Econ. Gov. (2002) 3: 47–57

Economics of Governance

Incumbency preservation through electoral legislation: The case of the secret ballot*

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Submitted: May 25, 1999 / Accepted: July 24, 2000

Abstract. The secret ballot was designed to eliminate the incentive for candidates to purchase votes through direct vote buying. When voters have private information on their candidate preferences, incumbent candidates will generally be less efficient in purchasing votes than their challengers. Incumbent candidates may therefore benefit from the elimination of direct vote purchasing. Viewed in this vein, passage of secret ballot laws by state legislatures can be seen as an institutional mechanism to protect their incumbency advantage, rather than as an act of necessary electoral reform to create fair elections and protect democracy.

Key words: Secret ballot, vote market, incumbency advantage

JEL classification: D72

1. Introduction

The institutional environment is a key determinant in affecting electoral outcomes. Representatives have an economic incentive to pass legislation and alter constitutions to protect the status quo, thereby enhancing their reelection prospects. Often the economic incentives are aligned with moral arguments for reform. One recent example is campaign finance reform. Although proponents of campaign finance reform claim that caps on contributions make politicians less beholden to special interests, Bender (1988) argues that such caps will also protect the current representatives by limiting challengers' opportunities to raise the necessary funds to overcome the inherent incumbency advantage. A historical example is the Seventeenth Amendment, which replaced Senate appointment from the state legislature by a direct electorate vote. Kenny and Rush (1990)

* We appreciate the detailed comments provided by two anonymous referees which greatly improved the final version of the paper.

show that voting on the Seventeenth Amendment was partly dependent on the senators' expected probability of retaining their seat under the original system.

In this paper, we argue that the adoption of the Australian Ballot system, which most states embraced at the end of the 19th century, is yet another example of an institutional reform that can feature incumbency preservation. The Australian Ballot replaced open voting arrangements such as voice voting and easily identifiable separate party ballots with secret voting under a single publicly printed ballot. An active market for votes is likely to occur in elections with open voting because candidates can easily verify the choices made by voters. Indeed, prior to the adoption of the Australian Ballot, both parties actively utilized a thriving vote market during elections. Secret ballots removed the incentive to directly purchase votes through bribery and coercion.

As succinctly stated by Wigmore (1889: 32)

> "By compelling the dishonest man to mark his vote in secrecy, it renders it impossible for him to prove his dishonesty, and thus deprives him of the market for it. By compelling the honest man to vote in secrecy it relieves him not merely from the grosser forms of intimidation, but from more subtle and perhaps more pernicious coercion of every sort."

Many other scholars maintain views similar to Wigmore and argue that Australian ballots were adopted to curtail the vote market (Heckelman, 1995; Anderson and Tollison, 1988; Rusk, 1974; Converse, 1972). Indeed, the name is derived from its origin in Australia in the 1850s, where rampant corruption in elections forced the first use of secret ballots (Fredman, 1968).

Other studies of the effects of the Australian Ballot on electoral outcomes have taken a purely partisan perspective. According to Burnham (1970), business and local elites in the north conspired with the state Republicans to limit the influence of party machines by removing their primary function of distributing party ballots. A single uniform publicly printed ballot would also foster ticket splitting, thereby further reducing voter allegiance to specific parties. Burnham argues that as a result, elections became less competitive, voters lost interest, and the GOP was often able to secure victory backed by big money business interests under low turnout conditions. Argersinger (1980) complements Burnham's theory by describing the anti-fusion possibilities of a single ballot, where candidates were now unable to simultaneously run under different party banners, thereby protecting Northern Republicans from the threat of independent parties. Kousser (1974) argued that the growing black electorate, supposedly newly protected under the 15th Amendment, became a threat to the entrenched Democratic majorities in the south. Since blacks and poor white illiterates tended to support the Republican Party, southern states adopted the Australian Ballot knowing these voters would have a difficult time reading and properly marking the new ballots. In Kousser's view, Australian Ballots, along with poll taxes and literacy tests, were utilized throughout the south to limit the franchise to the aristocracy that supported the Democrats.

Although these studies have shown how the Australian Ballot system can be strategically adopted in order to favor one party in a particular region, they fail to explain why legislator voting on the issue typically cut across party lines (Fredman, 1968). Furthermore, they also ignore the role of the primary function of the ballot to provide voter secrecy in elections in order to eliminate the market for votes. We extend the literature by developing an explicit model of the vote market. The model implies that the expected welfare of incumbent representatives, regardless of party affiliation, is greater under secret ballots than under open ballots if they hold an initial incumbency advantage.

In the vote market model, incumbents and challengers have utility functions that depend on the share of votes obtained in the election as well as post-election income. The candidates bribe voters to maximize their utility. Under the assumption of an initial incumbency advantage, challengers are more efficient in their vote purchasing and therefore bribe more voters than the incumbent. Challengers are able to overcome the initial incumbency advantage, and in fact obtain a greater equilibrium expected vote share than the incumbent. In a secret ballot election, however, the vote market disappears and the incumbents retain their initial advantage. Thus requiring secret ballots to be used in elections, even while under the guise of true reform to "protect the integrity of the ballot", may actually have been in the best interest of those in power to do so.

2. The market for votes

Consider a simple model of the market for votes in an open ballot election. There are two candidates, the incumbent and the challenger. We do not model the campaign process here and instead assume that the campaigns conclude before the vote market begins. This is consistent with historical observation that actual vote markets were quite active on election day (Harris, 1929; Fredman, 1968). The campaign strategies chosen by the candidates prior to the opening of the vote market and other exogenous factors yield an initial distribution of voters into types. Let i denote the number of voters who initially intend to vote for the incumbent, let c denote the number of voters who initially intend to vote for the challenger, and let a denote the number of voters who initially intend to abstain. There are $N = c + i + a$ total eligible voters.

There is much evidence that incumbents hold an advantage over their electoral challengers. Incumbents win more than a random share of elections and posses advantages prior to and during campaigning (Jones, 1966). The advantage is strong enough that it often entices voters to cross-over support between the President and opposite-party incumbent Congressmen (Zupan, 1991; Cummings 1966). Although most of the research on the incumbency advantage focuses on Congress (Jacobson and Kernell, 1981; Erickson, 1971; Cummings, 1966), there is evidence that such an advantage exists for state representatives as well (Jewell and Breaux, 1988). Furthermore, incumbency advantage is not just a recent phenomenon. Jacobson and Kernell (1981) cite evidence that the advantage

began in the late nineteenth century, as evidenced by increased reelection rates, thus overlapping with the adoption of the Australian Ballot in many states.[1]

Spatial electoral models often assume or develop conditions which result in the noted incumbency advantage, especially when there is incomplete information (Samuelson, 1984; Bernhardt and Ingberman, 1985). In our model, we incorporate an incumbency advantage by assuming that the initial distribution of voters favors the incumbent. In other words, we assume that $i > c$.

The candidates purchase votes to maximize their utility. We assume that the challenger and the incumbent have utility functions that depend on their share of total votes cast in the election as well as the amount of money they have after the election is over (which could be used, for example, in future elections). Alternatively one might assume that utility is determined by the probability of winning the election, rather than plurality. The difference between these two criteria is negligible when the number of voters is large (Ledyard, 1984). Let the utility function of the challenger be given by $U_c(s_c, y_c) = g(s_c) + y_c$ where s_c is the challenger's vote share, y_c is the challenger's post-election income, and $g(\cdot)$ is a function whose properties are delineated below. Likewise, the utility function of the incumbent is given by $U_i(s_i, y_i) = g(s_i) + y_i$. We assume utility is increasing in both arguments and is continuously differentiable.

To analyze the model, it is also necessary to specify the second derivative of the utility function with respect to vote share. We consider two alternative assumptions on the second derivative.

Assumption A. The marginal utility of vote share is symmetric around the point one-half. Furthermore, it is increasing for vote shares less than one-half and decreasing for vote shares greater than one-half.

If the utility function satisfies assumption A, then additional votes become more important to the candidates when the election is close. Since vote shares must sum to one, this assumption implies that candidates always must be equidistant from the point one-half and hence have equal marginal utilities for vote share. An example of a function g(·) that satisfies assumption A is the symmetric logistic function.

Assumption B. The marginal utility of vote shares is decreasing everywhere.

Assumption B follows the standard notion of diminishing marginal utility. Such a candidate views increases in vote share as more important when total vote share is small. An example of a function g(·) that satisfies assumption B is the log function.

Consider the following heuristic story that underlies our model for the functioning of the vote market. Shortly before the election, the candidates decide how many voters they are going to bribe given information about their budgets as well as i and c. (A formal statement of their utility maximization problem will be given after we complete the description of the vote market.) On election day, the candidates and agents on their behalf station themselves near a number of the voting places. As voters (even those who intend to abstain) randomly pass

[1] For the exact dating of secret ballot law adoption across the states, see Heckelman (1995).

by, they are offered a payment, or bribe, so that they vote for the appropriate candidate in the election. These bribes are simple take it or leave it offers, because there are many other voters who may be bribed and bargaining is costly. Let the price of a bribe be given by p.[2] Once a bribe is accepted, the voter proceeds directly to the voting place and casts his vote. The candidates and their agents continue to bribe voters until they successfully bribe the desired number of voters.

We assume that voters will comply with the terms of the bribe. Since voting is open, voters can be easily monitored to ensure they comply with the implicit vote contract. In practice, harsh penalties, including kidnapping and stabbings, were often employed for those few voters who deviated from their instructions. (Harris, 1929 provides detailed testimonies on the workings of the vote market.) Since the penalty obviously outweighs the benefit from cheating, this precludes any voter from accepting payment from more than one candidate. Thus, if a voter has already accepted a bribe from one candidate, he will turn down a subsequent bribe in the unlikely event that he is approached by the other candidate before he casts his vote.

Our model incorporates two elements that have typically been separately analyzed in Australian ballot effects on the vote market. First, bribery causes certain voters to switch allegiance (Anderson and Tollison, 1988; Converse, 1972) and second, bribery also induces certain individuals to vote when they otherwise would have abstained (Heckelman, 1995; Rusk, 1974).

We assume that voting intention is private information to the voters themselves, and hence the candidates cannot distinguish among voter types, although the general aggregate population preferences are common knowledge. A probabilistic model is the most appropriate in this context. Since voting intention is private information, the candidates' beliefs about the distribution of voters remain constant throughout the bribing process. In other words, no matter how many voters have already been bribed by the candidates, the *expected* probability that the next randomly selected voter would have voted for the incumbent remains $\frac{i}{N}$ .The actual probability depends, of course, on which voters were previously randomly selected. But candidates do not know the characteristics of these voters, and thus continue to use the original distribution of voters to evaluate the effects of subsequent bribes.

We now delineate the relationship between bribes and vote shares. If the challenger bribes a voter that would have otherwise voted for the incumbent or if the challenger bribes a voter who would have abstained, then he gains an additional vote to his previous total. It follows that the expected probability that a given bribe by the challenger yields an extra vote is equal to $\frac{i+a}{N}$. Meanwhile, the incumbent is also bribing voters. The expected probability that the incumbent bribes a voter that would have voted for the challenger is equal to $\frac{c}{N}$. Let b_c and b_i be the number of bribes made by the two candidates. The expected number

[2] The value of p is likely to be influenced by many factors, such as the exact form of the utility functions, the relative income gap the candidates face, population size, and the distribution of voter types. These factors are likely to differ across elections but remain fixed for any particular election.

of votes that the challenger receives as a function of the number of bribes made by the candidates is[3]

$$v_c = c + \frac{i+a}{N} b_c - \frac{c}{N} b_i . \tag{1}$$

Likewise, the expected number of votes that the incumbent receives is given by

$$v_i = i + \frac{c+a}{N} b_i - \frac{i}{N} b_c . \tag{2}$$

It follows that the expected number of votes cast in the election is equal to $c + i + \frac{a}{N}(b_i + b_c)$. The expected vote share obtained by each of the candidates are given by the relations

$$s_c = \frac{v_c}{v_i + v_c} \text{ and } s_i = \frac{v_i}{v_i + v_c} .$$

To complete the model, let M_i denote the amount of money that is available to the incumbent to bribe voters. Likewise, let M_c denote the amount of money available to the challenger. These terms represent the remainder of the candidates' campaign budgets after all campaigning is completed. The post-election income of the candidates (y_i and y_c) is equal to their budget minus the amount of money spent on bribes. The value of the initial bribery budgets may depend on the anticipated effectiveness of both campaigning and bribery. The candidates face trade-offs in allocating money across these two stages of the electoral process. First, there is a direct opportunity cost to campaign spending which reduces the pool of money available for later bribery. Second, campaigning alters the distribution of voter types, and greater initial plurality reduces bribing effectiveness by making it more likely to randomly draw a supporter. We do not attempt to derive a general model of campaigning and instead limit our analysis to the second-stage of bribery to retain focus on the secret ballot effect.

The model for the vote market described above yields the following utility maximization problem for the challenger:

$$\max_{b_c} g_c(s_c) + M_c - pb_c . \tag{3}$$

Likewise, the incumbent's utility maximization problem is given by

$$\max_{b_i} g_i(s_i) + M_i - pb_i . \tag{4}$$

The expected outcome of the vote market is determined by the solutions to these problems. Since vote share is determined by the number of votes received, which in turn is determined by the number of bribes made by both candidates, the solution to the challenger's problem depends on the number of bribes made by the incumbent, and vice-versa. Thus it is appropriate to use game theory to describe the equilibrium in the vote market. In particular, we describe the Nash

[3] We assume that the sum of b_c and b_i is less than N. This assumption is not very strong – for a reasonable sized election, candidates will likely run out of money before they run out of voters to bribe.

equilibrium, in which the candidates select the amount of bribes to maximize their utility, given the amount of bribes that the other candidate is expected to make.

It is useful to describe our main result before giving a formal proof. In equilibrium, the challenger's expected vote share is larger than the incumbent's and hence the challenger expects to receive more votes in the election. From equations (1) and (2), it follows that the challenger bribes more voters. Intuitively, the challenger is more efficient at bribing because he is more likely to select a voter who would have voted for his opponent than for himself. The challenger will therefore engage in more bribery than the incumbent to take advantage of his relative efficiency (provided that he does not need to spend his entire budget to achieve the desired number of bribes). The effect of these bribes is that the challenger now expects to win the election.

We prove this result under the two alternative assumptions regarding the form of the utility function. For Assumption A, we need an additional technical requirement on the number of initial abstainers to support the equilibrium, specifically $a > i - c$. This assumption is not restrictive since it only implies that even though the incumbent holds an initial plurality in active voters, he cannot have a pure majority in total eligible voters. Historically, it is the rare case indeed where this assumption has not been met.

Proposition 1A. *Suppose that utility satisfies assumption A and that neither candidate expends his entire budget on bribes. Suppose furthermore that $a > i - c$. Then in the Nash equilibrium of the vote market, the challenger's expected vote share exceeds the incumbent's expected vote share.*

Proof. If neither candidate expends his entire budget on bribes, then the Nash equilibrium is determined by the simultaneous solution to the first order necessary conditions of the candidates' utility maximization problem. The first order necessary conditions for b_c are $\frac{\partial g(s_c)}{\partial s_c}\left(\frac{\partial s_c}{\partial b_c}\right) = p$,or, equivalently

$$\frac{\partial g(s_c)}{\partial s_c}\left(\frac{(v_i + v_c)\left(\frac{i+a}{N}\right) - v_c\left(\frac{a}{N}\right)}{(v_i + v_c)^2}\right) = p. \tag{5}$$

Likewise, the first order necessary conditions for b_i are

$$\frac{\partial g(s_i)}{\partial s_i}\left(\frac{(v_i + v_c)\left(\frac{c+a}{N}\right) - v_i\left(\frac{a}{N}\right)}{(v_i + v_c)^2}\right) = p. \tag{6}$$

The simultaneous solutions to these equations yield b_c^* and b_i^*, which in turn define the Nash equilibrium expected number of votes (v_c^* and v_i^*) and expected vote shares (s_c^* and s_i^*) received by the candidates. Setting the left-hand side of the first order conditions in (5) and (6) equal to each other yields the relationship between the equilibrium expected vote shares. We have

$$\frac{\partial g\left(s_c^*\right)}{\partial s_c}\left[\left(v_i^*+v_c^*\right)\left(\frac{i+a}{N}\right)-v_c^*\left(\frac{a}{N}\right)\right]$$
$$=\frac{\partial g\left(s_i^*\right)}{\partial s_i}\left[\left(v_i^*+v_c^*\right)\left(\frac{c+a}{N}\right)-v_i^*\left(\frac{a}{N}\right)\right],$$

from which it follows that

$$\frac{\frac{\partial g\left(s_c^*\right)}{\partial s_c}}{\frac{\partial g\left(s_i^*\right)}{\partial s_i}}=\frac{c+a\left(1-s_i^*\right)}{i+a\left(1-s_c^*\right)}. \tag{7}$$

Recall that, under assumption A, candidates must be equidistant from an equal vote share and therefore their marginal utilities of vote shares are always identical. Thus the ratio of marginal utilities in (7) is equal to one. Setting the right hand side of (7) equal to one and re-arranging terms yields $(i-c)/a=\left(s_c^*-s_i^*\right)$. Since $i>c$ and $a>0$, and furthermore, $a>i-c$, it follows that $s_c^*>s_i^*$.$\diamondsuit$

Proposition 1B. *Suppose that utility satisfies assumption B and that neither candidate expends his entire budget on bribes. Then in the Nash equilibrium of the vote market, the challenger's expected vote share exceeds the incumbent's expected vote share.*

Proof. If the marginal utility is monotonically decreasing in vote shares, then the proof of Proposition 1B proceeds the same as for 1A until we reach equation (7). At this point, we use a proof by contradiction. Suppose that $s_c^*\leq s_i^*$ (the challenger has a smaller equilibrium expected vote share than the incumbent). This implies that the left-hand side of equation (7) is greater than or equal to one, because the marginal utility of vote shares is a decreasing function. On the other hand, it also implies that the right-hand side of equation (7) is less than one, because $i>c$. Thus we have a contradiction, so in fact in must be the case that $s_c^*>s_i^*$. $\diamondsuit$

We stress that the realized vote shares (actual election returns) depend on the luck of the candidates as to which types of voters they actually bribed. *Ex ante*, the challenger should expect to win the election under bribery (if interior solutions are reached) but *ex post*, unfavorable random draws of voters may create an unexpectedly large number of less productive bribes that go to his own voters and he could still lose. Similarly, the incumbent may be lucky in avoiding his own supporters when randomly drawing voters to bribe.

Now consider the effect of the secret ballot on the vote market. Neither candidate will purchase votes under a secret ballot regardless of the distribution of voters. Without verification, voters can accept a bribe and still vote as originally intended since the candidates are unable to verify their vote and hence penalties for reneging on the implicit vote contract cannot be enforced. Likewise, coercion will be counter-productive as well. Since the secret ballot effectively destroys the vote market, incumbents with an initial voter advantage keep this advantage intact. It follows that replacing an open ballot with a secret ballot generally makes the incumbent better off, as delineated by the following proposition.

Proposition 2. *Suppose that the assumptions of Proposition 1A or Proposition 1B hold. Then the incumbent obtains greater expected utility under a secret ballot than under an open ballot.*

Proof. Under the secret ballot, no bribing takes place and hence the incumbent retains his initial advantage and receives a vote share that is greater than the vote share of the challenger. He also retains his entire budget as post-election income. Under the open ballot, Proposition 1A or 1B implies that the incumbent would expect to receive a vote share that is strictly less than the vote share of the challenger. In addition, his post-election income is at most equal to his budget because he may spend money on bribes. Thus he obtains greater expected utility with the secret ballot.◇

This result shows that incumbent politicians involved in reasonably competitive elections, regardless of party affiliation, would expect to benefit from secret ballot laws, as long as they felt they already controlled a plurality of the voters. The secret ballot removes the incentive to purchase or coerce votes and thus protects the incumbents from new challengers. Incumbents who expect to face challengers with very limited resources or a plurality gap so large such that they could exhaust their entire budget without reversing the expected election outcome (thus reaching a corner solution not analyzed here) need not fear the open vote market. Incumbents in fear of losing their seat due to underdog status, or planning on running for a higher office and thus being cast as the challenger for this new position at the next election, might be expected, of course, to try to block secret ballot legislation.

Under the assumptions set forth here, we would expect to find competitive electoral environments replaced by incumbency persistence following passage of secret ballot laws. Massachusetts passed the first state-wide secret ballot law in 1889 (secret ballots were also designated for elections in Lexington, Kentucky the same year), and by 1900 only a few states did not yet have some form of secret ballot. Polsby (1968) analyzed the history of turnover rates in the U.S. House of Representatives in intervals of 10 elections at a time. Initially, the lowest percentage of freshman representatives had occurred during the 1809–1827 period. A lower percentage of first-term representatives did not occur until the 1889–1907 period and continued to decline thereafter. Similarly, the number of terms served by current incumbents had initially peaked during 1809–1827 and this rate was not exceeded until the 1899–1907 period and continued to increase every following period. This evidence is consistent with the model predictions.

Mueller (1982) presents gubernatorial election outcomes by party in 10-year intervals but these are more difficult to interpret for our purposes. First, the panel of state elections are not balanced since gubernatorial terms varied by state from anywhere from 1 to 4 years, and were adjusted by many states over time. Second, states imposed restrictions on the number of terms an individual can serve, including several states that during this time period did not allow multiple terms at all. The vote market model assumes the incumbent has an initial plurality of support. The model does not offer any predictions in an election without

an incumbent. While contemporary gubernatorial election analysis consistently shows a definitive personal incumbency advantage (Peltzman, 1987; Levernier 1992) it has not been shown if the party itself retains the advantage when the incumbent does not run for reelection. If we make the additional assumption that the incumbency advantage does carry over to the party, then we can interpret Mueller's data within the context of the model, and we find that support for the model is decidedly mixed. The lowest fraction for the change in party control occurs in 1900–1909 which is supportive of the model, but the following 10-year period reaches a new maximum in party change. Following periods reflect wild fluctuations in the party turnover rate which would seem to overall reject the model's implications.

3. Conclusion

Secret ballots have often been characterized as a necessary tool for democracy in order to protect the integrity of the electoral process. The new democracies in Africa, Latin America, and Eastern Europe typically mandate secrecy as a provision in their national constitutions. However, an overlooked feature of this provision is the role it may play in protecting incumbency advantages. There are other moral arguments that have been advanced against allowing voters to be protected by secrecy that we do not address here, such as the notion that voters should be held accountable to the rest of the community for how they vote and therefore should not be able to hide behind a cloak of secrecy where they are more likely to promote their own personal agenda over the best interests of society (Mill, 1861/1962).

This does not imply, however, that secrecy in elections should be eliminated. Rather, our point is that for whatever ideological perception a legislator may already possess toward secret ballots in general, there may be an additional personal advantage for an office-protecting incumbent that at the margin would make him more likely to support secrecy regardless of party. Explicit understandings of all the expected consequences involved from a secret ballot, such as reduced turnout and increased incumbency re-election, are necessary to properly evaluate its contribution to the democratic process.

References

Anderson, G. and Tollison, R. (1988) Democracy, interest groups, and the price of votes. *Cato Journal* 8: 53–70

Argersinger, P. (1980) 'A place on the ballot': Fusion politics and antifusion laws. *The American Historical Review* 85: 287–306

Bender, B. (1988) An analysis of congressional voting on legislation limiting congressional campaign expenditures. *Journal of Political Economy* 96: 1005–1021

Bernhardt, M.D. and Ingberman, D. (1985) Candidate reputations and the 'incumbency effect'. *Journal of Public Economics* 27: 47–67

Burnham, W. (1970) *Critical Elections and the Mainsprings of American Politics*. New York: W.W. Norton and Company, Inc.

Converse, P. (1972) Change in the American electorate. In: Campbell, A. and Converse, P. (Eds.) *The Human Meaning of Social Change,* 263–337. New York: Russel Sage Foundation

Cummings, M. (1966) *Congress and the Electorate.* New York: The Free Press

Erickson, R. (1971) The advantage of incumbency in congressional elections. *Polity* 3: 395–405

Fredman, L.E. (1968) *The Australian Ballot: The Story of an American Reform.* East Lansing: Michigan State University Press

Harris, J. (1929) *Registration of Voters in the United States.* Washington: The Brookings Institute

Heckelman, J. (1995) The effect of the secret ballot on voter turnout rates. *Public Choice* 82: 107–124

Jacobson, G. and Kernell, S. (1981) *Strategy and Choice in Congressional Elections.* New Haven: Yale University Press

Jewell, M. and Breaux, D. (1988) The effect of incumbency on state legislative elections. *Legislative Studies Quarterly* 13: 495–514

Jones, C. (1966) The role of the campaign in congressional politics. In Kent Jennings and Harmon Zeigler (Eds.), *The Electoral Process,* 21-41. Englewood Cliffs, NJ: Prentice–Hall, Inc

Kenny, L. and Rush, M. (1990) Self-interest and senate voting on direct elections. *Economics and Politics* 2: 291–302

Kousser, M. (1974) *The Shaping of Southern Politics: Suffrage Restrictions and the Establishment of the One-Party South, 1880-1910.* New Haven: Yale University Press

Ledyard, J. (1984) The pure theory of large two-candidate elections. *Public Choice* 44: 7–41

Levernier, W. (1992) The effect of relative economic performance on the outcome of gubernatorial elections. *Public Choice* 74: 181–190

Mill, J. (1861/1962). *Considerations on Representative Government.* London: Parker, Son, and Bourn. Reprinted by Chicago: Henry Regnery Company

Mueller, D. (1982) Redistribution, growth, and political stability. *American Economic Association Papers and Proceedings* 72: 155–159

Peltzman, S. (1987) Economic conditions and gubernatorial elections. *American Economic Association Papers and Proceedings* 77: 293–297

Polsby, N. (1968) The institutionalization of the U.S. House of Representatives. *American Political Science Review* 62: 144–168

Rusk, J. (1974) Comment: the American electoral universe: Speculation and evidence. *American Political Science Review* 68: 1028–1049

Samuelson, L. (1984) Electoral equilibria with restricted strategies. *Public Choice* 43: 307–327

Wigmore, J. (1889). *The Australian Ballot System as Embodied in the Legislation of Various Countries.* Boston: Charles C. Soule

Zupan, M. (1991) An economic explanation for the existence and nature of political ticket splitting. *Journal of Law and Economics* 34: 343–370