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Anticipation of General Election Outcomes
And Primary Election Divisiveness

This article offers the first theory to explain the relationship between primary election divisiveness and general election outcomes that is grounded in candidates' own behavior. Conventional wisdom holds that divisive primaries cause candidates to do poorly in general elections. I show that primary divisiveness does not cause this or any other pattern of general election results. Rather, expectations about general election results cause primaries to be divisive. Non-incumbents enter races they think they can win, and they think they can win where the incumbent is vulnerable. More candidates enter those races than others, splitting the vote among them. This stampede creates divisive primaries in which incumbents are most likely to do poorly, and challengers well, in the general elections. As a result, divisiveness is associated with (but does not cause) better general election performances among challengers and worse performances among incumbents. In this manner, primary divisiveness is an unintended consequence of behavior directed towards the goal of winning the general election. I tested these propositions using data from major-party House primaries between 1976 and 1998 and found that (a) candidate expectations of victory determine when and where divisive primary elections occur, (b) those expectations drive the correlation between primary divisiveness and general election results, and (c) primary divisiveness correlates with incumbents doing poorly, and challengers well, in general elections.

Common wisdom holds that divisive primary elections hurt the candidates who emerge from these elections by preventing them from running at full strength in the general election. There are numerous possible reasons for this common wisdom. For example, voters loyal to a primary loser might find it difficult to break psychological attachments with their favorite, but now-defunct, candidate (Kenny and Rice 1987; Sullivan 1977–78) or to form attachments with the party nominee (Southwell 1986). Those who worked for a primary loser's campaign might not work (or work as hard) for the party nominee during the general election (Comer 1976; Johnson and Gibson 1974; Stone 1986). Finally, the losing candidate in a divisive primary might inadvertently give a general election opponent ammunition against the primary winner (cf. Alvarez, Canon, and Sellers 1995).

The plausibility of these causal mechanisms notwithstanding, studies investigating whether or not divisive primaries actually harm the general election fortunes of party nominees have produced decidedly inconclusive results. Some studies have found that divisive primaries hurt candidates in the general election (Abramowitz 1988; Bernstein 1977; Segura and Nicholson 1995); others have found a mixed relationship (Born 1981; Hogan 2003; Kenney and Rice 1984) or none at all (Hacker 1965; Kenney 1988; Piereson and Smith 1975). Recent scholarship has even begun to turn the common wisdom on its head, finding that divisive primaries actually *help* U.S. House challengers (Alvarez, Canon, and Sellers 1995; Arbour and McKenzie 2002; Herrnson 2000).

The lack of consensus in such a long-established literature cries out for an explanation. I offer one here, arguing that the mixed results are rooted in a failure to take into account why divisive primaries occur in the first place, along with an inappropriate grouping of challengers and incumbents in the same analyses. I argue that divisive primaries arise when more than one "serious" candidate of a given party thinks his or her chances of winning the seat warrant entering the race.[1] Because serious candidates of the challenger's party are more likely to run when they forecast good general election outcomes, divisive primaries correlate with *better* general election performance for challengers, despite the putatively negative effects of "divisiveness." Further, better general election performances for challengers often result from vulnerability in the incumbent, so divisive primaries also correlate with *poorer* general election performance for incumbents who survive their primary contests (as most do).

Thus, the relationship between primary divisiveness and general election performance differs substantially from the relationship posited by common wisdom, in two ways. First, divisiveness does not cause poorer general election performance. Instead, candidates' expectations of their general election prospects cause them to enter, thus producing divisive primaries. Second, the direction of the correlation is not always that predicted by the conventional wisdom. Rather, divisive primaries correlate with worse general election performance for incumbents but better performances for challengers. In other words, divisive primaries are an unintended consequence of behavior directed toward the goal of winning a general election.

The rational perspective I have just sketched explains the mixed and contradictory results of prior studies. Some of these studies test the divisive primaries thesis using the performance of incumbents, others use challengers, and still others use both. Since the relationship between

primary and general election results differs among the different groups, different datasets are bound to yield different results. *Indeed, previous findings in this literature correlate perfectly with the nature of researchers' datasets.* All studies that find that divisiveness hurts candidates focus on incumbents in their empirical analyses (Abramowitz 1988; Bernstein 1977; Segura and Nicholson 1995) without searching for the corresponding relationship among challengers. All studies that find that divisiveness helps candidates focus exclusively on challengers (Arbour and McKenzie 2002; Herrnson 2000). All studies that find no relationship (Hacker 1965; Kenney 1988; Piereson and Smith 1975) or a mixed one (Hogan 2003; Kenney and Rice 1984) use both incumbents and challengers. Finally, all studies that examine challengers and incumbents independently of one another (Alvarez, Canon, and Sellers 1995; Born 1981) find that divisiveness "hurts" incumbents but "helps" challengers.

The two counts on which I break from the existing literature have been considered in only one previous study. Born (1981) controls for the effects of candidates' strategic behavior on primary divisiveness using two-stage least squares (2SLS), and he divides observations between incumbents and challengers. His findings are similar to mine, but unfortunately his contributions seem to have gone unnoticed. Nine studies of the divisive primary effect in subpresidential elections have been published since Born's; none have incorporated his methodology.[2]

This article is an attempt to bring the discussion of divisive primaries back to Born's issues, and it offers three distinct advances. First, I make a stronger claim about causality than Born does. Born argues that a researcher must control for candidates' expectations about the general election when determining the effect of divisive primaries on general election outcomes. I argue that these expectations *are* the causal aspect of the relationship and that a proper control for them washes out any independent effect that primary divisiveness has on general election results. Second, I provide a theoretical explanation for the differing results for challengers and incumbents that is missing from Born's analysis. Although his study introduces methodological controls for reciprocal causality, it neither discusses the causal mechanisms for the "new" direction of causality nor offers falsifiable hypotheses by which to test it. The theory provided in this article does both, and it also accounts for the contradictory results obtained by the dozen or so studies of divisive primaries over the last 40 years. Third, I use an updated dataset and obtain statistically significant results. Born's data are complete only through 1976 and his findings do not reach the level of statistical significance at $p < .05$ (1981, 656–57). In contrast, I use data

on House elections between 1976 and 1998 and find a significant relationship between primary and general election results. In addition to these advances in the divisive primary literature, this article also extends the scope of the rational model of candidate entry, using it to explain why divisive primaries occur and, hence, how they correlate with general election performance.

The article proceeds as follows. In Section I, I consider one measure of candidate perceptions of the "winability" of a seat: the number of candidates contesting the election. Using a simple game-theoretic model, I argue that the number of candidates is a sufficient proxy for candidate perceptions. In Section II, I present tests of hypotheses derived from that game-theoretic model to demonstrate the connection between the candidates' perceptions and the number of candidates. In Section III, I discuss how I replicated past estimations of the divisive primary effect, this time controlling for candidate perceptions. My results indicate that candidate perceptions drive the relationship between primary divisiveness and general election results. In Section IV, I conclude by discussing the empirical results and placing this study in the context of the larger divisive primary literature.

I. Divisive Primaries and Rational Politicians

There is a correlation between primary election divisiveness and general election fortunes, but the correlation is driven by a confounding variable, *incumbent vulnerability*. On one hand, as an incumbent becomes more vulnerable, more candidates think they can beat the incumbent and more of them enter the race. This flooding causes primary elections to become more divisive: the primary election vote is split into smaller and smaller slices, and both the margin of victory and the winner's vote share go down. On the other hand, as incumbents become more vulnerable, they tend to do worse in the general election (because they win primaries despite their vulnerability, a fact I discuss in Section III). As a result of these twin relationships, primary divisiveness corre-lates positively with general election results among challengers, but negatively among incumbents.

Any proper estimation of the relationship between primary divisiveness and general election results must take into account candi-dates' perceptions of incumbent vulnerability; estimations that fail to do so measure not a causal relationship but a spurious correlation. Prior tests of the divisive primary thesis, including Born's, measure divisive-ness with some function of the primary's vote outcome, although the specific function varies from study to study. These measures reflect

how close the primary election was, but they do not take into account candidates' perceptions. Although I also lack a variable that directly measures how candidates think about their own chances of winning, I take advantage of two variables that give indirect indications: the amount of money spent by losing candidates in the primary election (introduced in Section III), and the number of candidates who enter either party's primary. In this section and the next, I demonstrate that entry is an appropriate empirical proxy for candidate perceptions by showing that candidates enter races guided by their perceptions of whether or not they can win. My demonstration begins by exploring why candidates enter races in such a pattern as to create divisive primaries.

Divisive primaries are a regular occurrence in American elections,[3] even though they seem to be in neither parties' nor candidates' best interests. Party leaders want their party to obtain offices, so they should prefer to spend their scarce resources on contests that garner seats for the party (general elections), rather than those that have only indirect influence on the race's ultimate outcome (primary elections). Furthermore, to the extent that young politicians with promise are them-selves a scarce resource for the party, leaders should prefer to avoid pitting them against one another in a primary and putting a loss on one of their political resumes. Meanwhile, candidates typically run for the purpose of winning office and prefer to run under conditions that give them the greatest chance of doing so.[4] Thus, they prefer to avoid run-ning in difficult primary elections in favor of running against weak—or no—opposition.

It seems a paradox, then, that divisive primaries occur at all. The reason they do is that the important actors often cannot work together to avoid them. Within some limits, politicians decide for themselves which elections to contest (see, for example, Jacobson and Kernell 1981), leaving party leaders out of the equation altogether. Candidates' entry decisions are made atomistically, besetting the decision-making process with coordination problems. All candidates want to run in the most attractive races, but if they all run in the same race, they interfere with each others' chances of winning. Further, other races that offer a lower, but still positive, probability of victory remain undercontested. As a result, to ask what causes a divisive primary is to ask why coor-dination fails between politicians from the same party who run for the same office.

To address this question, I turn to a simple game-theoretic model of politicians' entry decisions. In the "Primary Election Entry Game" (specified more completely in the appendix), two players, Player 1 and Player 2, simultaneously make a single binary choice: to *Enter* a primary

election, or *Don't Enter* the race. I treat the outcome of the primary as a lottery. The prize for the winner is entry into the General Election, another lottery. There are two nonstrategic players, Dummy and Other Party. Both Player 1 and Player 2 are strong candidates, and they are the only strong candidates available to run for this particular office. Both potential candidates are strategic, and each will enter the race only if the expected utility of doing so is positive. If both candidates enter, then they will run against each other in a primary election. If only one candidate runs, then the candidate is either unopposed or the primary opponent is Dummy, who is nonstrategic (that is, will run regardless of the probability of winning), not likely to win the primary election, and not expected to win the general election if he or she makes it there. If neither candidate runs, then Dummy runs in, and wins, the primary election. The winner of the primary election runs in the general election against Other Party.

Strategies, payoffs, and preference orderings appear in Figure 1. There are only two strategies and three payoffs. If both Players choose *Enter*, then they each receive the payoff of running in a *Hard Race*, since each must run against the other. If either politician decides to enter the race when the other does not, then the entering politician runs an *Easy Race* against the nonstrategic opponent. Any player who opts out of the race receives the payoff of pursuing the *Next-Best* career option, whatever that may be. I make one assumption regarding players' preferences over the three payoffs: if a politician wishes to stay in politics, and we hold the office constant, then that politician will prefer to run an easy race against a weak opponent than a more difficult race against a strong opponent. Therefore, both players always prefer *Easy Race* to *Hard Race*.

Since the player designations are arbitrary, there are six possible preference-ordering pairs: (a, a), (a, b), (a, c), (b, b), (b, c), and (c, c). Five of the games are dominance solvable with unique solutions. All three games in which players' preferences differ have a dominant-strategy equilibrium (DSE) of (Don't Enter, Enter) in which the player who most prefers *Next-Best* chooses Don't Enter. In (a, a), in which both players most prefer *Next-Best*, the DSE is (Don't Enter, Don't Enter). In (c, c), in which both players least prefer their next-best options, the DSE is (Enter, Enter). The only game that is not dominance solvable is (b, b). There are, however, two Nash equilibria in this game: (Enter, Don't Enter) and (Don't Enter, Enter). Mixed-strategy equilibria exist but are not considered.

Taken together, these equilibria suggest several empirically testable hypotheses regarding multiple-entry elections. These hypotheses are

FIGURE 1A

Outcomes to Players in Primary Election Entry Game

Player 1

		Enter	Not Enter
Player 2	Enter	Hard Race Hard Race	Next-Best Option Easy Race
	Not Enter	Easy Race Next-Best Option	Next-Best Option Next-Best Option

FIGURE 1B

Possible Payoff Ordering Combinations
in the Primary Election Entry Game

(a) Next-Best Option > Easy Race > Hard Race

(b) Easy Race > Next-Best Option > Hard Race

(c) Easy Race > Hard Race > Next-Best Option

the basis for the logit estimations in the following section. I present the specific predictions suggested by each hypothesis in italics; those predictions correspond to the independent variables in those logit equations.

Broadly, the solution to the game indicates that as the *Hard Race* grows more attractive, multiple entry grows more likely. Multiple-entry primaries should be concentrated most heavily in situations that approximate the conditions of games (c, c), in which the *Hard Race* (a difficult primary election against a strong opponent) is the equilibrium outcome because both players value entry highly, relative to exit. Overall, entering the race is most attractive when the likelihood of winning is highest and when the award for winning (a major-party nomination) is most valuable.[5] If we assume that candidates value victory in a primary only because it represents a step toward the ultimate goal of running

for office—officeholding—then we find the value of that award to be determined by (a) the probability with which the party nominee wins the general election and (b) the value of the seat itself. These three factors (likelihood of winning the primary, likelihood of winning the general, and the benefits accruing to the seat's winner) allow me to state specific hypotheses.[6]

> *Hypothesis 1:* The more likely a non-incumbent candidate is to win the general election, the more likely there is to be multiple entry.

This could also be called the V.O. Key hypothesis. Key demonstrated that Democratic primaries in the one-party South witnessed consistently high levels of competition, and he argued that the cause was the regularity with which the Democratic nominee won the general election (1949, 408–16). Hypothesis 1 transforms Key's point prediction into a comparative statics prediction: as the probability of a party's nominee winning the general election goes up, so does the probability of multiple entry into that party's primary. A general election candidate has a good chance of winning if he or she is the incumbent; for non-incumbent candidates, running in the absence of an incumbent increases the odds of winning (see, for example, Cox and Katz 1996 and Gelman and King 1990). *Thus, multiple entry should occur more often where the incumbent does not run for reelection.* Where the incumbent does not run for reelection but the choice is not his or hers to make (that is, when the incumbent dies or is arrested), candidates of the incumbent's party have a very good chance to win the seat, but the out-party's chances do not necessarily improve (Cox and Katz 2002). In these cases, *multiple entry should occur more often only for the in-party.*

Additionally, a weak showing in the previous general election by the incumbent is a signal that the district is receptive to a new candidate: the more marginal the previous election, the higher the probability that a challenger will defeat the incumbent in this election. Thus, *multiple entry should be more prevalent when there has been a marginal election in the previous cycle.* Finally, as an incumbent's career progresses and the legislator grows farther away from constituents (Fenno 1978), other politicians should start to line up for the seat. This progression says nothing, however, about the out-party's ability to capture the seat, since it does not affect the partisan balance in the district. Thus, *as an officeholder's career progresses, multiple entry should occur more frequently in in-party primary elections.*

> *Hypothesis 2:* The higher the benefits of office, the more likely there is to be multiple entry.

Schlessinger (1966) was the first to demonstrate that offices vary in their appeal to candidates. More-desirable offices might have more multiple-entry primaries, but this relationship is complicated by the fact that elections for more-valuable offices are often costlier to run in and the high costs might deter some candidates from running. Since I used data from only one office (a seat in the House of Representatives), I avoided having to sort out these complications. I conducted a different test of Hypothesis 2, taking advantage of the fact that, within the House, a seat in the majority party is "worth" more than a seat in the minority party (Binder 1997; Cox and McCubbins 1993). *As a result, multiple entry should occur more frequently in primaries of the party that expects to be the majority party in the upcoming year.*

Hypothesis 3: The more likely a non-incumbent candidate is to win the primary election, the more likely there is to be multiple entry.

Many of the same factors determine the ability of non-incumbent candidates to win primary elections as determine their ability to win general elections. For both general elections and in-party primaries, the probability of victory is largely driven by the vulnerability of the incumbent; thus, all the predictions about in-party primaries that result from Hypothesis 1 also apply here. This is not the case, however, when it comes to out-party primaries. There is no incumbent in out-party primaries, so winning does not depend on incumbent attributes.[7]

Stone and Maisel (2003) introduce one factor that distinguishes a candidate's probability of winning the primary versus the general elections. They note that, as a district's partisan balance leans more toward the party of a given candidate, that candidate has a worse chance of winning the primary election (because of increased competition from other candidates), but a better chance of winning the general election if he or she wins the primary. A candidate's chance of winning office is the result of multiplying these first two subprobabilities (Stone and Maisel 2003, 952). This overall probability is highest when the district has a relatively even partisan balance (964–66). Thus, if we combine Hypotheses 1 and 3, *multiple entry should be higher when support for the Democratic and Republican parties is evenly balanced within the district.*

Hypothesis 4: Multiple-entry primary elections occur less frequently where there are mechanisms in place to coordinate politicians' actions.

Here I discuss multiple entry resulting from primary election conditions that approximate game (b, b). These cases differ from those occurring in (c, c) because in (c, c), multiple entry results directly from

candidates' preferences. In (b, b), it results from a failure among candidates to coordinate a mutually beneficial outcome (that is, one of the Nash equilibria). Multiple entry can be curtailed if candidates coordinate on a single equilibrium in which one candidate enters and others do not. Although candidates generally do not achieve this coordination on their own, in some cases institutions are able to administer it. Multiple entry should occur less often when such administration is possible. One form this administration takes is state party endorsements: in several states, party leaders endorse a particular candidate for the primary election nomination. In some states, endorsement occurs by formal sanction of state law (resulting in caucus or convention nomination mechanisms); in others, endorsement occurs without such sanction. In all of these states, the party imposes on any candidate beside the endorsee real and costly obstacles to running, although these obstacles are more costly in states where endorsements are formal (Jewell 1984; Jewell and Moorehouse 2001). Thus, *multiple entry should occur less often in states with party endorsement than in states without, and the effect should be stronger where the endorsement is sanctioned by law.*

II. The Determinants of Multiple Entry
and Divisive Primaries

I tested the hypotheses derived in the previous section using data from major-party House primaries from 1976 through 1998. The tests consist of a series of logistic regressions in which the dependent variable is coded as 1 if multiple entry occurred (that is, if the primary election had two or more people running in it), and as 0 if it did not (that is, if the election had one or zero people running). I separated primary elections into four discrete groups—incumbent-party Democrats, incumbent-party Republicans, out-party Democrats, and out-party Republicans—and I ran one logit for each group. Each independent variable corresponds to one of the predicted relationships presented in italics in the previous section, with two exceptions. The progression of an incumbent's career, discussed under Hypothesis 1, is represented by two variables: *Incumbent Age* and *Incumbent Tenure*. Additionally, I separated party endorsements into those sanctioned by state law and those that were not. Finally, I added two control variables: *South* controls for the lingering effects of one-party dominance in the South as identified by Key (1949),[8] and *state gained/lost seats* controls for the effects of redistricting. A complete list of independent variables appears in Table 1. [9]

TABLE 1
Independent Variables

Variable	Definition
Probability of Winning General Election	
Incumbent Voluntarily Leaves	A dummy variable coded as 1 if the district's incumbent voluntarily decided not to seek reelection (retired from politics or sought another seat), and coded as 0 otherwise
Incumbent Leaves due to Death or Arrest	A dummy variable coded as 1 if the district's incumbent did not run due to circumstances out of his or her control, including death or legal obstacles to running, and coded as 0 otherwise
Lagged Incumbent Vote	The incumbent's share of the two-party vote in the previous election
Incumbent Tenure	The number of terms the incumbent has served in office
Incumbent Age	The incumbent's age in years at the time of the election
Value of the Office	
Majority	A dummy variable coded as 1 if the party holding the primary holds a majority in the House, and coded as 0 otherwise
Probability of Winning Primary and General Elections	
Partisan Balance	Absolute value of (50 − Share of vote received in district by Democratic presidential candidate)
Coordinating Mechanisms	
Legal Party Endorsement	A dummy variable coded as 1 if state law allows state party organizations to formally endorse one candidate for the nomination and restrict other potential candidates' access to the primary election ballot, and coded as 0 otherwise
Informal Party Endorsement	A dummy variable coded as 1 if state party organizations, without legal sanction, endorse one candidate for each available seat and afford that candidate resources for use in the election that it does not afford to other candidates, and coded as 0 otherwise
Control Variables	
State Gained/Lost Seats	A dummy variable coded as 1 if the district is in a state that gained or lost seats because of reapportionment since the previous election, and coded as 0 otherwise
South	A dummy variable coded as 1 if the primary occurs in a Southern state, and coded as 0 otherwise

TABLE 2
Logistic Estimation of the Determinants
of Contested Primary Elections
(standard errors in parentheses)

Variable	Predicted Relationship: in-party/out-party	Incumbent-Party Democrats	Incumbent-Party Republicans	Out-Party Democrats	Out-Party Republicans
Incumbent Voluntarily Leaves	+ / +	2.08*** (.164)	2.94*** (.197)	1.28*** (.168)	1.37*** (.149)
Incumbent Leaves due to Death or Arrest	+ / 0	1.21** (.410)	.845 (.605)	−.698 (.623)	.120 (.456)
Lagged Incumbent Vote	+ / +	−.002 (.003)	−.008 (.004)	−.018*** (.003)	−.018*** (.003)
Incumbent Age	+ / 0	.014** (.005)	.036*** (.008)	−.002 (.009)	.005 (.005)
Incumbent Tenure	+ / 0	.004 (.006)	−.0003 (.010)	−.002 (.009)	.002 (.007)
Majority Party	+ / +	1.15*** (.265)	.451 (.339)	1.67*** (.298)	−.444* (.219)
Legal Party Endorsement	− / −	−1.24*** (.148)	−1.32*** (.219)	−1.14*** (.158)	−1.62*** (.167)
Informal Party Endorsement	− / −	−.278*** (.114)	−1.02* (.445)	.278 (.144)	−.732*** (.098)
Partisan Balance	− / −	.024*** (.005)	.016 (.010)	−.033*** (.008)	−.036*** (.005)
South		−.411*** (.099)	−.993*** (.159)	−.732*** (.120)	−.732*** (.098)
State Gained/Lost Seats		−.289 (.209)	.219 (.299)	−.550* (.251)	−.569** (.215)
Constant		−1.99*** (.332)	−2.12*** (.529)	−.623 (.387)	1.32*** (.314)
N		3,001	2,085	2,088	2,989
Log likelihood		−1,815	−920	−1,280	−1,698
Pseudo-R^2		.105	.200	.1103	.133

Note: Year dummies not shown.
***$p < .001$; **$p < .01$; *$p < .05$.

The results are presented in Table 2. All told, there are 36 tests of 18 predictions generated by the game-theoretic model. Of these, 26 bear out as the model predicts, indicating that rational entry plays a very important role in determining where multiple entry occurs. One unexpected finding among the control variables is that Southern states witnessed less competition in their House races than did other states, a reversal from Key's (1949) depiction of Southern politics.[10] Among other variables, some of the most interesting findings are the contrasts between groups. For instance, if an incumbent has done poorly in the previous election, multiple entry is more likely in the out-party but not in the incumbent's party, indicating that this signal of vulnerability is received exclusively by the members of that other party. Also, the incumbent's voluntary departure from the district results in an increase in the likelihood of multiple entry across the board, but involuntary departures affect only in-party Democrats. Among the tests that did not result as predicted, there are eight in which the model predicts a significant result and the coefficient is not statistically discernable from 0, and only two coefficients are significant and are in the wrong direction.[11]

Despite the model's success at predicting the occurrence of multiple-entry primaries, "multiple entry" is not the same as "divisive." Nevertheless, the two are very closely entwined theoretically: multiple entry is the first necessary condition for a divisive primary, and the factors leading to multiple entry (such as Hypothesis 1's valuable party nomination) should also lead candidates to care more about winning and to create a divisive primary. Additionally, the dummy variable *Multiple Entry* and *Margin of Primary Victory* correlate at .89. As a result, the same logic that predicts multiple entry should also predict divisive primaries. To check this hypothesis, I estimated ordinary least squares (OLS) regression models of *Margin of Primary Victory* with the same set of independent variables. Results appear in Table 3. Note that the dependent variable is inversely related to primary divisiveness in these estimations, since as a primary grows more divisive, the winner's margin of victory diminishes. Thus, the predicted signs for each coefficient are reversed from those in Table 2. The results indicate that the rational-entry model fares just as well in predicting a close primary as it did in predicting a contested primary; in some cases, it did better.

TABLE 3
Regression Estimates of Primary Election Victory Margins, 1976–98
(standard errors in parentheses)

Variable	Predicted Relationship: in-party/out-party	In-Party Democrats	In-Party Republicans	Out-Party Democrats	Out-Party Republicans
Incumbent Voluntarily Leaves	– / –	−44.9*** (1.71)	−51.6*** (1.75)	−19.2*** (2.86)	−20.4*** (2.56)
Incumbent Leaves due to Death or Arrest	– / 0	−27.5*** (5.04)	−15.6** (5.98)	9.89 (10.1)	.679 (7.99)
Lagged Incumbent Vote	– / –	−.002 (.03)	.076* (.035)	.271*** (.062)	.184*** (.049)
Incumbent Age	– / 0	−.255*** (.064)	−.254*** (.067)	.004 (.115)	−.154 (.097)
Incumbent Tenure	– / 0	−.080 (.079)	−.039 (.097)	−.006 (.172)	.058 (.121)
Majority Party	– / –	−12.9*** (3.25)	−2.94 (2.56)	−25.4*** (5.54)	6.13 (5.01)
Legal Party Endorsement	+ / +	9.49*** (1.58)	8.68*** (1.56)	18.6*** (2.65)	23.4*** (2.32)
Informal Party Endorsement	+ / +	2.99* (1.45)	11.81*** (3.16)	−8.02** (2.75)	12.3*** (3.4)
Partisan Balance	+ / +	−.235*** .057	−.132 (.090)	.401** (.154)	.488*** (.089)
South		1.77 (1.21)	7.43*** (1.26)	6.86** (2.32)	7.08*** (1.84)
State Gained/Lost Seats		1.61 (2.60)	−4.12 (2.73)	9.48* (4.59)	9.73* (3.86)
Constant		105.2*** (3.96)	101.6*** (3.89)	52.3*** (7.07)	48.65*** 6.26
N		2,883	2,000	1,771	2,433
Adj R^2		.258	.351	.099	.113

Note: Year dummies not shown.
***$p < .001$; **$p < .01$; *$p < .05$.

III. Contested Primaries and General Election Results

Section II indicates that the attractiveness of the primary election to non-incumbents is a major determinant of its level of divisiveness. Table 2 demonstrates that candidate perceptions of their ability to win explain the occurrence of multiple-entry primaries; Table 3 demonstrates that the same perceptions explain primary divisiveness. In particular, the variables generated by Hypothesis 1 measure the degree to which the seat is winnable for non-incumbents. Most of these variables strongly correlate with both multiple entry and primary divisiveness. These results support the idea that candidates' perceptions of the likelihood of winning the seat cause primaries to be divisive. I now turn to the next question: What effect does divisiveness have on general election outcomes?

Many studies have asked this question before, and all have used a similar methodology: estimate the general election outcome and include a measure of divisiveness in the model. Although the literature has never settled on the best way to operationalize divisiveness, all studies measure the closeness of the primary election, but they do not account for candidate perceptions of how attractive the primary is to run in.[12] This methodology does not account for the spurious nature of the relationship between primary divisiveness and general election results, even in studies that attempt to control for reciprocal causality (Born 1981).

In this section, I discuss how I replicated the same analysis as previous studies but introduced two new operationalizations of primary divisiveness to account for candidate perceptions of the attractiveness of running for office. One variable is *Total Number of Candidates* who appeared in either party's primary election ballot in that district. The results of the previous section (that more candidates enter races that are more attractive) indicate that this variable accurately reflects elections' relative attractiveness. The second measure of attractiveness is *Total Amount of Money* spent by losing candidates in the district's primary elections.[13] High spending in the primary election is an indication that at least one group of strategic actors—donors—feels that the primary election's prize (the right to run in a general election) is worth winning.[14] Additionally, I followed earlier studies by including a measure that reflects the closeness of the primary outcome, *Margin of Primary Victory*.

I tested two sets of predictions for this section. First, divisiveness should have a different relationship with general election outcomes for incumbent- and out-party primaries. The previous section revealed that

divisive primaries occur where incumbents are vulnerable; vulnerable incumbents do worse in the general election than do strong incumbents. If vulnerable incumbents win primaries despite their vulnerability (and thus go on to compete in the general election), then *measures of primary divisiveness should correlate with challengers doing better in the general election and incumbents doing worse*. Vulnerable incumbents do win primaries. In the 12 election cycles included in the dataset, 4,713 incumbents ran in a primary election and only 57 of them lost. Of those, 10 lost to other incumbents in a redistricting year, so only 47 incumbents—about 1% of those who ran—lost a primary election to a challenger.[15] Despite incumbents' relative safety in primary elections, however, their vulnerability is a real concern in general elections since challengers use this factor to determine whether or not to enter races; this relationship between incumbent vulnerability and primary election challenges is borne out in the estimates of the likelihood of incumbent-party challenger entry in Table 2. The end result is that most vulnerable incumbents survive close primaries but then receive vigorous attack from their general election opponents.

The second proposition is that candidates' perceptions of the likelihood of winning office if they enter a primary election—not the closeness of the primary election itself—are the root cause of any relationship between primary divisiveness and general election outcomes. Thus, the coefficients associated with variables that reflect candidate perceptions of race attractiveness (number of primary candidates and amount of primary spending) should be significant. The coefficient on the variable measuring primary closeness (*Margin of Primary Victory*) should not be significant. If the conventional wisdom regarding divisive primaries is true and divisiveness directly affects general election results, then the opposite will hold: the closeness variable will be significant, but the variables that reflect candidate perceptions will not be. Finally, if the underlying relationship is one of reciprocal causality, as suggested by Born (1981), then both sets of variables will be significant.

The data include all House general elections between 1984 and 1998. In addition to the key independent variables, I also included standard House election results predictors: a challenger-quality dummy (coded as 1 if the challenger had won electoral office previously, as 0 otherwise),[16] the incumbent's share of the two-party vote in the previous election, the log of candidate spending (adjusted for inflation), the district normal vote (represented as the percentage of the two-party vote received by the party's presidential candidate that year or two years prior), and a dummy variable for each year included (excluding the most recent). I also included a control variable to separate caucus-

TABLE 4
The Effect of Primary Election Divisiveness
on General Election Vote Share
(standard errors in parentheses)

Variable	Predicted Relationship: challengers/incumbents	Democratic Challengers	Republican Challengers	Democratic Incumbents	Republican Incumbents
Primary Election Vote Margin	0/0	.004 (.007)	−.009 (.006)	−.042** (.015)	−.007 (.017)
Total Candidates in Both Primaries	+/−	.623*** (.188)	.469*** (.132)	−3.01*** (.202)	−3.19*** (.237)
Total Spending by Losing Candidates in Both Primaries ($10,000's)	+/−	.479*** (.137)	.406*** (.118)	.312 (.209)	.297 (.227)
Challenger Experience		3.83*** (.495)	3.22*** (.472)	−5.85*** (.824)	−5.12*** (.812)
Incumbent's Vote in Previous Election		−.092*** (.012)	−.038*** (.011)	.102*** (.017)	.108*** (.019)
Log of Candidate Spending		.830*** (.053)	.855*** (.047)	−5.33*** (.399)	−6.74*** (.484)
District's Presidential Vote		.295*** (.028)	.379** (.016)	.396*** (.024)	.306*** (.043)
Caucus Primary		−1.62** (.553)	−.321 (.531)	−1.46 (.874)	−2.23* (.874)
Constant		15.6*** (1.99)	11.02*** (1.45)	124.83*** (6.14)	149*** (7.58)
N		1,048	1,357	1,633	1,233
Adj R^2		.520	.651	.505	.498

Note: Year dummies not shown.
***$p < .001$; **$p < .01$; *$p < .05$.

nominating mechanisms from primary-nominating mechanisms. Again, I divided observations into Democrats and Republicans, incumbents and challengers.

I excluded open seats from the analysis because the theory presented in this article makes no predictions about them. That is, I argue that the relationship between general election results and primary divisiveness is driven by what non-incumbents think about their chances of beating the incumbent. In open-seat races, there are no incumbents,

so non-incumbent perceptions of incumbent vulnerability do not contribute to candidates' decisions as to whether or not to enter the race.[17]

The results of these regressions appear in Table 4, again with the predicted signs of coefficients indicated. The first group of predictions bears out entirely. Challengers who come out of highly contested primaries fare better in the general election than do other challengers, and incumbents who come out of highly contested primaries fare worse than other incumbents. For challengers, both the number of candidates and the amount of money spent in the primary election has a significant effect on general election vote returns. Each additional entrant in the primary election is associated with a Democratic challenger receiving almost two-thirds of a percentage point more in the general election, and a Republican challenger receiving almost half a percentage point. Between one and eight candidates competed in 99% of all challenger-party primary elections; the difference between being the only candidate running for office and running in a field of eight is 4.4 points in the general election for Democrats and 3.3 for Republicans. Furthermore, spending by primary contestants is associated with challengers doing better in the general election: for each additional $10,000 spent in the primary election, challengers receive slightly less than half a percentage point in the general election. This is a substantial effect (almost seven points), since losing candidates have cumulatively spent as much as $1.6 million during a primary campaign.

Incumbents, on the other hand, do worse when coming out of highly contested primaries. The amount of money spent by primary election losers has no significant influence on incumbents' general election fortunes. But the number of candidates running to unseat the incumbent can indicate real trouble. Each additional primary election candidate results in the average incumbent losing approximately three full percentage points in the general election. The difference between having no competition and running in a "full" primary field of eight candidates is 21 percentage points for the average Democrat, 22.5 for the average Republican. Contrary to the predictions, *Margin of Primary Victory* is associated with doing somewhat better in the general election among Democratic incumbents. The same is not true for Republican incumbents, and the effect is relatively small. The difference between winning a primary election by 1 point and winning it by 100 (having no competition) is about four points at the polls in the general election.

The second set of predictions, that candidate perception variables have a significant relationship with general election vote returns but primary closeness variables do not, is also confirmed. The results for challengers support the unintended-consequences theory unambigu-

ously. For challengers of both parties, the relationship between primary election closeness and general election outcome is not significant, whereas the relationship between both measures reflecting candidate perceptions and general election outcome is significant. The results for incumbents also support the unintended-consequences theory, although not quite as forcefully. One of the two candidate perception variables has a significant relationship with incumbents' general election vote shares, and that relationship is very strong. Additionally, primary election closeness, as measured by margin of victory, has a significant relation-ship with general election vote only among Democratic incumbents. The substantive impact of that variable is dwarfed by that of the relationship between general election results and the number of candi-dates running in the primary. Whereas primary election victory margin can move incumbents' general election vote shares 4.3 percentage points, the number of candidates in the primary election can move vote shares 21 points. The effect of the perceptions-reflecting variable is about five times the effect of the closeness variable.

IV. Conclusion

The unintended-consequences theory is both the first theory to explain why divisive primaries occur and the first to offer a falsifiable explanation of the relationship between primary divisiveness and general election outcome.[18] Divisive primary elections occur because candidates generally enter races they think they can win. The most-winnable races involve vulnerable incumbents and a disproportionate number of non-incumbents who enter those races to create divisive primaries. This behavior results in primaries in which incumbents are most likely to do poorly in the general election, and it creates a relationship between primary divisiveness and general election results: where primaries are divisive, incumbents are vulnerable and thus likely to do poorly in the general election. Thus, divisive primaries occur where, on average, incumbents do worse in general elections and challengers do better. It is in this way that divisive primaries are an unintended consequence of behavior directed toward the goal of winning a general election.

The literature studying divisive primary elections goes back almost 40 years, and much of it is devoted to searching for evidence of a conventional wisdom—that a divisive primary harms the primary winner's chances in the general election. Despite the conventional wisdom's wide acceptance, the search for supporting evidence often produced null or inconclusive findings. The most recent scholarship even indicates that the conventional wisdom may be wrong: challengers

tend to do better when coming out of divisive primaries (Alvarez, Canon, and Sellers 1995; Arbour and McKenzie 2002; Herrnson 2000; Hogan 2003). Three distinct limitations in the study of divisive primary elections have produced this pattern of results. First, authors have not offered a theory of *why* a divisive primary hurts in the general election. Some offer conjectures, but they are usually ad hoc and do not contain falsifiable hypotheses. Second, the conventional wisdom and the studies searching for its evidence have been unable to account for many of the empirical results the literature has produced, including frequent null findings and results in which divisiveness helps non-incumbent candidates. Third, the literature has looked for causality in only one direction: scholars have looked for evidence that primary divisiveness influences general elections, and so that is what they have found. For example, Alvarez, Canon, and Sellers (1995) "conclusively" find that "incumbents are hurt and challengers are helped by hotly contested primaries" (13).

This article addresses all three shortcomings. First, the unintended-consequences theory offers a formal model of primary elections in which the level of divisiveness is explained by non-incumbents' prospects of winning the general election. It also offers falsifiable hypotheses that relate this model to general election outcomes. Empirical tests support the model. Second, the theory provides a theoretical underpinning to the literature's previously unexplained pattern of findings by offering independent predictions for challengers and incumbents. These predictions, that challengers do well and incumbents do poorly in general elections where a divisive primary has occurred, accurately reflect the literature's results. Third, the theory advances a more refined perspective on causality in divisive primary elections. Primary divisiveness does not cause general election results; rather, expectation of general election results causes primaries to be divisive.

Divisive primaries do not hurt the party nominees who come out of them, as the common wisdom assumes; the victors do not enter the fall campaign hobbled from a debilitating struggle. For that matter, divisiveness does not help nominees either. The strongest candidates in the field may survive a brutally Darwinian process to win the primary election, but the primary election is not what makes the surviving candidates strong. Although primary divisiveness correlates with general election success for challengers, and with general election struggles for incumbents, the direction of causality is the opposite of what the literature has long held.

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APPENDIX
Primary Election Entry Game

    This is a one-shot game in which two players simultaneously decide whether or not to enter a primary election, which I treat as a lottery. Both players choose from two strategies: *Enter* the race or *Don't Enter* the race. The prize for the winner of this lottery is entry into the general election, which I treat as another lottery. There are two nonstrategic players, Dummy and Other Party. The game is built upon the following assumptions: Player 1 and Player 2 are members of the same party. Both are strong candidates and the only strong candidates available to run in the district. Both are strategic, and each will enter the race only if the expected utility of doing so is positive. If both candidates enter, then they will run against each other in a primary election. If only one candidate runs, then the primary opponent is Dummy, who is nonstrategic (i.e., will run regardless of the probability of winning), not likely to win the primary election against Player 1 or Player 2, and not expected to win the general election. If neither candidate runs, then Dummy runs in, and wins, the primary election. Finally, the winner of the primary election runs in the general election against Other Party.

    Given these parameters, the value of entering the race to Player 1 is

$$P(2)U(run|2) + (1 - P(2))U(run|D),$$

where $P(2)$ = probability of Player 2 entering, $U(run|2)$ = the utility of running against Player 2, and $U(run|D)$ = the utility of running against Dummy. Players' utilities are determined by the function

$$U_j(\text{seec office}_i) = P_i^j [\Pi B_i^j - \pi c + (1 - \Pi_i^j)r^j] + (1 - P_i^j)q^j - C_i^j,$$

where P_i^j = probability of candidate j winning the primary election of office i, q = the value of losing the primary election, C = the cost of running in the primary election, Π = the probability of winning the general election given a win in the primary election, B = the value of winning the general election, r = the value of losing the general election, c = the cost of running in the general election, and π = the discount factor associated with costs c. For exposition, assume $q = r = 0$. The utility function now reads

$$U_j(\text{seek office}_i) = P_i^j [\Pi_{dp} B_i^j - \pi c] - C_i^j.$$

Substituting this function into the first equation and eliminating sub- and superscripts from the utility function, we can express the value of running to Player 1 as

$$P(2)[P_2(\Pi B - \pi c) - C] + (1 - P(2))[P_D(\Pi B - \pi c) - C],$$

where P_i represents the probability of defeating Player i in a primary election. Thus, the conditions under which Player 1 chooses *Enter* can be fully expressed as

$$P(2)[P_2(\Pi B - \pi c) - C] + (1 - P(2))[P_D(\Pi B - \pi c) - C] > b,$$

where b represents Player 1's next-best option, should he or she decide not to run. Including b allows us to specify payoffs, shown in Table A1. Each player who enters receives some probability (P_1 or P_2) of winning the primary election and of thereby being allowed to enter the general election. If only one player enters, then the entering player receives the general election with certainty. That is, Dummy is assumed to lose the primary election. The general election is itself a lottery, and the entering player wins the benefits of office B with probability Π, less the discounted costs of the future race

TABLE A1
Payoffs to Players in the Primary Election Entry Game

Player 1

		Enter	Not Enter
Player 2	Enter	$P_2(\Pi B - \pi c) - C_2$ $P_1(\Pi B - \pi c) - C_1$	b_1 $\Pi B - \pi c - C_D$
	Not Enter	$\Pi B - \pi c - C_D$ b_1	b_1 b_2

πk (where k is a discount factor). I name the outcomes for exposition: if both players enter the race, then each must run a *Hard Race* against the other; if one player enters and the other does not, then the entering player runs an *Easy Race* against Dummy. Any player who does not enter the race receives the *Next-Best* career option.

By assumption, $C_1 < C_D$ and $C_2 < C_D$. That is, the cost of running a primary election against Dummy (C_D) is less than the cost of running against either one of the strong contenders. Additionally, $0 < P_1 < 1$ and $0 < P_2 < 1$. Given these conditions, the value of *Easy Race* is always higher than the value of *Hard Race*. Thus, the solution to the game depends on the value of the players' next-best options in relation to the two primary races. The possible payoff orderings are designated in Table A1.

Since the player designations are arbitrary, there are six possible preference-ordering pairs (and thus six different games for the players to play): (a, a), (a, b), (a, c), (b, b), (b, c), and (c, c). Five of the games are dominance solvable with unique solutions. In the three games in which players' preferences differ, the dominant-strategy equilibrium is (Don't Enter, Enter), in which the player who most prefers *Next-Best Option* chooses Don't Enter. In (a, a), in which both players most prefer *Next-Best Option*, the dominant-strategy equilibrium is (Don't Enter, Don't Enter). In (c, c), in which both players least prefer *Next-Best Option*, the dominant-strategy equilibrium is (Enter, Enter). The only game that is not dominance solvable is (b, b). There are, however, two weak Nash equilibria: (In, Out) and (Out, In).

NOTES

1. I excluded from the category of "serious" candidates those who run in order to publicize their business, to have fun, or to exalt beer, for example. I included those who approximate the traditional "rational entry" models discussed more fully in the article.

2. Kenney and Rice (1984) discuss reciprocal causality but do not control for it in their empirical analysis and do not separate incumbents and challengers. Alvarez,

Canon, and Sellers (1995) divide observations for incumbents and challengers, but they do not control for reciprocal causality. All other studies overlook the issues altogether.

3. In major-party House primaries between 1976 and 1998, the top two vote-getters finished within 20 percentage points of each other 13% of the time, and within 10 points of each other 8% of the time. If we limit the discussion to contested primaries (i.e., those contests in which at least two candidates actually run), then we find the proportions jump to 35% and 21%, respectively.

4. An ample amount of research confirms this assumption. For instance, Maisel and Stone (1997) find that "factors related to potential candidates' chances of winning the seat are [the] most influential" in their decisions about whether or not to run (1997, 85). For additional evidence, see Bianco 1984; Bond, Covington, and Fleisher 1985; Robeck 1982; and Squire 1989.

5. Other formal models of candidate entry that also assume each candidate has an equal chance of winning also predict that the number of entrants depends on the costs and benefits of entering. See Besley and Coate 1997 (91); Fedderson, Sened, and Wright 1990 (1014); and Weber 1992 (6); for a summary, see Cox 1997 (153–58).

6. One hypothesis not directly related to this article's thesis is that *Multiple-entry primaries occur rarely.* Only two of the six games allow for the possibility of both players entering the primary election. In (c, c), double entry is the equilibrium outcome, and in (b, b) double entry is possible if the players cannot coordinate on one of the two Nash equilibria. Assuming that the game situations are distributed across real primary elections relatively evenly—or at least in such a way that (c, c) and (b, b) are not severely overrepresented—we expect multiple entry in primary elections to be more the exception than the rule. This is the case in the House of Representatives. Among the 10,440 major-party House primaries conducted between 1976 and 1998, 63% were not contested: either no candidate ran (resulting in an uncontested general election for the other party's nominee) or, more prevalent, a single candidate ran unopposed. Multiple entry occurred only in the remaining 37% of primaries.

7. I do not claim that the incumbent does not influence entry into the out-party primary election. Indeed, this incumbent influence is related to the core of my argument: vulnerable incumbents mean more candidates enter the out-party primary and, as a result, winning that primary becomes harder. Once entry has concluded and the primary election itself is conducted, however, the probability with which any single candidate defeats the others does not depend on incumbent attributes—at least, not those attributes traditionally measured by political scientists.

8. The time period of my dataset covers the era in which Democratic control of the South was eroding. The Republican party was still weak in the region until the early to mid-1990s, however. Some elements of "classic" Southern politics may therefore be in place throughout the dataset, and I controlled for those elements with the variable South.

9. Note that, because of the variable's operationalization, as *Partisan Balance* rises in value, the balance of the district falls. As a result, the variable correlates negatively with multiple entry. The same is true for *Lagged Incumbent Vote.*

10. Key (1949) showed that the South saw a much higher degree of intraparty electoral competition under one-party rule, at least within the dominant Democratic party. The reversal of this trend in recent decades suggests that Southern incumbents are less vulnerable than others. By one measure they are: Southern incumbents' mean vote share is higher than other incumbents' for every year between 1974 and 1998. This

finding implies that the South is still politically distinct from the rest of the nation; the distinguishing characteristic is no longer one-party rule, however, but safe incumbents.

11. Some of these results are explainable, post hoc. The correlation between marginal previous election and multiple entry appears only in the out-party, which makes sense if we assume that the incumbent's marginal vote share relates only to voters' willingness to replace the incumbent with a member of the *out*-party. Second, candidates who challenge incumbents who are growing distant from their districts seem to zero in on incumbent age rather than length of service. This finding is consistent with the idea that the true underlying variable is "degree to which incumbent is no longer responsive to the district" and incumbents whose retirements are most imminent are less responsive. Third, there is no relationship between involuntary incumbent retirement and multiple entry for in-party Republicans, but this finding is determined by only 30 cases out of the universe of 10,440. Fourth, majority party status is associated with a higher probability of multiple entry only among Democrats; among Republicans, majority status *decreases* the probability of multiple entry. This result could reflect a recent trend of multiple-entry primaries occurring less frequently among both parties, reflected in Figure 1. Finally, for out-party Democrats, informal state endorsements are associated with a *higher* probability of multiple entry, contrary to the predicted relationship. But the relationship is not discernible from 0 at significance level $p < .05$.

12. Alvarez, Canon, and Sellers (1995) use primary election spending to account for these preferences, but they do not acknowledge that spending relates as much to candidate expectations as it does to primary divisiveness.

13. I included only losing candidates' spending because the Federal Election Commission does not separate pre-primary and post-primary spending in any election prior to 2000. Thus, including primary winners' spending would include money the winner spent in the general election. By using only losers' spending, I can assume that all money was spent prior to the primary election.

14. A third way to measure candidate perceptions of their prospects for winning might take into account the *quality* of the primary election candidate pool, in addition to the quantity of challengers. Well-qualified challengers tend to run when their chances of winning are highest; one could therefore infer that the more qualified the candidate pool is in aggregate, the higher the prospects of winning are for any given candidate. I attempted to account for challenger quality using three different operationalizations of the quality of the candidate pool. First, I simply added a dummy variable to the regression presented in Table 4, indicating the presence of an experienced candidate in the primary candidate pool. Second, I replaced the dummy with a cardinal variable that counted the number of experienced candidates. This method was methodologically unsatisfying, however, because it double-counted experienced candidates—i.e., they were counted in both the "total candidates" and "quality candidates" variables. Lastly, I included the count variable but changed total number of candidates to reflect only those candidates not coded as quality challengers. In all three cases, the quality of the primary election pool often had an insignificant relationship with general election outcomes, with little change in the coefficients and standard errors of the other key variables.

15. The 1982 reapportionment victims were Grisham (CA 33), Derwinski (IL 4), Evans (IN 6), Lee (NY 33), Smith (PA 3), and Bailey (PA 21); in 1992, they were Russo (IL 3), Bruce (IL 19), Miller (OH 10), and Staggers (WV 2).

16. I used a dichotomous coding for candidate quality primarily because applying a more detailed coding would have required an overwhelming amount of work and added very little value. Extant detailed codings have all been applied to *general* election challengers to the Senate and House of Representatives, for whom data is relatively easy to obtain. Obtaining the same data for *primary* election challengers to the House—who outnumber general election challengers by about 3 to1 and many of whom are very obscure—would be onerous at best and impossible at worst. To the best of my knowledge, data for the more elaborate measure employed in Green and Krasno 1988, for one, are not available at all for some of the time period in my dataset. Furthermore, the dichotomous measure is correlated with the Green and Krasno measure at .8 (Jacobson 1990), meaning that any gains from the use of the more detailed measure would be marginal at best.

17. In incumbent races, the correlation between primary divisiveness and general election outcomes is driven by a confounding variable, incumbent vulnerability. This confounder is not present in open-seat races because there are no incumbents. As a result, to ask if the same correlation exists for open-seat races is to ask if an equivalent confounding variable exists to cause it. If the answer is no, then we would expect there to be no relationship between primary divisiveness and general election outcomes. I repeated the Table 4 analysis on open-seat races, dividing observations into candidates of the same party as the incumbent who departed the seat, and those of the opposite party. For same-party candidates, there was no relationship between primary divisiveness and general election outcomes. For other-party candidates, there was a negative correlation between the number of candidates in the primary and general election outcomes, indicating the presence of a lurking variable.

18. Two methods have been employed to identify the cause of divisive primaries, but neither is satisfactory. One line of research involves surveying party activists about their activities in the primary and general elections (Comer 1976; Johnson and Gibson 1974; Stone 1986). The research shows that activists working for a primary loser tend to defect from the party during the general election. Such activist defection does not predict divisive primaries, however, because there is no indication that activists working for candidates who lost a divisive primary election defect more than activists working for candidates who lost by a wide margin. The second line of research looks at voters' tendencies to defect from the party after a close primary election. These studies have a more direct bearing on the relationship, but so far they have only been conducted in the context of presidential elections (Southwell 1986; Sullivan 1977–78).

REFERENCES

Abramowitz, Alan I. 1988. "Explaining Senate Election Outcomes." *American Political Science Review* 82: 385–403.

Alvarez, R. Michael, David T. Canon, and Patrick Sellers. 1995. "The Impact of Primaries on General Election Outcomes in the U.S. House and Senate." California Institute of Technology. Social Science Working Paper 932.

Arbour, Brian K., and Mark Jonathan McKenzie. 2002. "The Effects of Divisive Primaries on General Election Fund-Raising." Presented at the annual meeting of the Midwest Political Science Association, Chicago.

Bernstein, Robert A. 1977. "Divisive Primaries Do Hurt: U.S. Senate Races, 1956–1972." *American Political Science Review* 71: 540–45.

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

Bianco, William T. 1984. "Strategic Decisions on Candidacy in U.S. Congressional Districts." *Legislative Studies Quarterly* 9: 351–65.

Binder, Sarah A. 1997. "Minority Rights, Majority Rule: Partisanship and the Development of Congress." New York: Cambridge University Press.

Bond, Jon R., Cary Covington, and Richard Fleisher. 1985. "Explaining Challenger Quality in Congressional Elections." *Journal of Politics* 47: 510–29.

Born, Richard. 1981. "The Influence of House Primary Election Divisiveness on General Election Margins, 1962–76." *Journal of Politics* 43: 641–61.

Comer, John. 1976. "Another Look at the Effects of the Divisive Primary." *American Politics Quarterly* 4: 121–28.

Cox, Gary W. 1997. *Making Votes Count*. New York: Cambridge University Press.

Cox, Gary W., and Jonathan N. Katz. 1996. "Why Did the Incumbency Advantage in U.S. House Elections Grow?" *American Journal of Political Science* 40: 478–97.

Cox, Gary W., and Jonathan N. Katz. 2002. *Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution*. New York: Cambridge University Press.

Cox, Gary W., and Mathew D. McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. Los Angeles: University of California Press.

Feddersen, Timothy J., Itai Sened, and Stephen G. Wright. 1990. "Rational Voting and Candidate Entry under Plurality Rule." *American Journal of Political Science* 34: 1005–16.

Fenno, Richard F. Jr. 1978. *Home Style: House Members in their Districts*. Boston: Little, Brown.

Gelman, Andrew, and Gary King. 1990. "Estimating Incumbency Advantage without Bias." *American Journal of Political Science* 34: 1142–64.

Green, Donald, and Jonathan Krasno. 1988. "Salvation for the Spendthrift Incumbent: Reestimating the Effects of Campaign Spending in House Elections." *American Journal of Political Science* 32: 884–907.

Hacker, Andrew. 1965. "Does a 'Divisive' Primary Harm a Candidate's Election Chances?" *American Political Science Review* 59: 105–10.

Herrnson, Paul. 2000. *Congressional Elections*. 3d ed. Washington: CQ Press.

Herrnson, Paul, and James G. Gimpel. 1995. "District Conditions and Primary Divisiveness in Congressional Elections." *Political Research Quarterly* 48: 117–34.

Hogan, Robert E. 2003. "The Effects of Primary Divisiveness on General Election Outcomes in State Legislative Elections." *American Politics Research* 31: 27–47.

Jacobson, Gary C. 1983. "Running Scared: Elections and Congressional Politics in the 1980s." In *Congress: Structure and Policy*, ed. Mathew McCubbins and Terry Sullivan. New York: Cambridge University Press.

Jacobson, Gary C. 1990. "The Effects of Campaign Spending in House Elections: New Evidence for Old Arguments." *American Journal of Political Science* 34: 334–62.

Jacobson, Gary C., and Samuel Kernell. 1981. *Strategy and Choice in Congressional Elections*. New Haven, CT: Yale University Press.

Jewell, Malcolm E. 1984. *Parties and Primaries: Nominating State Governors*. New York: Praeger.

Jewell, Malcolm E., and Sarah M. Moorehouse. 2001. *Political Parties and Elections in American States*. Washington: CQ Press.

Johnson, Donald Bruce, and James R. Gibson. 1974. "The Divisive Primary Revisited: Party Activists in Iowa." *American Political Science Review* 68: 67–77.

Kenney, Patrick J. 1988. "Sorting Out the Effects of Primary Divisiveness in Congressional and Senatorial Elections." *Western Political Quarterly* 40: 765–77.

Kenney, Patrick J., and Tom W. Rice. 1984. "The Effect of Primary Divisiveness in Gubernatorial and Senatorial Elections." *Journal of Politics* 46: 904–15.

Kenney, Patrick J., and Tom W. Rice. 1987. "The Relationship between Divisive Primaries and General Election Outcomes." *American Journal of Political Science* 31: 31–44.

Key, V.O. Jr. 1949. *Southern Politics in State and Nation*. Knoxville: The University of Tennessee Press.

Piereson, James E., and Terry B. Smith. 1975. "Primary Divisiveness and General Election Success: A Reexamination." *Journal of Politics* 37: 555–62.

Robeck, Bruce W. 1982. "State Legislator Candidacies for the U.S. House: Prospects for Success." *Legislative Studies Quarterly* 7: 507–14.

Schlesinger, Joseph A. 1966. *Ambition and Politics: Political Careers in the United States*. Chicago, IL: Rand McNally.

Segura, Gary M., and Stephen P. Nicholson. 1995. "Sequential Choices and Partisan Transitions in U.S. Senate Delegations: 1972–1988." *Journal of Politics* 57: 86–100.

Southwell, Priscilla L. 1986. "The Politics of Disgruntlement: Nonvoting and Defection among Supporters of Nomination Losers, 1968–1984." *Political Behavior* 8: 81–95.

Squire, Peverill. 1989. "Challengers in U.S. Senate Elections." *Legislative Studies Quarterly* 14: 531–45.

Stone, Walter J. 1986. "The Carryover Effect in Presidential Elections." *American Political Science Review* 80: 271–80.

Stone, Walter J., and L. Sandy Maisel. 2003. "The Not-So Simple Calculus of Winning: Potential U.S. House Candidates' Nomination and General Election Prospects." *Journal of Politics* 65: 951–77.

Sullivan, Denis G. 1977–1978. "Party Unity, Appearance and Reality." *Political Science Quarterly* 91: 635–45.

Ware, Alan. 1979. "'Divisive' Primaries: The Important Questions." *British Journal of Political Science* 9: 381–84.

Weber, Shlomo. 1992. "An Equilibrium in Electoral Competition with Entry Costs." York (Canada) Department of Economics. Unpublished manuscript.