Lecture 8: the Political Economy of Public Policy: Economic and Ideological Interest Groups

I. Introduction (Overview of another rational choice literature on politics, but without elections.)

A. During the 1960s and 1970s, a more or less separate public choice literature on the politics of interest groups emerged which modeled how interest groups might affect public policy choices.

i. The literature on the political economy of interest group politics can be said to have begun with Mancur Olson's *Logic of Collective Action* published in 1965. This represented the first careful analysis of the "economics" of interest group activities from the point of view of elementary game theory.

ii. The rational choice literature on the political economy of regulation can be said to have *begun* 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. That paper characterized dynamic losses from interest group and other activities that have come to be called Rent Seeking activities.

   a. Not much additional work was done within the Tullock framework until in the middle seventies when Anne Krueger (1974, *AER*) independently reinvented the idea and named the phenomena rent-seeking,

   b. Richard Posner (1975, *JPE*) attempted an empirical analysis of the dead weight loss of rent-seeking by would-be monopolists.

iii. The political economy of interest groups as applied to regulation was extended by three prominent Chicago economists with an interest in industrial organization.
   - Two of these won Nobel prizes in part for their work on the political economy of regulation: Stigler and Becker.

iv. Although all this new literature was linked to Mancur Olson's work on the *Logic of Collective Action* (1965), generally the new work was more rigorous and substantially more focused on political interest groups than Olson's analysis.

B. George Stigler (1971, Bell J. of E.) argued that " the central tasks of the theory of economic regulation are to explain who will receive the benefits or burdens of regulation."

i. He argued that what appear to be perverse economic regulations emerge as a consequence of electoral threats on the part of large enterprises.

   a. "If the [elected] representative denies ten large industries their special subsidies of money or governmental power, they will dedicate themselves to the election of a more complaisant successor." ... "The industry which seeks regulation must be prepared to pay with two things a [political] party needs: votes and resources."

   b. (This theory is sometime summarized as the "capture" theory of regulation, insofar as regulated industries get the regulations that they want. See also some of Stigler's earlier work on the "capture theory".)

ii. Peltzman (1976) extended Stigler's analysis. He argues that "what is basically at stake in a regulatory process is a *transfer of wealth*. The transfer, as Stigler points out, will rarely be in cash, but rather in the form of a regulated price, and entry restriction and so on." He goes on to argue that:

   a. "[T]he costs of using the political process limit not only the size of the dominant group but also its gains."

   b. "[Elected politicians] maximize net votes or majority in his favor. There is no presumption that the marginal utility of a majority vanishes at one...Greater majorities are assumed to imply greater security of tenure, more logrolling possibilities greater deference from legislative budget committees and so on."

   c. (Although these "Chicago" ideas are clearly extensions of the public choice literature of the 50's and 60's essentially no mention is made of those literatures beyond a passing citation of Olson's work on collective action. This could be an example of academic rent-seeking.)

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

i. Although it may be argued that many of the ideas contained in this important book were in the "air" at the time the book was written, Olson's book stands out as a very readable, original, and impressive analysis of the problems of organizing collective action.

   a. The book deals with collective action in general, but for the purposes of this part of the course, its implications for politically active groups is most relevant.

   b. First, note that group efforts to influence policy via coordinated voting, lobbying, campaign contributions, etc. are all public goods for the group's members. When a policy is influenced it, all members of the group (say farmers) benefit whether they have contributed to the collective effort or not.

   c. Overcoming this public good or free rider problem is the most important impediment to collective action.

   d. [Figure: the private marginal costs and benefits of collective action to an individual.]

   e. [Game Matrix of the free rider problem for interest groups.]

ii. 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.

   a. Small groups may therefore be able to exploit larger groups.

   b. 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 in society.

c. [Note that rational ignorance must play a role in the adoption of such policies in a democracy.   Why?]

iii. Moreover, the benefits received by the small group may be less than the cost imposed on the large unorganized or poorly organized group.

iv. In addition to group size and the intensity of individual member interests, Olson notes that various techniques can be used to overcome the organizational problems of large and small groups.

a. For example, most politically active groups provide benefits of some kind that are directly related to membership.

b. That is to say, 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 to free ride.

v. Olson calls such devices: selective incentives.

a. Thus farm coops provide many services to farmers in addition to lobbying for preferential farm policies.

b. Environmental and senior citizen groups often sponsor trips, newsletters, and so forth.

vi. [Thought questions:

a. Name several groups that appear to be effective at influencing public policy.

b. What methods do they seem to use?

c. Does the general flow of direct and indirect transfers look like Olson's analysis suggests?

d. What is the optimal size of an interest group?

e. Is free-riding necessarily a social problem in this case from the point of view of the Pareto criteria?]

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.

i. First, and probably most important, there is persuasion. Interest groups may attempt to persuade the public (voters), their representatives, or regulators that the "best" policy just happens to be the policy that generates large transfers to the groups making the argument.

ii. Second, in a democracy or dictatorship, such groups may provide support for those in power which makes it more likely that those in power continue in power.

a. In democracies this can be done with "single issue" voting, public protests/support, and with conditional campaign contributions.

b. In dictatorships, it may be done by "trading favors" to those with the power to make policy decisions.

B. Third, there are illegal methods of influence: bribery, threats of violence, blackmail, etc. of relevant policy makers.

IV. Rent-Seeking Losses

i. Tullock's extension of the Olsonian approach was to note that all these collective political activities are costly.

ii. Moreover, 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.

a. That is to say, these resources are not used to produce new goods and services or efficiently enhancing services, although they could have been used for such productive purposes.

b. Instead these rent-seeking resources are consumed in conflict over the existing "social pie."

c. (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.)

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

a. 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.

b. That is to say the "rents" from rent seeking will all tend to be consumed by the process of competing for them.

c. [Figure or rent-seeking costs involved in Monopoly or Tariff policy.]

d. [Illustration of the rent-seeking game with a two person 3x3 game matrix.]

iv. [Optional: Mathematical illustration of the simple rent seeking game with $R_j^e = R [E_j / (\Sigma_i E_i)] - E_i$ where R is the prize and Ei is the effort of the ith group or individual.]

v. Thought questions:

a. To what kinds of activities other than politics might the logic of the rent seeking model apply?

b. How might one reduce the extent of rent-seeking losses?

c. How does rent-seeking differ from ordinary auctions?

d. Is the rent-seeking industry as large as you might expect based on Gordon Tullock's argument? Why or why not?

V. The Old and New Chicago Regulation Models

A. The Peltzman model of regulation is perhaps the most widely used model from the Chicago school.

i. It is widely used as a model of regulation in a setting where regulatory commissions are assumed to have some discretion but be politically obliged to take the interests of both consumers and the regulated into account.

ii. One simple and widely used version of the Pelzman model, argues that the regulator maximizes his "political support" (often characterized with the regulator's utility function) which is defined over the welfare of consumers and firms subject to the regulation. Regulators and/or elected representatives need political support willingness to provide desired political support to the regulators (or elected representatives) increases with the welfare of the groups affected by the regulated.

iii. Regulators/Legislators set regulations (and transfers) to maximize political support (campaign contributions and the like).

iv. Many forms of regulation can be considered in a Pelzman model. Consider for example a decision to set some regulated price, P.

B. Let support be characterized as: $S = \Sigma_i\ S_i(P)$

i. Differentiating with respect to P we find that P will be set such that

$$\Sigma_i\ S_{i_P} = 0\ ,$$

ii. which implies that P is set (raised) so that the marginal reduction in support from those favoring lower prices equals the marginal increase in support from those favoring higher prices.

iii. In cases where the policy variable is a vector and many different groups are affected by that policy, and all of their interests, as expressed with promises of " support," are balanced off against each other at the margin.

iv. Not much attention is given to the incentives of groups to directly lobby for regulatory preference, rather industry effectively reacts to proposals of the regulator (by making larger or smaller campaign contributions).

C. The Becker model is essentially similar and broader, except that the model has no obvious policy maker. Individual's contribute to politically active groups on be basis of their influence production functions.

i. In his 1983 piece, Becker models a political influence game between two groups composed of self-interested net benefit maximizers.

ii. The redistribution takes place via taxes and subsidy interests which can be more or less efficient.

iii. The mechanism which determines the extent to which a the taxed group is taxed and the subsidized group receives a subsidy is called political influence: $I_s = -I_t = i(P_s, P_t, X)$ where Ps is the pressure from group s, Pi is the pressure from group i and X is other variables that matter (say institutions).

D. Political pressure is the result of group membership size, n, and resources devoted, m, to generating pressure $P = p(m, n)$. (If a is average member expenditure, then $m = na$.)

i. The total tax burden of the taxed group is $n_t R_t$ where n_t is the number of members of group t, and R_t is the tax burden imposed on a typical member of group t. $F(R_t)$ is the amount of revenue actually raised by the tax, net of dwl, so $F(Rt) \leq R_t$. The total subsidy cost of transfers given to the subsidized group is $n_s G(R_s)$ where n_s is the number of members in group s and $G(Rs)$ is the subsidy expenditure per group member. R_s is the amount actually received net of the dwl so $R_s \leq G(R_s)$.

ii. Note that $n_t F(R_t) = n_s G(R_s)$ [all revenues collected are paid out as subsidies.]

iii. The full income of a typical member of each group is $Z_s = Z_s + R_s - a_s$ for the subsidized group and $Z_t = Z_t + R_t - a_t$ for the taxed group.

E. Individual will contribute the amounts, a_s and a_t respectively, which maximizes their income so that a_t^* is s. t. $R_t a_t = 1$ and as is s.t. $R_s a_s = 1$, e. g. each person contributes to their groups political activity up to where the marginal increase in money's received (or losses avoided) equals one dollar.

i. Given that $I_s = n_s G(R_s)$ and $I_t = n_t F(R_t)$. $G(R_t) = I_s/n_s$ and moreover using the definition of an inverse function: $G^{-1}(G(R_s)) = R_s = G^{-1}(I_s/n_s)$

ii. Differentiating R_s with respect to a_s yields: $Rs_{a_s} = [dG^{-1}/d(I_s/n_s)]\ [(dI/dP_s\ dP_s/dm\ n_s)]/n_s$

since $dG^{-1}{}_R \approx 1/G_R$

iii. a_s^* will be such that $[I_{P_s} Ps_m]\ /G_{R_s} = 1$ [note that this just restates viii above]

iv. and a_t^* will be such that $[I_{P_t} Pt_m]\ /G_{R_t} = 1$ [again see viii above, f. o. c. again]

F. These first order conditions can be used as the source of Cournot reaction functions for the political pressure game.

i. But first, one can get some sense of the comparative statics of the first order conditions. [Diagram of a* at "MB"="MC"]

ii. The higher the marginal cost of the subsidy (the less efficient the subsidy program) the lower the marginal benefit curve is and the smaller a* is.

iii. The greater the groups relative ability to create influence from pressure, I_{P_s}, the higher the marginal benefits of political contributions and the higher a* is.

iv. The more political pressure produced by an additional group expenditure, the higher the marginal benefits are and the greater a* is. [Figure with Nash equilibria for typical members of each interest group, comparative statics]

v. Efficient policies are the best policies from the vantage point of both interest groups and those policies will call forth the most political pressure.

G. The balance of power equilibrium in a Becker type model can be shown with marginal pressure supporting and resisting some policy. [Illustrate in a diagram.]]

i. To the extent that it is the MB of policy that elicits contributions and thereby creates pressure, the marginal support function can be regarded to be a function of the underlying MB of the program. This can be approximated as a proportion for purposes of illustration.

ii. Similarly, to the extent that the opposition is based on perceived MC of the program, the marginal opposition function is a function of MC, or roughly proportional to the MC curve.

iii. When the two groups use the same function (have the same proportion of MB or MC showing up as contributions at the margin) then the result of the political pressure equilibrium will be efficient in the sense that it maximizes social net benefits.

iv. [Illustration]

v. However, if the groups are not equally effective at the margin, then too much or too little of the policy may be forthcoming.

H. Note that rational ignorance can play a role in the latter setting to the extent that exaggerating MB's or minimizing MC's may cause interest group responses that tend to Pareto excessive programs.
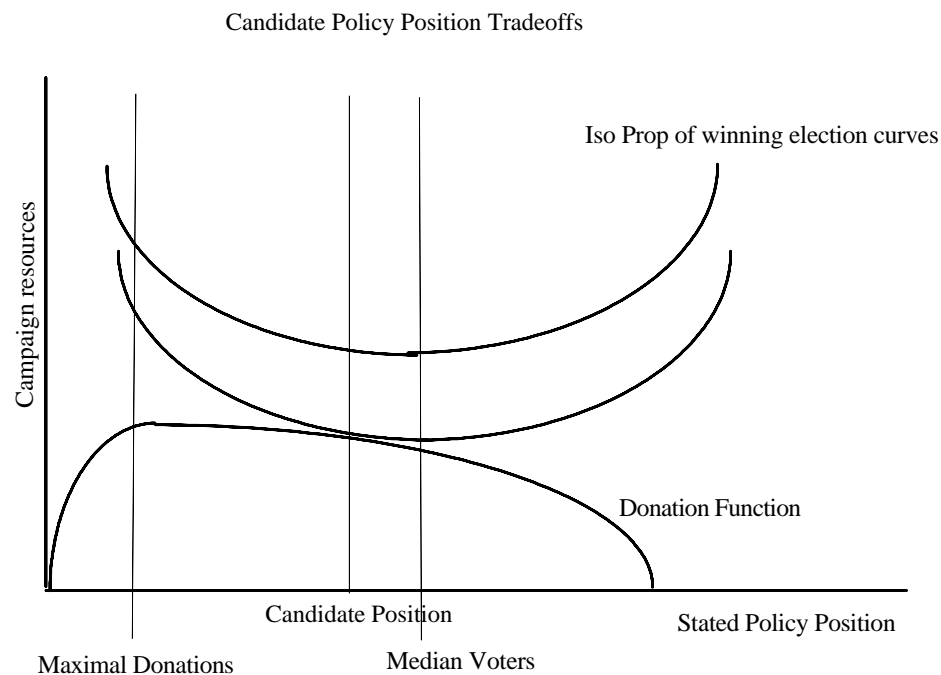
VI. Combined Models: Elections and Interest Groups.

A. We have to this point in the course treated separately the various factors that affect public policies in a democracy: elections, interest groups, and the bureaucracy. At this point it is time to try to integrate some of these models explicitly.

i. Surprisingly little work has been done in this respect.

ii. The formal effort to integrate interest group and election models began only in the mid-1980's with a fairly famous paper by Austin-Smith, and a less known paper by me, both published in Public Choice.

iii. Some years later, a paper by Coughlin, Mueller, and Murrell was published that recast and extended the Austin-Smith stochastic voter approach in a clearer more tractable manner.

iv. All three of these models attempt to provide a motive for candidates to pay attention to interest groups based on their interest in winning office.
   a. Essentially all three models assume that candidates need campaign resources in order to run a successful campaign.

b. Campaigns are modeled as informative or persuasive enterprises where candidates use campaign contributions to send messages to voters with the aim of securing office.

v. In Austin Smith and Coughlin, Mueller, and Murrell voters are stochastic voters whose probabilities of casting votes is influenced by messages (or at least the campaign resources) of the candidates as well as candidate position.

vi. In Congleton, non-stochastic voters estimate the positions of candidates partly based on their campaign messages and partly from prior information using messages via a Bayesian learning function to estimate consequences of policies espoused by the candidates.
   a. (Candidates may by changing expectations or forecasts of the future consequences of their policies change voter opinions about the relative merits of candidates.)

B. In all three models campaign resources are acquired by adopting positions that favor campaign contributors who are variously modeled as voters with unusually intense policy preferences or as non-voting "industries and unions."

VII. An illustration of the tradeoffs faced by a candidate

i. Perhaps the most direct way to illustrate the tradeoffs faced by a candidate who can use campaign resources to influence his probability of being elected is within the following diagram.

ii. Note that the shape of the iso-probability lines is crucial to the importance of campaign resources.
   a. If they are shaped as drawn there is a clear trade off that has to be made between satisfying the median voter and securing sufficient resources to run a creditable campaign

   b. If the iso-probability lines are vertical, only policy position matters and the median voter model in its pure form obtains

   c. If the iso-probability lines are horizontal, only money matters and candidates should attempt to maximize campaign resources.

   d. Of course case a broad array of type "a" geometries are possible, with various more or less severe tradeoffs illustrated.

A. 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).

i. Unfortunately somewhat ad hoc assumptions have to be introduced to demonstrate the existence of an equilibrium.

Candidate Policy Position Tradeoffs

Iso Prop of winning election curves

Campaign resources

Donation Function

Candidate Position

Stated Policy Position

Maximal Donations

Median Voters

ii. 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.)

iii. 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.

iv. (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. [Develop the geometry of such a model.]

VIII. Other approaches that integrate interest group and elections include:

i. Coalition building models, where interest groups provide only votes to a potentially winning coalition
   a. One example of such a process is SINGLE ISSUE VOTING. Here interest groups provide votes only to candidates that support their espoused position.
   b. The single issue voting model works best when there are 0-1 choices to be made, such as on abortion.
   c. In other settings, members of "single issue" groups may have different ideal points along the issue dimension of particular interest. In such a case, single issue voters may vote for different candidates according to how close they are to their own ideal points in the "salient" dimension.
   d. (Note that in this last case, it would pay candidates to take the "median single voter's ideal point as his policy position. Why?)

ii. An approximation of the role of elections and interest groups can be achieved if one assumes that represent candidates as maximize "support functions," where support from both voters and interest groups matters.
   a. This is a minor extension of the Peltzman/Stigler approach to politics.
   b. Such an approach hides or abstracts from a lot of institutional detail but does provide a role for both voters and interest groups.
   c. Elections and the role of interest group support are ignored to focus on tradeoffs faced by politicians in elections.

iii. Still, the most common approach in the modern Public choice literature is to ignore one or the other literature.
   a. Special interest group models have become more "fashionable" in the last ten or fifteen years.
   b. Although, many "new" political economy macro public choice models continue to rely on median voter/electoral concepts types of models.
   c.

IX. Introduction. The normative implications of the sort of legislation that political interest groups lobby for has long been a topic of economic analysis.

A. For example, the literature on taxation and on monopoly demonstrate the existence of deadweight losses from tax and regulatory policies.

   a. In areas in which regulation is supported by "welfare economics" the regulations and taxes may not be as efficient as they should be.

b. In other areas, the absence of policies tends to generate deadweight losses as in environmental regulations.

B. One strand of the interest group literature argues that interest group activities may also directly generate deadweight losses.

C. Tullock (1967) argued in his "The Welfare Costs of Tariffs, Monopolies and Theft" the efforts of interest groups to establish monopolies, protective tariffs and the like represent a "cost" that should be added to the total deadweight loss of those policies.

i. He argues that competition for special privileges tends to consume a good deal of the "prize" associated with that privilege .

ii. For example, he argues that firms that seek a monopoly privilege will invest so many resources in the monopoly-seeking contest that monopoly profits are in effect eliminated. After all, in a competitive economy, would-be monopolists will earn only an average rate of return on their investment.

D. Rent-seeking losses arise, because resources devoted to political infighting have an opportunity cost. They could have been invested in value-increasing (productive) rather than value-reducing (unproductive) activities.

i. Suppose that R units of a scare economic resource can be employed to produce an output valued at V dollars or employed to create an output valued at D dollars where V>0 and D<0.

   a. *If R is employed to create D, one can say that the resources have been wasted: e. g. consumed in a value decreasing process.*

   b. Rent seeking is one of the many unproductive processes by which resources may be wasted in this sense (the process of political rent seeking is taken up below).

   c. The "value created" by investing R in some political influence game (lobbying) is D and its opportunity cost is V. So the **net loss** generated by this employment of R is D - V < 0.

   d. *D-V can be considered the social cost of using resource R in this manner.*

   e. (Note that D is the "net value" of the output which may include some positive results, e. g. the successful monopolist's profits.)

   f. [In the case of monopoly, D would be the Harberger dead weight loss triangle, which has a value less than zero, and V would be the economic value of the alternative output that might have been produced with the resources used to secure the monopoly privilege.

   g. V will be approximately rectangle "T," the Tullock rectangle, under assumptions explored below.]

ii. A *dead weight loss from employing R to produce D exists as long as D < V.*

   a. Thus, even somewhat productive political activities may have a rent-seeking loss associated with them.

b. For example, rent-seeking losses would arise even in a Becker, 1983, type model where the eventual policy adopted *efficiently* transfers resources from one party to another. (Here D in the limit is zero, rather than negative.)

iii. [One difference between the Virginia and Chicago approaches to political economy is that the Virginia school is not very optimistic about the normative properties of the outcome of interest group competition.]

X. A Rent Seeking Game

A. The rent-seeking literature uses a game theoretic representation of competition.

B. The core rent seeking model regards the process of lobbying to be analogous to a **lottery**.

i. The special favor that may be obtained from the government--tax breaks, protection from foreign competition, contracts at above market rates etc.-- are the prize sought by rent seekers.

ii. The process by which these prizes are awarded is considered to be complex in that a wide variety of unpredictable personalities and events may ultimately determine who gets which prize.

   a. The more resources are devoted to securing preferential treatment the more likely it is that a particular rent-seeker will be successful. (The better prepared and more widely heard are the "rationalizations" for special preference, the more likely they is to succeed.)

   b. Contrariwise, the greater the efforts of other rent-seekers, the less likely a particular rent-seeker is to win the prize.

iii. Investments in political influence are often modeled as if they were purchases of lottery tickets.

   a. Illustration: Suppose that N risk neutral competitors participate in a rent seeking game with a fixed prize, Π.

   b. Each player may invest as much as he wishes in the political contest.

   c. The prize is awarded to the player whose name is "drawn from a barrel" containing all of the political lottery "tickets."

   d. So, the expected prize for player i is $\Pi[R_i / (R_i + R_o)]$,   where R is the value of the prize, R_i is the investment in rent seeking by player i, and t_o is the investment by all other players.

   e. If the rent seeking resource, R, cost C dollars each, the expected net benefit or profit is

   $$\Pi^e = \Pi[R_i / (R_i + R_o)] - CR_i$$

   f. The expected profit maximizing investment in rentseeking (lottery tickets) can be found by differentiating expected profits with respect to Ri and setting the result equal to zero.

- $\Pi \left[1 / (R_i + R_o) - R_i / (R_i + R_o)^2 \right] - C = 0$, simplifying yields

- $\Pi \left[R_o / (R_i + R_o)^2 \right] - C = 0$, or

- $\Pi R_o / C = (R_i + R_o)^2$
  - which can be solved for $R_i{}^*$, the expected profit maximizing investment in rentseeking by player i.

iv. This solution, $R_i{}^* = -R_o \pm \sqrt{(\Pi R_o / C)}$, is player 1's best reply function. It describes his or her optimal investment in rent-seeking a s a function of the prize and the investments of other players in the game. (Only the positive root will be relevant, because Ri has to be greater than zero.)

    a. In a symmetric game, each player's best reply function will be similar, and at least one equilibrium will exist where each player engages in the same strategy.

    b. Thus, if there are N-1 other players, at the Nash equilibrium, $R_o{}^{**} = (N-1)R_i{}^{**}$.   which implies that $R_i{}^{**} = -(N-1)R_i{}^{**} \pm \sqrt{(\Pi (N-1)R_i{}^{**}/C)}$.

    c. which implies that $N R_i{}^{**} = \sqrt{(\Pi (N-1)R_i{}^{**}/C)}$ or squaring both sides, dividing by $R_i{}^{**}$ and N^2 and gathering terms, that: $R_i{}^{**} =$
$$[(N-1)/N^2] [\Pi/C] = [(1/N) - (1/N^2)] [\Pi/C]$$

    d. So for example with N = 2 and C = 1, $R_i{}^{**} = (P/4)$

C. Total rent seeking effort is N times the amount that each player invests

i. Thus in the two person cost case, the profit maximizing rent-seeking expenditure by each player is **$R_i C$** $= \Pi/4$ and the total expenditure is twice this amount or **$2R_i C$** $= \Pi/2$.

ii. Half of the value of the prize is consumed by the process of rent seeking.   [Illustrating Figure]

iii. In the more general case, total expenditures is **$N R_i C$** $= [(N-1)/N] [\Pi] = [1 - 1/N] [\Pi]$

D. The affect of entry on individual and total rent seeking expenditures can be determined by inspection or by differentiation Ciii and Bx above with respect to N.

i. It is clear that individual contributions fall as the number of rent seekers increase, but also the total amount of rent seeking "dissipation" increases.

    a. In the limit, as $N \Rightarrow \infty$ the total rent seeking investment approaches the level where the value of those resources, RC, equals to the entire value of the prize, **R^{**}** $C = [\Pi/C] C = \Pi$.

ii. The effect of increases in the cost of participating in the political influence game and/or changes in the value of the regulation to the rent-seeker can also be readily determined in this game.

E. The basic model can be generalized to cover cases where the prize is endogenous and where the probability of securing the prize varies, and to cases where the prize is shared rather than awarded to a single "winner take all" winner.

i. For example, $R_i{}^e = P(R_1, R_2, ...R_N)\Pi_i(\mathbf{R})$ encompasses many of these features.

ii. The affects of economies of scale may also be examined in this general framework and in the earlier explicit one.

XI. Competitive Process and Competitive Waste

A. The previous analysis should make it clear that the main losses of rent seeking activities arise for two reasons:

i. (1) the process used to influence policy is costly and does itself not generate value. Much of the rent-seeking literature stresses the redistributive consequences of such political games.

ii. (2) Losses increase because of competition between groups. Outside of price competition in markets, the merits competition can not be taken for granted but have to be analyzed on a case by case basis.

B. Institutions, including the distributional rules of the rent-seeking contest, *implicitly* determine the type of activities that must be undertaken by potential rent seekers, and the extent to which persons are free to compete in a particular contest.

i. Generally speaking, the losses from games where the rents are shared are below those in games where the rents all go to a single victorious group or individual.

ii. The rules of the game can also encourage the use of rent-seeking technologies which minimize their cost, or cause the process of rent-seeking to confer benefits of some sort on other parties. (Awarding the king's daughter to the Knight that wins an entertaining tournament.)

    a. If the rules, eligibility criteria, discourage opposing efforts from potential losers or from potential beneficiaries of similar policies (others who might also secure monopoly power), resources invested in the political influence game tend to decrease.

iii. The losses from rent-seeking games can be considered special cases of the "waste" generated by the use of resources in *nonbeneficial competitive processes.*

    a. The basic structure of rent-seeking political influence games also applies to many other kinds of contests, as for example attempts to maximize personal status.

        - (See my 1980 paper in the first rent seeking collection and in the over priced Tollison-Congleton (1995) collection.)

    b. Also see various works by Robert Frank, including his book on positional games and winner take all games. Bagwatti calls such activities: Directly UnProductive Efforts: DUPE.

XII. Rent Seeking Estimates and Evidence

A. Several studies have tried to quantify the extent to which losses might have been generated by political rent seeking.

i. In the study where the term rent-seeking was invented, Ann Krueger, 1974, argues that up to 7.3% of GNP in India (1964) and about 15% of GNP in Turkey (1968).

ii. Posner, 1975, and Scwartzman estimate the DWL of monopoly in the US to be 3.13% and 2.209% of GNP respectively.   Both these estimates are significantly higher than Harberger's estimate of 0.1% of GNP.

B. Perhaps the most ambitious of the efforts to estimate the deadweight losses of transfer seeking activities is the study of Laband and Sopholeus, 1992 *QJE.*

i. They attempt to use an GNP accounting method to characterize all of the activities which are under taken in order to secure or prevent transfers from taking place.
   a. This include such things a the court system, trade protection, national defense, locks, etc.

   b. To this they add actual transfers realized.

ii. They estimate that approximately 25% of GNP (950 million dollars) is involved in the transfer industry.