CHAPTER 5

From Setting to Candidates to Campaigns: Tracing the Causal Chain

In the two preceding chapters, I showed that Senate and House districts and campaigns share significant similarities. States, as a class, are not more heterogeneous than congressional districts. Senate candidates may have more political experience and spend more money than the average House candidate, yet many House candidacies look like Senate candidacies and vice versa. In this chapter, I bring these two empirical regularities together in causal models of candidate emergence and campaign spending. I treat campaigns as a *dependent* variable, examining whether spending and candidate quality vary in systematic ways across more and less heterogeneous settings, with more and fewer partisans and efficient and inefficient media markets. I pay special attention to campaign spending, comparing the impact of intracampaign variables—spending in reaction to the opponent—to the exogenous influence of the political setting. I allow for institutional variations in these models, providing a direct test of the relative influence of the political setting, institutions, and intracampaign influences.

The analyses are directed toward answering these questions:

- To what extent are Senate and House campaigns explicable by a similar set of district attributes?
- What is the relative influence of intracampaign effects and exogenous, "background" variables on candidate quality and campaign spending?
- Do institutional differences disappear when settings and intracampaign effects are taken into account?

However complex some of these models may be, the analysis is guided by a quite simple claim: those features of the political setting that make a seat more or less competitive will also be the features that are positively associated with higher quality challengers and greater campaign spending *independent* of the institutional setting.

I begin by discussing the theoretical relationship between settings, candidate quality, and campaign spending. Next, I show how the decision making of challengers, at least inasmuch as it is reflected in observed variation in challenger quality, responds *only* to the long- and short-run competitiveness of the seat. Despite my theoretical expectations, which were laid out in chapter 2, and the claims of other scholars, the political setting (heterogeneity, market efficiency) plays no significant role, nor do characteristics of the incumbent. "Strategy and choice in congressional elections," to borrow the title of Jacobson and Kernell's modern classic of congressional campaigning (1983), is predominantly concerned with a favorable competitive environment.

Next, I explore the relationship between the setting and campaign spending, with much the same result. Partisan balance and the competitiveness of the current race, along with spending by the opponent, largely determine the spending levels undertaken by both the incumbent and the challenger. District heterogeneity and media market efficiency fail to account for variations in campaign activity across states and congressional districts. Candidates react to each other much more than they do to any fixed characteristic of the setting. This calls into serious question any appeal to district heterogeneity as an explanation of Senate/House differences in campaign activity (see Lee and Oppenheimer 1999 for a contrasting view).

A second, perhaps more important result emerges from the analyses. While district characteristics may not play a great role in determining the activity of House and Senate campaigns, the overall influences on both House and Senate candidates are remarkably similar. The relationship between partisan balance, member characteristics, candidate quality, and campaign spending are relatively stable across institutions and over time. Although the political setting may not be a part of a generic language of elections, a generic account is still a possibility. It includes the partisan makeup of the district, the profile of the member, the quality of the opposition, and spending by both candidates. I close by suggesting how these revisions modify the theoretical presentation made in chapter 2.

Settings, Institutions, and Intracampaign Effects

There is a wealth of evidence suggesting that candidates and campaigns respond to their political environment. I know, for example, that Senate candidates are on average more experienced, more prominent, and spend more money than their House counterparts (Abramowitz 1980; Hinckley 1980a, 1980b; Ragsdale 1981; Westlye 1983, 1986; Abramowitz and Segal 1992; Lee and Oppenheimer 1999). National political tides (e.g., the popularity of the sitting president and the state of the national economy) enter into the candidate's

decision about whether to run for office (Jacobson and Kernell 1983). It is also probable that candidates attend to features of political districts, such as communication patterns, partisan trends, and political interests, when deciding to run or choosing a campaign strategy. This is the foundation of the three-stage model presented in chapter 2.

In this section, I discuss ways that district diversity, media market efficiency, partisan balance, and institutional makeup might constrain the activities of candidates and campaigns. I start by describing the basic way that I think the political setting relates to these campaign measures, briefly recapitulating the links from figure 2.1, in light of the descriptive results in the last two chapters. Next I complicate the world a little, adding variables representing institutional differences and over-time effects. Then I complicate the world a lot, showing why a reasonable model of campaigns must include features of the incumbent (seniority, age, previous electoral record) and intracampaign effects (candidates reacting to each other's actions). While this more nuanced account is more realistic, it also makes it significantly more complicated to parse candidate from campaign from political setting.

Settings and Campaigns

Quality challengers and campaign dollars are drawn to competitive races. What features of the setting—exogenous, pre-campaign features—are positively associated with competitiveness? One is easily identified: partisan balance. In an evenly balanced district, elections will be closer, spending will be higher, and better challengers will run.[1] An efficient media market means that it will be easier and cheaper for a challenger to get his or her name before the voting public and overcome the recognition hurdle. Therefore, I expect to find a positive relationship between market efficiency and candidate quality. The expectation for campaign spending is somewhat different. Market efficiency should be *negatively* associated with campaign spending because a challenger will be able to spend less and still overcome the recognition hurdle. Similarly, incumbents will be able to maintain satisfactory media exposure at a lower cost in an efficient media market, all else being equal.[2]

The impact of district diversity on candidate quality and campaign spending is more complex. I expect that candidates react strategically to the makeup

1. A small victory margin in the previous race and relative levels of partisan division are associated with high-quality challenges (Bianco 1984; Bond, Covington and Fleisher 1985) and higher levels of incumbent spending (Green and Krasno 1988, 1990; Jacobson 1990a, 1985).

2. Stewart (1989a, 1989b) and Stewart and Reynolds (1990) did not test these relationships, but they did find that market efficiency was positively related to voter information levels (for 1988 Senate races).

of the electoral district.[3] There are a number of different plausible reasons why heterogeneity makes it more difficult for incumbents to get reelected. For example, heterogeneity might make it more likely that an incumbent will alienate one interest or another. It is more difficult to satisfy a heterogeneous set of constituency interests (Fiorina 1974). Heterogeneity can also make it more difficult for both incumbents and challengers to communicate with voters because multiple appeals have to be made and appeals to one group might not be "heard" by another (or, worse, they could alienate another). It might also be true that politics in complex, heterogeneous districts takes on a different flavor, either more impersonal (Baker 1995) or less individualistic and constituency oriented (Lee and Oppenheimer 1999). In general, then, I expect that heterogeneity will be positively related to both incumbent and challenger spending.

A Fuller Model of Campaigns: Institution, Time, and Intracampaign Effects

There are four additional parts to my model of candidate quality and campaign activity: institutions, incumbents, time, and intracampaign effects. Institution indicates nothing more than what I have already presented in previous chapters: do significant differences remain between the House and Senate once other variables have been taken into account? By time, I simply mean estimating these models from 1982 to 1996 (i.e., pooling the data). Intracampaign effects represent the influence that candidates have on each other: incumbents spending more because they face quality challengers and incumbents and challengers spending more in reaction to their opponents' expenditures. Finally, incumbents are vulnerable for other reasons: their ideological leanings, voting records, time in office, and ages. I describe each of these below.

The first complication in the model has to do with institutional differences. Ideally, the effects of political settings, candidate quality, and intracampaign dynamics on campaign spending, if not identical across the House and Senate,

3. Redistricting illustrates how the setting may alter the strategic calculations of politicians. Redistricting, on average, hurts incumbents. It is negatively associated with incumbent margins (Jacobson 1993) and positively associated with challenger quality (Canon 1990, chap. 4) in large part because incumbents are less familiar with the new setting. Redistricting could work in an incumbent's favor: Fowler and McClure (1989) found that uncertainty due to redistricting dissuaded a highly qualified candidate (Louise Slaughter), but this could be an unusual case. I have discussed redistricting in previous chapters, but because it did not effect the comparability of House and Senate districts I do not explicitly consider redistricting here. Postredistricting shifts in campaigns and elections remain a prime example of a political setting effect (see Niemi and Abramowitz 1994; Hill 1995; and Lublin 1997 for more detailed treatments of this topic.)

will display substantially similar patterns. There is good evidence indicating that campaign spending and candidate quality can be profitably compared across the House and Senate (Krasno 1994; Canon 1990).[4] When differences in setting, candidate quality, and fund-raising are taken into account, institutional differences should disappear.

I test this hypothesis by pooling Senate and House races and adding a variable that is coded one for Senate contests and zero for House races. If the coefficient on this variable is zero, there are no remaining House/Senate differences not already represented in the model. More likely, this coefficient will remain statistically significant, reminding me that there are institutional differences between the House and Senate that are not incorporated into the analysis. This provides a rough test of the size and relative influence of institution when district diversity, media market efficiency, partisan balance, challenger quality, and campaign spending are taken into account.[5]

The second addition to the analysis is time. As noted in chapter 1, estimating these relationships over time increases the sample size (a particular concern for Senate races), improves the efficiency of statistical estimates, and decreases the likelihood that my results will hinge on a particular year and election.[6] Over-time effects can be grouped under a "nature of the times" heading. Some years are good for the party in power; others are not. In good years for Republicans, such as 1978 or 1994, high-quality Republican candidates run for office and Republican candidates spend more money (Jacobson 1990b). In poor years for Republicans, such as 1982, high-quality Republican candidates are discouraged from running and high-quality Democratic challengers emerge. I try to capture these year to year effects with a dummy variable for

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4. Krasno shows that Senate and House campaigns appear surprisingly alike once the features (campaign intensity and challenger prominence) that supposedly differentiate the Senate from the House are controlled for: "Differences in the aggregate largely exist because Senate campaigns are much more likely to be intense, and Senate candidates are more likely to be formidable" (Krasno 1994, 114). Canon finds that the same set of "structural and institutional variables" (the makeup of the primary system, the size of the state legislature, the permeability of the political structure, and the "shape of the political opportunity structure") help account for the appearance of quality challengers in both the House and Senate (1990, chap. 4).

5. I allow for differential intercepts, estimating a coefficient for the dummy variable, and test for the existence of differential slopes, interacting the dummy variable with each of the independent variables. This latter analysis is identical to a Chow test of the stability (or equality) of the slope coefficients across the House and Senate samples (Johnston 1984, 220–28, 507–8). See appendix B for more information

6. I assume that political setting measures such as racial heterogeneity, income variance, and media market efficiency stay constant throughout the decade. Campaign spending and challenger quality obviously change from district to district and election to election.

each year, also known as a least-squares dummy variable (LSDV) specification.The dummy variables also have the beneficial effect of reducing serial correlation to insignificant levels.[7]

Finally, I need to consider the reasons why incumbents might attract well-qualified, well-funded challengers regardless of their past electoral performances. In general, I expect that members who have been in office longer, are older, or occupy extreme ideological positions will appear ripe for a primary and general election challenge.[8]

Intracampaign Effects and Campaign Spending

In order to account for variations in campaign spending, one more complicating element enters the picture: intracampaign dynamics. If voters are not fools, neither are candidates. Politicians are strategic actors par excellence. At a minimum, they are political junkies and at a maximum seasoned political activists, elected officials, and previous House members and senators. It is not surprising to observe strategic behavior among such an intelligent and highly motivated set of competing individuals. In the campaign context, this means that candidates will spend in reaction to their opponents, real and perceived.[9] Thus, I expect a positive relationship between incumbent and challenger spending and Democratic and Republican spending in open seat contests.

Strategic actors also try to anticipate the moves of their opponents. Candidates, therefore, react to the quality of the opposition. Is he or she experienced or a rank amateur? Do I have to worry about his or her ability to tap into celebrity status or personal wealth or is this opponent invisible in the district? And, for the challenger, how much effort is this incumbent expending on the race? Has he or she built up an enormous war chest or can I compete dollar for dollar (Box-Steffensmeier 1996)? Green and Krasno (1988) suggest that incumbents spend directly in response to the quality of the opposition. I

7. I attempted to include variables with more political punch: the change in real personal disposable income and the popularity of the sitting president. The economy and presidential popularity both explain a great deal of aggregate variation in presidential voting. They would also be expected to affect the strategic decisions of campaigners (e.g., Jacobson and Kernell 1983). The overall fit of the model when these variables were included was worse compared to a model including just the straight year dummies.

8. Ideological positions are measured using data from two sources, the ratings of the Americans for Democratic Action (ADA) and one-dimensional D-Nominate scores (Poole and Rosenthal 1985, 1997).

9. Jacobson and Kernell (1983) claim that early spending by incumbents discourages quality rivals, which is a kind of reactive spending. The equations presented by Jacobson (1985, 1990a) and Green and Krasno (1988, 1990) illustrate the strong relationship between incumbent and challenger spending.

think this relationship works indirectly: quality challengers are able to raise more campaign funds, and incumbents then react directly to higher rates of spending. Why expend a great deal of effort raising funds, or, more accurately, spending those hard-won dollars (I only consider actual campaign expenditures, not money raised) when your opponent is expending little effort in the race? The statistical implication is that challenger campaign spending, but not challenger quality, is a cause of incumbent campaign spending. Since I have two dependent variables in this system—incumbents react to challengers and challengers react to incumbents—there are two dependent variables and the campaign spending model is estimated as a system of equations.

This system is estimated via two-stage least squares. The challenger-spending equation is underidentified—there is nothing in my data that I can reasonably argue affects incumbent spending and does not also affect challenger spending.[10] As argued earlier, I exclude challenger quality from the incumbent-spending model under the assumption that differences in challenger quality are reflected in higher levels of challenger spending. Unfortunately, there are no exogenous variables related to incumbent spending that are not directly related to challenger spending. This is why the incumbent-spending equation is identified, with results reported later, but the challenger-spending equation is not.

On the positive side, in many situations involving simultaneous effects, good instrumental variables are unavailable. This is not the case here. Current incumbent spending is strongly related to previous spending and vote margins. Green and Krasno call the former the "incumbent's propensity to spend" (1988, 897). Relatedly, challenger spending in the previous race (and the current race) probably reflects in some respect the competitiveness of the district and the vulnerability of the incumbent. However, I cannot argue that lagged challenger spending represents "the *challenger's* propensity to spend." After all, in most cases the challenger in the current race is a different candidate from the one in the previous race. The implication is that my instrumental variable equation for current incumbent spending will have explained a higher proportion of variance than the instrumental variables equation for challenger spending. Again, this reinforces my decision to report estimates only for the incumbent-spending model.

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10. A requirement of two-stage least squares is a set of variables that are related to the endogenous variables in the system, in my case incumbent and challenger spending, but are unrelated to the residual terms associated with the predictive model (exogenous variables). In addition, in order to make the system identified, each equation must exclude at least one exogenous variable (Greene 1993, chap. 20).

Some Caveats: What Is Not Included?

What is *not* included in this model? Particular features of the incumbent's record that might make him or her vulnerable would be a good addition. Banks and Kiewiet (1989) identify three things that dissuade quality challengers: the incumbent's voting record, incumbent casework, and incumbent exposure. Mann (1978) also found that voters penalize incumbents for unpopular votes. I have included some surrogates for these, including the incumbent's ideological position and previous vote margin. Second, more explicitly political features of the district certainly affect the decision-making process of potential candidates. In the most comprehensive study of candidate emergence in the House and Senate, Canon (1990) shows how potential candidates respond to a similar set of state and congressional district attributes when deciding to run. Campaign variables (the previous challenger's vote and the existence of some scandal involving the incumbent), national-level variables (real income and unemployment), and structural/institutional variables (normal vote, candidate "supply," redistricting, and the number of candidates in the primary) all have statistically significant impacts on the challenger's political quality. While my measures of the district's political terrain are not as rich as Canon's, my models do have the advantage of explicitly comparing Senate and House dynamics.

Finally, using lagged values of spending reduces substantially the number of cases for each year, so severely that estimating this system for the Senate is very difficult. I discuss the causes and consequences of this in appendix B. Second, I recognize that total campaign expenditures may misstate the actual campaign effort undertaken by candidates. Unfortunately, detailed breakdowns for every election in this period are not available. The unequal proportions of expenditures devoted to communications and "general" campaign activities reported in Ansolabehere and Gerber (1994) are a point of concern. It is not clear whether their findings cause problems for the models of campaign spending reported in this chapter or just for the voting models that are typically reported in the literature.

In summary, the data reported here are primarily intended to address the influence of district heterogeneity, media market efficiency, and institutions on campaigns and elections. Many of the specification problems that have occupied many congressional scholars are not relevant here because the dependent variable is campaign spending not vote totals. By focusing on heterogeneity and institution, this study may overlook many of the more explicitly political variables such as those Canon or Kiewiet and Banks collected. Future data collection efforts could augment the results reported here.

A Guide to the Results

The data used in this chapter span almost two decades of elections and have been gathered from many different sources. I include tests of my own central theory, presented in chapter 2, as well as comparative tests of alternative theories. I simplify the presentation by presenting the empirical results in a sequential fashion. The candidate-quality models are reported first, followed by the campaign-spending models. I open with a direct test of the main hypotheses of chapter 2. These tables include measures of district diversity, media market efficiency, partisan balance, and an institution dummy. Next, I conduct a separate test of the impact of candidate (incumbent) features: ideology, age, seniority, previous electoral outcome, and, again, an institution dummy variable. Then, to reassure the reader that the estimated coefficients are stable across these two specifications, I merge these two tables into a single estimation. As will become clear, the results are stable across these different specifications, as they were across many alternatives, noted later, but not reported in the interest of space. The short lesson from the long set of results is clear: once sufficient controls are added, institutional differences all but disappear.

When Do Good Candidates Run for Office? The Determinants of Candidate Quality

The estimates from my model predicting candidate quality in the House and Senate are shown in table 5.1. The most important predictors in the model, not surprisingly, are those associated with the general competitive situation. As congressional scholars have long recognized, better quality candidates emerge when the competitive situation looks favorable (where competitiveness is represented here by the closeness of the race and a favorable partisan balance).

The consistently strong impact of partisan balance confirms previous results (Bianco 1984; Bond, Covington, and Fleisher 1985). The size of the estimated coefficient is large and negative for both institutions, as was expected (see col. 1 of table 5.1) and remains robust when I control for the incumbent's previous vote margin, a variable obviously correlated with partisan balance (compare tables 5.1 and 5.3). Excluding "closeness" from the model increases the estimated impact of party, but this should not be surprising. Party balance is part of the long-term competitive environment, whereas closeness reflects both long- and short-term influences.[11] The size of the effect is impressive:

11. I interpret "closeness" as a summary of short-term political forces, including the current state of the economy, the popularity of the incumbent's party, particularly controversial votes, and congressional and personal scandals. I am assuming that closeness reflects these, at least in a rough way. "Partisan balance" is a summary of long-term competitive trends such as population

TABLE 5.1. Challengers and Diverse Districts

Variable	Coefficient	Coefficient
Closeness	1.532 (.087) **	—
Partisan Balance	−1.833 (.308) **	−3.468 (.312)**
Contiguity	.270 (.148)	.284 (.160)
Dominance	.006 (.125)	.046 (.135)
Income variance	−.030 (.020)	−.053 (.021)*
Education variance	.166 (.179)	.459 (.192)*
Racial diversity	−.287 (.180)	−.235 (.193)
Urbanness	−.211 (.150)	−.190 (.161)
Foreign stock	−.559 (.343)	−.788 (.369)*
Institution	.762 (.115) **	.987 (.123)**
Constant	3.098 (.388) **	4.364 (.408)**
N of observations	2,482	2,482
R^2	0.301	0.184
Root MSE	0.998	1.078

Source: Data from the 1982–96 elections.
Note: Challenger quality data collected by the author (Senate, House 1982–1990) and courtesy of Patrick Sellers (House 1992–1996). Demographic data collected by the author. See Appendix for variable coding information. Standard errors are in parentheses.
$*p$ = significant at the .05 level $**p$ = .01 level.

a movement of .5 in the incumbent's favor in partisan balance (one-half the full range) is associated with a 1.8 point drop in challenger quality, nearly 50 percent of the range, and a 3.4 point drop when closeness is dropped. My second measure of competitiveness, closeness, is also strongly associated with the appearance of a quality challenger. On average, a unit of increase in closeness (the scale runs from zero, or safe seats, to three, races "too close to call") causes a unit and a half of increase in candidate quality.

Most impressive of all, the magnitude, size, and statistical significance of these relationships are remarkably stable across years and institutions. Across years and institutions, the estimated coefficient falls no more than two standard deviations from the value reported here only once, a 1988 Senate estimate. The relationship between closeness and candidate quality failed to reach the 95

growth, migration, economic development and decline, and other changes that affect the partisan coloration of an area.

percent level of statistical significance level only in the 1984 and 1982 Senate equations.[12]

The impact of district diversity, on the other hand, is disappointing. I expected to observe more quality challengers in more diverse districts, since there would more opportunities to construct a competing coalition. The negative coefficients for all but education, even though seven of 10 fail to reach conventional statistical significance levels, indicate the opposite: challenger quality is *negatively* associated with diversity. The impact of foreign stock, a measure of ethnic diversity, is especially strong relative to other variables in the model (although note, from chap. 3, that most of the diversity measures vary from 30 to 70, so the effect across the variable's full range does not approach that of institution or the other measures of competitiveness). Perhaps the difficulty of running in a diverse district discourages opponents and overwhelms any positive impact that diversity might have. On the other hand, my expectations regarding media market efficiency are borne out. Although the coefficient for contiguity only passes a one-tailed significance test, it does imply that higher quality challengers appear in districts with more efficient media markets.

Finally, note that controlling for differences in the competitive situation and the political setting reduces the explanatory power of institution from 60 percent.[13] Furthermore, there are no differences in the impact these variables have in the House versus the Senate.[14] Senate challengers rank roughly a point higher ($b = .987$) on the four-point scale of candidate quality using the estimate from the second model, the one least favorable to my theory. The most likely explanation for this remaining difference is that the Senate is a more attractive prize, drawing experienced and ambitious politicians like moths to a flame.

Banks and Kiewiet (1989) propose a theoretical model to predict why "sure losers" might challenge incumbents and, by implication, when experienced politicians will run for office. In part, a candidate's calculation is driven by the attractiveness of the prize (Senate vs. House vs. other offices), but, drawing on a substantial literature in congressional research, the calculation also turns on the condition of the incumbent (Jacobson and Kernell 1983;

12. I estimated all equations reported in this chapter separately by institution, year, and year and institution, a total of 18 different subsamples. Other changes were made and are described later.

13. The bivariate regression coefficient on institution (regressing challenger quality on institution and a constant term, estimated for the same set of 2,482 cases) is 1.654, compared to an estimated effect here of .762.

14. When I ran a model with the institution dummy variable interaction terms on all variables, *none* of the coefficients met the 95 percent statistical significance level using the more generous one-tailed test.

TABLE 5.2. Challengers and Incumbents

Variable	Coefficient
Ideological extremity	.232 (.079) **
Age of member	.002 (.002)
Seniority of member	−.010 (.002) **
Vote ($t-1$)	−.009 (.001) **
Institution	.184 (.349)
Constant	4.301 (.482) **
N	2,482
R^2	0.137
Root MSE	1.085

Source: Data from 1982–96 elections. Member data courtesy of Philip Ardoin.
Note: Standard errors are in parentheses.
$*p = .05$ $**p = .01$

Baker 1995; Abramowitz and Segal 1992). In table 5.2, I consider the condition of the incumbent, his ideological position, age, seniority, and previous vote margin. Holding all else constant, more ideologically extreme members attract more qualified challengers, with a fairly robust effect on predicted quality ($.232 * 100 =$ two points on a four-point scale). Seniority deters challengers, confirming previous results, and a relatively poor performance in the past election encourages challengers. The substantive impact of the latter two, however, is quite low, less than half a point on the quality scale.

As before, I have reestimated this model in separate years, separately for institutions, and in the fully dummied out specification. The coefficients are robust and consistent in their impact, allowing for some variation across years. Institution remained insignificant in all pooled analyses, specified either as a separate dummy variable or an interaction term.

The results again call into question any claims of institutional differences—differences, that is, that cannot be captured in the modeling process. Once I control for features of the incumbent, *no institutional differences remain.* If these findings are consistent under alternative specifications, then I have "unpacked" the observed gap in challenger quality between the Senate and the House. This fundamentally changes the way political science describes, and theorizes about, differences in campaigning across these two institutions.

In the next analysis, I unite these accounts of challenger emergence. By considering the demographic, competiveness, and incumbency variables in a single equation, I can reassure the reader that there are no serious collinearity

TABLE 5.3. District Diversity, Incumbents, and Challenger Quality

Variable	Coefficient
Closeness	1.476 (.092) **
Partisan balance	−1.162 (.347) **
Contiguity	.345 (.151) *
Dominance	.000 (.128)
Income variance	−.029 (.020)
Education variance	.053 (.184)
Racial diversity	−.305 (.186)
Urbanness	−.358 (.156) *
Foreign stock	−.497 (.358)
Ideological extremity	.265 (.071) **
Age of member	.005 (.003)
Seniority of member	−.005 (.003)
Vote ($t-1$)	−.007 (.002) **
Institution	.162 (.115)
Constant	3.137 (.417) **
N of cases	2,482
R^2	0.392
Root MSE	0.991

Source: Data from 1982–96 elections.
Note: Standard errors are in parentheses.
$*p = .05$ $**p = .01$

issues that could undermine one or another of the analyses (e.g., are more conservative members predominantly clustered in particular kinds of districts?). I already know that the results shown in tables 5.1 and 5.2 are robust over two decades and across institutional settings. Are they similarly robust when combined?

The answer is strongly affirmative. Nothing in table 5.3 detracts from the conclusions already reached. Challengers clearly act in a strategic fashion, selecting races in which the competitive situation is move favorable. These are, in the main, races in which the partisan balance is more likely to be in their favor and signals foretell a competitive contest. A strategic actor will also consider the quality of the opposition—in this case, the condition of the incumbent. Ideologically extreme members, and members who performed poorly in the last election, attract high-quality challengers, which is consistent with the results reported here. Once I control for the competitive nature of the district,

however, the effect of seniority falls below statistical significance, indicating that junior members, on average, come from more competitive settings. Finally, there is no real pattern to estimated impact of demographic diversity. I suspect that the estimate for media market efficiency is accurate—this variable barely fell below statistical significance in previous estimations. The other demographic estimates fluctuate. Members from congressional districts and states that are more urban face lower quality challengers, on average, yet this result was not evident in earlier analyses (although the direction of the effect is consistently negative). Income, education, and foreign stock fall below conventional significance levels, with the coefficient on education less than 10 percent from the first analysis. Overall, I place more stock in a regularly negative effect than in the statistical significance of any particular measure.

What of institution? In chapter 4, I observed a large gap in challenger quality between the House and Senate (1.5 points; see table 4.2). After controlling for district diversity and the competitive environment, this gap was reduced by half (.762). After controlling for characteristics of the incumbents and the electoral environment, the gap was almost one-tenth (.162) and no longer statistically significant. House/Senate differences in challenger quality, then, are a product of differences in the competitive nature of states, the higher level of the media market efficiency of states, and the ideological position and previous electoral performance of Senate incumbents, not anything distinctively attractive about the Senate as an institution.

Endogeneity in Campaigns? Looking More Closely at Closeness

The estimated impact of the closeness of the race merits further examination. Remember that closeness is the *Congressional Quarterly* "call" of the race (running from safe Democratic to safe Republican) folded about its midpoint. These calls are made in mid- to late October, when the identity and "quality" of the challenger is a known quantity. Closeness and challenger quality are in many respects inseparable. Thus, reverse causality could apply: closeness is a function of candidate quality rather than quality being a function of competitiveness (as reflected in the closeness measure). The dilemma here, as in all models of candidate quality and campaign spending, is rampant endogeneity. I lack variables that both reflect short-term influences on candidate decision-making and are not themselves products of my dependent variables.[15]

15. Canon tries to solve this problem, including the state of the national economy, the Watergate scandal in 1974, and whether there were any significant scandals involving the incumbent in his model of candidate emergence. None of these variables is available in this study. Even with a set of measures collected specifically to understand challenger emergence and success, Canon was able to explain only 25 percent of the variance in challenger quality in the House and 21

I tested this by removing closeness from the equation. These estimates were reported in the second column of table 5.1. Happily, they do not change the conclusions. The estimated impact of partisan balance increases substantially. This comes as no surprise, since closeness and partisan balance are two measures of district competitiveness. More importantly, most other coefficients do not change. The estimates for the demographic diversity measures increase somewhat, with income and education nearing statistical significance. There is undoubtedly some interaction between Senate and House candidate quality and the short-term competitive situation (see also Jacobson and Kernell 1983; Bianco 1984; Bond, Covington, and Fleisher 1985; and Banks and Kiewiet 1989), but this does not undermine the results reported in tables 5.1 to 5.3.

Discussion

Candidate emergence is a key part of the elections puzzle. The dynamics of presidential primaries have been a focus of many studies (e.g., Aldrich 1980; Bartels 1988). Candidate emergence in the House and Senate has received less attention. Canon (1990) attempts to explain the behavior of amateur politicians in American politics, and the decision to run is an important part of that explanation. Fowler and McClure (1989) perform an intensive analysis of the decision to run, identifying all the contending candidates, interviewing them about their perceptions of the district and the race, and following a single district from incumbent retirement to open seat contest to second-term defeat. Still, this study is limited to a single congressional district.[16]

In this section, I tested one part of my broad model of campaigns and elections: how candidate decision making, at least as reflected in candidate quality measures, is conditioned by the makeup of the political setting. The political setting and the institution serve as the backdrop to House and Senate

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percent of the variance in the Senate (1990, chap. 4), roughly the same amount as here. Other possible sources of exogenous variables might be the polls taken by candidate organizations, national campaign committees, and media outlets at various points in the campaign or campaign contribution lists with dates attached. The inferential problems associated with these data, most of which are collected after the campaign is over, resurface throughout this chapter. As of the time of this writing, another possible source has emerged on the Internet. As was mentioned in chapter 4, the *National Journal* web site has extensive coverage of state and national campaigns. This site is the first publicly accessible source that I know of in which races are "called" *throughout* the campaign season. Thus, a researcher can track which races are "too close to call" as early as February and how these elite evaluations change during the election year as opponents are determined, campaigns raise funds, and the election evolves. This feature has only been available, to my knowledge, since 1998.

16. One group of congressional scholars is working to remedy this deficit (see, e.g., Canon, Schousen, and Sellers 1996; Kazee 1994; and Fowler 1993).

campaigns. Politicians respond to the setting, deciding that some districts are potentially competitive and others are not. Their decisions are determined, I suggested, in part by the diversity of the district, the efficiency of the media market, the partisan behavior of the voters, and particular events that make incumbents more or less vulnerable. This hypothesized relationship between political settings and candidate quality was not borne out. There are no statistically discernible relationships between my measures of heterogeneity or media market efficiency and the quality of challengers. Instead, challenger quality is most related to competitiveness measures: partisan balance and closeness.

The decision to run for office is often idiosyncratic and unpredictable. In the next section, I examine whether the decision to spend can be more systematically related to the backdrop of political campaigns. While the decision to run may be idiosyncratic, the decision of how much to spend might be less so since it is determined by other actors such as political action committees, the national congressional and senatorial campaign committees, state and local parties, and individual donors, all of whom may react in tandem to the political makeup of the district, the efficiency of the local media market, and the activities of competing candidates.

How Much Do Candidates Spend? Complexities in Campaign Spending

In table 5.4, I present the estimates from a two-stage least squares model predicting incumbent campaign expenditures in House contests involving incumbents from 1984–90, 1994, and 1996.[17] The primary hypothesis tested in this table is that candidates respond to the strategic situation when making the decision to run, regardless of whether they are choosing to run for the Senate or the House. Observed differences in campaign spending, reported in chapter 3, should disappear once we control for characteristics of the district. Given the strategic nature of campaigns, we should not be surprised to discover that the most important determinant of incumbent spending is challenger spending. In contrast to my findings for candidate quality, however, the results reported here support my expectation that candidates react to the political setting. Incumbents spend more in diverse political environments. Media market efficiency also influences campaign spending but not in the ways I predicted. Candidates spend more when the district is dominated by a few media markets and less when market and political district are highly contiguous. I do not think these are contradictory findings and attempt to reconcile them later. Finally,

17. The inclusion of lagged variables in the model means that 1982 and 1992 have to be dropped. Districts that were redistricted during other years were also dropped from the analysis.

TABLE 5.4. Campaign Spending, Incumbents, and Political Settings

Variable	Coefficient
Constant	−.765 (.366) *
Challenger spending	.289 (.064) **
Closeness	−.006 (.142)
Media contiguity	−.500 (.143) **
Media dominance	.236 (.120) *
Income variance	.006 (.019)
Education variance	.111 (.165)
Racial diversity	.064 (.168)
Urban diversity	.369 (.136) *
Foreign stock	.579 (.309)
Partisan split	−1.562 (.440) **
Ideological extremity	.128 (.367)
Member age	−.006 (.007)
Member seniority	−.005 (.008)
Vote ($t-1$)	.007 (.005)
Institution	.181 (.090) **
Constant	.927 (.388) *
N of observations	1,938
R^2	0.486
Root MSE	0.984

Source: Data from 1982–96 elections.
Note: All entries are 2SLS coefficients with robust standard errors (estimated in STATA 5.0). Incumbent and challenger spending are treated as endogenous. Standard errors are in parentheses.
$*p = .05$ $**p = .01$.

as would be expected, incumbents spend dramatically less when the partisan balance is in their favor.

Incumbents react most strongly to the competitiveness of the race, as reflected in challenger spending. A movement of 10 cents in per capita spending by a challenger, roughly $50,000 for the average congressional district and $450,000 for the average state, is associated with a 51 cent increase in incumbent per capita spending (all ceteris paribus). This means that a House challenger who spends only $50,000 more than the average candidate faces an

incumbent who spends $257,000 more.[18] Since the full range of challenger spending runs from −6.9 (challengers who spent basically nothing) to 1.58, this is a potentially huge effect. Incumbents are also able to spend less when district partisanship leans in their favor. Moving from a perfectly balanced district to one that is 90:10 in favor of the incumbent's party causes a 49.5 cent drop in predicted incumbent spending, all else being held equal. These results confirm the conventional wisdom: incumbents spend more when faced with high-spending challengers and when the long-term partisan balance is not in their favor.

Surprisingly, the impact of my other measure of competitiveness—the closeness of the race—is indiscernibly different from zero. This seems odd until we recognize that the two-stage model includes lagged as well as current spending. Spending by candidates in both the current and previous elections already accounts for current and long-term competitiveness. There is nothing left for closeness to explain. Incumbent characteristics are statistically insignificant for the same reason. Once I control for past spending ("propensity to spend" in Green and Krasno's terminology) and the district's partisan balance, there is little additional variation in incumbent spending behavior.

Incumbents also spend in reaction to district diversity. While only one of the estimated coefficients is two times its standard error, all are signed correctly and the combined substantive impact of the diversity measures is substantial. A movement from the least to the most diverse setting on percentage urban is associated with a $1.39 increase in per capita spending ceteris paribus.[19] A similar movement from the least to the most diverse setting on percentage foreign stock is associated with an 89 cent increase.[20]

Finally, as hypothesized, incumbents can spend less in highly efficient media markets. The estimates from table 5.4 show that contiguity (how much media market lines and district boundaries overlap) is negatively associated with spending. This is as expected: candidates devote less money to advertising when each ad dollar is more efficiently targeted at voters. On the other hand, the results also indicate that incumbents spend more when their districts are dominated by a single media market. Put another way, when a district is served by many media markets this model predicts that incumbents will spend less money. It is possible that when there is a single obvious place to spend

18. Jacobson (1990a) argues that trying to increase challenger spending will not help competitiveness since incumbents can simply swamp high-spending challengers. These results lend support to his claim, though I do not estimate the marginal impact of a dollar's worth of spending on vote totals.

19. The urban diversity measure theoretically runs from zero to 1, but empirically it runs from .004 to .90.

20. These may seem large compared to the impact of challenger spending, but remember that challenger spending has a range eight times larger than these variables.

TABLE 5.5. Changes in Incumbent Spending as a Product of Diversity and Media Efficiency: Two Examples

	Wyoming	CA31
Diversity		
Urbanness	high	low
Spending relative to average	1.16	−.86
Foreign Stock	low	high
Spending relative to average	−1.04	1.11
Media markets		
Contiguity	moderate-high	low
Spending compared to average	−.93	.89
Dominance	low	high
Spending compared to average	−1.15	1.05

Source: Entries were obtained by substituting the actual values for each district into the estimates from table 5.4

advertising dollars candidates on average spend more. Incumbents may spend less in districts that are not dominated by a single media market because they are targeting nonmonetary resources, such as time, at activities that are more efficient for that type of district, such as newspaper interviews, personal visits, county fairs, and other types of personalized campaigning. These results are somewhat contradictory, however, and need further study and refinement.

Two sample districts illustrate the impact of district diversity and media market efficiency on campaign spending. Wyoming ranks relatively high on urban diversity because its population is evenly split between a few urban centers and a large rural sector, it has relatively small numbers of foreign born, and it has the *least* efficient state media market in the country. California's Thirty-First District (CA31) was cited in chapter 2; it is described in *Politics in America* as *the most diverse* congressional district in the United States, and it ranks at the top in racial, income, and foreign stock diversity scores. However, it is the least diverse in terms of the urban-rural split—the district is 100 percent urban. Finally, CA31 ranks at the top in market dominance (completely dominated by the Los Angeles market) but at the bottom in market contiguity (96 percent of the residents of the Los Angeles ADI do not reside in CA31).

The relative impact these variables have on the predicted level of the incumbent spending is shown in table 5.5. These two examples demonstrate the potentially large impact of the political setting. The predicted difference in spending is roughly two dollars per capita, solely as a product of differences

in setting. At the minimum, in a typical House seat, this translates into $1 million in additional spending. Of course, this comparison is taken in isolation. In the real world, I would have to consider the state of the economy, both nationally and in particular states or regions; the vulnerability of the incumbent; the quality of the challenger; and other idiosyncratic features of the contests. Nonetheless, demographic diversity does seem to affect spending. A more complex district is harder to run in and requires a higher level of campaign activity.

Finally, I turn to institution. Large differences in campaign spending between the House and Senate were apparent in chapter 4. Ceteris paribus, the results in table 5.4 lead me to expect that Senate incumbents spend $1.31 more per capita than do House incumbents. Controlling for district diversity, media market efficiency, characteristics of the incumbent, and even per capita spending by the challenger does not make institutional differences go away, but they are substantially attenuated. The bivariate regression coefficient is .280, while the multivariate estimate is .181. As with the candidate quality models, the weights that are attached to these various measures remain constant across the Senate and the House.[21] Senate incumbents spend at a higher level than House incumbents do, but the *relative* spending levels among incumbents of both institutions are explicable by the same set of indicators and the same causal model.

Discussion: Explaining Campaign Spending

Unlike previous studies, this one models campaign spending as a result of intracampaign dynamics, the political context, and the institution. My expectation was that short-term forces would be captured by closeness and long term forces by partisanship. Neither of these expectations were met. Instead, it was found that the dynamics of incumbent spending in the U.S. Congress over the past 20 years depend mainly on current spending by the opponent and the competitiveness of the previous race. Spending is determined primarily by the strategic situation in the current contest and by long-term forces in the district such as heterogeneity, media market efficiency, and partisan balance.

The major findings from the results presented in table 5.4 are three. First, the "closeness" of the race has no discernible affect on incumbent spending. I think this is a product of other variables introduced into the two-stage setup that reflect long-run competitiveness. Second, other characteristics of the incumbent—his or her ideological extremity, age, and seniority—have no discernible impact on spending. Finally, and most importantly for our concerns

21. The dummy variable interaction terms were all statistically insignificant, but they need to be included in order to handle serial correlation in the data.

here, institutional effects are relatively weak. The inclusion of campaign, setting, and media market variables explain 75 percent of the observed gap in incumbent campaign spending; institution accounts for the remaining 25 percent.[22]

What does this teach us about the validity of House and Senate comparisons? Incumbent spending is related to the same set of variables across the two institutions. Political settings and media markets constrain campaigners in the ways I expected. But Senate and House differences persist. Even if the structure of explanation is stable across the two institutions, the level of many of the independent variables is dramatically different. Incumbents may react to increases in per capita spending by challengers at the same rates in the House and Senate, but a 10 cent growth translates into a predicted increase in spending that is eight times larger for the average state than for the average CD. Challengers are of higher quality and spend more money in the Senate. Nothing I have done makes this difference go away.

The comparisons here are hindered by the small number of Senate contests, even when they are pooled over two decades. One or two idiosyncratic races can skew the results for a whole year (although per capita and inflation adjustments help the situation). In appendix B, I discuss the dangers inherent in using two-stage least squares estimation for studying campaign spending generally, and especially in the Senate. The data loss can be severe.

I believe that these results argue in favor of a single theoretical approach and empirical model to describe and explain House and Senate campaigns. While coefficients vary from year to year, this is mainly due to small sample sizes in the Senate. The overall influences on House and Senate campaign spending are the same. House and Senate candidates react in similar fashion, and at similar rates, to spending by their opponents. On average, higher quality challengers in both institutions spend more than lower quality challengers. Incumbents and challengers both spend more when past voting patterns indicate a relatively even split between Republicans and Democrats (even when the competitiveness of the current year's race is controlled for). These patterns are independent of the office being contested.

A Unified Approach to House and Senate Campaigns?

A high hurdle stands in the way of comparative electoral studies: do the countries, states, or electoral units vary so greatly that everything falls into "differences" and nothing into "similarities"? I have shown that this is not an insurmountable problem when comparing the House and Senate. Another hurdle rises in its place: the small number of Senate races relative to those of the

22. As was already noted previously, I cannot discuss challenger spending because the spending equation is underidentified.

House. At first, this seems to be an imposing barrier. After all, there are 33 Senate races a year, so pooling over eight elections results in 250 cases. However, once I try to apply any of more demanding quantitative tools the number of Senate cases rapidly diminishes. The assumptions and data requirements of two-stage least squares analysis render any analysis of Senate cases suspect. Still, the results show that Senate and House campaigns respond to the same set of pressures: the opposing candidate and the political makeup of the district. This is an encouraging result for the political setting hypothesis and otherwise confirms in the Senate a series of findings about House campaigns and candidates (summarized well in Jacobson 1997).

There are improvements that can be made. First and most obvious, while I have an extensive set of demographic measures I fail to examine more prima facie political measures. David Canon included such variables as the number of seats held by each party in the state legislature, the "shape of the structure of political careers," strength of the local party organization, and the existence of significant primary opposition. The latter would obviously help us distinguish between high and low spending levels (since the spending figures include primary as well as general election spending). Another recent study, reviewing more than a century of electoral data, is able to discern district effects in the Senate (Lee and Oppenheimer 1999). The data requirements for a study such as mine, however, are tremendous. The starting point—a comparable set of measures in the House—is enough to dissuade any but the most dogged researcher. Second, I have been unable to operationalize potentially important patterns in these data. Perhaps modality is important: racial distribution is different in Illinois than it is in Virginia, even though they both have a 15 percent black population. Perhaps there are thresholds beyond which certain economic or racial groups have a significant impact.

The results here point more to the future than to the endpoint of comparative models of campaigns in the House and Senate. While my hypotheses surrounding the effects of the political setting fell short, the overall patterns are remarkably similar across years and institutions. Both Senate and House elections feature higher quality candidates when the strategic situation is promising. The Senate acts as an attractive lure for quality candidates above and beyond other factors that might make the race competitive. Campaign spending in the House and Senate is correlated with the same sets of indicators: opponent spending, challenger quality (in the case of challenger spending), and partisan balance. At least for incumbents, there are consistent indications that spending is higher in more diverse political settings. Setting matters. Your opponent matters. These lessons apply to House, Senate, and probably all competitive electoral contests.