want to be in the middle.

The median voter theorem states that, under certain conditions, the equilibrium government policy chosen by the political process is the policy favored by the median voter.

If one issue determines an election, and analyst can list all voters in order of their preferences on this issue, the median voter is in the middle of the list. The candidate who advocates the position of the median voter will receive more votes than his opponent. Thus, politicians are likely to choose the same position – a middle of the road position.

Of course, there have been a lot of simplifications to arrive at this result. In real life, candidates might only be able to guess about voters' preferences. My guess and my opponent's guess might differ. Even though we are both trying to pick the median voter, I might guess \$33, my opponent \$29.

And what about the "certain conditions"? This really only works for a single-issue election, with only two candidates. Multiple issues and multiple candidates negate the result. Also, this won't work well for policy issues where voters prefer extreme outcomes rather than middle of the road outcomes. (For an example of this, suppose Mookie says, "I prefer \$100 spending on the statue or none at all. If we're going to build a statue it should be real nice, or we shouldn't build it all. Or more succinctly, I prefer either high or low spending, but not something in the middle).

However, despite these caveats, there is still a tendency to take middle of the road positions. How many times have you heard someone say that they can't tell apart two candidates? This is because they are taking stances on issues that are in the middle of the spectrum.

Where would Pat Buchanan and Ralph Nader be on the spectrum? Does the median voter have anything to suggest about why neither one of them lives in Washington now?

Voting Paradox (The policies are A, B and C and bear no correspondence to Alan, Bill, and Cindy).

	1 st Choice	2 nd Choice	Last Choice
Larry	A	B	C
Curly	B	C	A
Moe	C	A	B

Let's have some elections... We'll let voters chose between the three proposals...

A vs. B A wins 2-1 (Larry & Moe – Curly) Voters prefer A to B
 B vs. C B wins 2-1 (Larry & Curly– Moe) Voters prefer B to C

Without looking, if voters prefer A to B, and prefer B to C, it will certainly be the case that voter will prefer A to C, right? Maybe not...

A vs. C C wins 2-1 (Curly & Moe – Larry)

What's the point? This is wacky, that's the point. The paradox is that A beats B, B beats C, but A doesn't beat C.

This is a strange result. Every voter has a clearly defined 1st, 2nd, 3rd choice. But when we use people's voting decision, it is not possible to come up with clear preferences for society as a whole. We don't have a clearly defined 1st, 2nd, 3rd choice for society. Here's what the book says...

The Arrow Impossibility Theorem states that, under very general conditions, voting can produce inconsistent results even if all votes make consistent choices. You can't combine preferences of individual people by voting, into a set of preferences for society as a whole.

What's it mean? I am not sure. It means you can get some wacky results. It turns out the order of elections can make a difference. This has something to do with agenda setting. The outcome of the election can depend on stuff other than the preferences of the voters.

For instance, suppose the three policies A, B, and C above are three candidates in a student council election (president). Suppose that the election will be run as follows: First, we will pick two candidates and have an election to see whom the class prefers (of the first two candidates). Then, the winner of Part I takes on the third person. Will it matter (to determine who gets elected) which candidates are picked in the first part of the election?

Part I	Part II (Winner Part I vs. remaining candidate)
A vs. B (A wins 2-1)	A vs. C (C wins 2-1), C is student council president.
B vs. C (B wins 2-1)	B vs. A (A wins 2-1), A is student council president
A vs. C (C wins 2-1)	C vs. B (B wins 2-1), B is student council president

If you were a candidate B supporter, and you could set the agenda, which two candidates would be involved in Part I? See the sample question for a (slightly) more interesting example.

Logrolling

Simple majority voting usually only allows people to vote yes or no. Voters cannot directly express varying intensities of their views. George Bush's mom, who I imagine felt very strongly that her boy was the best candidate, got to cast exactly one vote for George Bush. Her vote counted just as much from some person in Idaho who decided who to vote for based on a coin flip. No matter how hard you punch out the ballot, it still counts as one vote.

However, there is a way to express the intensity of your view by engaging in logrolling. Logrolling is a fancy name for vote trading.

Legislator A may promise to vote for a bill that Legislator B favors, if B will vote for a bill that A favors. Logrolling (vote trading), provides a way for a minority that feels strongly about some issue to obtain majority support. In return, the minority changes it votes on issues less important to its members.

Example, logrolling improves welfare

Suppose we are considering the proposal to build a public park at a **cost of \$9**. To pay for the park, it built, each resident will have a \$3 increase in taxes. Suppose somehow, we go around and get people to honestly tell us how they value the park (how I don't know). Suppose the values they give us are listed below for each of three people. Then, we can subtract of the \$3 for the increase in taxes, and end up with a net measure of welfare (GFT) for each person.

\$9 park, \$3 tax increase per person

Pat = \$11	After tax = \$8	The total social value is \$13. The total cost is \$9. GFT are \$4. It is efficient.
Liz = \$1	After tax = \$-2	
Jean = \$1	After tax = -\$2	
Society = \$13	After tax = \$4	

GFT are positive. This is a socially efficient project. But if we take a vote, the park loses 2-1. No park is built.

Now, suppose another project comes along, this time a \$15 library. Each resident will have a \$5 increase in taxes if built.

\$15 Library, \$5 tax increase per person

Pat = \$1	After tax, = -\$4	The total social value is \$16. The total cost is \$15. GTS are \$1. It is efficient.
Liz = \$14	After tax = \$9	
Jean = \$1	After tax = -\$4	
Society = \$16	After tax = \$1	

Again, GFT are positive and the project is socially efficient. But again, if a separate vote is held, the library referendum loses 2-1. No library.

But Pat really intensely likes the park idea, and Liz really intensely likes the library idea. They get together and try to logroll. Pat says to Liz, hey vote for my pet project (the park) and I'll vote for your pet project (the library) and we'll both get what we want.

Would Pat and Liz come out ahead if both projects were built?

Pat:	\$8 (park) – \$4 (library) = \$5
Liz:	\$9 (library) – \$2 (park) = \$7

Yes, they will both find it beneficial. They both go along with the vote trading. (The alternative is to have \$0 GFT if neither is passed.)

So, if vote trading is successful, the park passes 2-1, the library passes 2-1, and Pat and Liz get what they want. Jean however, is none the wiser. **But the point here is that a minority with strong feelings on one issue (Pat for the park, and Liz for the library) can gain a majority by trading votes.**

OK – in that example, logrolling improved welfare. Can it get ugly?

The last example was nice because it got two socially efficient projects passed (that would have been voted down without logrolling). But it can go the other way too.

	Net gains (after tax)	
	New Ballpark	New Playground
Homer	\$5	\$-3
Lisa	-\$3	\$5
<u>Marge</u>	<u>-\$3</u>	<u>-\$3</u>
Society	-\$1	\$-1

So if each project is voted on by itself (with no logrolling), neither will pass. Homer votes for the ballpark, but Lisa and Marge vote against it. Lisa votes for the playground, but Homer and Marge vote against it.

Before we go on, make a note that each of the proposals is socially inefficient. The net gains (after-tax) to society are less than zero for each project. (This is the same thing as saying the $MB < MC$).

But Homer really wants the ballpark to be built. And Lisa really wants the new playground. Can they logroll?

Homer would agree to vote for the playground in exchange for Lisa's vote on the ballpark. Let's check to see if both are better off.

Homer $\$5$ (ballpark) - $\$3$ (playground) = $\$2$
 Lisa $\$5$ (playground) - $\$3$ (ballpark) = $\$2$

Yes, they can logroll.

So, both projects pass 2-1. Society gets a new ballpark (where we can let the Minnesota Twins play) and society gets a new playground (where the Montreal Expos can play – heck, there might be more people at their games). Here, logrolling has allowed us to get a socially undesirable result.

Interest Groups

The political power of groups with concentrated interests usually exceeds those of groups with diffuse interests.

Before you read on, try and think of some groups that have political power. I took a look on the web for a list of the amount of money that PACs (Political Action Committees) give to various candidates. You will find the ones that give the most money are the groups listed below. For the republicans, National Assn of Realtors, the National Auto Dealers Assn (yes the same folks that got \$6 million for giving the Superdome back to the NFL), the National Beer Wholesalers Assn, the, the Nation Rifle Association...

For the democrats, it is International Brotherhood of Electrical Workers, the Teamsters Union, the United Auto Workers, the Assn of Trial Lawyers of America.

While it is arguable which of these groups have “lots of political power”, I would argue that most of these groups have concentrated interests. For instance, what is it that the NRA cares about? Guns. Do they care about abortion? Spending on highways? School lunches? Not likely. What about the International Brotherhood of Electrical Workers? Highways, lunches, abortion, tree hugging? Again, I doubt it. Yet these groups probably wield a good chunk of political power. I think this it because of their concentrated interests. The NRA will trade votes on almost any issue in exchange for votes on assault rifles.... Groups with intense concentrated interest can get things done that are not in the majority.

A quick example....

Suppose there are 10 people who will each gain \$1 million from some policy that wastes \$26 million. The example I gave in class was a missile defense system. It costs \$26 million (paid for by all taxpayers). It

doesn't work (won't shoot down any missiles), so all the benefits go to 10 defense contractors (\$1 million each). This is an inefficient project.

Do the defense contracts (the people who will gain \$1 million) have an incentive to lobby for this project? Will they call their Congressman? Will they contribute to his/her campaign? Do they have reason too? Heck yeah.

What about average Joe taxpayer. His share of the cost is say \$26 million divided by 260 million tax payers, for a cost of 10 cents per person. Will Joe call his Congressman? Write a letter (and affix a 34 cent stamp)? Contribute to his/her campaign? Nope. They might not even have an incentive to find out about the project and even learn about the costs and benefits in the first place.

What's the point?

I think this story helps to explain why **we often don't like a lot of policies that have concentrated benefits and disperse costs**. The people who are against this policy will have high costs of organizing, bargaining, trading, and even finding out about a policy's benefits and costs. They won't call their Congressman. The people who are in favor of the policy will get large benefits from organizing, bargaining, trading and calling their congressman. (If you steal a few cents from everyone in the US, it adds up).

It'll turn out that in a bunch of situations where we get socially inefficient outcomes (especially those that are more influenced by the political process), we'll be able to identify the benefits accruing to a narrow group, and the costs spread out over a larger group. This, in a nutshell, is the interest group theory of government (political process).

Consider a restriction on the number of doctors allowed (AMA)

Winners – doctors have much higher profits (OPEC)

Losers – every consumer of medical services pays a bit more (everyone who buys gas)

Consider a subsidy on the production of peanuts –

Winners – peanut farmers

Losers – everyone whose tax bill increase to pay for it, especially people who don't consume peanuts (if you eat a lot of peanuts you may be better off).

We'll get to sugar quotas. Sugar producers win a lot, each sugar consumers loses a little. This will come up over and over when we get to international trade (tariffs, quotas, etc.)

Interestingly enough, price controls are an exception, sort of (a rare populist policy?).

Why Vote?

The chance of your vote deciding the election is often ludicrously small. Of course, if we take this argument to the extreme, no one would vote, and one guy would show up and decide the election. But nonetheless, the probability that you decide the election is extremely minute, (even in Florida, even last election). Presumably people vote for reasons other than the chance of affecting the outcome of the election. Why do people continue to vote? Do people enjoy it? Feel obligated to do so? Why?

Just for completeness, I should mention that more people do vote when they expect a close election (than when people expect a landslide). Or put another way, when the probability that one person will decide the election increases, that person is more likely to vote.

Bureaucrats

The good people put in charge of administering our government programs may be nice, social welfare maximizing efficiency lovers. But you've read about the EPA and Superfund? Do they sound like nice, social welfare maximizing efficiency lovers?

Might the bureaucrats that administer these programs care about their own careers, their own salaries, their own prestige, and jobs for their own families and friends?

It is difficult to measure the economic efficiency of say the EPA. There is no bottom line. There is no profit to maximize and report to shareholders. As a result, salaries seldom reflect these bureaucrats efficiency. It also seems that power and prestige (amongst agencies and bureaucrats) is associated with agency's budget and number of employees. Would it be possible that the head of the Department of Defense might exaggerate the need for a new type of \$2 billion stealth bomber?

The question is this. We feel strongly that CEOs of companies try pretty hard to maximize profits, and that the shareholders will kick them out of the job if they don't. What does the head of the EPA maximize? How does he show that he's doing a good job? These are tough questions.

Readings?

I clipped most of this out of a different textbook. Check out a bit in Chapter 16 in O'Sullivan and Sheffrin, starting with p. 340 (p. 323 in the 2nd edition) for a little more. Read about interest groups in here.