

I. Introduction. The median voter model serves the public choice literature in much the same way that the model of perfect competition serves the economics literature.

- A.** The median voter model demonstrates central tendencies in democratic decision making.
- i. It predicts what democratic public policies will be when substantial information problems do not exist and electoral competition is fairly intense.
 - ii. The median voter works very well as a "first approximation" of the political forces that cause broad policies (which are likely to be known to voters) to be adopted by democratic governments.
- B.** However, in some policy areas--especially relatively narrow ones--median voter interests do not seem to be advanced by public policy.
- i. For example, food subsidies tend to raise the cost of food for the median voter, making her (him) worse off rather than better off than other policies that can be imagined.
 - ii. In many cases, farm programs advance the median voter's interest less than "no" policy would.
- C.** To explain these exceptions to the median voter model's predictions, a more or less separate public choice literature on the politics of interest groups emerged during the 1960s and 1970s.
- i. It explores how special interest groups can affect public policy choices.
 - ii. Initially, this literature focused attention on the manner in which regulatory agencies and commissions would set regulations.
 - iii. It was also used to examine tax loopholes, farm subsidies, tariff barriers, and the like.
 - iv. Although all this literature was often linked to Mancur Olson's work on the *Logic of Collective Action* (1965), research on interest groups was generally more narrowly focused than Olson's analysis of collective action.
- D.** The political economy of interest groups as applied to regulation was more or less independently developed by "Chicago school" economists with an interest in industrial organization.
- For example, Stigler's theory of regulation is sometimes called the "capture" theory of regulation, because he argues that regulated industries get exactly the regulations that they want.

- These regulations often work as entry barriers that reduce competition and long run supply, increasing the profits of firms already in the industry or, in some cases, reducing the number of firms in an industry.
 - (Regulations raise production costs for small and medium sized firms more than they do for large firms, because of economies of scale in reporting and keeping records.)
- E.** The "Virginia school's" analysis of interest group politics started with Gordon **Tullock's** (1967, *Ec. Inq.*) analysis of the dead weight loss of political and other efforts to obtain monopoly power and tariff protection.
- i. That paper characterized two sorts of welfare losses: static losses of the conventional "dead weight loss" variety and dynamic losses from interest group and other activities.
 - ii. The latter have come to be called "**rent-seeking losses**" and the activities that generate them, **rent seeking activities**.
- a. Not much additional work was done within the Tullock framework until Anne **Krueger** (1974, *AER*) independently reinvented the idea and named the phenomena **rent-seeking**.
 - b. The basic idea is that competition to be beneficiaries of policies that produce rent (economic profits) often reduce social net benefits rather than increase them, and so those resources should be regarded as a waste or dead weight loss.
 - c. In the limit all the profits to be gained through such policies may be consumed in the contest to win the political contest of influence necessary to obtain them.
 - d. Mueller and Cowling (1978) undertook an empirical analysis of the dead weight loss of rent-seeking by would-be monopolists, which found deadweight losses many times those of the static losses, about 5% of GDP.

II. Olson's *Logic of Collective Action* (1965)

- A.** Olson's book deals with collective action in general, but for the purposes of this part of the course, its implications for politically active groups are most relevant.
- i. Olson argues that overcoming this public good or free rider problem is the most important impediment to collective action.

- ii. [Use a diagram and game matrix to illustrate the private marginal costs and benefits of collective action to an individual.]
- B.** Olson argues that small groups of persons or corporations with relatively intense or large interests in policy *are more able to organize* than large groups whose members have relatively small interests at stake.
- i. **Small groups may therefore be able to exploit larger groups.**
 - ii. That is to say, small politically active groups they may be able to get preferential government policies adopted which benefit themselves at the expense of other larger groups.
 - iii. [Note that rational ignorance must play a role in such policies in a democracy. Why?]
 - iv. Moreover, the benefits received by the small group may be less than the cost imposed on the large unorganized or poorly organized group.
 - v. Many entry barriers, for example, increase an industry's profits but reduce social net benefits (by reducing supply and increasing market prices).
- C.** In addition to group size and the intensity of individual member interests, Olson notes that various instruments can be used to help overcome the organizational problems of large and small groups.
- i. For example, most politically active groups may provide benefits that are directly related to active membership.
 - ii. If it is possible to exclude non-members from at least some of the group's beneficial activities, there will be stronger incentives to join, and weaker incentives free ride on the groups lobbying activities.
 - iii. Olson calls such devices: selective incentives.
 - iv. Thus farm coops provide many services to farmers in addition to lobbying for preferential farm policies. Environmental and senior citizen groups often sponsor trips, newsletters, and so forth.
- D.** Interest group efforts to influence policy via coordinated voting, lobbying, campaign contributions, etc. are all public goods for the group's members.
- i. When a policy is influenced it, all members of the group (say farmers) benefit whether they have contributed to the collective effort or not.
 - ii. Thus, there tend to be free rider problems associated with most collective action and with the efforts of most interest groups.

III. How Do Interest Groups Affect Public Policy?

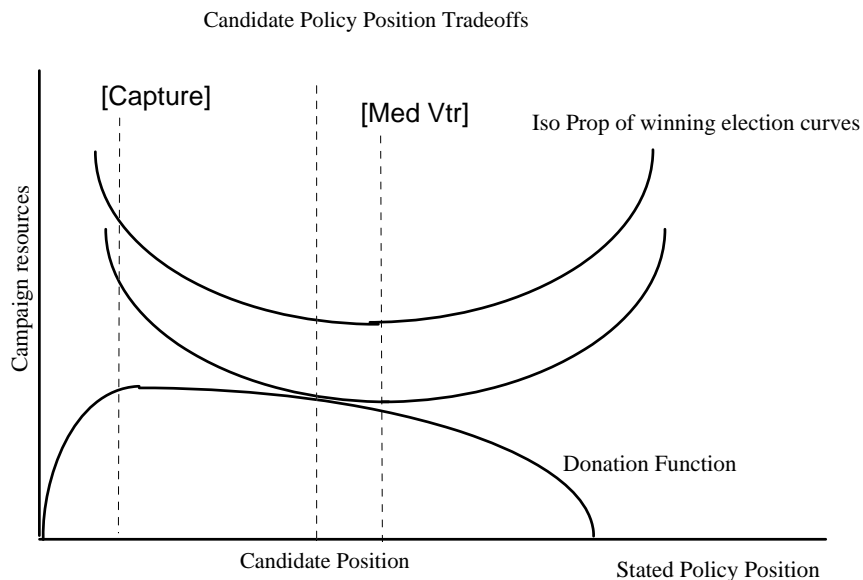
- A.** There are a variety of perfectly legal methods by which interest groups can affect public policy.
- B.** First, and probably most important, there is persuasion.
- i. Interest groups may attempt to persuade the public (voters), their representatives, or regulations that the "best" policy just happens to be the policy that generates large transfers to the groups of interest.
 - ii. To persuade voters and politicians, they can sponsor TV and internet advertisements, blogs, books, and reports on the projects that they favor.
- C.** Second, in a democracy or dictatorship, such groups may provide direct and indirect support for those in power in exchange for preferential public policies, subsidies, and/or tax breaks.
- i. In democracies electoral can be done with "single issue" voting, public protests/support, and with conditional campaign contributions.
 - ii. In dictatorships, support may be provided with "gifts," organized public demonstrations, and by helping out with censorship and discovery and repression of political opponents.
- D.** Third, there are illegal methods of influence: bribery, threats of violence, blackmail, etc. of relevant policy makers.
- E.** [All these methods are routinely used, although not necessarily in every country.]
- F. Thought questions:**
- i. Name several groups that appear to be effective at influencing public policy.
 - ii. What methods do they seem to use?
 - iii. Does the general flow of direct and indirect transfers look like Olson's analysis suggests?
 - iv. What is the optimal size of an interest group?
 - v. Is free-riding necessarily a social problem in this case from the point of view of the Pareto criteria?

IV. Elections with Interest Groups

- A.** During electoral contests, interest groups often provide campaign contributions of various kinds: money, labor, assistance with travel arrangements, etc.

B. The tradeoffs faced by a candidate who can use campaign resources to influence his probability of being elected is within the following diagram.

- i. The shape of the iso-probability lines is crucial to the importance of campaign resources.
- ii. When they are shaped as drawn, there is a clear trade off that a candidate has to be made between satisfying the median voter and securing sufficient resources to run a creditable campaign
 - In that case, the equilibrium candidate position will resemble that labeled "Candidate Position."



- iii. If only policy positions matter, then the the iso-probability lines are vertical, and the median voter model in its pure form obtains.
 - In that case, the equilibrium candidate position will resemble that labelled "Med Vtr."
- iv. If only campaign resources matter, then the iso-probability lines are horizontal, and candidates will attempt to maximize campaign resources.
 - In that case, the equilibrium policy position will be the one labeled "capture."

- v. A broad array of intermediate type "ii" shapes are possible, with various more or less severe tradeoffs illustrated.
 - Their equilibria will lie somewhere between the median voter and capture equilibria.

C. Optional--Difficulty of moving beyond the illustration

- i. The illustration can be used to determine a Nash type reaction function insofar as the donation function and the probability of being elected functions are both determined (as drawn) by specific positions on the part of the other candidate(s).
- ii. Unfortunately somewhat ad hoc assumptions have to be introduced to demonstrate the existence of an equilibrium.
- iii. In the Stochastic voting models it is assumed that voters have an exogenous bias favoring one of the candidates. This generates an equilibrium where the favored candidate departs furthest from the median voter position, secures the most resources, and wins the election. (The other candidate in such models often locates at the median voter position, but loses none the less.)
- iv. In my model, which did not assume such a bias, an equilibrium only existed when donors were symmetrically distributed about the median voter. In only that case did an equilibrium exist, and, of course, it was a median voter equilibrium.
- v. (In other cases, the one most likely to lose can always gain a 50% chance of winning by taking the same position as the other candidate, yet once this happens the other generally can find a better position, thus there is no equilibrium, but a range of possible positions (as in musical chairs) that candidates might take in a given election. This result surprised me.)

V. Rent-Seeking Losses

- A.** Tullock's pointed out that many of these interest group activities are costly and socially unproductive.
- i. To the extent that the policies lobbied for are transfers programs, or programs with a positive dead weight loss, **it may be said that all the resources used to get those programs adopted are wasted.**
 - ii. These resources could have been used to produce new goods and services or efficiently enhancing services, rather than to produce new or increased dead weight losses.
 - iii. Instead, the resources are consumed in conflict that tends to reduce the size of the "social pie."

iv. (To an economist, a "rent" is compensation above one's opportunity cost. Many rules that prevent competition in one way or another may be said to generate rents or profits for the persons receiving preferential treatment.)

B. Tullock argued that not only are resources wasted in the pursuit of monopoly privileges and protective tariffs, but that **the waste may be very large.**

- i. Indeed, he argues that in a perfectly competitive market, the rate of return on rent-seeking activities should fall to that of other possible uses of a person or firm's resources.
- ii. In this case, all the "rents" from rent seeking will all tend to be consumed by the process of competing for them.
- iii. [Draw the classic figure illustrate rent-seeking costs involved in Monopoly and Tariff policy.]
- iv. Not all rent-seeking contests have this property, although many do.

C. The game matrix below illustrates a contest between two persons who use resources to seek rents.

- i. In this case, the "rents" are simply taken from the other player, but at a cost.
- ii. The efforts of both players are assumed to consume resources.
- iii. The equilibrium effort levels are fairly high (2 each), although not all of the game's "GNP" is consumed by the contest.
 - a. Notice, however, that the total net benefits of the equilibrium outcome is below that of the upper left-hand cell, where no effort in rent-seeking is made.
 - b. There is a dead weight loss of 4 from this game.
 - $4+4 = 8$ which is greater than $2+2=4$, the difference in net benefits between the upper left-hand and lower right-hand cells is 4.
 - c. Note also, that there are two Pareto superior moves at the equilibrium: from $E=2, E=2$ to $E=1, E=1$ and from $E=2, E=2$ to $E=0, E=0$. $(3,3) > (2,2)$ and $(4,4) > (2,2)$.
- iv. Unfortunately, under the rules of the game--as implicitly summarized by the game payoffs, the Pareto efficient outcome ($E=0, E=0$) is not stable--each person privately benefits by engaging in some rent-seeking effort.

A Rent Seeking Contest between Groups A and B (The strategies are effort levels)			
	B = 0	B=1	B=2
A = 0	4, 4	2.5, 4.5	1, 5
A= 1	4.5, 1.5	3, 3	1, 4
A=2	5, 1	4, 1	2, 2

- D.** In many cases, the efforts of interest groups largely offset each other, and so much of their effort is "wasted."
- i. Rent-seeking losses occur because of both the competitive nature of rent-seeking contests and because of the methods used to win.
 - ii. The losses are larger for some contests than others, because their are more players and/or the method of competition consumes more or less (net) resources.
 - iii. In most such games, there are Pareto improvements that are possible for the players
 - iv. In many game theoretic representations of rent-seeking games, all players benefit if they each reduce their efforts.
 - a. This is also true of the efforts of competitors in competitive markets.
 - b. However, in this case, the competitive efforts of competitors do not directly benefit others in the manner that market competition does. (Consumers gain the losses that price competition generates for firms.)
- E.** It bears noting, however, that although all true rent-seeking contests (ones that generate dead weight losses) have equilibria that do not maximize social net benefits, **there are not always simple Pareto Superior moves that allow rent seeking losses to be avoided.**

<p style="text-align: center;">A Rent Seeking Contest between Groups A and B</p> <p style="text-align: center;">The strategies are effort levels (or investments)</p> <p style="text-align: center;">The payoffs are net benefits (A, B, C)</p> <p style="text-align: center;">(C represents net benefits for others outside the game.)</p>			
	B = 0	B=1	B=2
A = 0	1, 1, 8	0, 2, 7	-1, 3, 6
A= 1	2, 0, 7	1.5, 1.5, 5	2, 1, 4
A=2	3, -1, 6	2, 1, 4	2.5, 2.5, 1

- i. In the above game matrix, the Nash equilibrium is again in the lower right-hand cell.
- ii. However, in this case, much of the rent comes from “transfers” from others outside the game.
- iii. In the case illustrated, there are no (simple) Pareto superior moves at the Nash equilibrium, although social net benefits are clearly not being maximized.

F. Optional: the mathematics of a Tullock rent seeking contest:

- i. Let the contest success function be $R_j^c = R [E_j / (E_i + E_j)] - E_j$
- ii. R is the prize, E_j is the effort of the j th group or individual, the probability of winning the prize is $[E_j / (E_i + E_j)]$, and the expected net prize is R_j^c .
- iii. To find Group j 's optimal investment, differentiate R_j^c with respect to E_j , set the result equal to zero, and solve for E_j as a function of E_i and R.
- iv. Repeat for group I.
- v. The result for “ii” is the “best reply function” for group ii and the result for “iii” is the best reply function for group iii.
- vi. The Nash equilibrium occurs when both ii and iii are satisfied simultaneously.

- a. This can be solved for with a bit of algebra.
- b. However, a **convenient shortcut** is to note that the game is symmetric and assume that a symmetric equilibrium exist (as in the game matrices).
- c. In this case, one can simply substitute E_j for E_i in either (or both) of the reaction functions.
- d. If you do so, the result will be: $E_j = E_i = R/4$.
- e. The resources wasted at the Nash equilibrium equals the sum of the effort in this case, which is $R/4 + R/4 = R/2$.
- f. In equilibrium, rent-seeking contestants “waste” (dissipate) half of the prize in their efforts to win.
- vii. **Thought questions:**
 - a. To what kinds of activities other than politics might the logic of the rent seeking contests apply?
 - b. How does rent-seeking differ from ordinary auctions?
 - c. Is the rent-seeking industry as large as you might expect based on Gordon Tullock's argument? Why or why not?
 - d. How might one reduce the extent of rent-seeking losses?

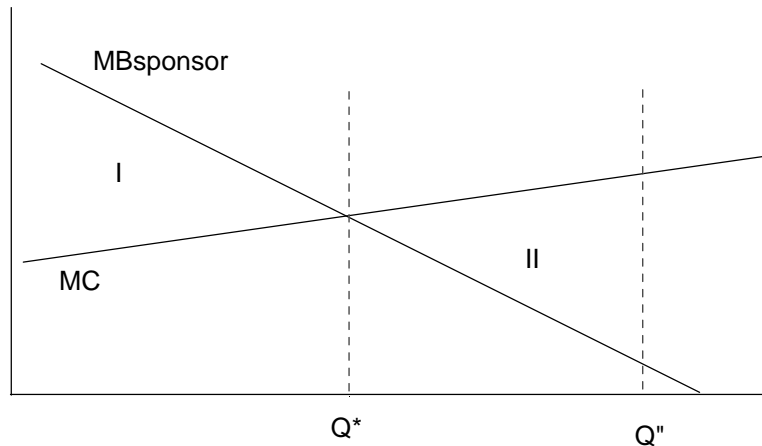
VI. Bureaucracy as a Special Interest Group

- A.** To this point, we have treated the process of “government production” as if it took place mechanically and automatically.
 - i. That is to say, if the electorate votes for a referendum, a legislature enacts a policy, or a court makes a decision, we have implicitly assumed that whatever is specified actually is adopted as government policy.
 - ii. This is similar to the way that we look at production in most economic model of the "firm:," but clearly in the real world this is not so simple.
 - iii. There can be “principal agent” problems in both settings.
 - iv. Whatever "decision" is reached by an electorate, legislature or court, it is, some real people--not robots--actually implement it
- B.** Were bureaucrats entirely disinterested in policy and were the "decisions" reached by political decision makers always crystal clear, the bureaucracy might well simply implement what ever policy it is told to--as if it were a simple robot.
 - i. They would have no reason or ability to do otherwise in this case.

- ii. If these assumptions do not hold, bureaucrats may have considerable influence over both the design and implementation of policy.
- C.** In such cases, analysis of bureaucratic decision making will be required to understand many policy decisions.
- i. Bureaucrats may also lobby to influence the policy choice made by legislatures and voters.
 - ii. A variety of other principal-agent problems may also occur within the public bureaucracy: shirking, etc.

D. Niskanen (1971, 1975) proposes a **Budget Maximizing model of bureaucratic behavior.**

- i. Why would bureaucrats try to maximize their budgets?
- ii. Niskanen argues that bureaucrats have a direct personal interest in the size of their organization's budget because:
 - a. Opportunities for promotion tend to increase, and thereby expected salaries, as budgets increase
 - b. Working conditions tend to improve--computers, office furniture, secretarial



support, etc.-- as budgets increase.

- c. Non-pecuniary compensation tends to increase as resources become available for travel, dinners, or projects of particular interest to a given bureaucrat.
 - iii. Moreover, to the extent that public employees are interested in the mission of their agency or bureau, they will gain additional satisfaction by being better able to advance the agency's mission as their budget increase.
 - (Even very public spirited bureaucrats generally have an interest in larger budgets.)
- E.** The bureaucratic interest in larger budgets would not be significant, if they had no methods by which they might achieve higher budgets.
- i. Niskanen argues that the bureaucrat's superior knowledge of production methods, policy alternatives, and public demand for specific services, provides them the ability to influence legislative decisions.
 - ii. It also bears noting that most budgetary requests originate with the bureaucracy.
 - iii. In somewhat extreme cases, they may be able to maximize their budgets sby making all or nothing offers to their sponsors (or oversight committees).
 - iv. The illustration above characterizes the largest budget that can be acquired by making all or nothing offers.
 - a. If the bureaucrat argues that the choice is really between Q'' and nothing, an (uninformed) sponsor will accept the proposal as long as area I is larger than area II.
 - b. In the limit, the bureau can obtain a budget to produce output Q where area I is approximately equal to area II, and output is twice as large as maximizes the net benefits for the "sponsor" (congressional committee or median voter).
 - c. In the case where marginal cost and the demand for the public service under their agency's power are linear, *the maximum budget implies that twice as much of the service is provided as would maximize net benefits.*

F. Implications.

- i. To the extent that bureaucrats can use "all or nothing" offers to obtain budget increases, bureaus will tend to have budgets that are larger than those which maximize net benefits for their sponsors (ultimately voters or interest groups).
 - a. This provides an explanation for defense spending being "too high."
 - b. And it provides an explanation for healthcare support (etc) being "too high."

- c. [Whether the Niskanen theory is the correct explanation, depends on the actual bargaining that we observe. Are bureaucrats always much better informed than Congress? Or does this vary by policy area? Why?
- ii. The Niskanen model also implies that proposals made by bureaus (in both the public and private sectors) will not tend to minimize the cost of producing public services or implementing regulations.
 - a. However, it does not necessarily imply that waste will be obvious.
 - b. Even a cost minimizing bureau tends to have an interest in larger budgets.
 - c. (Can you think of examples of budget maximizing behavior in the public and/or private sectors?)

VII. Optional: Extensions of the Niskanen approach

A. Bureaucrats may influence how policies are influenced even if they cannot influence their budgets, because bureaus and bureaucrats normally have some discretion over the implementation of policies for several reasons.

- i. First, monitoring can never be perfect.
 - a. As a consequence, some laws may go unenforced, at least on occasion, because law enforcing agent have only weak incentives to enforce such laws.
 - b. Similarly, it is often difficult to determine whether a road, cost estimate, or satellite launch is well done (or done as well as possible), without a very careful review of of the bureau's analysis.
- ii. Second, discretion over policy might be explicitly delegated to the bureaucracy.
 - a. The bureaucracy often has expertise--at the very least knowledge of time, place and circumstance--which policy makers lack.
 - b. Because of this bureaus are often granted some discretion to *interpret and implement* "the policy" in the manner that seems appropriate.
 - c. In many cases, the actual writing of laws (deciding targets for pesticides and food additives) are delegated to the agencies.
 - d. Politicians may also delegate decisions to the bureaucracy, not because of the bureaucracy's expertise or comparative advantage, but rather to avoid making public commitments on controversial regulations.

B. In the end, almost all agencies have at least some discretion over the implementation of their assigned duties.

- i. In cases where the aims of bureaucrats differ from those of the legislature or electorate, an *agency problem* over the implementation of policy is likely to exist.
- ii. That is to say, bureaucrats may implement policies in ways that do not maximize the net advantage of their "sponsors" (the legislators or electorate).
 - a. For example, public agencies might engage in "Predatory Pricing" (Lott, 1990, J.Pub.E.): That is to say, bureaus may under price their services to drive out private (or public) competition. They can do so, because their production is paid for (or subsidized) by tax payers, rather than their customers.
 - b. [Illustrate this with a simple diagram.]
 - c. In cases in which public bureaus have monopoly power, they may be able to manipulating the demand for their services in a manner analogous to interest groups and/or by threatening to close the most valuable services whenever their budgets are under review.
 - d. [Illustrate this with a simple diagram.]

C. The modern literature on contracts (which emerged well after the literature on bureaucracy began) suggests that there are a wide range of contractual means by which agency problems may be addressed.

- i. For example, bureaucrats could be required to post a performance bond which they may redeem upon successful completion of an assigned task.
- ii. Wages and salaries could be based on measured output (bridges built, cases handled, money's dispensed appropriately), rather than the quantity of an input (time spent on the job).

D. But, beyond prospects for promotions, such incentives are rarely used within government bureaucracies.

- i. Most bureaucrats are paid a straight salary which is largely independent of day to day performance.
- ii. [In fact, you might argue that, given the method of compensation, agency problems in the US and Western Europe are surprisingly small. Why?]