

## Chapter 2

# *Campaign Strategy under Open-List Proportional Representation*

*“I win elections with a bag of money in one hand and a whip in the other.”*<sup>1</sup>  
Antônio Carlos Magalhães, Senator and former governor of Bahia

*“I played by the rules of politics as I found them.”*

Richard M. Nixon

How do electoral systems influence ultimate political outcomes? Electoral rules and structures encourage certain kinds of people to choose political careers. Electoral rules also motivate people who are already politicians to act in particular ways. To understand how an electoral system affects the composition of a political class as well as its subsequent behavior, it is necessary to analyze the strategies of candidates for legislative office. In majoritarian, “first past the post” electoral systems, office-seeking politicians try to position themselves as close to the median voter as possible. Judged in terms of their issue stances, such candidates often seem very close. In proportional systems, however, optimal campaign strategies are quite different. Because small slices of the electorate can ensure victory in proportional elections, strategic office seekers should not pursue the median voter; rather, they should seek discrete voter cohorts (Cox 1990b, 1997). This chapter seeks to illuminate the ways candidates define these cohorts. I will show that candidates choose targets depending on their size and characteristics and on the total votes needed for election. Strategies also depend on the cost of campaigning as candidates move away from their core supporters, on the existence of local leaders seeking patronage, on the spatial concentration of candidates’ earlier political careers, and on the existence of concurrent elections for other offices.

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1. This was ACM’s response when asked how he managed, under very difficult circumstances, to elect an unknown candidate as his successor (C. Souza 1997, 127).

The chapter proceeds in four sections. The first considers the ways candidates choose target groups of potential voters. The second assesses the cost of communicating with these voters. The third presents and tests an empirical model of campaign strategy.<sup>2</sup> This model uses amendments to the national budget as a measure of candidates' strategic intentions. The final section models voting results in the 1990 congressional election to assess the ultimate electoral payoff of campaign activities.

### I. How Candidates Calculate the Costs and Benefits of Appeals to Voters

Every candidate knows roughly how many votes guaranteed a seat in the congressional delegation of the candidate's state in the previous election. This benchmark depends on expected turnout and on the number of votes taken by the most popular candidates in the candidate's party.<sup>3</sup> Given a vote target, candidates imagine a variety of ways to construct winning coalitions. Their strategic calculations center on the costs and benefits of appeals to any potential group. In this section I examine some principles affecting candidate calculations under Brazil's electoral rules. These principles operate nationwide—that is, without reference to differing subnational contexts. I then consider aspects of Brazilian politics that vary across states, such as the strength of state-level politicians.

#### *Voters as Members of Politicized Groups*

A rational candidate seeks to expend the least resources for the most support. The ideal target is a self-conscious member of a large group carrying an already-politicized identification or grievance. Japanese-Brazilians, for example, always understand their ethnicity, just as evangelical Protestants know they are not Catholics. Evangelicals, however, are more likely than Japanese-Brazilians to see themselves as aggrieved; hence, the evangelical vote is more unified. In both cases, outsiders see the cleavage less intensely; candidates can thus win the evangelical vote without losing all Catholics.

At the other extreme, in terms of the permanence and politicization of identifications, lie occupational groups. For industrial workers, class consciousness depends on the nature of the production process, wages, and labor

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2. See appendix B for a discussion of data sources.

3. The votes of leading candidates may far outweigh laggards, but since the number of candidates elected is directly proportional to the party's cumulative share of all votes cast, popular candidates make possible the election of those with far fewer votes.

organization. Workers in small factories, especially in the informal sector, tend to be younger, less skilled, more recently arrived in the city, and more deferential toward owners. Such workers support candidates offering particularistic benefits over candidates promising social reform.<sup>4</sup>

Community identification, especially in small communities, falls closer to the automatic side. Local politicians try to strengthen community identification, because their own influence depends on delivering voters to candidates. The centrality of government jobs facilitates voter mobilization in small communities, and the restriction of civil service protection to low-level positions politicizes public sector posts. Because elections for local executive posts and legislatures occur at different times, local officials know they will be on the job both before and after legislative elections, so they are motivated to make deals with legislative candidates.

#### *The Difficulty of Securing Benefits for the Group*

Deputies seek support for their campaign promises in the legislature. Legislators opt for geographically separable goods, for pork-barrel programs, when the demand for public goods is strong, when it is relatively stable and district-specific, and when the decisional system is fragmented rather than integrated (Lowi 1964; Salisbury and Heinz 1970). Brazil is characterized by the existence of powerful states acting in their own interests, selection of congressional candidates at the state level, municipalities independently electing local governments, weak national party leadership, and separation of powers between the president and the federal legislature. In addition, enormous regional inequalities leave some municipalities so poor that government employment and subsidies are crucial sources of income. Thus, Brazilian politics favors the provision of local, geographically separable benefits.

#### *The Costs and Benefits of Barriers to Entry*

Deputies seek to insulate voter cohorts from the incursions of competitors, because the deputies know that barriers to entry, by eliminating competition, reduce campaign costs.<sup>5</sup> The difficulty of erecting barriers depends on the nature

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4. Paulo Maluf, a conservative populist politician, could not carry the state of São Paulo in the 1989 presidential election, but he won the 1992 mayoral contest in São Paulo precisely with the votes of such workers.

5. In an excellent analysis of patronage, George Avelino Filho (1994, 229) makes the same point: "Monopoly permits party cadres to make themselves obligatory intermediaries in any transaction with government." See also Bezerra 1999.

of the group to be shielded. Wage hikes, for example, require broad legislative coalitions, so it is difficult for anyone to claim exclusive credit. Barriers against ethnic outsiders, by contrast, are essentially automatic but are more costly to erect against insiders such as other ethnics.

Is it hard to erect barriers around particular localities? A simple “You’re not from around here” shields a small, highly integrated community. Violence, in the form of disruption of campaign rallies or physical threats, is routine in rural areas. More diverse communities develop factional competition, with each side relying on strongly partisan supporters. In complex urban areas, no single faction or leader controls a significant portion of the electorate, and the police are not beholden to individual politicians. Many candidates seek votes, and barriers to outsiders from any party are hard to maintain.

Suppose a broker controls access to a group of voters. This control stems from some combination of coercion and prior delivery of employment or services. Deputies seeking brokers’ votes offer cash or a slice of the benefit, such as a road-building contract. If the broker successfully erects rigid barriers against the entry of other brokers, candidates know they will pay more for the broker’s votes than the sum of the prices they would pay for each vote individually. If, by contrast, the broker cannot protect his turf, candidates pay a lower total price for these votes than their individual prices. Whatever the price and form of payment, brokers’ fees require candidates to secure separable resources.

## II. The Cost of Communicating with Potential Voters

Brazilian campaigning is a direct, grassroots activity.<sup>6</sup> Candidates visit small communities, holding meetings and rallies. Is it rational to campaign where one’s message reaches few voters? It certainly can be. First, the more concentrated the target group, even if small in number, the lower the cost of constructing a coalition that can guarantee those votes. Second, electoral coalitions that cover small areas are likely to be locational—that is, based purely on community identification. While in theory locational and nonlocational criteria might match perfectly (all southerners are black, all northerners are white), few such cases exist in Brazil. Thus, the physical distance between a candidate and

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6. Media access remains central to campaigning even though candidates cannot buy radio or TV time. Because radio and newspapers in Brazil are generally quite partisan, media connections provide an effective barrier to competition as well as a means of communicating with voters. Many broadcasters, popular as a result of call-in shows, have become candidates in recent years.

the last voter, the voter whose support assures victory, is nearly always smallest for locational coalitions.<sup>7</sup>

Candidates' career trajectories constrain their campaign strategies and vote patterns. "Local" candidates—former mayors or city council members—should always be plentiful.<sup>8</sup> Except for those whose careers are rooted in large metropolitan areas, local candidates naturally develop concentrated distributions, because their name recognition decreases with the distance from their local job. What happens when candidates appear who have backgrounds in state bureaucracy or who have no political history? This is not a simple question, because at any given election the mix of careers among candidates respond to two sets of factors. One set (which may be called endogenous) stems from the context of the election itself, in the sense that new candidacies respond to the initial distribution of incumbent candidates. For example, where transportation costs are high, where statewide name recognition is low, where concentrations of workers or ethnics are weak, and where voters prefer candidates with municipal political experience, only local types will offer themselves. But the career mixes of candidates also depend on a second set of factors, exogenous in the sense that new candidacies reflect the opportunities and rewards of legislative activity. People with different backgrounds become candidates because they seek the personal rewards legislative activity offers.<sup>9</sup>

My argument is simple: in campaigning, what you did affects what you do. For many local candidates, a run for the federal legislature is their first statewide political activity. Because locals begin with a single peak of name recognition, a concentrated campaign is the obvious choice. But suppose the candidate once headed a government department that distributed roads or schools.<sup>10</sup> A bureaucrat considering a political career surely would locate projects with a view to their political advantage, and such candidates would become well known in the

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7. The exceptions include winning electoral coalitions based on class voting in the cities of Rio de Janeiro and São Paulo.

8. This phenomenon may begin to change, since mayors can now seek immediate reelection. Federal deputy, however, is not necessarily a step up: in 1992 about one-fifth of all federal deputies went the other way, running for mayor. Local officeholders are abundant as candidates except in frontier states, which develop so fast that local politics tends to be extremely weak. Frontier municipalities depend on state and federal largesse, and politicians often "parachute" in to pick up votes.

9. The typology that follows is incomplete in the sense that candidates selected by disciplined parties like the PT may represent a key cohort of voters. Thus the PT runs "labor" candidates typically based on concentrated-shared votes.

10. Former bureaucrats running for deputy also reflect the influence of state governors, who always put persons of confidence in key bureaucratic posts. Hence, as Celina Souza has pointed out (personal communication), gubernatorial power influences the shape of bailiwicks.

communities benefiting from their largesse. Such candidates' voting support should therefore be scattered rather than concentrated. Whether they will dominate or share municipalities depends on the target municipalities and on the programs these bureaucrats directed. In rural communities, domination can result, either because a single program affects many people intensely or because the program may be designed to buy the support of influential elites rather than individual voters.<sup>11</sup> Urban communities absorb multiple programs—often directed by competing politicians—and voters are less easily controlled. Finally, suppose the candidate's career is in business. Businesspeople may begin with some central recognition peak around the location of their business, but such peaks are seldom as large as those of local politicians. Business types' advantage, of course, is money. Money buys voters with T-shirts, pressure cookers (bottom half before the election, top half after), and political jobs. Money buys the political bosses who control voters, and money greases the mutual support double-ups (*dobradinhas*) between state assembly and federal Chamber candidates. For business types, then, scattered support results: the strategic business candidate buys support wherever available.

At this point, I will distinguish between challengers and incumbents. Suppose a local politician challenges the incumbent in a concentrated-dominant bailiwick. Superficially, the challenge resembles a contest over an occupied single-member seat in the U.S. House, but the election is actually more difficult. Local bailiwicks are usually sparsely populated. If the challenger picks up only 51 percent of the incumbent's vote, the confrontation typically leads to mutual defeat. Since pork matters more than national policy, replacing a deputy who has delivered a healthy share serves the interest of neither local bosses nor individual voters. Overall, then, local-versus-local contests are so difficult that they should rarely occur.<sup>12</sup> Unless the incumbent neglects the district or angers the local boss, local challengers should await a retirement.

What should be expected from local incumbents? Given the infrequency of direct challenges within their bailiwicks, locals mainly fear a drop in the ag-

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11. A road, for example, may be intended to enrich a particular contractor or big farmer.

12. In the 1990 election, the governor of São Paulo, Orestes Quércia, supported a challenge to a deputy who had previously been a member of Quércia's PMDB but had defected to the PSDB. Quércia's well-financed challenger won, but so did his target. For a broader test, consider the 1990 election in Paraná. Of the state's thirty congressional seats, nonincumbents won twenty-four, of which twelve won with concentrated, local bailiwicks. Six of the twelve constructed bailiwicks where none had previously existed. Four essentially assumed the districts of incumbents who did not seek reelection. Only two took over the bailiwicks of incumbents who did compete. In one case the challenger constructed a much bigger bailiwick; in the other the challenger benefited from the state's swing to the right, defeating two incumbents who had shared the same area.

gregate party vote. Were that vote to decline sufficiently, the same postelection rank might no longer guarantee a seat. Thus, local incumbents have to fish for new voters either in the bailiwicks of party colleagues or in the bailiwicks of incumbents from other parties. Party identification in Brazil is weak, so deputies fairly easily attract supporters of other parties. Since proportional representation rewards higher party totals with additional seats, party leaders discourage poaching in the bailiwicks of allies in one's own party. In sum, Brazilian candidates should forage for votes in unfriendly territory. And since shared municipalities are more vulnerable than dominated municipalities, domination as well as concentration should decrease for local candidates.

Changes in spatial concentration also occur among nonlocal candidates. The core constituencies of candidates relying on scattered distributions—evangelicals, broadcasters, and state bureaucrats—are relatively stable in size, so such candidates need new followers. Since some of the pork these deputies deliver to their core supporters benefits others in the same municipalities, and since deputies save resources by remaining near their core support, their spatial concentration should increase.

Businessmen buy their initial votes with payoffs to local bosses, but once in the legislature such leaders are likely to seek more popular backing that will fill in weak municipalities between areas of strength. Concentration among successful business candidates rises. Greater concentration, however, may not produce greater electoral success. Business candidates' electoral support is more fickle than the support enjoyed by local types. Better offers sway bosses loyal only to the highest bidder. Thus, businessmen face contradictory incentives. While opportunities are clearly better for candidates unconstrained by local careers, businessmen can lose support as quickly as they gain it. It should be expected, therefore, that business will supply many new candidates, but business incumbents will be more vulnerable to electoral defeat than candidates with other career trajectories.

### III. Testing the Strategic Model in the 1990 Election

How is it possible to construct an empirical test of the broad outlines of my argument?<sup>13</sup> Because actual electoral results reflect the interacting strategies of dozens or even hundreds of candidates, a dependent variable is needed that

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13. Given the considerable continuity between the last legislative elections of the dictatorship and those of the New Republic, there are no campaigns without incumbents. In addition, the availability of results for only four elections leaves open the stability of the system.

measures each candidate's campaign effort. I begin, therefore, with a model of campaign strategy that uses budgetary amendments as proxies for the overall campaign activities of candidates in particular municipalities in the period leading up to the 1990 election.

Deputies submit budgetary amendments to retain old followers and attract new ones. During the dictatorship, the Congress could not modify the national budget, but once deputies regained that right, after the adoption of the Constitution of 1988, deputies learned quickly. Between 1989 and 1992, the annual number of budgetary amendments climbed from 8,000 to 72,000, with more than 90 percent targeting specific municipalities.

The model assesses, for each municipality, the chance that a deputy running for reelection will submit a budgetary amendment.<sup>14</sup> Concretely, the probability that a deputy running for reelection in 1990 offered an amendment (in 1989 or 1990) targeting municipality  $X$  is a function of six factors: (1) the distance of  $X$  from the center of the deputy's 1986 vote, (2) the dominance and concentration of the deputy's 1986 vote, (3) the vulnerability of municipality  $X$  to candidate invasion, (4) the socioeconomic and demographic similarity of  $X$  to the deputy's core constituency, (5) the deputy's electoral insecurity, and (6) the deputy's career trajectory.

#### *Distance from 1986 Vote Center*

I measure the 1986 vote center of each incumbent deputy in two ways.<sup>15</sup> Municipal center,  $C_m$ , is based on municipal domination, the percentage of each municipality's total vote received by deputy  $i$ . Personal center,  $C_p$ , is based on personal share, the percentage of deputy  $i$ 's statewide total received in each municipality. I then calculate the distance from  $C_m$  and  $C_p$  to every municipality in the state. As municipalities become more distant, name recognition declines and the cost of campaigning increases; distant municipalities are less likely to

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14. Budgetary amendments are obviously not the only tactic deputies utilize. They visit numerous municipalities, holding rallies and offering support to candidates for other offices. They nominate loyalists to bureaucratic jobs and offer voters material inducements in exchange for their support. Budget amendments are thus a proxy for a range of campaign activities. For this reason, my analysis focuses on amendments offered rather than amendments approved by the budget committee. The Budget Committee's actions represent a legislative decision process, a process treated in chapter 8.

15. The center is the centroid of a plane surface in which a municipality's votes are assumed to be cast at its center. Note that  $C_m$  and  $C_p$  are not necessarily at the actual physical center of any particular municipality. The socioeconomic centers in the social match section, however, are indeed individual municipalities.

be targets for deputy *i*. At the same time, deputies with personal vote centers in municipalities where they are not also dominant (typically in big cities) are likely to make amendments further from their personal centers, because they share the central municipality with so many other candidates that credit claiming is hopeless.<sup>16</sup>

### *Dominance and Concentration*

Earlier, I defined dominance and concentration as characteristics of individual deputies measured at the level of the state as whole. Dominance, however, is also meaningful at the municipal level. A deputy could dominate minor municipalities, for example, but share large municipalities with others. Only municipal-level dominance should affect amending.<sup>17</sup> The higher the level of dominance in a given municipality, the more the deputy can claim credit for pork-barrel efforts, and, therefore, the more budgetary amendments the deputy will offer. When dominance reaches very high levels, the deputy has a “safe seat” (as in the old one-party American South); hence, amendments should decline.

What should be the consequences of concentration? Candidates with concentrated 1986 voting support should make more amendments because such candidates are vulnerable to the incursions of candidates with bureaucratic or business backgrounds. Concentrated candidates move out from their original bases in roughly concentric circles. These candidates must be less selective than those with scattered votes, because concentrated candidates choose targets not just on the criterion of vulnerability but also on the criterion of nearness to the core. As a result, concentrated candidates “overamend.”

### *Municipal Vulnerability*

If a municipality is dominated by a strong incumbent seeking reelection, challengers have little incentive to invade. But conditions change. Municipalities become penetrable. A dominant deputy retires, leaving an electoral void. An influx of migrants signals an electorate free from control by old leaders and old loyalties. Municipal fragmentation, either in the sense that many candidates

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16. For a treatment of the effect of voter distance from candidates' home media markets, see Bowler, Donovan, and Snipp 1992.

17. If state-level dominance has any effect at the level of the individual municipality, it must be true that deputies whose support comes mostly from municipalities they dominate are likely to make more amendments even in municipalities they only share—that is, dominant deputies' pork-barrel habits make them behave irrationally.

from a single party share votes or in the sense that candidates from many parties enjoy electoral success, encourages invasion.<sup>18</sup>

### *Social Match*

If incumbents regard certain occupational or ethnic groups as key supporters, these legislators should target new municipalities where similar groups reside. Deputies relying on working-class votes should seek industrial municipalities. Deputies appealing to civil servants should carry that appeal to localities where government is large. Thus, deputies pursue new targets similar in socioeconomic composition to their old bailiwicks. I begin by defining, on the basis of personal vote share and municipal dominance, each deputy's core municipality.<sup>19</sup> Then I calculate the difference between every other municipality and the core municipality on three socioeconomic indicators: size of electorate, per capita income, and percentage of workforce employed by government. The first two indicators reflect the possibility of class-based vote seeking, while the third represents the well-organized interest of government employees. Given that appeals to social class are generally weak in Brazil, government employees are the most likely target. For each indicator, it is expected that municipalities more like the deputy's core municipality should receive more amendments.<sup>20</sup>

### *Electoral Insecurity*

Individual votes largely determine deputies' electoral fortunes. Those whose 1986 rank was low, who barely escaped elimination, ought to work harder in the next election. Their overall number of amendments should increase.

### *Career Trajectory*

Because politicians with local backgrounds are more likely than politicians with bureaucratic or business backgrounds to maintain close ties with con-

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18. *Interparty fragmentation* is defined as 1 minus the sum of the square of each party's share of the total vote. *Intraparty fragmentation* is defined equivalently at the level of the individual candidate—i.e., 1 minus the sum of the squares of each candidate's share of the party total.

19. If a deputy had a single municipality with a personal share clearly above any other, I selected that municipality as the core. If the deputy's personal shares in two municipalities were within a few percentage points, I chose the municipality with a higher municipal share as the core.

20. The socioeconomic indicators come from the 1980 census, except for the size of the voting population, which is drawn from the 1989 electoral rolls.

stituents, local candidates should amend more. Locals should also concentrate their campaigns—including their budgetary amendments—closer to home. Bureaucratic and business candidates scatter campaign activities, buying support where they once initiated projects and where they identify vulnerable municipalities. Candidates from families with long traditions in politics ought to be more pork oriented, making more amendments.<sup>21</sup>

### *Pooling and Estimation*

Estimation began with observations at the level of individual deputies—that is, all deputies who served in 1986 and ran for reelection in 1990. I then pooled the deputies by state, and in two cases—six small northeastern states and three southern states—I pooled deputies in groups of states. This multistate pooling, which increased the number of observations substantially, combines states similar in size, socioeconomic conditions, and political traditions.<sup>22</sup>

Given that the number of amendments in each municipality cannot be less than zero, and given that most deputies make only a few amendments in any particular municipality, ordinary least-squares estimation is inappropriate. I experimented with an “event-count” Poisson model, but the Poisson results revealed some statistical irregularities, so I ultimately collapsed the amendment data into a dichotomous variable, amendments or no amendments, and implemented a logistic regression.<sup>23</sup> Table 4 presents simplified results for six states or state groups: Bahia, the six small northeastern states, Minas Gerais, Rio de Janeiro, São Paulo, and the three southern states.

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21. Deputies have political family if a relative of the same or older generation was or had been a mayor, state or federal deputy, federal senator, governor, or president. For biographical data, see Brazil 1989; Brazil, Câmara dos Deputados 1981, 1983, 1991; and Istoé 1991. Interviews with journalists supplemented official sources.

22. The six northeastern states included Alagoas, Paraíba, Pernambuco, Piauí, Rio Grande do Norte, and Sergipe. The three southern states included Paraná, Rio Grande do Sul, and Santa Catarina.

23. In certain states or state groups, the diagnostics for both Poisson and negative binomial models showed overdispersion; for others the Poisson worked well. Since the real issue is whether a candidate targeted municipality  $x$ , not how many amendments were made in  $x$ , the logistic form is perfectly suitable. Substantively, the results are a bit closer to the model’s predictions with the original Poisson, but both forms are very close. The full results, including coefficients and standard errors, are available on request. I preferred the amendment count to the actual money appropriated because the latter has an enormously higher “noise” level. The amount appropriated and the amount eventually spent often bear little relation to each other.

**TABLE 4. Will Deputy Submit Budgetary Amendment for Municipality?**

Municipal and Individual Characteristics	Signs of Logit Estimation Coefficients						
	Prediction	Bahia	Northeast	Minas Gerais	Rio de Janeiro	São Paulo	South
Distance from municipal center	-		-	-	+	+	+
Municipal distance squared	+		+	+			-
Distance from personal center	+		+		-	-	-
Personal distance squared	-		-		+		+
Municipal dominance	+	+	+	+	+	+	+
Municipal dominance squared	-	-	-	-	-	-	-
Concentration	+	+	+				-
Percent of vote to retired deputies	+	+	+	+			+
Percent migrants	+	+	+	+	-		
Match to core: Income distribution	?		+	-			
Match to core: Government employees	-	-	-				-
Match to core: Population	?	+			-		
Interparty fragmentation	+	+	+	-	+		+
Intraparty fragmentation	+		+	+		+	
Rank in party list in 1986	+	+	+	+		+	+
Local career	+	-			+	+	-
Local career $\times$ Municipal distance	-	+	-	+	-		+
Local career $\times$ Personal distance	-	-	+	-	+		-
Political family	+		-		+		
<i>N</i> =		6,666	3,841	9,106	1,536	7,410	6,841

*Note:*

- + means a positive coefficient, significant at the .10 level.
- means a negative coefficient, significant at the .10 level.
- All likelihood ratios are significant at the .0001 level.

### *Interpretation*

The empirical results support the overall theory well.<sup>24</sup> In each state or state group, the model achieved a high level of statistical significance. In terms of the theory's specific elements, I will first consider the arguments confirmed in all or nearly all of the six settings, then the hypotheses that failed to receive consistent support.

In all locations, municipal dominance strongly stimulated amendment making. The higher the percentage of a municipality's votes a deputy won in 1986, the more likely that deputy pursued more support in the same place in 1990. The negative slope on the squared term means that deputies at some point regarded a municipality as locked up, meriting no additional effort. In effect, diminishing returns set in, but the actual inflection points (the levels of dominance beyond which deputies lose interest) were beyond nearly all the cases.

The theory argued that vulnerable municipalities—those with high proportions of migrants or with high levels of party fragmentation—would be campaign targets. Municipalities with numerous migrants attracted deputies everywhere except in the states of Rio de Janeiro and São Paulo (where the sign was correct). Rio's deviance and the weakness of São Paulo probably stem from the high proportion of migrants in the cities of Rio and São Paulo themselves. Since so many deputies receive votes in these cities, even a high proportion of migrants cannot make them appealing as amending targets. Deputies who get votes in these megacities should still make campaign efforts, but they might concentrate on holding rallies, mobilizing grassroots support, and placing followers in bureaucratic jobs.

High levels of party fragmentation, both interparty and intraparty, everywhere increase the chances that candidates will target a given municipality. In two states, Minas Gerais and São Paulo, only fragmentation inside individual parties increased candidates' amending activity. In these two states the PMDB had attained a high level of dominance in 1986, the previous election. In 1990 the PMDB would inevitably slip, so survival meant chasing party compatriots' voters.

Deputies who finished low on their parties' 1986 postelection lists certainly had reason to feel vulnerable. Low-ranking deputies (low ranks receive more positive scores) made significantly more amendments than their high-ranking

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24. Because this is an exploratory study—and to minimize references to insignificant coefficients with phrases such as “signs in the right direction”—I have adopted a .10 level of significance. However, more than 80 percent of the significant coefficients also reach the .05 level.

colleagues in every state except Rio de Janeiro. In Rio the relationship was positive but well below statistical significance. Most likely, the weakness of the relationship between vulnerability and amending in Rio stems from the demographic importance of the capital combined with its unattractiveness as an amendment target.

At first glance, the distance hypotheses seem only weakly supported. Closer inspection, however, reveals that amending behavior does reflect the distance of municipalities from deputies' core support in nearly all cases. Recall the original argument: "amend less with distance from municipal center." In Minas Gerais and the six northeastern states, deputies did in fact reduce their amending as they moved farther from their municipal center.<sup>25</sup> In Rio, São Paulo, and the three southern states, deputies decreased their campaigning as a function of each municipality's distance from the core of their personal support rather than the core of their municipal domination.<sup>26</sup> Why the variation? In Minas and the Northeast the average level of municipal domination is much higher than elsewhere. *Mineiro* and *nordestino* deputies get substantial shares of their personal totals in places where they dominate. These localities remain crucial, and the deputies respond by staying close to home. In Rio, São Paulo, and the South, the average level of domination (the deputy's percentage of the municipality's total votes) is less than half the level attained by *mineiro* and *nordestino* deputies. With low levels of domination, credit claiming is more difficult, so the center of municipal domination should not be the campaign reference point. Instead, deputies focus their campaigns where they receive the largest share of their personal total.

Only in Bahia are budgetary amendments unrelated to the distance of municipalities from the core support of candidates. Why is Bahia exceptional? Chapter 4 elaborates this theme at more length, but I will briefly consider Bahia's political context. Governor Antônio Carlos Magalhães (popularly known as ACM) was powerful enough to command candidates to campaign in particular municipalities.<sup>27</sup> ACM's machine was built on his ties to the old military regime, ties that brought Bahia significant federal largesse. ACM and his allies in the state bureaucracy reaped the political profits, and ACM's lieutenants launched political careers as they inaugurated public works around the state.

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25. The absence of the predicted sign on the quadratic term simply means that amending behavior showed no diminishing returns.

26. In both Rio and the South, the negative coefficient on the "distance from personal center" variable dominates the coefficient of the "distance from municipal center" variable.

27. ACM's power was most evident in his own party. In other parties he also had a number of allies whose campaigns he influenced, but overall, his leadership polarized Bahia's parties.

Deputies with state-level bureaucratic backgrounds continue to dominate Bahia's congressional delegation. Only one of every eight *baiano* deputies—second lowest of any state—has a career built on local politics, and purely local deputies are weak. Nonlocal Bahian deputies tend to have scattered-dominant vote distributions, so these legislators' amendments are necessarily dispersed. In a sense, the concept of a vote center means little to such deputies; they deal with local bosses wherever one is available.

What about the variables measuring the social match of each municipality to the core constituencies of candidates? If candidates appeal to constituencies resembling those where they have done well, amendments ought to decrease as social distance increases. Government employees are a central constituency for many deputies, and these deputies appear to seek municipalities with numerous civil servants: three states or state groups had significant results in the expected direction; only São Paulo had the wrong sign.<sup>28</sup>

The other social match variables confirm the rarity of ideological appeals in Brazil. The variable measuring similarities in income distribution and population produced weak and inconsistent coefficients.<sup>29</sup> Moreover, if deputies seek targets on ideological bases, social matching ought to be strongest in the most developed regions of the country. Rio, São Paulo, and the South, however, yielded results no more consistent than the Northeast, Bahia, and Minas Gerais. This negative result, of course, is significant, because it shows that most deputies see the social and ideological characteristics of municipalities as minor factors in their decision to use pork-barrel politics as a campaign tool.

Consider now the hypotheses failing to receive consistent support. The original theory predicted, albeit hesitantly, that candidates with backgrounds in local politics would amend more than those with business or bureaucratic careers. The hypothesis received support only in Rio and São Paulo, and in Bahia and the South local candidates made fewer amendments. These differences are not simply functions of the domination of candidates with local origins. In fact, the South and Minas have the highest percentage of locals, while Bahia and Rio have the smallest. Local candidates' tactics, I suggest, depend on historical contexts. Bahia, for example, has few local candidates, and those who venture from their bailiwicks risk ACM's wrath. Rio has even fewer locals, but for demographic rather than historical reasons. Every municipality has a council and mayor. Rio has only sixty-five municipalities to serve as organizational spring-

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28. São Paulo's deviance probably results from the extreme political unattractiveness of the highly competitive core city, where most bureaucrats live.

29. The failure of candidates to seek municipalities of similar size may have another cause: small communities yield few votes, while big cities are too competitive.

boards for its forty-six deputies, a ratio of 1.41 municipalities per deputy, while Bahia has 8.6 municipalities per deputy. Locals in Rio lack opportunities, but since they confront no coercive machine, they are free to compete with state-wide candidates by overamending. São Paulo has a substantial number of locals, but between 1987 and 1990 many defected from the dominant PMDB. These defectors had to contend with Governor Orestes Quércia's powerful PMDB machine. If a machine cannot limit defection, it is not much of a machine, so Quércia sent competitors into the defectors' bailiwicks. But the machine lacked the power to keep its opponents bottled up; for them, expansion to new areas was the optimal strategy.

Politics in the South and in the Northeast, by contrast, reflect distinct historical contexts. In the South, party labels are meaningful, no governor enjoys the hegemony of an ACM, spatial concentration is intense, and local candidates dominate. Candidates lacking a local base struggle to find support, so wise local politicians stay in their bailiwicks, making fewer amendments. The Northeast and Minas Gerais support intermediate levels of local candidates. Locals neither struggle, as they do in Bahia and Rio, nor dominate, as in the South.

Initially, I expected that local politicians would simply amend less as they moved farther from their bases. In Bahia, the South, and Minas Gerais, local deputies increase their amending activity as they move away from the municipalities where they are most dominant but decrease activity as they move away from the municipalities where they get most of their votes. Capital cities in these cases have little importance as fractions of total state electorates, so few personal centers are cities where the presence of many deputies discourages credit claiming. For most deputies, therefore, it makes sense to stay close to the places contributing most of their votes. In the Northeast and Rio, however, capital cities have much more weight in total state electorates, and more candidates have personal centers in exactly these capitals. But since these capitals are home to many deputies, they discourage credit claiming, and local candidates are forced to flee to pursue new voters.

Retirements (assessed by the percentage of the 1986 vote received by candidates not competing in 1990) stimulated more amendments only in Bahia. In the South amendments actually declined where retirements freed more voters. This finding is a surprise, because in my interviews southern deputies mentioned campaigning in municipalities they thought were vulnerable because of retirements. Perhaps the timing was off: when deputies offered these amendments in 1988 and 1989 (for the 1989 and 1990 budgets), they might not have known who planned to retire.

The original argument suggested that candidates with spatially concen-

trated support would overamend to compensate for their geographically restricted vote bases. Only in Bahia and the Northeast did the hypothesis prove correct. I suspect that the argument fails because concentration is often related to domination—that is, what really matters is local dominance rather than the spatial contiguity of votes. As a result, the domination variable (which supported the prediction in every case) simply overwhelms concentration. The case of Bahia reflects, once again, the power of the state's political machine. Because the machine discourages candidates from leaving their bases, they overamend to increase local dominance.

Why do deputies from political families fail to distinguish themselves? Political learning, I suspect, is very rapid. Whether or not they hail from political families, deputies quickly learn campaign tactics. Interestingly, members of northeastern political families made significantly fewer amendments than *nordestinos* without family ties. Such ties are much more important in the Northeast than anywhere else: about 30 percent of all deputies in these states have officeholding relatives, compared to fewer than 10 percent in the South. Political family in the Northeast often means old-style deal making, not populism; traditional *nordestino* politicians do less for their constituents—especially in terms of social assistance—and more for local bosses.

### *Recapitulation*

Brazilian deputies' municipal-level campaign strategies respond strongly to local dominance, to the potential targets' vulnerability to invasion, to the legislators' own electoral weakness, and to their previous career patterns. But the absence of campaign efforts in communities sociologically similar to deputies' core constituencies (exemplified by the weakness of the social match variables) confirms the impression that few deputies seek votes along ideological lines. The absence of party programs and the weakness of party control over deputies renders such appeals, except for the Workers' Party, unproductive.

## IV. Does Strategic Behavior Pay Off Electorally?

Do vote-seeking deputies' tactics succeed? Table 5 estimates a model predicting the outcomes of candidates' strategies. This regression resembles the strategy model but has important additions. The outcomes model incorporates 1986 vote as a predictor of 1990 vote. I also added a measure of overall (state-level) dominance (while retaining the measure of municipal-level dominance). This

TABLE 5. What Determines Electoral Success?

Municipal, Individual, and Electoral Characteristics	Bahia	Northeast	Minas Gerais	Rio de Janeiro	São Paulo	South
Vote in 1986	+	+	+	+	+	+
Amendments by deputy (logged)	+	+	+			+
Amendments $\times$ Municipal dominance	+	+	+	+	+	-
Amendment by other deputies	-	-	-		+	-
Distance from municipal center					-	
Distance from personal center						
State-level dominance in 1986		+		+		+
Municipal dominance in 1986	+	-	+	+	+	-
Municipal dominance squared	-	+	-			-
Concentration in 1986			+			
Interparty fragmentation in 1986			+			
Intraparty fragmentation in 1986			-			-
Match to core: Income distribution		+				
Match to core: Government employees		-				
Match to core: Population			-			-
Rank in party list in 1986	-	+	+		+	
Local career						
Allied parties gain from 1986	+	+	+	+	+	+
PFL-PDS candidate	+	+	+		+	+
PMDB or left candidate		+	+			
Political family		+	+			
Political family $\times$ Municipal dominance		-	-			
$R^2$	53%	57%	53%	53%	20%	56%
$N =$	8,040	6,629	13,740	1,536	16,530	8,803

*Note:*

+ means a positive coefficient, significant at the .05 level.

- means a negative coefficient, significant at the .05 level.

All F tests for the entire model are significant at the .05 level.

new variable should reveal whether overall dominance contributed to candidates' success. Each deputy's amendments, along with the amendments made by other deputies in the same municipality, are now explanatory variables. The model also includes variables measuring the gains made by candidates from allied parties. This variable helps illuminate partisan realignments.<sup>30</sup>

30. In the construction of this indicator, PFL and PDS votes measure right-wing gain; PMDB vote measures left-wing gain. The latter measure is clearly imperfect, but in many municipalities the PMDB was the only opposition to the Right. Each deputy was coded, on the basis of party affiliation, in terms of right or center-left orientation. Similar results are obtained by using 1978 and 1982 MDB-PMDB vote totals as a substitute for the 1986 PMDB vote.

The outcomes model works well, explaining more than 50 percent of the variance in candidates' 1990 vote everywhere except São Paulo.<sup>31</sup> The most powerful predictor was vote received in 1986. In most polities this result would be no surprise, but in Brazil it contradicts the conventional wisdom, which holds that deputies' unpopularity makes incumbency a disadvantage.

### *Campaigning Matters*

In Bahia, the Northeast, Minas Gerais, and the South, amendments increased votes.<sup>32</sup> Amendments made a difference in Rio de Janeiro and São Paulo as well, but only for more dominant deputies—that is, amendments in these states became more important as municipal dominance increased. Municipalities in Rio and São Paulo are mostly competitive, with few dominant deputies. Where deputies share votes with many others (as in the state capitals), amendments are futile, but as dominance increases they make more sense.

Amendments by other deputies should lower a candidate's vote, because these amendments mean that opponents have also targeted the same municipality. Except in Rio and São Paulo—where other deputies' amendments had no impact—this is just what happened. The hypothesis failed in Rio and São Paulo for the reason mentioned earlier—the absence of dominated municipalities.<sup>33</sup>

Dominant deputies gained more votes than those with shared distributions, but concentration helped only in Minas Gerais.<sup>34</sup> In an election with more than 50 percent turnover of incumbents, and with substantial losses by center and center-left parties, this result has great importance. Dominance protects

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31. The poor performance of the model in São Paulo (although it easily attains overall statistical significance), may result from the state's high level of ideological politics, a function of the strength of leftist parties like the PT, which encourages voters to choose the party label instead of individual candidates.

32. The model incorporates logged amendments to reduce the effect of each "additional" amendment. In the South, the negative coefficient on the term representing the interaction between amendments and dominance means that amendments are counterproductive above a certain level of dominance. About 5 percent of southern deputies fall above this inflection point. Such deputies may be engaged in a hopeless struggle to maintain their bases in a region where dominance is increasingly rare.

33. The strategy model demonstrates that deputies make fewer amendments as the distance from their vote centers increases. The outcomes model shows that their 1990 votes were generally unrelated to the distance from the core. However, the model includes the 1986 vote, so the coefficient should only be significant if there is an additional, unexpected concentration of votes. This phenomenon occurs in two cases, Minas and São Paulo, where deputies with more concentrated vote patterns did better in 1990 than in 1986. I cannot currently explain this result.

34. The dominance variable masks any possible effects contributed by the two fragmentation measures. Fragmentation is obviously lower when deputies dominate municipalities.

deputies from partisan swings. The incumbents who lost seats in 1990 mostly shared constituencies. Single-member municipalities, whether contiguous or scattered, are safer. In an environment of weak parties and pork-barrel politics, deal making with local politicians—the classic scattered-dominant pattern—makes sense.

The strategy model demonstrated that deputies rarely seek campaign targets that are similar in a socioeconomic sense to their core municipalities. Not surprisingly, deputies are equally unlikely to gain or lose votes on this basis. Although in big cities deputies make ideological or group appeals, they do not seek or receive support in distant campaign targets on this basis. Given the high cost of poaching on the turf of fellow party members, candidates increase support by appealing to new groups in their base areas, not by pursuing similar but distant groups. Consequently, although changes in the legislature's overall ideological composition may result from electoral realignments, such realignments are not the product of individual campaign appeals.

Partisan shifts play an important role in individual deputies' fortunes. In every state, overall gains by parties nearby on the political spectrum helped candidates. Since this election represented a defeat for the PMDB after its overwhelming success in 1986, right-wing candidates (measured by "PFL-PDS candidate") gained, while PMDB and leftist candidates got a boost only in the Northeast and in Minas Gerais.

Deputies' career paths, at least as measured by previous occupations or by membership in political families, had no consistent effect on electoral outcomes. In the Northeast and Minas Gerais—areas where substantial percentages of deputies come from political families—these deputies had more success. But in Bahia, where political families are most common, such deputies received no help. In addition, local candidates did no better in any states. The 1990 election represented an influx of big money into congressional campaigning. If this trend continues, local candidates, as these results demonstrate, are in serious trouble.

### *Recapitulation*

Congressional deputies' strategies matter. Deputies profit by making their own amendments; they suffer when other deputies target the same municipalities. Deputies with dominant vote distributions are more successful in resisting partisan swings than are those with shared distributions.<sup>35</sup> But most deputies gain

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35. Deputies can also switch parties to profit from partisan surges.

little from concentrating their vote distributions or from making group or ideological appeals, and career patterns have no broad effect on electoral fortunes.

## Conclusion

Most discussions of Brazilian politics stress its traditional, clientelistic roots. The theory developed here, by contrast, is grounded in rational politicians' strategic behavior.<sup>36</sup> Faced with an electoral system whose chief attributes include open-list proportional representation, large multimember districts, candidate selection at the level of politically active subnational units, and the possibility of immediate reelection, most deputies pay little attention to ideological appeals. Instead, deputies seek secure bailiwicks, search for vulnerable municipalities, and strive to overcome their own electoral weakness through wheeling and dealing. Strategic candidates do not behave identically, because their own political backgrounds vary and because Brazilian states' differing demographic and economic contexts reward some tactics and penalize others.

What is the significance of these results? Brazil's electoral system motivates deputies to seek pork. In conjunction with the state-centered quality of Brazilian politics, it is no surprise that the pursuit of pork is endemic in this political environment. Deputies in Brazil's South and in more industrialized states face more competition from candidates of other parties but also have more concentrated vote distributions. Higher levels of education and wealth increase voter interest and involvement in politics, but that interest magnifies incentives for deputies to focus on pork. At the same time, demands for local benefits may contribute to the elevated turnover rates and low seniority levels of congressional delegations from the South, factors that shift the Congress's ideological center to the right.

This chapter has focused on candidate strategy in a single election. How are patterns of competition evolving over time? Is spatial concentration increasing as voters look to pork as the only response they can expect from their representatives? Is domination increasing as deputies learn that it can insulate them from partisan swings, or is it decreasing as levels of political awareness grow? The next chapter turns to these questions.

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36. Fabiano Guilherme M. Santos (1995) analyzes the 1959–63 legislature in a somewhat parallel framework. Santos focuses on “concentrated transfers of resources”—i.e., laws (similar to pork-barrel amendments) awarding benefits to discrete local groups or interests while dispersing the costs of the proposal over a large population. Santos's assumptions about the electoral system are more abstract than mine, since he makes no specific assumptions about deputies' spatial vote distributions.