Journal of Theoretical Politics 18(2): 123–158
DOI: 10.1177/0951629806061858
http://jtp.sagepub.com

A THEORY OF PARTISAN SUPPORT AND ENTRY DETERRENCE IN ELECTORAL COMPETITION

Alan E. Wiseman

ABSTRACT

I develop a model of electoral competition with partisan campaign support. Voters' utilities are defined over candidate locations and the amounts of party campaign support that they receive. Parties' utilities are defined over the location of the winning candidate and how much support they dole out for their candidates. Analytical results identify cases in which parties will successfully pull the electorally induced preferences of their members away from their median voters' ideal points and towards the party's most favored policies. Equilibrium results yield several testable hypotheses. First, candidate policy positions and parties' campaign contributions should be responsive to district partisan predisposition, independent of the policy preferences of a district's median voter. Second, uncontested elections should occur more often in politically-lopsided districts than in districts where there are more even levels of political competition. Finally, there should be an inverse relationship between candidate policy extremity and partisan campaign support.

KEY WORDS • campaign platforms • elections • entry deterrence • ideal points • parties • valence model

Introduction

A casual glance at roll-call voting in the US House reveals a pattern symptomatic of strong parties. Especially in recent congresses, the two major political parties are relatively ideologically distinct from each other and internally cohesive (Aldrich and Rohde, 2000). While such observations

This article is a revised version of Chapter 2 of the author's doctoral dissertation. The author thanks David Baron, Brandice Canes-Wrone, Tim Groseclose, Jay Goodliffe, Keith Krehbiel, Adam Meirowitz, Tom Nelson, George Rabinowitz, Ken Shotts, Jim Snyder, Michael Ting, Laura Veldkamp, Craig Volden, Jack Wright, seminar participants at the Stanford University Graduate School of Business, and referees and the editors of the *Journal of Theoretical Politics* for helpful comments on earlier versions of this manuscript. Earlier versions of this article were presented at the 1999 Annual Meetings of the Midwest Political Science Association, and the 1999 and 2000 Annual Meetings of the American Political Science Association.

might be unremarkable in other developed democracies, they are particularly noteworthy in the context of American politics. First, unlike other political systems, it is questionable whether American parties can effectively compel members to toe the party line when it might conflict with their constituencies' preferences. Hence, it is not obvious that the appearance of legislative partisanship has its roots in intra-legislative politics. Second, the presence of the direct primary, the Australian ballot, a merit-based civil service, single-member geographic representatives, and a separation of powers system have arguably deprived American political parties of certain electoral tools that parties in other developed democracies exploit to maintain party discipline. Bluntly speaking, unlike their Westminster-system counterparts, US parties do not generally control which candidates get on the ballot.

Given the incentives to respond to the policy preferences of their constituencies, one might expect legislators generally to reflect the preferences of the median members of their constituencies, more so than the preferences of their parties. In light of the ideological polarization within recent congresses, however, such position taking does not seem prevalent, unless we believe that the electorate is as polarized as the legislature. Recent work by Fiorina et al. (2004) suggests, however, that while political elites are polarized, the majority of the electorate is more ambivalent when presented with competing policy options. Hence, we are left with the puzzle of being able to easily identify the appearance of legislative partisanship, yet not knowing why it emerges.

I argue that partisan voting patterns in the legislature can follow from partisan activities in the electoral arena. I explicitly assume that parties are motivated by policy, rather than the goal of securing a legislative majority for their members. Furthermore, I assume that parties can provide campaign support to their members, which is valuable to voters. Building on these assumptions, I develop a model of electoral politics in which parties compete for office by announcing candidate locations and providing campaign support for their candidates. If we believe that voters care both about candidate policy locations, as well as the support they receive from their parties independent of their policy stances, then the model offers a parsimonious foundation for explaining many stylized facts about American electoral politics. At the most basic level, equilibrium results identify cases under which candidates will be elected whose policy stances are biased away from the median members of their constituencies and towards their parties. More broadly, this finding speaks to the debate over how parties may be able to influence the legislative voting patterns of their members.

Through the provision of campaign support, parties can systematically create a legislature that is more favorable to their agendas than what would emerge in the absence of their influence in the electoral arena. Legislators

casting roll-call votes subject to these electorally induced preferences may generate ideal point distributions that are consistent with conventional notions of party *strength*, such as those offered by proponents of *conditional party government* theory (e.g., Aldrich and Rohde, 2003; Rohde, 1991). This appearance of partisanship, moreover, will emerge despite the fact that no overt pressure is being applied in the legislature. Hence, even though American political parties might lack conventional tools to influence the electoral process, the value of their party names and organizations are sufficient levers to help them achieve their policy goals, which can generate the appearance of partisan influence in the legislature.

In equilibrium, I find that parties undertake one of three strategies when deciding how and where to commit resources in elections. Under the first strategy, *preemption*, the incumbent party provides so much campaign support that it effectively makes the election too expensive for a viable challenger to emerge. Under the second strategy, *containment*, the incumbent party allows a viable challenger to emerge, and even win the election, but supports its candidate in such a way to ensure that the winning candidate elected is as favorable to the incumbent party's policies as possible. Finally, under the third strategy, *appeasement*, an incumbent party positions and supports its candidate in such a manner that the challenger is indifferent between entering and sitting out of the competition, even though victory is plausible. Several testable hypotheses follow from the equilibrium results. First, candidate policy positions and parties' campaign contributions should be responsive to what I call 'district partisan predisposition', independent of the policy preferences of a district's median voter. Second, uncontested elections should occur more often in politically lopsided districts than in districts where there are more even levels of political competition. Finally, there should be an inverse relationship between candidate policy extremity and partisan campaign support. Taken together, these outcomes can ultimately lead to the appearance of party strength in legislatures.

Previous Research

The subject of partisanship in legislative politics is widely debated. In considering the current ideological polarization in Congress, one of the most plausible explanations for this phenomenon can be found in Cox and McCubbins's (1993, 2002) *party cartel* theory. In assuming that parties serve to ensure the election of their members, and their primary goal is attaining and maintaining majority status, Cox and McCubbins argue that party leaders possess negative agenda power, which they use to keep certain items off the legislative agenda that might be damaging to the collective

party's interests. Hence, to the extent that we observe ideological polarization in congress, it is likely induced by party leaders allowing only certain votes to come up for consideration, which by definition, divide the chamber across party lines.[1] While this theory is analytically elegant and readily comports with the appearance of ideological polarization in the legislature, two concerns are noteworthy. First, despite its explicitness, it is very difficult to empirically discriminate between the implications of party cartel theory and competing theories of lawmaking, such as the basic median voter model (Black, 1958) or pivotal politics models (Brady and Volden, 1998; Krehbiel, 1996).[2] Second, in light of direct primaries, single-member districts and a variety of other institutional factors that might cause legislators to be highly responsive to their constituencies, it is not clear what mechanism could induce individually rational legislators to sacrifice their constituencies' preferences for the goals of their parties. If one accepts that the appearance of legislative partisanship might be driven by some factor outside of legislative politics, then a plausible research strategy would be to turn to the electoral arena to find the source of partisan influence.

Unfortunately, the canonical spatial voting model (Black, 1958; Downs, 1957; Hotelling, 1929) offers little guidance on where to find party influence that might have downstream implications for legislative politics. If one assumes that candidates compete for an office by announcing a position in a one-dimensional issue space where voter preferences are defined over the candidates' policy announcements then we would generally expect to see both candidates locating at the median voter's ideal point. While this result is parsimonious and reasonably robust, a body of empirical scholarship has emerged that has shed doubt on the veracity of the median voter theorem.[3]

Ansolabehere et al. (2001) have demonstrated that candidates do not locate at their district median voters' ideal points in congressional elections, or even at the same positions, generally. Earlier work by Fiorina (1974) and Sullivan and Minns (1976) has also demonstrated how candidates consistently do not locate at the same policy positions. In addition, contrary to the prediction that legislators should reflect the preferences of the median members of their constituencies, Canes-Wrone et al. (2002) have shown

1. In contrast, conditional party government theory would argue that parties are endowed with procedural powers as a result of ideological polarization in the legislature (and not the other way around).

2. On the observational equivalencies of these theories, see Krehbiel (forthcoming), Krehbiel et al. (2005), and Wiseman and Wright (2005).

3. The robustness of this theoretical result has been explored extensively. For a sample of such literature, consult Austen-Smith (1984), Davis et al. (1972), Enelow and Hinich (1984), and Plott (1967).

that members of Congress systematically deviate from the preferences of their electoral medians and favor their parties.[4] This finding reinforces earlier work by Miller and Stokes (1963) and Shapiro et al. (1990) who also observed an ideological gap between legislators and the median members of their constituencies.

Recently developed models of electoral competition have provided for various extensions to the median voter framework, and have yielded somewhat more pragmatic predictions with respect to candidate positioning.[5] Cadigan and Janeba (2002), for example present a model of elections with primary and general election stages.[6] Principal among their findings is that primary elections prevent candidate convergence to the median, and any movement towards the median is constrained by the difference in the competing parties' ideologies. Snyder and Ting (2002) develop a model wherein parties choose policy platforms that subsequently serve as ideological sorting mechanisms for potential candidates. Their model also yields nonconvergence results and demonstrates how party labels can be valuable to voters because they serve as low-cost information sources about the preferences of candidates across multiple offices. While these more recent models provide for candidate nonconvergence and consider the role of parties with respect to their members' policy stances, neither of them assumes a particularly activist role for political parties in electoral competition. Rather, to the extent they are active, parties exist to select a platform that serves as a rallying point for candidates.[7] The model developed here deviates from this approach by positing a far more activist role for parties in influencing candidate platforms and election outcomes. More specifically, I begin by assuming that parties are interested in advancing particular policy goals, and not securing majority (or supermajority) status for their members, *per se*. Beyond differences in motivations, I also assume that parties play an active role in campaigns by presenting ideological candidate locations to voters, and provide their candidates with campaign support, which is deemed valuable to voters apart from the candidate's location. The assumption of activist parties is appropriate in light of recent efforts undertaken by national party organizations. Herrnson (1988) for example, discusses party activities in the 1980s elections, as they

4. Offering some support for the Downsian model, Canes-Wrone et al. (2002) demonstrate how electorally 'vulnerable' legislators are more ideologically congruent with their district medians than secure legislators.

5. The literature on spatial models of elections is voluminous. For recent reviews see Fiorina (1999) and Osborne (1995).

6. Cadigan and Janeba (2002) build on the citizen–candidate election models advanced by Besley and Coate (1997) and Osborne and Slivinski (1996).

7. Snyder (1994), for example, also develops a model of parties and elections wherein parties play this role.

evolved to assume a 'National Party as Intermediary' role.[8] In this new capacity, national parties engage in and coordinate get-out-the-vote efforts, candidate training and management seminars, and develop generic, party-centered campaign commercials to 'evoke a particular image for [the] entire political party' (p. 62).

By committing resources to a race, such as those discussed by Herrnson (1988, 2004), parties can ostensibly affect the attractiveness of candidates to voters in a non-policy manner. In spirit then, my modeling approach is similar to other models of electoral competition where voters care both about policy, and a policy-independent quality about candidates, often referred to as a *valence* dimension (e.g., Ansolabehere and Snyder, 2000; Calvert, 1985; Wittman, 1983). Besides various informational assumptions, the main difference between these existing models and the model presented here is that I assume that parties can influence the size of the valence dimension by contributing costly campaign support. While Londregan and Romer (1993) develop a model wherein parties select candidates as a function of their expected 'quality' level, they take a candidate's quality level to be exogenous, and not influenced by the party. My theory also yields different predictions from many other models of electoral competition with valence dimensions (e.g., Aragones and Palfrey, 2002; Groseclose, 2001) in that I identify cases in which the presence of a valence advantage leads to the winning candidate locating away from the district's median voter. Hence, I provide an explanation for how parties can influence the scope of a candidate's attractiveness to voters, and in doing so, cause them to win elections by embracing policies that are favorable to party interests.

More generally, by considering parties as strategic actors with resources valuable to voters, my theory articulates the trade-offs parties make among providing electoral support for their candidates, shaping candidate ideology, and maintaining candidates' electoral viability. Such findings offer a theoretical rationale for the sometime puzzling patterns of party donations in congressional elections, such as parties contributing heavily to incumbent legislators who are, nevertheless, expected to lose (e.g., Jacobson, 2001).

Model

The model developed here can be referred to as a *support provision game* and is a three-stage game of complete and perfect information played between

8. Herrnson (2004) has also analyzed the more contemporary strategies of parties in congressional campaigns, as they have emerged in the 1990s to become a force in running 'coordinated' campaigns, which involve such tools as candidate training camps, widespread advertisements, and campaign funding.

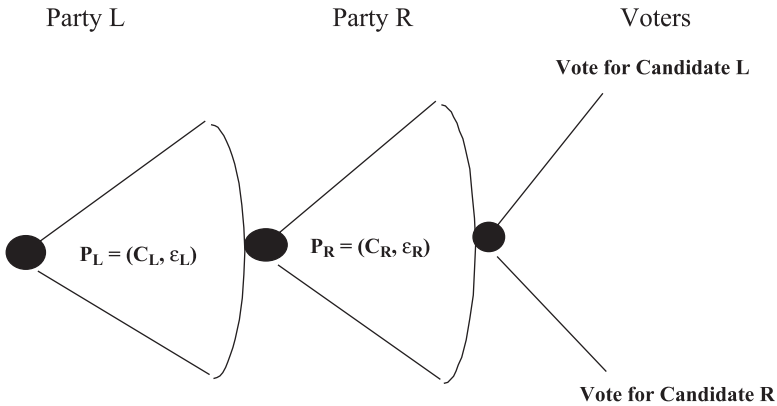

Figure 1. Support Provision Game

two parties, L and R, and N voters. In the first stage an incumbent party, say Party L, presents a platform, P_L, to the voters for its candidate. A platform consists of a candidate location, C_L, and a level of support, ε_L. In the second stage Party R presents a platform, P_R, for its candidate. In the third stage voters see the candidate locations, C_L, C_R, and the levels of support, ε_L, ε_R, provided to them by their parties, and vote for the candidate they prefer. A sequential, rather than a simultaneous, move modeling approach seems sensible given that candidates, in reality, announce their intentions to run and policy positions at distinct points in time. Furthermore, most of the time an incumbent's position and level of party support is known before that of any potential challenger.[9] Figure 1 provides an illustration of the extensive form of the game.

More formally, N (odd) voters, $(i = 1, \ldots, N)$ are assumed to be distributed across the interval $[-v, v]$ with the median voter located at $v_i = v_m = 0$. Voter i's utility is represented by the following quasilinear form:

$$U_i(C_k, \varepsilon_k) = -(v_i - C_k)^2 + \varepsilon_k, \tag{1}$$

9. In many ways, this model is analogous to a model of majoritarian decision making with sidepayments (e.g., Snyder, 1991), or a competing 'vote-buying' model (Groseclose and Snyder, 1996) with endogenous policy proposals. As is the case with these distributive lobbying models, if actors in this model presented platforms simultaneously rather than sequentially, this model would be a variant of the Colonel Blotto game for which pure strategy Nash Equilibria are generally not obtained.

where v_i is voter i's ideal point, C_k is the location announced for candidate k, and ε_k is the level of partisan support the party has given to its candidate.[10] A candidate who is elected at C_k is assumed to take position C_k into the legislature. That is, similar to the canonical Downsian model, I assume that candidates can credibly commit to legislative positions, and hence C_k is an appropriate characterization of Candidate k's electorally induced ideal point.

Because this model is a game of complete and perfect information, party support should not be interpreted as providing any sort of signal to the voters pertaining to policy location (e.g., Potters et al., 1997). Instead, support might be viewed as get-out-the-vote efforts and endorsements that remind voters of their identifications with each party. All else equal, such support could predispose voters towards one candidate over another (Campbell et al., 1960: 137–42; Herrnson, 1988: 15). Although this conceptualization is unconventional in that it assumes that voters identify with and can derive positive utility from more than one party, it is consistent with a body of behavioral literature (Valentine and Van Wingen, 1980; Weisberg, 1980) in which voters do not limit their identifications to one specific party.[11] An alternative interpretation of the value of party endorsements is that they represent how effective the party views the candidate as a potential legislator, which is deemed valuable by voters. Hence, all else equal, voters are more attracted to candidates that are heavily supported by their parties.[12]

Parties' preferences in this model are defined over the policy location of the winning candidate and the amounts of support they dole out to their

10. Given that voters' preferences are defined over two dimensions, policy and endorsement, a generally unbeatable platform, analogous to the majority core in social choice theory, would be for the party with the largest budget to locate its candidate at the median voter's ideal point, and endow him with the highest level of endorsement, ε_k, possible. As will be apparent in the derivation of results below, because endorsement provision is costly to the parties, such a platform will generally not be realized in equilibrium.

11. Given that the analysis of the model relies on the preferences of the median voter, one might interpret this assumption as simply saying that the median voter in every constituency places (at least) some positive value on both parties' endorsements. To the extent that such an assumption is innocuous, the analysis that follows is appropriate.

12. On the value of party endorsements as indicating legislator effectiveness apart from policy positions, consider the recent case of DNC Chairman Howard Dean. There should be very little ambiguity about his policy stances independent of the endorsement of other party members, yet as many pundits have noted the endorsement of other party members is indicative of their belief that Dean can be an effective coalition builder. On the broader point of the non-policy value of party support, my specification is substantively similar to what social psychologists refer to as the principle of 'social proof' (e.g., Cialdini, 1993: 95) whereby individuals 'determine what is correct by finding out what other people think is correct'. In other words, by observing an expert group (i.e., the party) supporting a candidate, voters find it more attractive to vote for that candidate, independent of his or her policy stances, as they view it as the appropriate action to take.

candidates. Party k's utility function is represented by the following quasi-linear form:

$$V_k(C_w, \varepsilon_k) = -(p_k - C_w)^2 - \varepsilon_k, \tag{2}$$

where p_k is Party k's ideal point, ε_k is the support level that it provides to its candidate, and C_w is the location of the winning candidate. Hence, $C_w = C_L$ if Candidate L wins, and $C_w = C_R$ if Candidate R wins. This specification implies that parties are not concerned with the party label of the winning candidate, but rather the electorally induced policy preferences of that candidate.[13] Finally, it is assumed that parties' ideal points p_L and p_R are located on opposite sides of a district's median voter's ideal point: $p_L < 0 < p_R$. It should be noted that parties are not restricted to have their candidates locate on the same side of the median voter as their ideal points. In other words, Party L can offer $C_L > 0$, and Party R can offer $C_R < 0$.

Parties in this model are constrained in the amount of support they can provide to their candidates. Formally, in a given district Party k is assumed to have a budget, β_k, which is the maximum support it can provide to its candidate in that district. Furthermore, a party's budget in a particular district is assumed to be positively correlated with the partisan predisposition of the district's voters towards that party. Hence, one might interpret a party's budget as a 'believability constraint' whereby providing support or endorsements beyond a certain level would be worthless to voters in district i because their predispositions towards the party constrain how much they value the endorsements. In line with such an assumption, it seems sensible that the Republican party ought to have a larger support budget in a district composed of more strong Republicans than strong Democrats. Put another way, in a strongly Republican district, there is an upper bound on the value of Democratic endorsements, which is less than the upper bound on the value of Republican endorsements. A visit from former President Clinton, for example, would likely be less valuable to a Democrat running in a strongly Republican district than those running in a moderate, or strongly Democratic district.[14]

13. Consistent with the model, Republicans would prefer to elect right-of-center Democrats rather than left-of-center Republicans. This assumption seems sensible if one assumes a model of weak party discipline in the legislature in which parties can exert very little influence over roll-call voting; despite having a Republican label, conservative Democrats will vote in a manner more aligned with Republican party interests than will leftist Republicans.

14. It is worth emphasizing that a district's partisan predisposition is related to the non-policy value of a party 'brand name' in a district. Hence, a district could be very predisposed towards one party despite having a median voter who is far removed from the party's ideal point. Such would arguably be the case for right-of-center Southern Democratic districts until the 1970s, where the value of the Democratic Party label was very high.

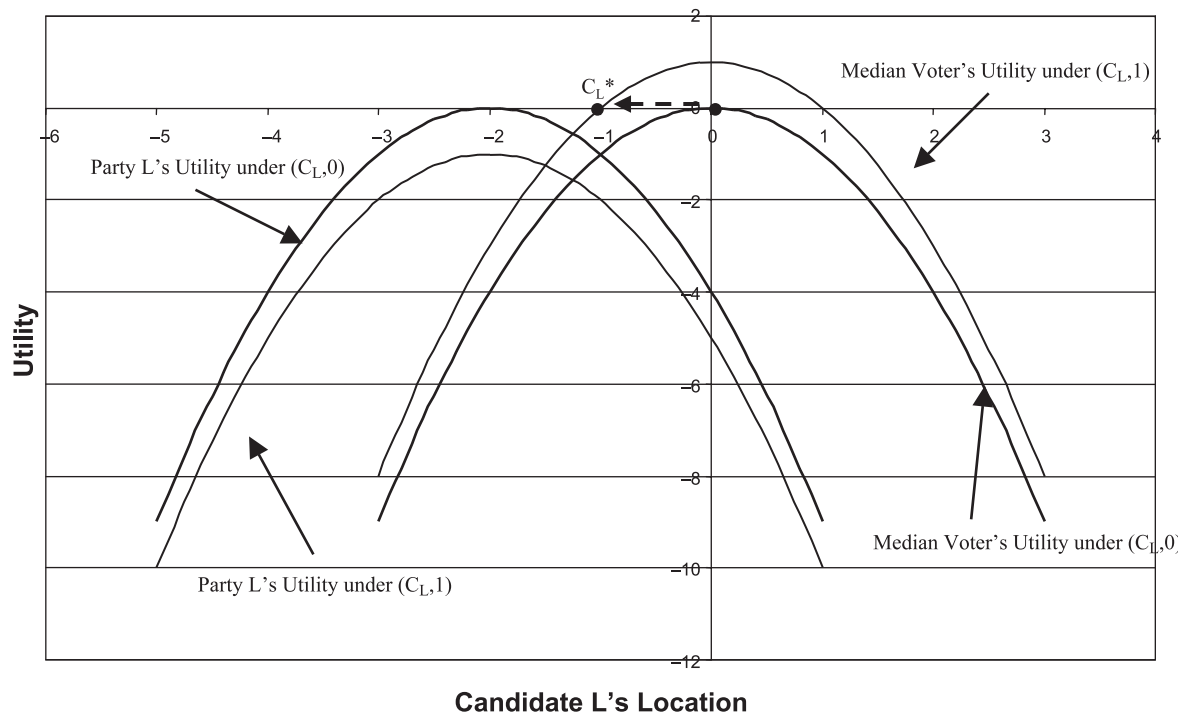

Figure 2. Utilities of Party L and Median Voter under Different Platforms

The trade-offs faced by the party with respect to policy positions and support provision can be illustrated in Figure 2, which plots the utility functions of Party L and the median voter of district i for all locations of C_L for the cases where Party L provides no support ($\varepsilon_L = 0$), and provides one unit of support ($\varepsilon_L = 1$) for its candidate.

As is evident from the figure, marginal increases in candidate support increase the median voter's utility while simultaneously decreasing Party L's utility (as noted by the indifference curves that move upwards and downwards for the platform $(C_L, 1)$ for the median voter and Party L, respectively). Furthermore, if one assumes that Candidate R is positioned at the median voter's ideal point and receives no support ($\varepsilon_R = 0$), then one can see how the provision of campaign support can lead to the election of non-median candidates while enhancing the utility of the winning party. With C_R being located at $v_m = 0$, Party L can provide one unit of campaign support and have Candidate L position himself almost as far left as -1, and still have the median voter prefer Candidate L over R. Furthermore, while the provision of campaign support causes a general decrease in Party L's utility, the more favorable policy location of Candidate L increases Party L's utility from what it would have been in the absence of providing support (-4) to -2.[15]

Even though I do not explicitly model the choices of candidates, they could easily be incorporated into this model in the following way. If one assumes that candidates are pure-office seekers who have no preferences over policy or maximizing vote share, then one might develop a model wherein parties presented platforms to candidates who either accepted the terms of the platform (policy positions in exchange for support), or rejected the platform and ran on their own without the party's support. In such a model, where candidates are pure office seekers and subject to the parties' take-it-or-leave it offers, it can be demonstrated that the equilibrium winning platforms that would emerge from such a model are identical to those that follow from the analysis of the current game. Rather than incorporate the choices of these Downsian candidates into the game, then, this model might be viewed as a reduced-form analogous game where candidates simply accept whatever platform is offered to them by their parties.[16] This assumption seems particularly appropriate when considering Aldrich's (1995; 14) view of how candidates seek partisan support in their electoral efforts:

15. Of course, as demonstrated in the results section, Party L will not necessarily be able to pull Candidate L as far left as -1, depending on the relevant resource constraints of parties L and R.

16. More specifically, it can be shown that in equilibrium a party will not offer its candidate a platform that will make the candidate worse off than if he were to choose a policy location for himself without receiving party support.

> The path to office for nearly every major politician begins today, as it has for over 150 years, with the party. Many candidates emerge initially from the ranks of party activists, all serious candidates seek their party's nomination, and they become serious candidates in the general election only because they have won their party's endorsement. (p. 14)

Finally, the following tie-breaking rule is adopted for the case where the median voter is indifferent between Candidates L and R: if Party R's budget constraint is binding and Party L's is not, Candidate L wins. If Party L's budget constraint is binding and R's is not, R wins if he contests the election. If both budgets are binding and the median voter is indifferent, then L wins.[17]

Results

Because the model is a finite complete and perfect information game, a straightforward application of backwards induction yields the equilibrium platforms for parties L and R. A given voter with ideal point v_i will choose Candidate L over Candidate R if:

$$\begin{aligned} & U_i(C_L, \varepsilon_L) > U_i(C_R, \varepsilon_R) \\ \Leftrightarrow & -(v_i - C_L)^2 + \varepsilon_L > -(v_i - C_R)^2 + \varepsilon_R. \end{aligned} \tag{3}$$

Since $U_i(C_k, \varepsilon_k)$ is strictly concave in C_k, the preferences of the median voter determine the winner of the election. In other words, given $v_m = 0$, Candidate L will win over Candidate R if the following holds true:

$$-C_L^2 + \varepsilon_L > -C_R^2 + \varepsilon_R. \tag{4}$$

Upon reaching its turn to move, Party R has observed the location and support Party L has provided for its candidate. Because electoral support is costly, Party R will support its candidate only if it wants to win, given the policy location of Candidate L (who will win if R chooses to abstain). Furthermore, in the event Party R is willing to back Candidate R to influence the location of the winning candidate, Party R will only support its candidate if it is possible for its candidate to win; meaning, if it has a large enough budget. In the first stage then, Party L is faced with the following problem: since Party R will only enter the race if it *wants* its candidate to win, given C_L, and it *can* win, what platform should Party L present so that the candidate elected from the district is as reflective of its policy preferences as possible?

17. These assumptions are employed to solve the open set problem.

In equilibrium, Party L will choose Candidate L's platform from one of two classes of strategies. In the first class, Party L predicates its platform choice on the assumption that for a given (C_L, ε_L), Party R would want to enter the competition and support its candidate with $\varepsilon_R > 0$. Assuming that Party R will prefer to contest the election if possible, Party L will present a platform that either deters Party R's entry by making it too expensive for R's candidate to win (a *preemption* platform), or allows Party R's candidate to win, but successfully constrains the ideological extremity of the winning policy location (a *containment* platform).

To illustrate the difference between preemption and containment strategies, compare the following numerical examples: assume that Parties R and L have ideal points $p_R = -p_L = k > 0$, and budgets $\beta_R = 2$ and $\beta_L = 3$, respectively.[18] Given these budgets, $P_L = (-1, 3)$ is a preemption platform for Party L. By having its candidate locate at $C_L = -1$ and supporting him with its entire budget ($\varepsilon_L = \beta_L = 3$), Party L ensures that Party R cannot present a winning platform for its candidate. Consider, for example, if Party R had its candidate locate at $C_R = 0$ and supported him with its entire budget ($\varepsilon_R = \beta_R = 2$): the utility of the median voter from voting for Candidate R would be:

$$U_m(0, 2) = -(0 - 0)^2 + 2 = 2. \tag{5}$$

Conversely, if he voted for Candidate L, the median voter's utility would be:

$$U_m(-1, 3) = -(0 + 1)^2 + 3 = 2. \tag{6}$$

Because the median voter is indifferent between Candidates L and R, by a tie-breaking assumption, he would vote for Candidate L. The median voter would dislike Candidate R's platform even more for any move away from his ideal point, or with any support less than $\varepsilon_R = 2$. Because there is no platform Party R can devise when $P_L = (-1, 3)$ such that its candidate wins, it will choose to sit out of the election by not supporting its candidate, rather than enter and waste resources. Party L has *preempted* party R's entry.

Conversely, $P_L = (0, 1.5)$ is an example of a containment platform for the case where Parties R and L have budgets $\beta_R = 2$ and $\beta_L = 1.5$, respectively. Presented with such a platform, the median voter's utility from voting for Candidate L is:

$$U_m(0, 1.5) = -(0 - 0)^2 + 1.5 = 1.5. \tag{7}$$

18. The choice of party ideal points is arbitrary and not crucial. The platforms identified are simply examples of preemption and containment platforms, and not necessarily equilibrium platforms.

In this situation, the farthest Party R could move its candidate to the right and still win would be the point that makes the median voter indifferent between Candidates L and R when it supports Candidate R with its entire budget. Formally, this location is the solution to the following problem:

$$\begin{aligned} U_m(0, 1.5) &= U_m(C_R, 2) \\ \Leftrightarrow 1.5 &= -(0 - C_R)^2 + 2 \\ \Rightarrow C_R^* = \sqrt{C_L^2 + \beta_R - \varepsilon_L} &= \sqrt{0^2 + 2 - 1.5} = \sqrt{0.5} \\ \Rightarrow C_R^* &= 0.7071. \end{aligned} \tag{8}$$

Hence, even though Candidate L will lose the election if Party R presents a platform of $P_R = (0.7071, 2)$, Party L has ensured that the candidate elected from the district is as far left as possible. It has *contained* the ideological extremity of Candidate R.

Although Party L selects a preemption or containment strategy under the assumption that Party R will choose to contest the election if possible, another option is that for a given (C_L, ε_L), Party R might prefer not to contest the election at all. In other words, Party L could devise a platform so it is possible for Party R to contest the election and win, but it chooses not to do so because it would prefer the winning location of C_L over the winning location of C_R with the cost of the support required to beat Candidate L. When Party R chooses not to contest the election, despite having sufficient resources to win, it is *appeased*.

In discussing the equilibrium of the support provision game, it will be instructive to begin by deriving the optimal preemption, containment, and appeasement strategies for a generic parameter space. After discussing some comparative statics for each of these strategies we will move on to an exposition of the equilibrium properties of the full model, in which the incumbent party chooses the equilibrium platform from among the optimal preemption, containment, and appeasement strategies, depending on the parties' budgets and their preferences *vis-à-vis* each other, and a district's median voter.

Optimal Preemption and Containment Strategies

Preemption Platforms

In determining the optimal preemption platform, Party L knows that in the last period, voters observe C_L, ε_L, C_R and ε_R and will vote for the candidate that yields them greater utility. Hence, Candidate L will win over R if:

$$-C_L^2 + \varepsilon_L > -C_R^2 + \varepsilon_R. \tag{9}$$

To preempt Party R's entry, Party L must select a platform (C_L, ε_L) in the first period that makes it impossible for Party R to win. Formally, this constraint is satisfied if the following holds true:

$$-C_L^2 + \varepsilon_L \geq \beta_R. \tag{10}$$

If (10) holds, it is impossible for Party R to win. Even if Candidate R located at the median voter's ideal point with support $\varepsilon_R = \beta_R$, the median voter would still prefer Candidate L.

Hence, the optimal preemption platform is the solution to the following problem:

$$\begin{aligned} &\max_{C_L, \varepsilon_L} -(p_L - C_L)^2 - \varepsilon_L \\ &s.t.\ (1) - C_L^2 + \varepsilon_L \geq \beta_R \\ &(2)\ \beta_L \geq \varepsilon_L, \end{aligned} \tag{11}$$

where Party L chooses the candidate location and support level to maximize its utility while ensuring that Party R can't afford to contest the election (constraint (1)), and that whatever platform is chosen is financially viable (constraint (2)).

The following Lemma pertains to preemption strategies for cases in which Party L is the first mover:[19]

Lemma 1. *Party L will only engage in a preemption strategy when it has a budget greater or equal to Party R's.*

To preempt Party R's entry, Party L chooses the platform for Candidate L that maximizes its utility while ensuring that Party R's resources will be exhausted if it tries to mount a challenge. Hence, Party L must select Candidate L's location and support level such that the median voter (weakly) prefers him to Candidate R, even if Candidate R is located at the median voter's ideal point and has been supported with all of Party R's resources. In the case where Party L has a smaller budget than Party R, no platform can preempt Party R's entry. More broadly, the following proposition describes the effects of variation in party policy preferences and budgets on candidate locations and party support levels under preemption strategies:

Proposition 1. *Under preemption strategies, (a) the closer Party L's ideal point is to the median voter's ideal point, the closer is the winning candidate's location to the median voter; (b) the greater the difference between the two*

19. Analytical proofs of all results, where appropriate, appear in the Appendix.

parties' budgets, the more leftist (weakly) is the winning candidate location; and (c) the greater is Party R's budget, the greater is Candidate L's support (assuming that L's budget constraint is not binding).

When Party L is engaging in a preemption strategy, then, the location of the winning candidate is responsive to how far Party L's ideal point is from the median voter's, becoming more centrist as Party L and the median voter's preferences become more aligned. At the same time, the extent to which Party L can move its candidate away from the median is related to the size of its budget in comparison to Party R's. When it has a significantly larger budget than Party R, it can easily move its candidate to its ideal point while preempting Party R's entry. When the parties' resource levels are more comparable, however, Party L must offer a more moderate location for its candidate to ensure that Party R cannot enter and win. Finally, when Party L is preempting Party R's entry, the level of support for Candidate L is a function of the size of the budget disparity between the two parties. Party L offers little campaign support when Party R has little to spend, and it offers all of its budget when Party R has a large budget.

Containment Platforms

In determining the optimal containment platform, Party L chooses its platform in anticipation of the platform Party R would implement if it could successfully contest and win the election. More specifically, Party L knows that upon observing $P_L = (C_L, \varepsilon_L)$, Party R will choose C_R and ε_R accordingly:

$$\begin{aligned} &\max_{C_R, \varepsilon_R} -(p_R - C_R)^2 - \varepsilon_R \\ &s.t.\ (1) -C_R^2 + \varepsilon_R \geq -C_L^2 + \varepsilon_L \\ &(2)\ \beta_R \geq \varepsilon_R, \end{aligned} \tag{12}$$

where constraint (1) ensures that the median voter weakly prefers Candidate R to Candidate L, and constraint (2) is Party R's budget constraint.

Given that Party R would implement the above platform if it chose to contest the election, Party L is faced with the following problem in determining the optimal containment platform:

$$\max_{C_L, \varepsilon_L} -(p_L - C_R^*)^2 - \varepsilon_L \tag{13}$$

where $C_R^* \in \left\{\sqrt{C_L^2 + \beta_R - \varepsilon_L}, (p_R/2)\right\}$ depending on what (C_L, ε_L) Party L chooses. The result that follows pertains to Candidate L's location, C_L^*, when Party L engages in a containment strategy:

LEMMA 2. *The optimal candidate location for Candidate L in a containment strategy is to locate at the median voter's ideal point.*

The intuition behind this result is straightforward. When Party L plays a containment strategy it realizes that it will not win the election. It might lose because it has an insufficient budget to win, or perhaps because any policy gains that might come with winning would simply be too costly to make it worthwhile. Given that it is going to lose, Party L wants to maximize its influence on Candidate R's location.

To draw Candidate R towards its ideal point, it has to make Candidate L as attractive as possible to the median voter, which will induce Party R to move Candidate R to the left (towards the median voter) to secure victory. It has two tools at its disposal to accomplish this task: campaign support and selecting the location of Candidate L. Because $C_R^* \in \{\sqrt{C_L^2 + \beta_R - \varepsilon_L}, (p_R/2)\}$, it is obvious that for any $C_L \neq 0$, Party L either has to support Candidate L more heavily to achieve an identical location for Candidate R as what would have followed if it had located its candidate at $C_L = 0$, or Candidate L's location is irrelevant because C_R will not be responsive to changes in C_L. Because support is costly, Party L will always choose $C_L = 0$ when playing a containment strategy, which will guarantee the most favorable location for Candidate R (who wins) while conserving as much of its budget as possible.

Given that Party L will choose $C_L = 0$ when playing a containment strategy, the question turns to the level of campaign support it will provide for its candidate. A simple comparison of Party L's utilities for various choices under three cases, when it has a larger budget than Party R, when it has a smaller, but moderate, budget in comparison to Party R, and when it has a much smaller budget than Party R, yields the following optimal containment platforms, P_L^c, for Party L:

$$P_L^c = \begin{cases} (0, \beta_R) & \text{if } \beta_L \geq \beta_R \\ (0, \beta_L) & \text{if } \beta_R > \beta_L > \beta_R - \dfrac{p_R^2}{4} \\ (0, 0) & \text{if } \beta_R - \dfrac{p_R^2}{4} \geq \beta_L. \end{cases}$$

When Party L contains Party R, the following result holds:

PROPOSITION 2. *Ceteris paribus, under containment the greater is Party R's budget, the farther right is the location of the winning candidate (Candidate R).*

As noted above, when Party R has a small budget and Party L plays a containment strategy the winning candidate location is somewhere in the interior

of $[0, (p_R/2)]$ depending on the budget differential between the two parties. As Party R's budget increases however, it is able to compensate for Party L's containment efforts by spending more resources on campaign support as it moves its candidate further right towards $(p_R/2)$.

Optimal Appeasement Strategies

Finally, in determining the optimal appeasement platform, Party L knows that when it moves, Party R will observe C_L and ε_L and, if it decides to enter the competition by supporting Candidate R, will choose the optimal platforms as described earlier. Hence, to determine the optimal appeasement platform, Party L chooses (C_L, ε_L) to solve one of the following two problems, depending on the relevant exogenous parameters $(\beta_L, \beta_R, p_L, p_R)$ and which solution yields it greater utility:

$$\begin{gathered}(A)\ \max_{C_L,\varepsilon_L} -(p_L - C_L)^2 - \varepsilon_L \\ s.t.\ (1) - (p_R - C_L)^2 \geq -\left(p_R - \frac{p_R}{2}\right)^2 - \frac{p_R^2}{4} + C_L^2 - \varepsilon_L \\ (2)\ \beta_R \geq \frac{p_R^2}{4} - C_L^2 + \varepsilon_L \\ (3)\ \beta_L \geq \varepsilon_L\end{gathered} \tag{14}$$

or

$$\begin{gathered}(B)\ \max_{C_L,\varepsilon_L} -(p_L - C_L)^2 - \varepsilon_L \\ s.t.\ (1) - (p_R - C_L)^2 \geq -\left(p_R - \sqrt{\beta_R + C_L^2 - \varepsilon_L}\right)^2 - \beta_R \\ (2)\ \beta_R \leq \frac{p_R^2}{4} - C_L^2 + \varepsilon_L \\ (3)\ \beta_L \geq \varepsilon_L.\end{gathered} \tag{15}$$

In the above problems constraint (1) is Party R's participation constraint that, if satisfied, guarantees that it will not want to enter the competition; constraint (2) ensures that Party L is solving for the optimal appeasement platforms depending on whether Party R's budget constraint binds; and constraint (3) is Party L's budget constraint.

Intuitively speaking, when Party L employs an appeasement strategy, it is choosing the platform that would make it best off, while ensuring that Party R is indifferent between entering the election (and winning) and sitting

out altogether. While derivation of the optimal appeasement platforms is straightforward, establishing comparative statics is more difficult. While C_L^* can be defined as a function of ε_L^* and the exogenous parameters (β_R, p_R), a closed-form characterization of ε_L^* for the case when Party R's budget constraint binds (scenario (B) earlier) but Party L's constraint does not is extremely cumbersome. While such a characterization is possible, conventional comparative statics analysis (i.e., examining the first-order-conditions of $\varepsilon_L^*(p_R, p_L, \beta_R, \beta_L)$ and $C_L^*(p_R, p_L, \beta_R, \beta_L)$) is uninformative. To establish comparative statics, numerical computation is employed, which yields the following result:[20]

PROPOSITION 3. *Under appeasement, as Party L's ideal point moves closer to the median voter, the winning candidate's location* (C_L) *moves towards the median voter.*

Similar to preemption strategies then, when Party L is trying to appease Party R, the winning candidate's location will move closer to the district's median voter as the median voter's preferences become more closely aligned with Party L.

Equilibrium Candidate Locations and Party Support

While the above propositions describe the relationships between the parties' budgets, ideal points, and platforms under the optimal preemption, containment, and appeasement strategies, they do not characterize the equilibrium platforms of the larger game. For any vector of exogenous parameters $V = (p_L, p_R, \beta_L, \beta_R)$, Party L will choose the optimal strategy from these options depending on which yields it the greatest utility. Because the equilibrium platforms discussed above depend on these exogenous parameters, and a closed form characterization of the optimal appeasement platform is not very concise, it is difficult to offer general statements about when Party L will choose one strategy over another (e.g., preemption over appeasement, appeasement over containment, etc.) Hence, numerical examples are computed over a wide range of parameter values to derive the following results about equilibrium platforms and the relationships between the equilibrium candidate locations, campaign support, and V:

20. More specifically, the comparative statics that are considered in Results 1–4 are not derived from computer simulations, but rather are the products of evaluating and comparing the values of closed-form analytical solutions for the equilibrium candidate locations and party support, for a wide range of exogenous parameter values $(p_L, p_R, \beta_L, \beta_R)$. The Appendix discusses the specific computational methods employed to derive comparative statics for the optimal appeasement platforms as well as the equilibrium platforms of the larger game.

RESULT 1. *Ceteris paribus, containment strategies are employed by Party L when there is a small difference between Party L and Party R's budgets; pre-emption is employed when* $\beta_L \gg \beta_R$*; and appeasement is employed when* $\beta_R \gg \beta_L$.

When Party L has a much larger budget than Party R, it is able to achieve policies close to its ideal point, while still keeping Party R out of the election, and engages in a preemption strategy. Conversely, when Party R is much wealthier than Party L, a preemption strategy is not possible, and Party L engages in an appeasement strategy, choosing as favorable a location for Candidate L as possible, subject to Party R's participation constraint. Finally, when the two parties' budgets are close to each other, Party L engages in a containment strategy.

An interesting point to note is that Party R, being the second mover, rarely enters and wins the election, regardless of its budget. Hence, consistent with the stylized fact of the existence of an *incumbency advantage*, incumbents rarely lose in this model when facing a potential challenger. While the size of Party R's budget is not directly related to whether it wins the election, its budget does have an effect on the policy location of the winning candidate. Hence, while Party R might be losing the election, it often receives benefits with respect to the final policy outcome.

RESULT 2. *Ceteris paribus, a winning candidate's policy location becomes more leftist (weakly) as the difference between Party L and Party R's budgets increases*.

Even when controlling for changes in the policy preferences of a district's median voter with respect to the parties' ideal points (which one would expect to affect the ideology of the candidate elected), the greater Party L's budget is in comparison to Party R's, the more leftist a candidate it is able to elect. In other words, the provision of campaign support leads to an extra bump in *leftism* that cannot be accounted for by changes in the location of the median voter. This result contrasts with the implications of the canonical Downsian model, which would predict that candidate locations should be entirely responsive to the policy preferences of the median voter of the electorate, and not related to the respective support budgets of the two parties, *per se*.

RESULT 3. *Ceteris paribus, Party L provides less campaign support for its candidate as the absolute difference between Party L's and Party R's budgets increases*.

The absolute difference between the parties' budgets influences which of the three strategies Party *L* chooses in presenting a platform to the voters. Conditional on choosing a certain strategy, Party *L*'s disbursements are also responsive to the absolute difference between Party *L* and Party *R*'s budgets (e.g., under a preemption strategy, the greater the absolute difference between the parties' budgets, the less resources Party *L* commits to its candidate's election). Evaluation of equilibrium platforms across a wide range of parameter values indicates that the larger the absolute difference between the parties' budgets, the less campaign support Party *L* offers to its candidate.

RESULT 4. *Ceteris paribus, winning candidates should become more centrist as they receive more campaign support.*

This Result is consistent with the stylized fact that the most competitive races, which attract the most campaign funds, tend to be those that elect centrist, or ideologically moderate, candidates. That being said, the mechanism underlying this result is very different from that which (presumably) drives conventional wisdom (i.e., parties compete more heavily in moderate districts because they are potentially pivotal, which leads to higher spending). More specifically, the computational analysis of equilibrium platforms reveals that candidate locations can be classified into two groups, depending on the respective budgets of parties *L* and *R*.

In the first category, Party *R* has a smaller budget than Party *L* (which corresponds to parameter regions in which Party *L* is playing preemption) and in the second category, Party *R* has a larger budget than Party *L* (which corresponds to parameter regions in which Party *L* is engaging in appeasement and containment). For the first category of locations, given that Party *L* has a larger budget than *R*, the ideological predispositions of candidates elected from these districts generally favor Party *L*. That being said, as Party *R*'s budget increases, Party *L* finds itself offering a more rightist candidate, as it is compelled to move its candidate towards the median voter (from the left), while at the same time, paying out higher levels of support in order to preempt Party *R*'s entry.

Conversely, for the second category, because Party *R*'s budget is greater than *L*, the ideological predispositions of candidates elected from these districts generally favors Party *R*. As Party *R*'s budget increases further, however, Party *L* will offer a more leftist candidate, moving away from Party *R*'s preferred policies and towards the median voter. These leftward movements towards the median will be part of an appeasement strategy, and will be accompanied by Party *L* providing its candidate with higher levels of support which will induce Party *R* into sitting out of the competition. In other words, as Party *R*'s budget increases, Party *L* can extract

policy concessions from Party R by backing its candidate more heavily, and Party R will choose to sit out of the race rather than engage in a costly competition that could only provide it a small policy gain if it won. For both candidate location categories, then, the most centrist candidates receive the most support.

Some Numerical Examples

Equlibrium Platforms

The relationships in Results 1–4 are exhibited clearly in Figure 3, which plots the location of the winning candidates (bottom lines) and the levels of campaign support they receive (top lines) holding β_L constant at $\beta_L = 2$ and varying $\beta_R \in [0, 4]$ for the symmetric case of $p_L = -p_R = -2$. Figure 3 also identifies what strategy is being employed by Party L, and consequently, which candidate wins the election.

Note that across the entire range of $\beta_R \in [0, 4]$, as β_R increases, the location of the winning candidate generally becomes more moderate, ranging from $C_w = -1$ when $\beta_R = 0$, to $C_w = 0$ when $\beta_R = 4$. In addition, and more subtly, the two categories of candidate locations described in Result 4 can be observed for those regions above and below the point where $\beta_R = \beta_L = 2$. In those regions to the left of the cutpoint, Party L is engaging

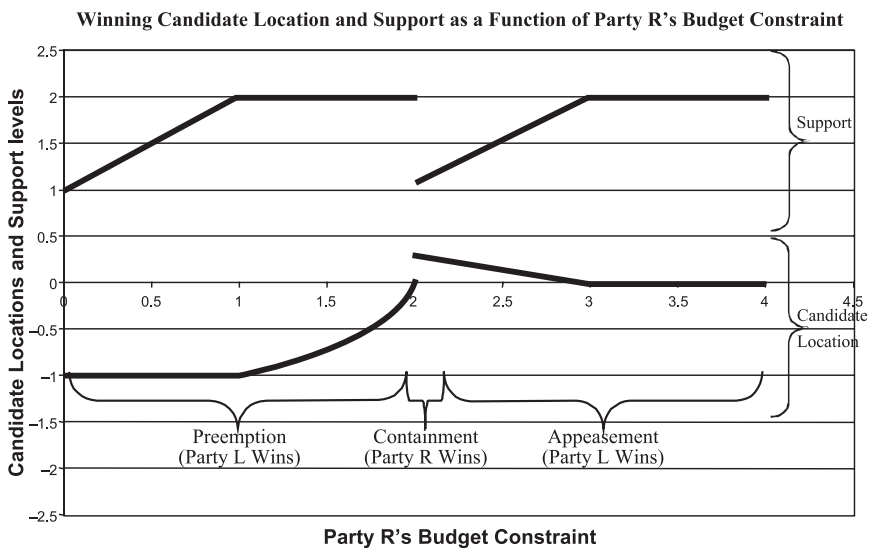

Figure 3. Equilibrium Candidate Locations and Support

in preemption strategies, while in those regions near the cutpoint, and to the right of the cutpoint it employs containment and appeasement strategies, respectively.

Within each candidate location category, the winning candidates' campaign support is decreasing in the difference between Party L and R's budgets ($\beta_L - \beta_R$). Furthermore, comparing between candidate location categories, one can see that to the left of the cutpoint ($\beta_R = 2$), as β_R increases, the winning candidate location (C_w) becomes more conservative, whereas to the right of the cutpoint, as β_R increases C_w becomes more liberal. Such movements correspond to an interesting relationship between candidate ideology and campaign support. For the regions to the left of the cutpoint, there is a negative relationship between candidate liberalism and campaign support, with the most right-leaning candidates receiving the most party support. To the right of the cutpoint, however, this relationship is reversed, with the most left-leaning candidates receiving the most party support. This seemingly perverse relationship follows from the fact that (as explicated in Result 4) when Party R has a small budget, more campaign support corresponds to policy concessions towards Party R because only by supporting its candidate more heavily and moving him towards the median voter can Party L prevent Party R from entering and winning. As Party R's budget increases beyond $\beta_R = 2$, however, Party L finds that by supporting its candidate more heavily, it can extract more policy concessions because Party R finds the policy gains that it would receive from entering and winning not worth the expense.

Finally, as mentioned in the discussion of Result 1, it is interesting that across the entire range of $\beta_R \in [0, 4]$, Party R only enters and wins the election in a few instances (a small range of values near $\beta_R = 2$). While Party R's budget may not be a good predictor of its victory, it is obvious that the policy location of the winning candidate is responsive to the size of Party R's budget. The candidates elected in those cases where $\beta_R > \beta_L$ are more favorable to Party R than those elected in those cases when $\beta_R \leq \beta_L$, despite the fact that the winning candidate is almost always Candidate L. Hence, even though Party R loses when Party L is playing an appeasement strategy, R benefits with respect to *ex post* utility because of the winning policy location of C_L.

Legislative Implications

While party campaign support has an effect on candidate location independent of the location of a district's median voter, it is less clear how this influence might manifest itself in the context of the legislature. One of the goals of this article is to demonstrate how parties, through their provision of campaign support, can influence the electorally induced ideal points of

their candidates in such a way that their roll-call voting patterns might show evidence of party *pressure* independent of any pressure being applied. To see this, consider the following thought exercise.

Suppose there are 11 congressional districts where Party L is the incumbent party, $p_L = -p_R = -2$, and the median voter is located at $v_m = 0$ in each district. Furthermore, suppose that each of these 11 districts differ based on the difference between Party L and Party R's budgets in that district ($\beta_L - \beta_R$), where in District 1, $\beta_L = 1$ and $\beta_R = 0$, in District 2, $\beta_L = .9$ and $\beta_R = .1$, in District 3, $\beta_L = .8$ and $\beta_R = .2$, and so forth until District 11 where $\beta_L = 0$ and $\beta_R = 1$.

Given these parametric assumptions, it is instructive to compare what kind of legislators (ideologically speaking) would emerge from parties playing the support provision game versus what would follow from a conventional median voter framework. If one assumes that there is a perfect mapping between the positions candidates stake out during the election and their ideal points as legislators, then Figure 4(a) presents a histogram of the ideal points that would follow from a standard Downsian spatial voting game.

Unsurprisingly, when voters care solely about the policy announcements of candidates, all winning candidates locate at their district median voter's ideal point, leading to a spike of 11 legislators at $v_m = 0$, regardless of the parties' budgets in each district. Alternatively, Figure 4(b) presents a histogram of the legislator ideal points that would emerge from the support provision game, where voters care about party campaign support in addition to policy announcements.

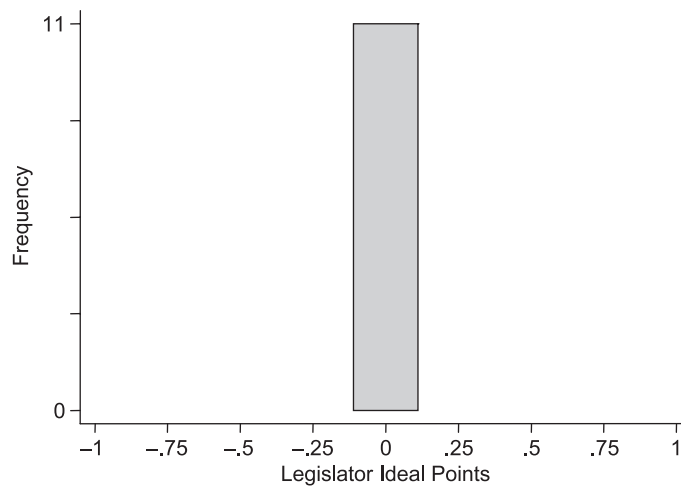

Figure 4(a). Ideologies of Party L Legislators under Median Voter Model

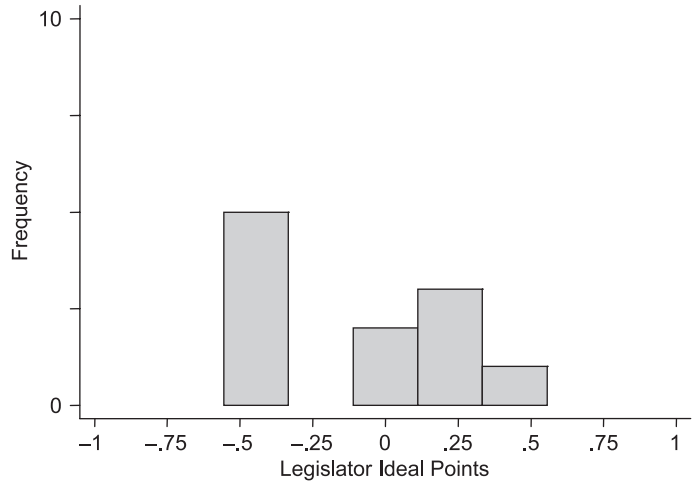

Figure 4(b). Ideologies of Party *L* Legislators with Support Provision

Several points should be noted in comparing these figures. First, with the provision of campaign support legislators are obviously no longer clustered on top of their district median voters, as support provision effectively enables Party *L* to pull the winning candidates away from their district median voters. Second, as noted by some of the right-leaning candidates (that correspond to those districts where Party *R* has a higher budget) one might see cases in which the incumbent party supports candidates that are ideologically on the other side of the aisle from its natural constituencies. Furthermore, as shown in Figure 4(c), if there were 11 additional districts with identical distributions of partisan as those in Figure 4(b), but with Party *R* as the incumbent party (meaning the first mover), the presence of campaign support in the election would lead to a combined distribution of legislator *L* and *R* ideal points that is actually bipolar, with Party *L* and *R* legislators located on both sides of the aisle, as well as at the ideological extremes of their own parties.

While the locations of some of these legislators might seem unrealistic in the contemporary Congress (e.g., Party *L* legislators located at 0.25), remember that Figures 4(a)–4(c) are based on the assumption that both parties' ideal points are symmetrically located around all district medians. To see how changes in this assumption might generate more 'realistic' distributions, consider Figure 4(d), which presents a histogram of legislator ideal points that would emerge in the case that party budgets were identical to those analyzed for Figure 4(b), but Party *L* was located closer to the median voter than Party *R*, at $p_L = -.75$ and $p_R = 1.25$, respectively.

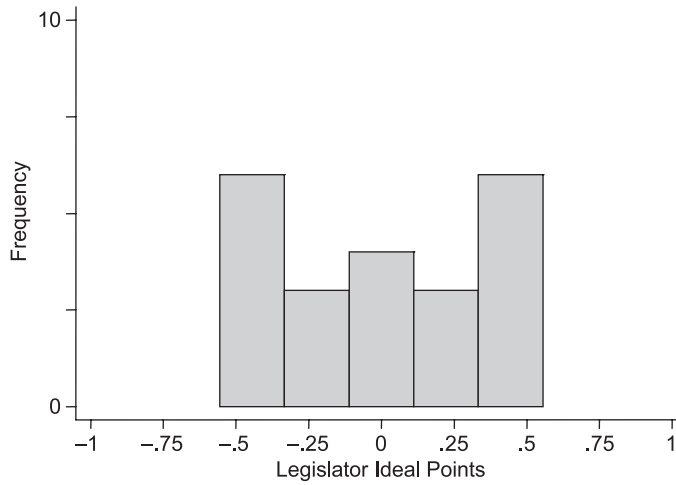

Figure 4(c). Ideologies of Party *L* and *R* Legislators with Support Provision

We see that when the median voter is closer to one party than the other, the distribution of candidates that emerges from the support provision game generally favors that party in comparison to the neutral baseline in Figure 4(b). In Figure 4(b), the distribution of winning candidates is evenly split between the two parties, with five candidates locating within one unit of Party *L* and *R*'s ideal point, respectively (and one candidate locating at the median voter's ideal point). In contrast, in Figure 4(d), with the median voter slightly favoring Party *L* over Party *R*, seven of the winning candidates are located within one unit of Party *L*'s ideal point, whereas only four candidates are within one unit of Party *R*'s ideal point.

Hence, to the extent that we believe that party ideal points are not symmetrically located around all district medians, we could easily imagine how the combined distribution of elected candidates could actually be more bipolar than Figure 4(c), and generally resemble the contemporary Congress. It is worthwhile to note that such distributions could easily be interpreted as being reflective of some sort of partisan influence, or pressure, in the legislature, despite the fact that parties are doing nothing after candidates have been elected to office. The partisan activity has happened at the electoral stage, where parties have successfully influenced the platforms of the candidates that are running. Upon establishing favorable electorally induced ideal points, parties are simply letting their members vote in ways consistent with their policy announcements. Thus, what is commonly viewed as evidence of partisanship in the legislature is simply a logical extension of party activity in the electoral arena.

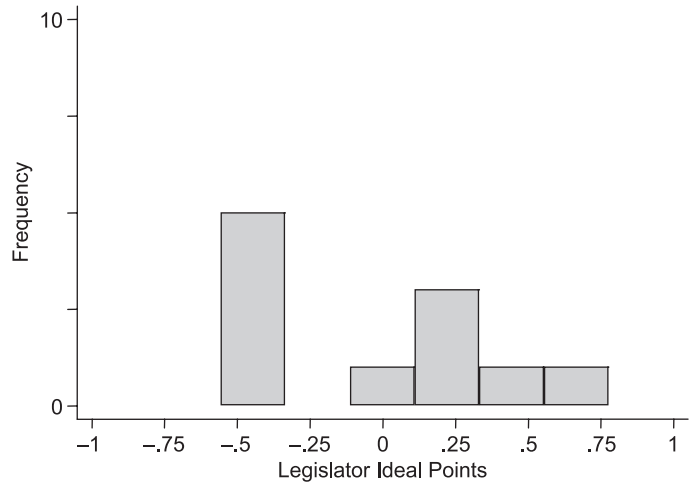

Figure 4(d). Ideologies of Party *L* Legislators with Support Provision with Left-leaning Median Voter

Finally, it is worth noting that some of the parameterizations in this thought experiment might seem unrealistic (e.g., $\beta_L = .1$ and $\beta_R = .9$ when the median voter is left-leaning). While these equilibria might generate somewhat unconventional implications, such as parties bankrolling candidates that look different from their natural constituencies, such results are not entirely without support in American electoral history. For example, in the 1998 southern congressional races, it was widely noted that in an effort to bring conservative voters into the fold, the Democrats began aggressively endorsing pro-family-values, tough-on-crime southern-Democratic candidates in what had recently been Republican strongholds (Victor, 1997). While pundits claimed such activities were a desperate attempt to take back the House by any means necessary, the results presented here offer an alternative explanation for such behavior. The Democratic Party might have recognized that in the absence of its involvement, Republicans would continue to be elected from those districts that were *extremely* right-wing. Hence it chose to commit resources to the election efforts of candidates, who, while not very representative of Democratic interests, were far better than those who would have been elected if the Democratic Party had sat out all together. While such an interpretation is admittedly unconventional, it is consistent with the theory developed here, and seems plausible given that Democrats elected out of these districts were not likely to be very friendly towards mainstream liberal Democratic interests.

Consider Representative Robert Riley (3rd, AL), for example. A conservative Republican who was notably targeted by the Democrats, Riley's voting record had earned him ADA scores of 0 and 5 in 1997 and 1998 respectively. Prior to Riley, the third district of Alabama was represented by Glen Bowder, who while a Democrat, was decidedly moderate, leaning towards conservative, with an ADA voting record of 45 and 40 in 1995 and 1996 respectively. It serves to reason then, that the district's electorate was not likely to elect an exceptionally, or even moderately, liberal Democrat anytime soon, but they could feasibly elect a more leftist candidate than Riley if presented with a viable option.[21] Furthermore, if a viable option emerged, it could effectively contain the rightward ideological extremity of a candidate elected from that district.

With respect to broader empirical investigations, recent work by Wiseman (2005) has found strong support for the analytical results of the support provision game in his study of Illinois General Assembly elections. Controlling for the ideology of a district's median voter, candidate positions were found to be responsive to a district's partisan predisposition, and party disbursements and the incidence of candidate competition occurred in a manner consistent with the implications of this theory.

Discussion

In assessing how partisan activities in the electorate might lead to partisan influence in the legislature this article has developed a theory that demonstrates how parties can exert influence over the electorally induced preferences of elected representatives through the provision of campaign support. By postulating that voters care about both policy stances and party campaign support, the equilibrium results of the support provision game pinpoint cases in which non-median platforms are winning strategies of candidates and parties. More broadly speaking, this study provides a theoretical foundation for how parties, by taking actions outside of the legislative arena, can plausibly influence legislative outputs.

While these theoretical results offer a reasonable explanation for how parties can affect the legislative agenda from outside of the legislature, and they readily comport to some unusual cases in American electoral politics (e.g., the 1998 Democratic Party campaign strategy), there are several theoretical and empirical directions worth exploring in future scholarship. From a theoretical standpoint further attention might be focused on the ways in

21. Despite their best efforts, the Democrats were not successful in unseating Riley in 1998, and Riley was reelected in 2000.

which the valence dimension analyzed in this model impacts voters' utilities. As it currently stands, my model blackboxes certain processes in treating party support as a valuable fiat, in and of itself. By building on this framework, perhaps by incorporating imperfect information with respect to the value of party support, further extensions of this work will be able to provide a more well-defined picture about the conditions under which party support is valuable to voters (and hence, disbursed by parties). Another possible extension is to consider simultaneous party resource allocation over several districts. The current model only analyzes competition in one district. Hence, to project comparative statics predictions onto many districts an auxiliary assumption must implicitly be made that while parties might be subject to local budget constraints (β_k), they are not subject to global budget constraints that would prevent them from spending up to β_k in a given race. Such an assumption is likely not realistic, and it would be worthwhile to explore the implications of a model wherein parties choose policy locations and support levels across several heterogeneous districts, subject to a global budget constraint.

From an empirical standpoint, if one accepts the assumption that party budgets within districts are proportional to the partisan predisposition of voters in a district, then the theoretical findings presented here yield several testable hypotheses with respect to Democrat (Republican) legislators. First, we should expect that the more politically lopsided a district is towards Democrats (Republicans) the more liberal (conservative) a candidate it will elect; and this relationship should hold even when one controls for the location of the district's median voter. Second, this theory predicts, *ceteris paribus*, that the more politically lopsided a district is, the less support a party will offer their candidate during an election, and this relationship should presumably hold even when controlling for campaign war chests and other conventional determinants of campaign expenditures. Third, we should expect to see uncontested elections occurring more often in politically lopsided districts, as would follow from incumbent parties playing either appeasement or preemption strategies, which should be independent of other conventional determinants of election competitiveness such as campaign war chests and seniority. And finally (and consistent with conventional wisdom, yet for non-obvious reasons), we would expect that centrist candidates should receive more campaign support than ideological extremists.

At the most fundamental level, this model provides a theoretical rationale for what is commonly construed as partisanship in the legislature. The novelty of the theory, however, is to argue how an appearance of party strength is really just that: an appearance. True party influence, if it exists, is being exhibited at the electoral level. Further empirical investigation will only serve to increase our understanding of the interactions between parties, candidates, and voters in legislative elections and legislative politics.

REFERENCES

Aldrich, John H. (1995) *Why Parties? The Origin and Transformation of Party Politics in America*. Chicago: University of Chicago Press.

Aldrich, John H. and David Rohde (2000) 'The Consequences of Party Organization in the House: The Role of the Majority and Minority Parties in Conditional Party Government', in J. R. Bond and R. Fleisher (eds) *Polarized Politics*. Washington, DC: CQ Press.

Aldrich, John H. and David Rohde (2003) *Balance of Power: Conditional Party Government in the U.S. House, 1948–2002*. Typescript, Duke University.

Ansolabehere, Stephen D. and James M. Snyder, Jr. (2000) 'Valence Politics and Equilibrium in Spatial Election Models', *Public Choice* 103: 327–36.

Ansolabehere, Stephen D., James M. Snyder, Jr. and Charles Stewart III (2001) 'Candidate Positioning in U.S. House Elections', *American Journal of Political Science* 45(1): 136–59.

Aragones, Enriqueta and Thomas R. Palfrey (2002) 'Mixed Equilibrium in a Downsian Model with a Favored Candidate', *Journal of Economic Theory* 103(1): 131–61.

Austen-Smith, David (1984) 'Two-party competition with many constituencies', *Mathematical Social Sciences* 7: 177–98.

Besley, Timothy and Stephen Coate (1997) 'An Economic Model of Representative Democracy', *Quarterly Journal of Economics* 112(1): 85–114.

Black, Duncan (1958) *The Theory of Committees and Elections*. London: Cambridge University Press.

Brady, David W. and Craig Volden (1998) *Revolving Gridlock: Politics and Policy from Carter to Clinton*. New York: Westview Press.

Cadigan, John and Eckhard Janeba (2002) 'A Citizen–Candidate Model with Sequential Elections', *Journal of Theoretical Politics* 14(4): 387–407.

Calvert, Randall L. (1985) 'Robustness of the Multidimensional Voting Model: Candidates' Motivations, Uncertainty, and Convergence', *American Journal of Political Science* 29: 69–95.

Campbell, Angus, P. E. Converse, W. E. Miller and D. E. Stokes (1960) *The American Voter*. New York: John Wiley & Sons.

Canes-Wrone, Brandice, David W. Brady and John F. Cogan (2002) 'Out of Step, out of Office: Electoral Accountability and House Members' Voting', *American Political Science Review* 96(1): 141–58.

Cialdini, Robert B. (1993) *Influence: Science and Practice* (3rd edn). New York: HarperCollins.

Cox, Gary W. and Mathew D. McCubbins (1993) *Legislative Leviathan: Party Government in the House*. Berkeley, CA: University of California Press.

Cox, Gary W. and Mathew D. McCubbins (2002) 'Agenda Power in the U.S. House of Representatives, 1877–1986', in David W. Brady and Mathew D. McCubbins (eds) *Party, Process, and Political Change in Congress*, pp. 107–45. Stanford, CA: Stanford University Press.

Davis, Otto, Morris H. DeGroot and Melvin Hinich (1972) 'Social Preference Orderings and Majority Rule', *Econometrica* 40: 147–57.

Downs, Anthony (1957) *An Economic Theory of Democracy*. New York: Harper and Row.

Enelow, James M. and Melvin J. Hinich (1984) *The Spatial Theory of Voting: An Introduction*. New York: Cambridge University Press.

Fiorina, Morris P. (1974) *Representatives, Roll Calls, and Constituencies*. Lexington, MA: Lexington.

Fiorina, Morris P. (1999) 'Whatever Happened to the Median Voter?' Paper presented at the MIT Conference on Parties and Congress. Cambridge, MA.

Fiorina, Morris P., Samuel J. Abrams and Jeremy C. Pope (2004) *Culture War? The Myth of a Polarized America*. New York: Pearson Longman.

Groseclose, Tim (2001) 'A Model of Candidate Location When One Candidate Has a Valence Advantage', *American Journal of Political Science* 45(4): 862–86.

Groseclose, Tim and James M. Snyder, Jr. (1996) 'Buying Supermajorities', *American Political Science Review* 90(2): 303–15.
Herrnson, Paul S. (1988) *Party Campaigning in the 1980s*. Cambridge, MA: Harvard University Press.
Herrnson, Paul S. (2004) *Congressional Elections: Campaigning at Home and in Washington* (4th edn). Washington, DC: CQ Press.
Hotelling, Harold (1929) 'Stability in Competition', *The Economic Journal* 49: 41–57.
Jacobson, Gary C. (2001) *The Politics of Congressional Elections* (5th edn). New York: Longman.
Krehbiel, Keith (1996) 'Institutional and Partisan Sources of Gridlock: A Theory of Divided and Unified Government', *Journal of Theoretical Politics* 8(1): 7–40.
Krehbiel, Keith (forthcoming) 'Pivots', in Barry R. Weingast and Donald Wittman (eds) *Handbook of Political Economy*. New York: Oxford University Press.
Krehbiel, Keith, Adam Meirowitz and Jonathan Woon (2005) 'Testing Theories of Lawmaking', in David Austen-Smith and John Duggan (eds) *Social Choices and Strategic Decision: Essays in Honor of Jeffrey S. Banks*. New York: Springer.
Londregan, John and Thomas Romer (1993) 'Polarization, Incumbency, and the Personal Vote', in William Barnett, Melvin Hinich and Norman Schofield (eds) *Political Economy: Institutions, Competition, and Representation*, pp. 355–77. New York: Cambridge University Press.
Miller, Warren E. and Donald E. Stokes (1963) 'Constituency influence in Congress', *American Political Science Review* 57: 45–57.
Osbourne, Martin J. (1995) 'Spatial Models of Political Competition under Plurality Rule: A Survey of Some Explanations of the Number of Candidates and the Positions They Take', *Canadian Journal of Economics* 28 (May): 261–301.
Osborne, Martin J. and Al Slivinski (1996) 'A Model of Political Competition with Citizen-Candidates', *Quarterly Journal of Economics* 111(1): 65–96.
Plott, Charles R. (1967) 'A Notion of Equilibrium and Its Possibility under Majority Rule', *American Economic Review* 57 (September): 787–806.
Potters, Jan, Randolf Sloof and Frans van Winden (1997) 'Campaign Expenditures, Contributions and Direct Endorsements: The Strategic Use of Information and Money to Influence Voter Behavior', *European Journal of Political Economy* 13: 1–31.
Rohde, David W. (1991) *Parties and Leaders in the Postreform House*. Chicago: University of Chicago Press.
Shapiro, Catherine R., David W. Brady, Richard A. Brody and John A. Ferejohn (1990) 'Linking Constituency Opinion and Senate Voting Scores: A Hybrid Explanation', *Legislative Studies Quarterly* 40 (November): 599–621.
Snyder, J. M. (1991) 'On Buying Legislatures', *Economics and Politics* 3(2): 93–109.
Snyder, J. M. (1994) 'Safe Seats, Marginal Seats, and Party Platforms: The Logic of Platform Differentiation', *Economics and Politics* 6: 201–13.
Snyder, J. M. and Michael M. Ting (2002) 'An Informational Rationale for Political Parties', *American Journal of Political Science* 46(1): 90–110.
Sullivan, John L. and Daniel Richard Minns (1976) 'Ideological Distance Between Candidates: An Empirical Examination', *American Journal of Political Science* 20: 449–68.
Valentine, David C. and John R. Van Wingen (1980) 'Partisanship, Independence, and the Partisan Identification Question', *American Politics Quarterly* 8(2): 165–86.
Victor, Kirk (1997) 'Duking It out in Dixie', *The National Journal* 13 December.
Weisberg, Herbert F. (1980) 'A Multidimensional Conceptualization of Party Identification', *Political Behavior* 2(1): 33–60.
Wiseman, Alan E. (2005) 'Partisan Support and Entry Deterrence in State Legislative Elections: The Case of Illinois', *American Politics Research* 33(3): 376–403.

Wiseman, Alan E. and John R. Wright (2005) 'The Legislative Median and Partisan Policy'. Unpublished Manuscript, The Ohio State University.
Wittman, Donald (1983) 'Candidate Motivation: A Synthesis of Alternative Theories', *American Political Science Review* 77: 142–57.

Appendix

Analytic Proofs of Equilibrium Platforms

Proof of Lemma 1. Proving Lemma 1 is trivial. Note that in devising the optimal pre-emption platform, Party L chooses C_L, ε_L such that:

$$-C_L^2 + \varepsilon_L \geq \beta_R$$

$$\Rightarrow -C_L^2 \geq \beta_R - \varepsilon_L$$

Suppose that $\beta_L < \beta_R$, then $\forall\ \varepsilon_L \in [0, \beta_L]$, $\beta_R - \varepsilon_R \geq 0$, which implies that the above inequality cannot be satisfied, and Party L cannot engage in the preemption strategy when $\beta_L < \beta_R$.

Proof of Proposition 1. To Prove Proposition 1, note that the constrained optimization problem in (11) can be represented by the following Lagrangian function:

$$\mathcal{L} = -(p_L - C_L)^2 - \varepsilon_L + \lambda(-C_L^2 + \varepsilon_L - \beta_R) + \gamma(\beta_L - \varepsilon_L) \tag{16}$$

where λ and γ are non-negative multipliers corresponding to constraints (1) and (2), respectively, in (11). Taking the first order conditions of (16) with respect to $C_L, \varepsilon_L, \gamma$, and λ, and solving for $C_L^*, \varepsilon_L^*, \gamma^*$ and λ^* yields the following optimal preemption platforms, P_L^p, for Party L:

$$(P_L^p, \gamma, \lambda) = \begin{cases} \left(\left(\frac{p_L}{2}, \frac{p_L^2}{4} + \beta_R\right), 0, 1\right) & \text{if } \beta_L \geq \frac{p_L^2}{4} + \beta_R \\ ((-\sqrt{\beta_L - \beta_R}, \beta_L), > 0, \in [0, 1)) & \text{if } \beta_L < \frac{p_L^2}{4} + \beta_R. \end{cases}$$

For part (a), note that when $\beta_L \geq (p_L^2/4) + \beta_R, (\partial C_L^p/\partial p_L) = \frac{1}{2} > 0$. Hence as p_L increases, C_L^p becomes more rightist (i.e., moves closer to the median voter's ideal point). Conversely, for when $\beta_L < (p_L^2/4) + \beta_R, (\partial C_L^p/\partial p_L) = 0$. Therefore, controlling for β_L and β_R, C_L^p is increasing (weakly) in p_L.

For part (b), note that when $\beta_L \geq \beta_R + (p_L^2/4)$, $C_L^p = (p_L/2)$, whereas when $\beta_L < \beta_R + (p_L^2/4)$, $C_L^p = -\sqrt{\beta_L - \beta_R}$. Because $(p_L/2) < -\sqrt{\beta_L - \beta_R}$ when $\beta_L < \beta_R + (p_L^2/4)$, it is obvious that the location of Candidate L becomes more rightist as the difference between the parties' budgets becomes less than $(p_L^2/4)$. For the cases where $\beta_L < \beta_R + (p_L^2/4)$, let $\alpha = (\beta_L - \beta_R)$. It is obvious that $(\partial C_L^p/\partial\alpha) = (-1/2\sqrt{\alpha}) < 0$. Hence, as α increases (or accordingly, as either β_L increases, or β_R decreases), the location of Candidate L becomes more leftist.

Finally, for part (c), note that when $\beta_L \geq (p_L^2/4) + \beta_R$, $\varepsilon_L^p = (p_L^2/4) + \beta_R$. Hence $(\partial\varepsilon_L^p/\partial\beta_R) = 1 > 0$. As β_R increases so that $\beta_L < (p_L^2/4) + \beta_R, \varepsilon_L^p = \beta_L$, implying

$(\partial \varepsilon_L^p / \partial \beta_R) = 0$. Combining these two cases, one sees that holding β_L constant, ε_L is increasing (weakly) in β_R, $\forall\ \beta_R \in [0, \beta_L]$.

Proof of Lemma 2. This constrained optimization problem in (12) can be represented by the following Lagrangian function:

$$\mathcal{L} = -(p_R - C_R)^2 - \varepsilon_R + \lambda_R(-C_R^2 + \varepsilon_R + C_L^2 - \varepsilon_R) + \gamma_R(\beta_R - \varepsilon_R) \tag{17}$$

where λ_R and γ_R are non-negative multipliers corresponding to constraints (1) and (2) respectively in (12). Similar to above, taking the first order conditions of (17) with respect to C_L, ε_L, γ_R, and λ_R, and solving for C_L^*, ε_L^*, γ_R^* and λ_R^* yields the following equilibrium platforms P_R^* for party R:

$$(P_R^*, \gamma_R, \lambda_R) = \begin{cases} \left(\left(\frac{p_R}{2}, \frac{p_R^2}{4} + \varepsilon_L - C_L^2\right), 0, 1\right) & \text{if } \beta_R \geq \frac{p_R^2}{4} + \varepsilon_L - C_L^2 \\ ((\sqrt{C_L^2 + \beta_R - \varepsilon_L}, \beta_R), > 0, > 0) & \text{if } \beta_R < \frac{p_R^2}{4} + \varepsilon_L - C_L^2 \\ ((\sqrt{C_L^2 - \varepsilon_L}, 0), 0, \in (0, 1)) & \text{if } \frac{p_R^2}{4} \leq C_L^2 - \varepsilon_L \leq p_R^2 \\ ((p_R, 0), 0, 0) & \text{if } C_L^2 - \varepsilon_L > p_R^2 \end{cases}$$

Proof of Lemma 2 is trivial. It is sufficient to show that for any $C_L \neq 0$, Party L cannot do any better with respect to ex post utility. So, suppose that Party L chooses $C_L = 0$. For any ε_L, if $\beta_R \geq \varepsilon_L + (p_R^2/4)$ then $C_w = (p_R/2)$, otherwise $C_w = \sqrt{\beta_R - \varepsilon_L}$. Hence, Party L's utility would be $(-p_L^2 + p_L p_R - (p_R^2/4) - \varepsilon_L)$ and $(-p_L^2 + 2p_L\sqrt{\beta_R - \varepsilon_L} - \beta_R)$ respectively. Now, suppose that Party L chooses some $\hat{C}_L \neq 0$, in this case if $\beta_R \geq -\hat{C}_L{}^2 + \varepsilon_L + (p_R^2/4)$ then $C_w = (p_R/2)$, otherwise $C_w = \sqrt{\hat{C}_L^2 + \beta_R - \varepsilon_L}$, leading to utilities $(-p_L^2 + p_L p_R - (p_R^2/4) - \varepsilon_L)$ and $(-p_L^2 + 2p_L\sqrt{\hat{C}_L^2 + \beta_R - \varepsilon_L - \hat{C}_L{}^2} - \beta_R)$ respectively. Because $\hat{C}_L{}^2 > 0$ and $p_L < 0$ (by assumption), it must be true that for all $\hat{C}_L \neq 0$, Party L's *ex post* utility is (weakly) less than what it would receive from having its candidate locate at $C_L = 0$.

Proof of Proposition 2. To prove Proposition 2, note that the above platform corresponds to:

$$C_R = C_w = \begin{cases} 0 & \text{if } \beta_L \geq \beta_R \\ \sqrt{\beta_R - \beta_L} & \text{if } \beta_R > \beta_L > \beta_R + \frac{p_R^2}{4} \\ \frac{p_R}{2} & \text{if } \beta_R + \frac{p_R^2}{4} \geq \beta_L. \end{cases}$$

It is obvious that $(\partial C_w / \partial \beta_R) = 0$ when $\beta_L \geq \beta_R$ or $\beta_R + (p_R^2/4) \geq \beta_L$. Furthermore, $(\partial C_w / \partial \beta_R) = (1/2\sqrt{\beta_R - \beta_L}) > 0$. Hence, C_w is (weakly) increasing in β_R.

Analysis of Proposition 3. To establish Proposition 3, note that the because constraint (1) in expression (14) binds in equilibrium, with some substitution, the Lagrangian function corresponding to (14) is:

$$\mathcal{L} = -(p_L - C_L)^2 - \frac{p_R^2}{2} - 2C_L^2 + 2p_R C_L + \lambda_A\left(\beta_R - \frac{3p_R^2}{4} - C_L^2 + 2p_R C_L\right) + \gamma_A\left(\beta_L - \frac{p_R^2}{2} - 2C_L^2 + 2p_R C_L\right), \quad (18)$$

where λ_A and γ_A are non-negative multipliers on constraints (2) and (3), respectively, in (14). The solutions to the above Lagrangian correspond to the following optimal appeasement platforms, P_L^{aA}, for Party L for the case that constraint (2) in expression (14) is satisfied:

$$(P_L^{aA}, \gamma_A, \lambda_A) = \begin{cases} \left(\left(\frac{p_L + p_R}{3}, \frac{2p_L^2}{9} - \frac{2p_L p_R}{9} + \frac{p_R^2}{18}\right), > 0, > 0\right) & \text{if } \beta_L \geq \frac{2p_L^2}{9} - \frac{2p_L p_R}{9} + \frac{p_R^2}{18}, \\ & \text{and } \beta_R \geq \frac{p_L^2}{9} - \frac{4p_L p_R}{9} + \frac{7p_R^2}{36} \\ \left(\left(\frac{p_R - \sqrt{2\beta_L}}{2}, \beta_L\right), > 0, 0\right) & \text{if } \beta_L < \frac{2p_L^2}{9} - \frac{2p_L p_R}{9} + \frac{p_R^2}{18}, \\ & \text{and } \beta_R \geq \frac{p_R\sqrt{2\beta_L} + \beta_L}{2} \\ \left(\left(\frac{2p_R - \sqrt{p_R^2 + 4\beta_R}}{2}, \varepsilon_L^{aA}\right), 0, > 0\right) & \text{if } \beta_L \geq \varepsilon_L^{aA} \\ & \text{and } \beta_R < \frac{p_L^2}{9} - \frac{4p_L p_R}{9} + \frac{7p_R^2}{36} \end{cases}$$

where $\varepsilon_L^{aA} = p_R^2 - p_R\sqrt{p_R^2 + 4\beta_R} + 2\beta_R$.

Similarly, because constraint (1) in expression (15) is binding in equilibrium, the optimal position is $C_L^* = [p_R^2(\beta_R - \varepsilon_L) - (\frac{1}{2}\varepsilon_L - \beta_R)^2/p_R(2\beta_R - \varepsilon_L)]$. Hence, this constrained optimization problem can be expressed as the following Lagrangian function:

$$\mathcal{L} = -\left(p_L - \left(\frac{p_R^2(\beta_R - \varepsilon_L) - (\frac{1}{2}\varepsilon_L - \beta_R)^2}{p_R(2\beta_R - \varepsilon_L)}\right)\right)^2 - \varepsilon_L + \lambda_B\left(\frac{p_R^2}{4} - \left(\frac{p_R^2(\beta_R - \varepsilon_L) - (\frac{1}{2}\varepsilon_L - \beta_R)^2}{p_R(2\beta_R - \varepsilon_L)}\right)^2 + \varepsilon_L - \beta_R\right) + \gamma_B(\beta_L - \varepsilon_L), \quad (19)$$

where λ_B and γ_B are non-negative multipliers on constraints (2) and (3) in (15). Likewise, the solutions to (19) correspond to the following optimal appeasement platforms: P_L^{aB} for Party L for the case that constraint (2) in expression (15) is satisfied:

$$(P_L^{aB}, \gamma_B, \lambda_B) = \begin{cases} \left(\left(\frac{p_R^2(\beta_R - \varepsilon_L^*) - (\frac{1}{2}\varepsilon_L^* - \beta_R)^2}{p_R(2\beta_R - \varepsilon_L^*)}, \varepsilon_L^*\right), > 0, 0\right) & \text{if } \beta_L > \varepsilon_L^* \\ \left(\left(\frac{p_R^2(\beta_R - \beta_L) - (\frac{1}{2}\beta_L - \beta_R)^2}{p_R(2\beta_R - \beta_L)}, \beta_L\right), 0, 0\right) & \text{if } \beta_L = \varepsilon_L^* \end{cases}$$

where $\varepsilon_L^* = \varepsilon_L^*(p_R, p_L, \beta_R)$, the argument that maximizes (19).

Proof of Results 1–3. To prove Result 1, note that when P_L^{aA} is the platform chosen, then: $(\partial C_L/\partial p_L) = \frac{1}{3} > 0$ and $(\partial C_L/\partial p_R) = \frac{1}{3} > 0$ for the case where $\beta_L \geq (2p_L^2/9) - (2p_L p_R/9) + (p_R^2/18)$ and $\beta_R \geq (p_L^2/9) - (4p_L p_R/9) + (7p_R^2/36)$. Hence as the median moves towards Party L (Party R), C_L becomes more (less) conservative. Likewise, for the remaining two cases in P_L^{a1}, $(\partial C_L/\partial p_R) = \frac{1}{2} > 0$ and $(\partial C_L/\partial p_R) = 1 - (p_R/\sqrt{p_R^2 + 4\beta_R}) > 0$. Hence as the median voter moves towards Party R, C_L becomes less conservative. For the case where P_L^{aB} is the appropriate platform, numerical computation reveals that these relationships hold as well.

To Prove Result 2, note that when P_L^{qA} is the appeasement platform implemented, $(\partial C_L/\partial \beta_L) = 0$ and $(\partial C_L/\partial \beta_R) = 0$ for the case where $\beta_L \geq (2p_L^2/9) - (2p_L p_R/9) + (p_R^2/18)$ and $\beta_R \geq (p_L^2/9) - (4p_L p_R/9) + (7p_R^2/36)$. For the case where $\beta_L < (2p_L^2/9) - (2p_L p_R/9) + (p_R^2/18)$ and $\beta_R \geq (p_R\sqrt{2\beta_L} + \beta_L/2)$ however, $(\partial C_L/\partial \beta_L) = -(1/2\sqrt{\beta_L}) < 0$, meaning that ceteris paribus, as β_L increases, C_L becomes more negative. But for the case where $\beta_L \geq p_R^2 - p_R\sqrt{p_R^2 + 4\beta_R} + 2\beta_R$ and $\beta_R < (p_L^2/9) - (4p_L p_R/9) + (7p_R^2/36)$, $\partial C_L \partial \beta_R = (1/\sqrt{p_R^2 + 4\beta_R}) < 0$, meaning as β_R increases, C_L becomes more negative. Taking these two conditions together, it is obvious that as $(\beta_L - \beta_R)$ increases, C_L can become more negative, or more positive, depending on which region of the parameter space Party L finds itself in. Numerical computation (according to the procedure described in the next section) reveals that C_L is decreasing in the difference in Party L and R's budgets for the case where P_L^{aB} is the appeasement platform implemented. To prove Result 3, note that when P_L^{aA} is the appeasement platform implemented, $(\partial \varepsilon_L/\partial \beta_L) = 0$ and $(\partial \varepsilon_L/\partial \beta_R) = 0$ for the case where $\beta_L \geq (2p_L^2/9) - (2p_L p_R/9) + (p_R^2/18)$ and $\beta_R \geq (p_L^2/9) - (4p_L p_R/9) + (7p_R^2/36)$. For the case where $\beta_L < (2p_L^2/9) - (2p_L p_R/9) + (p_R^2/18)$ and $\beta_R \geq (p_R\sqrt{2\beta_L} + \beta_L/2)$ however, $(\partial \varepsilon_L/\partial \beta_L) = 1 > 0$, meaning that holding β_R constant, as β_L increases, Party L pays out more in endorsements. But for the case where $\beta_L \geq p_R^2 - p_R\sqrt{p_R^2 + 4\beta_R} + 2\beta_R$ and $\beta_R < (p_L^2/9) - (4p_L p_R/9) + (7p_R^2/36)$, $(\partial \varepsilon_L/\partial \beta_R) = (-2p_R/\sqrt{p_R^2 + 4\beta_R}) + 2 > 0$, meaning that holding β_L constant, as β_R increases, Party L pays out more endorsements. Combining these cases, it is obvious that as $(\beta_L - \beta_R)$ increases, ε_L can increase or decrease, depending on which region of the parameter space Party L finds itself in. Numerical computation (according to the procedure described in the next section) reveals that ε_L is increasing in the difference in Party L and R's budgets for the case where P_L^{aB} is the appeasement platform implemented.

Discussion of the Numerical Computation Procedure

Comparative statics about the equilibrium properties of the appeasement platforms and support provision game, more broadly, were derived through numerical computation in MATLAB. More specifically, a data matrix of dimension (4×10000) was generated where the columns consisted of values for $(p_L, p_R, \beta_L, \beta_R)$. Given this exogenous data, a program was written that derived and evaluated the equilibrium platforms under the containment, preemption, and appeasement strategies for each row vector $V_i = (p_L^i, p_R^i, \beta_L^i, \beta_R^i)$, $(i \in \{1, 2, \cdots, 10000\})$.

This process created a data matrix that consisted of the equilibrium candidate locations and support levels for each of the three strategies, as well as each party's utility

from choosing each of these strategies, given V_i. Using this data, the program then considered each of equilibrium platforms following from containment, preemption, and appeasement strategies being employed for a given set of parameters and selected the equilibrium locations and support levels of the support provision game (which were defined as those that maximized the utilities of each Party, L and R). Having created a data matrix of equilibrium candidate locations and endorsements, comparative statics were derived through ordinary least squares and probit analysis, where the exogenous variables (p_L, p_R, β_L, β_R), were regressed, through various methods, onto the equilibrium candidate locations and support. The relationships discussed in Proposition 3 and Results (1–4) are robust to a wide range of parameter specifications.

ALAN E. WISEMAN is an assistant professor in political science at the Ohio State University. His research focuses on American political institutions and positive political economy with an emphasis on legislative and electoral politics, regulation and bureaucratic policymaking. ADDRESS: Department of Political Science, The Ohio State University, 2140 Derby Hall, 154 N. Oval Mall, Columbus, OH 43210-1373, USA [email: wiseman.69@osu.ed].