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# Decision by sortition: A means to reduce rent-seeking

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**Abstract.** This essay gives an overview of how a randomized decision mechanism (sortition) can be expected to reduce the intensity of self-interested activity by rent-seeking factions within democracies. The social costs of rent-seeking are briefly reviewed. I then make the case that randomization of collective decision making procedures attenuates rent-seeking expenditures. I illustrate the argument by reference to the highly contested Presidential election of 2000. Finally, I buttress that argument by comparing plurality voting and sortition within the context of Tullock's *Efficient Rent-seeking* model (1980).

Sortition is decision by a random process, such as the drawing of lots. It was widely used by the ancient Athenians. In the fifth and fourth centuries B.C., they filled virtually all administrative positions (excluding a few requiring specialized abilities, such as military leaders) by lot. It was also used in renaissance Venice and Florence. Those governments employing sortition were administered more regularly, honestly and successfully than contemporaneous states utilizing other methods, and, in fact, compare favorably to modern states (Headlam, 1933; Finlay, 1980; Queller, 1986). Any comparison between ancient and modern states is, of course, impeded by the dramatically more expansive role of modern states.

This essay gives an overview of how such a randomized decision mechanism can be expected to reduce the intensity of self-interested activity by rent-seeking factions within democracies. The social costs of rent-seeking are briefly reviewed. I then make the case that randomization of collective decision making procedures attenuates rent-seeking expenditures. I illustrate the argument by reference to the highly contested Presidential election of 2000. Finally, I buttress that argument by comparing plurality voting and sortition within the context of Tullock's *Efficient Rent-seeking* model (1980).

The rent-seeking insight has revolutionized the manner in which political theorists understand the workings of governmental institutions. Analysis of how self-interested parties incur costs in the pursuit of discriminatory gains,

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as a result of government intervention, informs our current understanding of the relationship between persons and the state. From a social cost perspective, the most benign form of rent-seeking occurs when favors are sought from governmental decision makers through direct bribes. Here the rent-seeking expenditures are pure transfers, and the cost of rent-seeking is simply the opportunity cost of rent-seekers directing their activities towards the pursuit of transfers instead of engaging in wealth producing activities.

In autocratic societies, rent-seeking can be this direct, and the rents themselves may also take a form closer to a direct transfer. Under these autocratic circumstances, however, competition to win the lucrative position of the rent allocator (dictator) can be especially fierce, and often violent. There are substantial costs associated with this secondary rent-seeking contest. Under democracies, direct transfers either from or to rent-seekers may be proscribed. or politically impossible. Rent-seeking expenditures may need to be accomplished through inefficient means. Payments may need to be structured and directed through costly channels to conform to campaign finance laws. Rentseekers may be required to submit detailed, costly and otherwise valueless application documents (Higgins and Tollison, 1988). Legislators can only be wined and dined so much (Tullock, 1985), and such payments in-kind are inherently less efficient than cash would be. Inefficiencies may be even more pronounced in the manner in which the rents themselves are awarded in democracies. The benefits American farmers realize from various farm supports could be accomplished for a much smaller sum by simply giving them direct payments (Tullock, 1988b). Since such payments are politically untenable, a dramatically more expensive system is used to deliver the benefits. Rents must awarded within a context that conforms with public notions about the "proper" role of government (Tullock, 1988a).

Rent-seeking costs may manifest themselves in non-monetary ways as well. Democratic elections are, in a sense, rent-seeking contests. Expenses are incurred (political advertisements, "walking around" money) in pursuit of a pre-existing scarce resource (political office and power). The 2000 Presidential election demonstrated that competition for political prizes can inflict costs both monetary and institutional. When the extreme closeness of the race in the pivotal state of Florida became apparent, the contest moved beyond the customary framework of turning out a majority of the votes. As the process changed from an electoral to a judicial framework, the state was flooded with lawyers from both parties. Powerful legal minds were pressed into service at great expense. All three branches of government, at both the state and national level either entered the fray, directly or indirectly, or prepared to.

Once this process was begun, it was inevitable that any institution that became involved in the contest would have its authority undermined in the eyes of half of the American people. In the aftermath, news media were flooded with assertions of the illegitimacy of the Executive, Legislative and Judicial branches of the Florida state government, and of the United States Supreme Court. Had the U. S. House of Representatives been drawn in before the matter was settled, their legitimacy would also have been bitterly attacked, regardless of how they ruled. It may not be possible to express the costs of the undermining of our political institutions in dollar terms, but they are very real costs just the same.

If there are rents to be captured, be they monopoly franchises or political offices, they will be pursued if the ex ante expected value of the prize exceeds the cost of winning it. What prizes are in play, and how costly they are to pursue, are functions of the constitutional framework within which the game is played. Institutional constraints that affect the marginal return of wealthtransferring efforts relative to wealth creating efforts will have a profound affect on the well-being of a society. When the best and brightest members of a society pursue their own self-interest through production and exchange, they are guided by Adam Smith's invisible hand to serve the interests of their fellow countrymen. When those persons most capable of producing wealth divert their efforts to rent-seeking activities instead, the society not only loses their creative potential, but the government interventions in the marketplace necessary to provide the discriminatory gains (monopoly franchises, tariffs, etc.) impose further costs. The creation of a monopoly privilege involves the social loss of the Harberger Triangle.<sup>1</sup> The substitution of rent-seeking for productive activities will expend some proportion of the Tullock Rectangle<sup>2</sup> as well.

This process may also feed on itself. Each rent-creating government intervention may serve to reduce the marginal return to productive relative to rent-seeking effort. The process may undermine the public's faith that reasonable returns are available through market participation (Krueger, 1974). On the other hand, if the marginal return of rent-seeking relative to market activities declines, self-interested individuals will divert their activities from the pursuit of transfers to wealth creation. The decline of mercantilism in England, and rise of the golden age of laissez faire, can be interpreted as the result of such a change (Baysinger et al., 1980; Tullock, 1988a). A power struggle between the monarch and the legislature over who would award rents reduced the durability of those rents. As a result, the value of rent-seeking relative to productive activities decreased, and an unprecedented period of economic growth occurred.

In the absence of some institutional obstacle, we can expect self-interested legislators to adapt the size and scope of government to increase rather than decrease the returns to rent-seeking relative to productive activities. Legislators stand to gain from rent-seeking expenditures. Thus we should not only expect legislators to be approached by rent-seeking constituents, but to occasionally act as rent-promoting entrepreneurs (Orr, 1980). Additionally, legislators may not only attempt to create rents, but threaten to destroy, through regulation, rents that were privately created in the marketplace. Market activities sometimes generate monopoly power through control of newly introduced products or name brand reputation. Legislators can solicit payments from the creators of market power in exchange for not implementing harmful legislation. These activities are not rent-seeking, per se, but are better characterized as rent-extraction (McChesney, 1987; Rowley, 2000). As such, they are outside the context of a rent-seeking contest, as I apply the concept below. It is worth noting, however, that changes in institutions that reduce the amount of rent-seeking can be expected to exert a corresponding influence that tends to reduce rent soliciting behavior as well.

Sometimes rent-seeking efforts have unintended beneficial effects. Anderson and Tollison (1985) go so far as to argue that the repeal of the Corn Laws in 19th century England was a by-product of a set of rent-seeking efforts designed to promote the interests of the cotton textile industry. Whatever caused of the repeal of the Corn Laws, the resulting period of free trade clearly demonstrated that institutional changes can have profoundly beneficial effects. To the degree that it is possible, it would seem preferable to actively promote constitutional innovations that result in substitution away from rent-seeking and towards productive activity, rather than to rely on occasional advantageous outcomes as unintended outcomes of rent-seeking efforts.

James Buchanan (1980b), in contemplating reform of the rent-seeking society, argues that changes to reduce rent-seeking must be broad-reaching rather than piecemeal. Since rents transferred typically bestow a concentrated benefit on one constituency at the diffused expense of others, attempts to eliminate one rent at time can be expected to be bitterly resisted through the political process. A general change that reduces rent-seeking across the board may be more feasible, since participants in the political process may regard the loss of particular rents to be balanced by the gains they hope to realize when the awards of other rents, which are detrimental to them, are simultaneously abolished. Episodes of economic reform in both New Zealand and Estonia are consistent with this hypothesis.<sup>3</sup> In both states a broad package of liberalizing reforms was put in place at once. Due to the breadth of the reforms, individuals who stood to lose particular rents (nearly everyone, due to the level of interventionism in both societies), could still be net winners, since they would not longer be obliged to support other rent transfers. Although the

generality of the reforms did not preclude heated political battles, the reforms were put in place, with clearly apparent beneficial effects on those economies.

Changes in the collective decision-making process are inherently general in nature and thus meet the Buchanan Criterion. The introduction of a degree of randomness in the decision-making process will affect all rent-allocation equivalently. Those who believe that they are net beneficiaries of rent transfers may oppose such a change, but in a society with numerous overlapping transfers, determining who is a net gainer and net loser can be problematic.

A general reduction in rent-seeking due to a change from a plurality voting decision technology to a sortition decision technology should benefit even net beneficiaries of a current rent transferring regime in two ways. First, a reduction in the social loss associated with reducing rent-seeking expenditures (the opportunity cost of rent-seekers) expands the production possibility frontier, so even if rent-transferring continues, the size of the pie increases. Second, since the institutional change should reduce rent expenditures by all contestants, each contestant that continues to play should realize the same *expected* return for a lower level rent-seeking expenditures.<sup>4</sup> The inherent uncertainty of the return may (and we hope, will) cause some rent seekers to substitute their efforts to wealth creation, which will become a relatively less risky source of wealth. In any case, the rule change is inherently general, and should not affect any given existing rent transfer in an idiosyncratic manner.

Buchanan (1980b) also argues that if governmental creation of scarcity cannot be avoided, rent-seeking activities can be curtailed by appropriately controlling how the benefits of that scarcity are distributed. If government intervention in the marketplace creates a scarcity, then all persons in the community should enjoy equal access to the scarcity values created. Buchanan recognizes the practical difficulties of allocating legal rights to scarcity values to all members of the community, and goes on to propose an alternative method. The claims could be awarded randomly, such that all members of the community enjoy equal ex ante expected entitlement to the scarcity values, even if it is not feasible to award those claims equally ex post. This is the direction in which my proposal to use sortition as a political decision technology goes. It should be noted that a contest in which each participant enjoys an equal probability of winning, regardless of the level of expenditures, can be represented within the framework of Tullock's efficient rent-seeking model. I will illustrate that below, after introducing the model, and showing how it can be applied to demonstrate the characteristics of decision by majority or plurality voting versus sortition.

Charles Rowley (1988) has illustrated how probabilistic, rather than deterministic outcomes can attenuate rent-seeking endeavors within a game theoretic framework. In the game below, drawn from Buchanan (1980a), parties to the game will not move to the aggregate wealth maximizing upper left quadrant unless the possibility of side payments are allowed. They will remain in the Nash equilibrium lower right quadrant. This illustrates the difficulty of abandoning a rent once acquired.<sup>5</sup>



Figure 1. Game when award of rent deterministic

Where the award of the rent is probabilistic rather than deterministic, however, contestants can be expected to overcome the dilemma, if they can develop some means of creating a binding contract. Now both players are better off *ex ante* in the upper left quadrant, although, *ex post*, one or the other would be better off in the lower right quadrant. That is, they should be able to move from the lower right Nash equilibrium quadrant, to the Pareto superior<sup>6</sup> upper left quadrant.<sup>7</sup>



Figure 2. Game when award of rent probabilistic

The premise can also be illustrated with reference to the Presidential election contest of 2000. Because the election process was deterministic, the closeness of the election led to an all-out battle to achieve the last few hundred votes out of roughly six million cast in Florida. The cost for these final few votes was enormous, not only in terms of the resources expended, but also because of the resulting harm done to the democratic institutions drawn into the fray. If the decision mechanism employed was a proportional lottery, where all the votes cast were placed in a drum, and the winning ballot were drawn at random, no such final costs would have been incurred in resolving the dispute. The difference between achieving 3,000,001 versus 2,999,999 votes, out of approximately six million cast, would be irrelevant, rather than decisive. Given the difficulty of determining which of two candidates more accurately reflects the preference of the polity in such a close election, it is not clear that determining the President by flipping a coin, under those circumstances, would be an inferior method. The result is not apparently any less reflective of the popular will than bitterly contesting which questionable

ballots should be excluded and which should be counted (and for whom). Certainly the enormous costs of the final stages of that contest would have been averted.

How the introduction of randomization reduces the marginal return to rent-seeking can be illustrated by comparing simple majority voting and proportional lottery decision mechanisms within the framework developed by Gordon Tullock in his seminal work, *Efficient Rent Seeking*. Tullock (1980) had the insight that the marginal return on rent-seeking expenditures influences the total expenditure on rent-seeking activity. Specifically, when returns to rent-seeking exhibit decreasing (increasing) returns to scale, aggregate expenditures should be less (more) than the contested prize. This suggests that institutional reforms that reduce the marginal return to rent-seeking expenditures should reduce rent-seeking activity. One such reform would be the use of the lot in governmental decision-making.

Tullock's basic model for determining the probability of winning a twoparty contest is:

$$P_{A} = \frac{A^{r}}{A^{r} + B^{r}}$$
(1)

where A and B are the rent seeking expenditures of two individuals,  $P_A$  is the probability of winning the prize associated with expenditure A, and r is a factor determining the productivity of rent seeking expenditures.

This model can be applied to a pair-wise voting situation, where A would represent the number of votes cast for one alternative (the Ayes) and B would represent the votes cast for the other alternative (the Nays). Under a simple majority voting rule, the probability of winning is given by the model with  $r = \infty$ .<sup>8</sup> The side with the most votes wins with probability 1. The model can also be applied to a lottery, where each vote is equivalent to one lottery ticket, so that securing 51% of the votes gives a probability of winning of .51, rather than being decisive. This is equivalent to Tullock's model with r = 1. This is a proportional lottery (Fishburn and Gehrlein 1977), the form of sortition I focus on in this paper.

Earlier I noted Buchanan's suggestion that scarcity values (rents) created by government intervention should either be shared by society generally, or distributed randomly such that every member of society had an equal *ex ante* expectation of receiving the benefit. The randomized distribution can be expressed by Tullock's efficient rent-seeking model where the exponent controlling the marginal return to expenditures is 0.

$$P_A = \frac{A^0}{A^0 + B^0} \tag{2}$$

where,  $P_A$  is the probability of the contestant associated with expenditure A winning the prize, and A and B are the rent seeking expenditures of two individuals. Here the award is independent of the actual rent-seeking expenditures. All contestants have an equal probability of winning the prize, regardless of how much costs they incur. The game can be generalized to accommodate any number of contestants.

A large body of literature has grown up around Tullock's model, most of it addressing the question of how much of the contested prize will be dissipated as a function of the parameter r, the number of players, and other factors, including risk aversion, wealth, and differences between players (Lockard and Tullock, 2000).

Tullock's model suggests that the optimum expenditure on rent seeking for a fixed prize is:

$$\mathbf{V} \cdot \mathbf{r} \cdot (\mathbf{N} - 1) / \mathbf{N}^2 \tag{3}$$

where V is the prize (rent), r is the exponent determining the productivity of rent seeking expenditures, and N is the number of contestants. The total expenditure, aggregated across all contestants, is, therefore

$$\mathbf{V} \cdot \mathbf{r} \cdot (\mathbf{N} - 1) / \mathbf{N} \tag{4}$$

When r = 1, the expenditures are easily calculated. When r increases above 1, the model suggests that the aggregate expenditure will exceed the value of the prize. In fact, for higher values of r, individual, as well as aggregate, expenditures will exceed the value of the prize. Tullock argues that this could occur if contestants first enter the lottery with a bid less than the value of the prize, and then incrementally increase their bets. Since the previous expenditures are sunk, it would be rational to increase a bet whenever doing so increases the expected return more than the amount of the additional bet.

The extreme example is when  $r = \infty$ . Here the model suggests infinite expenditures to win a finite prize. The obvious choice here is to not enter the lottery. If no one enters, however, any one contestant that does, wins the prize, regardless of the size of the bid. Therefore there is an incentive to enter, so long as no one else does. Tullock describes this as a form of the paradox of the liar. A better analogy would be the paradox of not voting (Ferejohn and Fiorina, 1974). Since the expected return, in terms of affecting the outcome, in any general election is almost certainly less than the cost of voting, voting makes no sense, unless one realizes that other potential voters will reason in the same manner, in which case, voting makes sense.

There is simply no stable equilibrium in pure strategies when  $r = \infty$  (mixed strategies are discussed below). The contest in this form is equivalent to an all-pay auction. It is worth reiterating that the condition associated with

the absence of a stable pure strategy equilibrium is that of simple majority or plurality voting, the most commonly used decision rule for collective choice. A change in the decision technology such that there is a stable equilibrium will certainly affect potential contestants' decision to participate. Due of the aforementioned paradox, however, we cannot conclude that the level of participation will be zero simply because, in a contested all-pay auction, the expected return will negative.

The most important point to be drawn here is that the level of rent-seeking expenditures, on both an individual level and in the aggregate, are increasing in the exponent r. Therefore, a marked decrease in rent-seeking efforts should be associated with a change from a simple plurality voting mechanism ( $r = \infty$ ) to sortition (r = 1). The expected outcome for any given distribution of votes, however, is unaffected.

With r = 1, the model suggests that the expected return to rent-seeking is positive. Economic profits can be had. Therefore, with free entry of contestants, the number of contestants would rise until the number approached infinity, each making an infinitesimal bid (Corcoran and Karels, 1985). Introduction of a fixed entry fee (it costs some finite amount to lobby representatives or persuade voters), however, limits the number of contestants. In any case, the level of rent-seeking expenditures is seen to be sensitive to the number of contestants.

The case of r being infinite is especially intriguing. If the number of contestants is endogenous, the model predicts only one player for a high value of r. This corresponds with increasing returns to scale in production. Rentseeking is seen to provide positive returns to a single participant, but with two or more contestants all have negative expected returns, as in a natural monopoly. This raises the question of how the single contestant is selected. This effectively moves the contest back one stage, since the expected return to a single contestant is positive. Several authors discuss the possibility of preemptive bids (Perez-Castrillo & Verdier, 1992; Yang, 1993; Tullock, 1993). Tullock notes that these are problematic, since they require a bid on very little information. Contestants who wait until they have enough information to calculate what an optimal bid will be will generally be shut out. There have been proposals for stable dynamic games, however. Leininger and Yang (1994) develop a model with infinite moves. Threats and counter threats lead to collusion, with a resulting reduction in rent dissipation. Leininger (1993) proposes a dynamic game where players, with differing abilities, first propose the order in which they will bid, upon which they will agree! In this model, also, rent dissipation is reduced.

Several authors have noted that mixed strategy equilibria exist for the  $r = \infty$  (all-pay auction) case (Higgins et al. (1985), Hillman and Samet (1987a),

Baye et al. (1994)). In these cases, there is full rent dissipation. Tullock (1985) points out, though, that there is no real incentive for any individual contestant to follow the mixed strategy. They incur no additional costs from deviating, although they do impose costs on the other contestants. The literature consistently supports the premise that competition for rents will be more aggressive in the case of  $r = \infty$  (that is the all-pay auction case consistent with simple plurality voting) rather than the case where r = 1 (the case of sortition).

It is worth noting that Palfrey and Rosenthal (1983) have developed mixed strategy equilibria which resolve the paradox of not voting. In their model, players, who are members of one of two opposing teams, each vote with some probability, which will be a function of cost of voting, size of the electorate, and relative sizes of the majority and the minority. Mixed strategy equilibria and sortition both introduce a stochastic element into the collective decisionmaking process. My argument is that randomization in the selection of one decisive ballot amongst those cast will result in lower levels of rent-seeking expenditures than randomization in the individual decision to participate in the voting process. Under majority or plurality voting one team can decisively win if it can raise probability of its team members voting above the necessary threshold. The team can be expected to expend resources to that end. The more likely a favorably outcome appears, however, the greater the incentive for members of the presumably winning team to free-ride on the efforts of other team members, and abstain. To the degree that get-out-thevote expenditures induce free-riding, they are self-undermining. Additional expenditures, with decreasing marginal effectiveness, may be required to hold the coalition together through the vote.

Under sortition, there is no threshold beyond which additional votes become superfluous. Every vote affects the probability of the collective decision, so the free-riding incentive does not apply.

In my comparison of the effect of decision technologies on rent-seeking expenditures, I treat the Tullock Efficient rent seeking model with an exponent or  $r = \infty$  as equivalent to an all-pay auction, where the high bidder wins, but losing bids are forfeited. This is consistent with the work of Baye, et al. (1994, 1999).

$$P_{A} = \frac{A^{\infty}}{A^{\infty} + B^{\infty}}$$
(13)

where,  $P_A$  is the probability of the contestant associated with expenditure A winning the prize, and A and B are the rent seeking expenditures of two individuals. The probability ratio approaches 1 as r approaches  $\infty$ , for A > B.<sup>9</sup> This is illustrated in Figure 3.



Probability of winning a contest with 51 out of 100 "votes"

Figure 3. Probability of winning as function of exponent r

Figure 3 graphs the ratio for expenditures of A = 51 and B = 49, a contest where one contestant purchases 51% of the lots.

$$P_{A=51} = \frac{51^{r}}{51^{r} + 49^{r}} \tag{14}$$

I am arguing that decision by sortition rather than majority voting will reduce rent-seeking expenditures. Consequently, the social cost of the dead weight loss of rent-seeking should be reduced. A word of caution is in order, however. Rent-seeking expenditures are a cost borne by rent-seekers. While rent-seeking contests determined by sortition should result in sharply lower expenditures per contestant, reducing the costs of rent-seeking may induce more rent-seekers to enter. Where the contest functions as an all-pay auction, contestants with limited resources are effectively shut out, and will rationally forgo participation. When the contests are decided by lottery, however, it is rational for contestants to enter whenever their expected return is positive, even though the probability of winning may be remote. Under a majority voting decision technology in a two way contest, a contestant that consistently purchases 49% of the votes will never get a positive return on his expenditure. Under sortition, however, a contestant that consistently purchases 49% (or 1%) of the lots will win 49% (or 1%) of the time. Reducing social costs may be undesirable if those costs deter harmful actions (such as rent-seeking).

While it is true that decision by lottery rather than voting can be expected to increase participation in rent-seeking contests, the total rent-seeking expenditures will be lower even with increased participation. The equilibrium level of rent-seeking expenditure in Tullock's model is highly sensitive to the exponent r, both individually and in the aggregate.

Tullock's model suggests that the optimum expenditure on rent seeking for a fixed prize is:

$$\mathbf{V} \cdot \mathbf{r} \cdot (\mathbf{N} - 1) / \mathbf{N}^2 \tag{15}$$

where V is the prize (rent), r is the exponent determining the productivity of rent seeking expenditures, and N is the number of contestants. The total expenditure, aggregated across all contestants, is, therefore

$$\mathbf{V} \cdot \mathbf{r} \cdot (\mathbf{N} - 1) / \mathbf{N} \tag{16}$$

Individual and aggregate expenditures are well defined for the case of sortition, where r = 1, but not so where  $r = \infty$ , where, as noted above, the model suggests an infinite expenditure to gain a finite prize. Actual expenditures will depend upon the strategic behavior of the contestants. The intuition of the model, however, leads to the conclusion that rent-seeking expenditures under sortition, where individual expenditures are bounded, (such that the expected value of participation is positive for a finite number of contestants) will be lower than under a plurality voting decision mechanism, where no such bound exists.

Under majority or plurality voting mechanisms, alternatives can be shut out if they cannot muster enough votes to win. Whether or not this is desirable will depend on how those minority positions are viewed. On the one hand, a body of discriminatory legislation may be maintained against an ethnic, racial or religious minority. On the other, a radical fringe group, bent on the confiscation of earned wealth may be held in check. Under sortition, minorities will occasionally triumph. A faction that consistently wins 5% of the vote will win, on average, 5% of the time. One way to bar against truly unusual viewpoints gaining power is to require a minimum threshold to be in real contention. Alternatives winning less than 5%, for instance, could be disqualified. Such thresholds are routinely applied for this purpose in legislative bodies utilizing proportional representation, as is common throughout Europe.

The closer any proposal is to winning unanimous agreement, the more likely it will be selected under sortition. Therefore, use of sortition should drive political discourse toward consensus. This is not true under plurality voting, where once a plurality has been achieved, additional agreement is superfluous. A less-than-unanimous winning coalition may be overthrown by a minority in the next decision cycle, under sortition. Parties, therefore, have

446

an interest in not advancing measures which are too extreme, since they are subject to retribution by previously injured constituents. Sortition may, then, lead to a general moderation of public policies, as well as an attenuation of rent-seeking efforts.

There are places in the United States where racial minorities have systematically excluded from the political process. This is especially apparent where there have been various rule changes in the face of minority progress. Blacks win the right to vote, and then literacy tests are utilized to prevent voter registration. Voter registration is achieved, and formerly single-representative legislative districts are combined to permit the selection of several at-large representatives, allowing a racial majority to continue to exclude minority candidates. Courts impose racially drawn single members districts, resulting in a single black member finally being elected to a council or board. Whereas, previously any member of the body could place an item on the agenda, now two votes are required.<sup>10</sup> Decision by sortition prevents suppression of minority interests by a persistent majority. Overtime, minority interests will be expressed through the political process in the proportion in which they exist in the voting population.

Because of resistance of sortition to rent-seeking factions, however, it is a superior solution to the dilution of minority votes than other solutions, such as cumulative voting. Under cumulative voting, a group of single representative voting districts would be combined into a single district, from which several at-large candidates are selected. Each voter is given as many votes as there are candidates, which may then be divided among candidates, or cast for a single candidate, as voters see fit. By coordinating their voting strategies, minorities can prevent themselves from being completely excluded by the political process. This is the remedy proposed by Lani Guinier (1991, 1994, 1998), whose position was so grossly misrepresented in the popular press. Guinier rightly points out that cumulative voting is a race-neutral devise, which can be utilized by any self-identified minority group, which can overcome the problems of collective action and coordinate their vote allocations. It thus facilitates which she calls "interest representation," where interest may be defined by party, race, financial interest, or anything else which unites a group of voters. Cumulative voting is especially suited, therefore, to facilitate, rather than deter, rent-seeking interest groups.

Sortition provides the remedy to minority vote dilution, without increasing the susceptibility of the political process to rent-seeking initiatives. Therefore, it provides a clearly superior alternative to cumulative voting as a solution to minority voter disenfranchisement. Moreover, the relative resistance of sortition to rent-seeking efforts makes it a desirable alternative to plurality voting, even in areas where the suppression of minority interests is not perceived to be a problem. Ancient Athenians, and renaissance Florentines and Venetians enjoyed successful governments utilizing decision by sortition. They recognized the effectiveness of appropriately randomized decision-making as a deterrent to factional discord. The special-interest groups that plague modern democracies can be understood as rent-seeking factions. We can improve modern political institutions by utilizing a device (sortition) known to be successful in the past. We should, at the very least, give that alternative serious consideration, especially where there are other problems (such as the persistent disenfranchisement of minorities) which can be simultaneously addressed through the same mechanism.

## Notes

- 1. The triangular region on a supply and demand graph representing the dead-weight loss associated with monopoly pricing. See Harberger (1954).
- 2. Tullock's (1967) insight was that the entire rectangular region illustrating monopoly profits on a supply and demand graph may be consumed in rent-seeking expenditures.
- 3. These observations are drawn from personal conversations with Mart Laar, former Prime Minister of Estonia, and Hon. Maurice P. McTigue, QSO, former Minister of Employment and Associate Minister of Finance of New Zealand. See also, regarding Estonia, Brown (1993) and Norgaard (1999), and regarding New Zealand, McMillan (1994) and Tanzi (1997).
- 4. The expected return will, of course, depend on the particular form of sortition utilized. Here I am assuming a proportional lottery, discussed below. If the change to decision by sortition induces rent-seekers to enter or withdraw from the contest (as I will argue, it likely would), that will also affect the expected return.
- 5. For a discussion of the difficulty of moving from a rent-transferring situation to wealth maximizing alternative, see Tullock (1975)
- 6. At least one player is better off, none is worse off.
- 7. For a discussion of how players easily overcome the Prisoner's Dilemma when they are free to negotiate, see Tullock (1999).
- 8. This concept is discussed in more detail below.
- 9. This ratio can be expressed as  $1/(1 + (B/A)^{\infty})$ . For A < B, the ratio approaches 0 as r approaches  $\infty$ .
- 10. Such rule changes are cataloged in Guinier (1991).

## References

- Anderson, G.M. and Tollison, R.D. (1985). Ideology, interest groups, and the repeal of the corn laws. *Journal of Institutional and Theoretical Economics* 121: 197–212.
- Ayres, I. and Gertner, R. (1989). Filling gaps in incomplete contracts: An economic theory of default rules. Yale Law Journal 99: 87–130.
- Baye, M.R., Kovenock, D. and deVries, C.G. (1993). Rigging the lobbying process: An application of the all-pay auction. *American Economic Review* 83: 289–294.

448

- Baye, M.R., Kovenock, D. and deVries, C.G. (1996). The all-pay auction with complete information. *Economic Theory* 8: 291–305.
- Baye, M.R., Kovenock, D. and deVries, C.G. (1994). The solution to the Tullock rent-seeking game when R > 2: Mixed-strategy equilibria and mean dissipation rates. *Public Choice* 81: 363–380.
- Baye, M.R., Kovenock, D. and deVries, C.G. (1999). The incidence of overdissipation in rent-seeking contests. *Public Choice* 99: 439–454.
- Baysinger, B., Ekelund, R.B. Jr and Tollison, R.D. (1980). Mercantilism as a rent-seeking society. In Buchanan, J.M., Tollison, R.D. and Tullock, G. (Eds.), *Toward a theory of the rent-seeking society*, 235–268. College Station: Texas A&M University Press.
- Broome, J. (1984). Selecting people randomly. Ethics 95: 38-55.
- Brown, W.S. (1993). Economic transition in Estonia. Journal of Economic Issues 27: 493-503.
- Buchanan, J.M. (1980a). Reform in the rent-seeking society. In Buchanan, J.M., Tollison, R.D. and Tullock, G. (Eds.), *Toward a theory of the rent-seeking society*, 359–367. College Station: Texas A&M University Press.
- Buchanan, J.M. (1980b). Rent seeking and profit seeking. In Buchanan, J.M., Tollison, R.D. and Tullock, G. (Eds.), *Toward a theory of the rent-seeking society*, 3–15. College Station: Texas A&M University Press.
- Cleeton, D.L. (1989). Equilibrium conditions for efficient rent seeking: The Nash-Cournot solution. *Quarterly Review of Economics and Business* 29: 6–14.
- Corcoran, W.J. and Karels, G.V. (1985). Rent-seeking behavior in the long run. *Public Choice* 46: 227–246.
- Ferejohn, J.A. and Fiorina, M.P. (1974). The paradox of not voting: A decision theoretical analysis. American Political Science Review 68: 525–536.
- Finlay, R. (1980). *Politics in renaissance Venice*. New Brunswick, NJ: Rutgers University Press.
- Fishburn, P.C. and Gehrlein, W. (1977). Towards a theory of elections with probabilistic preferences. *Econometrica* 45: 1907–1924.
- Gradstein, M. and Konrad, K.A. (1999). Orchestrating rent seeking contests. *The Economic Journal* 109: 536–545.
- Guinier, L. (1991). No two seats: The elusive quest for poltical equality. *Virginia Law Review* 77: 1413.
- Guinier, L. (1994). The tyranny of the majority: Fundamental fairness and representative democracy, Free Press (Macmillan), New York.
- Guinier, L. (1998). Lift every voice. New York: Simon and Schuster.
- Harberger, A. (1954). Monopoly and resource allocation. *American Economic Review* 44: 77–87.
- Headlam, J.W. (1933). Election by lot in Athens. London: Cambridge University Press.
- Higgins, R.S., Shughart, W.F. and Tollison, R.D. (1985). Free entry and efficient rent seeking. Public Choice 46: 247–258.
- Hillman, A.L. and Samet, D. (1987a). Characterizing equilibrium rent-seeking behavior: A reply to Tullock. *Public Choice* 54: 85–87.
- Hillman, A.L. and Samet, D. (1987b). Dissipation of contestable rents by small numbers of contenders. *Public Choice* 54: 63–82.
- Knag, S. (1998). Let's toss for it: A surprising curb on political greed. Independent Review 3: 199–209.
- Kooreman, P. and Schoonbeck, L. (1997). The specification of the probability functions in Tullock's rent-seeking contest. *Economics Letters* 56: 59–61.

450

- Krueger, A.O. (1974). The political economy of the rent-seeking society. American Economic Review 64: 291–303.
- Leininger, W. (1993). More efficient rent-seeking A Munchhausen solution. *Public Choice* 75: 43–62.
- Leininger, W. and Yang, C.-L. (1994). Dynamic rent-seeking games. *Games and Economic Behavior* 7: 406–427.
- Lockard, A. and Tullock, G. (Eds.) (2000). *Efficient rent seeking: Chronicle of an intellectual quagmire*. Boston: Kluwer.
- Martin, B. (1995). Democracy without elections. Social Anarchism 21: 18-51.
- McChesney, F.S. (1987). Rent extraction and rent creation in the economic theory of regulation. *Journal of Legal Studies* 16: 1–13.
- McMillan, J. (1994). Kiwis can fly: Reforming New Zealand's economy. International Economic Insights 5: 39-41.
- Michaels, R. (1988). The design of rent-seeking competitions. Public Choice 56: 17-29.
- Mulgan, R.G. (1984). Lot as a democratic device of selection. Review of Politics 46: 539-560.
- Nitzan, S. (1994). Modeling rent-seeking contests. *European Journal of Political Economy* 10: 41–60.
- Nitzan, S. (1994). More on more efficient rent seeking and strategic behavior in contests: Comment. *Public Choice* 79: 355–356.
- Norgaard, O. and L. Johannsen (1999). The Baltic states after independence. Cheltenham, U.K: Elgar.
- Orr, D. (1980). Rent seeking in an aging population. In Buchanan, J.M., Tollison, R.D. and Tullock, G. (Eds.), *Toward a theory of the rent-seeking society*, 222–234. College Station: Texas A&M University Press.
- Palfrey, T.A., and Rosenthal, H. (1983). A strategic calculus of voting. *Public Choice* 41: 7–53.
- Perez-Castrillo, J.D. and Verdier, T. (1992). A general analysis of rent-seeking games. Public Choice 73: 335–350.
- Queller, D.E. (1986). The Venetian patriciate: Reality versus myth. Chicago: University of Illinois Press.
- Rowley, C.K. (1988). Rent-seeking in consitutional perspective. In Rowley, C.K., Tollison, R.D. and Tullock, G. (Eds.), *The political economy of rent-seeking*, 447–464. Boston: Kluwer.
- Rowley, C.K. (2000). Political culture and economic performance in sub-Saharan Africa. *European Journal of Political Economy* 16: 133–158.
- Schoonbeck, L. and Kooreman, P. (1997). Tullock's rent-seeking contest with a minimum expenditure requirement. *Public Choice* 93: 477–486.
- Tanzi, V. and L. Schuknecht (1997). Reforming government: An overview of recent experience. European Journal of Political Economy 13: 395–417.
- Tullock, G. (1967). The welfare costs of tariffs, monopolies and theft. Western Economic Journal 83: 807-827.
- Tullock, G. (1975). The transitional gains trap. Bell Journal of Economics and Management Science 6: 671–678.
- Tullock, G. (1980a). Efficient rent seeking. In Buchanan, J.M., Tollison, R.D. and Tullock, G. (Eds.), *Toward a theory of the rent-seeking society*, 97–112. College Station: Texas A&M University Press.
- Tullock, G. (1980b). Rent-seeking as a negative-sum game. In Buchanan, J.M., Tollison, R.D. and Tullock, G. (Eds.), *Toward a theory of the rent-seeking society*, 16–36. College Station: Texas A&M University Press.

- Tullock, G. (1984). Long run equilibrium and total expenditures in rent-seeking: A comment. *Public Choice* 43: 95–97.
- Tullock, G. (1985). Back to the bog. Public Choice 46: 259-263.
- Tullock, G. (1987). Another part of the swamp. Public Choice 54: 83-84.
- Tullock, G. (1988a). Why did the industrial revolution occur in England. In Rowley, C.K., Tollison, R.D. and Tullock, G. (Eds.), *The political economy of rent-seeking*, 409–419. Boston: Kluwer.
- Tullock, G. (1988b). Future directions for rent-seeking research. In Rowley, C.K., Tollison, R.D. and Tullock, G. (Eds.), *The political economy of rent-seeking*, 465–480. Boston: Kluwer.
- Tullock, G. (1989). Editorial comment. Public Choice 62: 153-154.
- Tullock, G. (1993). Still somewhat muddy: A comment. Public Choice 76: 365-370.
- Tullock, G. (1995). The reluctant gamesperson A comment on Baye, Kovenock and de Vries. *Public Choice* 85: 189–192.
- Tullock, G. (1999) Non-prisoner's dilemma. Journal of Economic Behavior & Organization 39: 455–458.
- Yang, C.-L. (1993). Cooperation by credible threats: On the social costs of transfer contests under uncertainty. *Journal of Institutional and Theoretical Economics* 149: 559–578.