



**The Variable Incumbency Advantage: New Voters, Redistricting, and the Personal Vote**

Scott W. Desposato; John R. Petrocik

*American Journal of Political Science*, Vol. 47, No. 1. (Jan., 2003), pp. 18-32.

Stable URL:

<http://links.jstor.org/sici?sici=0092-5853%28200301%2947%3A1%3C18%3ATVIANV%3E2.0.CO%3B2-R>

*American Journal of Political Science* is currently published by Midwest Political Science Association.

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/mpsa.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

---

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

# The Variable Incumbency Advantage: New Voters, Redistricting, and the Personal Vote

**Scott W. Desposato** University of Arizona  
**John R. Petrocik** University of Missouri-Columbia

*In this article we explore the personal vote costs of redistricting. After redistricting, incumbents often face significant numbers of new voters—voters that were previously in a different incumbent’s district. Existing conceptualizations of the incumbency advantage suggest that the cost to incumbents of having new voters should be relatively small and predictable. We propose a different formulation: a variable incumbency advantage. We argue that any incumbency advantage among the electorate is a function of short-term effects, partisanship, and electoral saliency. We use a massive untapped dataset of neighborhood-level electoral data to test our model and to demonstrate how the intersection of the personal vote, redistricting, and short-term environmental variables can provide a healthy margin to incumbents—or end their careers.*

Conventional wisdom among office-holders and their advisors (and to a lesser extent among political scientists) is that the political consequences of districting plans are predictable (see Kousser’s 1996 extended commentary on this). Their confidence rests on the recognition that most voters have a preference for one of the parties, and they invoke that preference in choosing between candidates—the ubiquitous discussion about independent voters and candidate voting notwithstanding. The key task for those drawing the lines, therefore, is to distribute voters by party preference in a way that (1) maximizes the electoral security of (2) the largest possible number of office-holders for their party. Electoral security is achieved when the district includes enough supporters of a party to provide a high probability that no issue or candidate-induced tide will be so great that it is likely to defeat the incumbent. (See Cain 1985 and Butler and Cain 1992 for a treatment of these issues.)

At the margin, ensuring electoral security and maximizing the party’s number of seats are conflicting goals. But a balance is struck when the dominant party provides the “assurance” of victory to the N<sup>th</sup> candidate of the largest possible majority for their party, while providing

a “guarantee” of victory to the smallest possible number from the other party by packing minority party supporters together in a minimum number of districts.<sup>1</sup> The puzzle, and starting point for this article, is that majority party incumbents occasionally do not get that anticipated easy win, with the highest turnover occurring in the immediate post-redistricting election. Neither fact is new, but our explanation, which has two familiar parts, weaves them together differently.

## Redistricting and the Personal Vote

The first part of our argument is that redistricting can eliminate part or all of an incumbent’s personal vote advantage. The existence of an incumbent status-linked electoral advantage is beyond question (see Erikson 1971; Garand and Gross 1984; Gelman and King 1990; Alford and Brady 1993), but the size of that advantage varies with the magnitude of the personal vote. The personal vote is created by constituency service (for classical and contrary understandings regarding constituency service benefits for incumbents see: Cain, Ferejohn, and Fiorina 1987;

---

Scott W. Desposato is Assistant Professor of Political Science, University of Arizona, Tucson, AZ, 85721 (swd@u.arizona.edu). John R. Petrocik is Professor and Chair of Political Science, University of Missouri-Columbia, Columbia, MO 65211 (petrocikj@missouri.edu).

The authors would like to thank David Lublin, David Magleby, Karin McDonald, Michael Michel, Salvador Peralta, Jodi Perin, and Walter Stone for their suggestions and assistance.

<sup>1</sup>Usually redistricting is less optimal for the majority than this textbook description implies. Because the smaller party can affect this process only at the margin, the decennial districting drama is typically bipartisan by its conclusion: minority party incumbents accept safe seats for themselves as compensation for acquiescing to a small number of seats for their party.

*American Journal of Political Science*, Vol. 47, No. 1, January 2003, Pp. 18–32

©2003 by the Midwest Political Science Association

ISSN 0092-5853

Yiannakis 1981; Johannes and McAdams 1981; Cover and Brumberg 1982; Fiorina and Rivers 1989; Serra and Cover 1992). Incumbents can lose part of the personal vote portion of their incumbency advantage when redistricting brings them significant numbers of “new” voters (voters who were in a different district prior to redistricting). Among these new voters, the incumbent has no personal standing. He did not resolve their problems with Social Security, send letters to newly minted Eagle Scouts, attend community events, expedite passports, talk on the radio, or appear in the hometown newspaper—the incumbent from their old district did all these things. The legislator (usually) did not have links to business and other groups previously in another incumbent’s district. The new voters had not been canvassed by the incumbent’s staff or his campaign workers in previous elections. As a result, the “personal vote” conferred by greater familiarity, personal regard, a reputation for competent performance, and deference received simply because the person is the incumbent is not there.

The second part of our argument focuses on the character of the incumbent advantage. The standard understanding of the incumbency advantage views it as a “bonus” of approximately 7 percent over the expected normal vote of the district; of that bonus, about 4 percent is the personal vote advantage.<sup>2</sup> We argue that incumbency should not be conceived as the source of an automatic personal vote *bonus* of a particular magnitude. Rather we believe it provides an *anchor* that secures weakly partisan and independent voters. Strong partisans make candidate choices that are mostly based on their party identification, and only weakly moderated by personal vote factors (such as constituency service). Less partisan voters, however, rely on cues such as those provided by the personal vote to guide their electoral choices. But in the absence of a personal vote factor, voters are not simply 4 (or so) percent less likely to vote for the incumbent. Rather, the change in their vote probability depends on other influences at work in the election, which include (but are not limited to) how well the party did in the preceding election, the state of the economy, the voter’s opinion of the latest White House scandal, and, of course, their individual party preference and the party climate of their social environment (see Arcelus and Meltzer 1975; Kernell 1977; Lewis-Beck and Rice 1992; Campbell 1993; Erikson 1990, Jacobson 1994; Dimock and Jacobson 1995; Banducci and Karp 1994; Huckfeldt and Sprague 1995). As a result, the personal vote costs of redistricting for an incumbent can vary greatly with the political environ-

<sup>2</sup>See Jacobson (2001) for an extended discussion of the methods for measuring and estimates of the incumbency advantage and personal vote.

ment of the election. A four, or six, or eight percent incumbency advantage may accurately measure a long-term average, but, as the Gelman and King (1990) estimation and “slurge” measure indicate, it has considerable variance (see Jacobson 2001 for some data).

This analysis will systematically link some of that variance to redistricting and differences between new and old voters in reconfigured districts. Redistricting naturally removes the personal vote portion of the incumbency advantage for the fraction of the electorate that is new, and other factors—partisanship and short-term issues—assume greater importance. Consequently, the interaction of redistricting and the short-term forces of the election can produce a healthy margin for an incumbent or end a career.

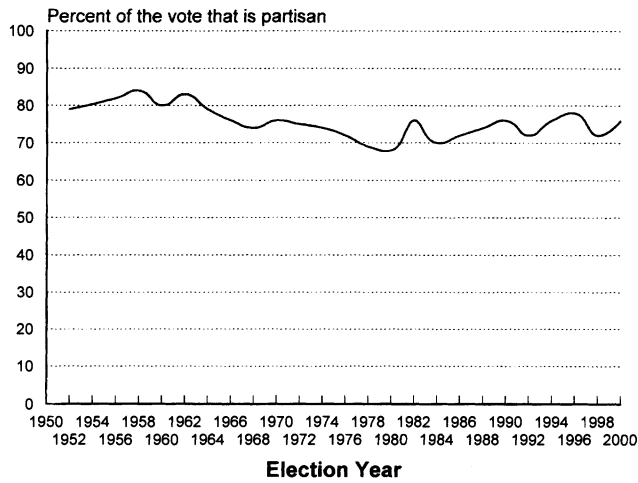
We examine this formulation in two steps. First, we revisit the notion of the incumbency advantage and propose an alternative conceptualization of the personal vote and its intersection with redistricting. Second, we test a model of this relationship by examining the 1992 and 1994 congressional and state legislative elections in California. Specifically, we use a massive dataset linking precinct electoral returns to census block data. This allows us to precisely isolate new voters and capture their behavior; it also eliminates the candidate self-selection problems associated with most studies of the incumbency advantage. The results support our argument, showing how redistricting causes a personal vote loss for incumbents that varies across party, context, voters, and election saliency.

## Revisiting the Incumbency Advantage

The continuing impact of party identification on the vote (see Petrocik 1989; Keith et al. 1992; Bartels 2000) makes the partisanship of the district the largest component of the vote. Its exact size varies by office and region, but it exceeded 70 percent of the total vote cast in all but two congressional elections during the last fifty years (see Figure 1).<sup>3</sup> It has two sources. Its direct component is the group of voters who choose candidates of their party and never contemplate doing otherwise. The indirect component arises from the fact that most districts are drawn with effective party majorities (Cain 1985; Kousser 1996). The majority party’s candidate seems assured of

<sup>3</sup>The percentages in the figure are the fraction of the reported vote that is composed of Democrats who voted for the Democratic candidates and Republican identifiers who reported a vote for a Republican candidate. Democrats and Republicans who defected and all independents sum to the proportion that provides the nonparty vote.

**FIGURE 1 Party Voting in Congressional Elections**



Source: NES surveys for the indicated years.

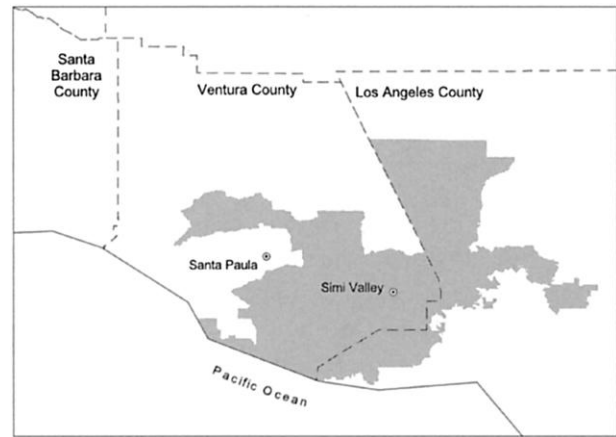
reelection. The minority party’s candidate, viewed as certain to lose, receives few of the resources need to mount a strong campaign in a district with a strong party tilt. As a consequence, the incumbent draws weak challengers since the most talented minority party candidates avoid a hopeless effort. The insufficient funding, minimal media attention, and so on that mark weak challengers push the incumbent in a secure district to a win that exceeds the partisan tilt of the district. Jacobson and Kernell (1981) identified this pattern as a “strategic politician” phenomenon. (See Maisel and Stone 1997; Kazee 1994; and Cox and Katz 1996 for evidence of some of its dynamics).

**The Personal Vote and the Political Environment**

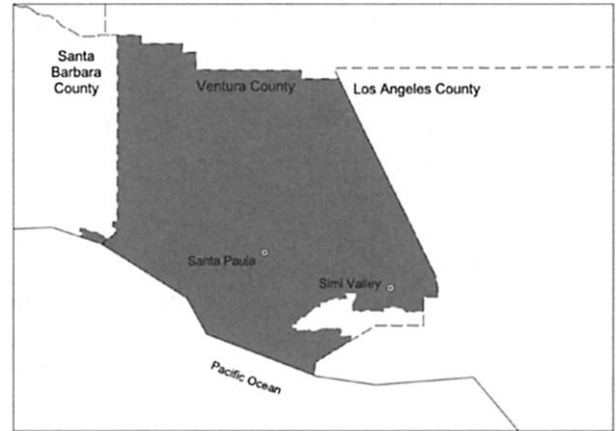
The 15 to 20 percent of the vote contributed by defectors and 10 percent contributed by core independents in Figure 2 provides a rough estimate of the fraction (25 to 30 percent) of the vote driven by the personal vote, other incumbency factors, and the political environment. The political environment of the election (strength of top-of-the-ballot candidates, domestic and foreign conditions, and so forth) is a component of the vote that candidates can only hope to exploit or avoid. The partisan makeup of the district and the personal vote matter the most when the situation is adverse because they buffer the incumbent from potentially large short-term effects. Office-holders with a smaller partisan advantage are the most in need of personal votes because the personal vote moderates the force of short-term political tides and anchors potential drifters to the incumbent. New voters—especially weak

**FIGURE 2 Redistricting Personal Vote Impact on Rep. Elton Gallegly (R-CA)**

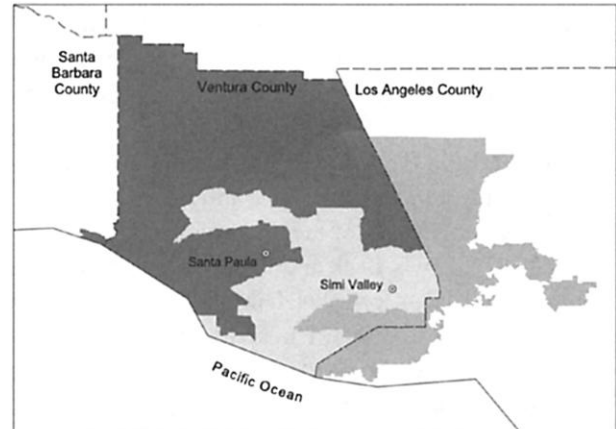
**a Elton Gallegly’s 1990 District**



**b Elton Gallegly’s 1992 District**



**c New Voters, Old Voters, Lost Voters**



partisans and independents—are particularly susceptible to the influence of these short-term election influences which can work for or against the incumbent’s party, but will surely be a factor if only because campaigns try to exploit them (see, for examples, Iyengar and Kinder 1987; Sellers 1998; Petrocik 1991, 1996; Blunt, Petrocik, and Steeper 1998).

### Implications of a Variable Incumbent Advantage

The advantage provided by the personal vote and the cost of losing it through redistricting will vary with the magnitude of the short-term forces, the fraction of the electorate that is new to the incumbent, the proportion of marginal partisans among the voters, and the saliency of the election for voters.<sup>4</sup> The key concept here is that a personal vote bonus is not 4 percent, or any other fixed amount, but a variable quantity that depends on the political environment and other institutional features. Incumbency’s personal vote advantage is an anchor that secures less attached voters who would otherwise respond to the political tides. The danger for incumbents is that new voters do not have any personal vote relationship with incumbents; they do not know about the legislators’ years of loyal service, and they do not remember the speeches at the high school commencement—because these things happened in the old district lines. These new voters, cut loose from the ties of incumbency, are thus susceptible to short-term political forces.

### Redistricting and the Personal Vote

Republican Elton Gallegly’s experience provides a typical example of redistricting’s impact. Through the 1990 election, he represented a district (the 21<sup>st</sup>) that straddled the southeastern border of Ventura and Los Angeles Counties (Figure 2a). Most of his constituents lived in the city of Simi Valley or the western San Fernando Valley part of Los Angeles. Gallegly was given a different constituency for the 1992 election (renumbered the 23<sup>rd</sup> district). The new district (Figure 2b) shed all of his Los Angeles County voters, covered nearly all of Ventura County—adding several cities, including Santa Paula. The losses and additions are summarized in Figure 2c. Voters in the gray-shaded region were “lost” to the redistricters’ pens in 1992. Voters in the light-shaded area, including the city of Simi Valley, are

<sup>4</sup>Saliency has several dimensions. The two that are relevant here are (a) how many voters are aware of the candidates and (b) the issues in the contest. These typically vary with the level of the election. They average state legislative race is below the campaign radar of most voters.

“old voters” that were in his district in 1990 and remained in his district after the redistricting. Voters in the dark area, covering the city of Santa Paula and the northern and western parts of Ventura County, are “new voters.” Prior to 1992 they were represented by 19<sup>th</sup> district Republican Congressman Robert Lagomarsino. Gallegly, although an incumbent, had no personal vote advantage among Lagomarsino’s voters. He had never provided constituency service, was not a regular at community events, and was not regularly mentioned in the community newspaper.

### Systematic Evidence from California

Gallegly’s case was typical of incumbents in California in 1992. Unlike 1982, when Democratic control of both the state legislature and governor’s office led to a Democratic gerrymander, California’s 1992 redistricting was relatively bipartisan. The addition of seven new seats (for a total of 52) made it possible that congressional incumbents would face few new voters. The line drawers could have minimized the fraction of new voters for every incumbent by shifting voters out of overpopulated districts to create new districts. The redistricting of the state legislature, on the other hand, because its size remained limited to eighty seats, required a significant number of new voters for many incumbents due to shifts in population distribution. In any event, however, the ability of the Republican governor to resist an ideal Democratic redistricting by the majority Democrats in the California legislature produced State Assembly and Congressional districts with similar profiles.

As Table 1 shows, the relative partisan balance of the average incumbent’s district was mostly unchanged. Among California’s Congressional Representatives, Democratic registration for incumbent Democrats averaged 57 percent before and 58 percent after redistricting. The pre- and post-redistricting figures for Republicans also barely changed, from 39 percent and 40 percent Democratic. Nor did the State Assembly redistricting disturb the average party balance in the Assembly districts: Democratic registration declined one percentage point for Democratic incumbents. The average Republican incumbent received a new district that was one percentage point more Democratic than their previous district.

But they were much less successful in holding on to their old constituents and minimizing an influx of new voters. Incumbents of both parties faced substantial populations of new voters—an average of 34 percent for Congressional and 48 percent for Assembly incumbents. Several Assembly incumbents actually had 100 percent new voters because redistricting had forced a move across the state to seek reelection. On balance, however, the personal vote costs of the redistricting were roughly equal for

**TABLE 1 Redistricting's Impact: 1990–1992**

	Republican Incumbents	Democratic Incumbents
<b>Congressional Districts</b>		
Democratic Registration in 1990	39%	57%
Democratic Registration in 1992	40%	58%
Percentage of new constituents	33	35
Number of Districts	15	21
<b>State Assembly Districts</b>		
Democratic Registration in 1990	39%	58%
Democratic Registration in 1992	40%	57%
Percentage of new constituents	50	45
Number of Districts	17	33

*Note:* Incumbents for 1992 are defined in this paper as those legislators elected in 1990 who were running for re-election in 1992. This excludes several legislators that won special elections in 1991 to replace unexpected vacancies. Such special-election incumbents already had a good idea of where the new district lines would fall and had little time to cultivate a strong personal vote that would differentiate new and old voters.

both parties. Republican incumbents who sought reelection to Congress in 1992 faced constituencies that were about 33 percent new; Democratic incumbents had an average 35 percent new population. About 45 percent of the constituents of Democratic State Assembly incumbents were new; approximately 50 percent of the constituents of GOP State Assembly incumbents were new. These changes make the California case an ideal observatory of the personal vote costs of redistricting.

### The Data

The analysis employs a block-level dataset of approximately 400,000 cases. Precinct-level registration and election returns for 1990, 1992, and 1994 were linked to census blocks by geocoding registered voters according to their addresses in the California Secretary of State's Statement of Registration.<sup>5</sup> Each Congressional district con-

tains about 7,700 of these neighborhoods; the Assembly districts average about 5,000 blocks. Each block has a population of about 100 individuals. Using digital maps from the 1990 Census, we identified each neighborhood's old and new Congressional and Assembly district numbers, and compared these with incumbents' old and new district numbers. This allowed a precise determination of whether a neighborhood was either (1) represented by the same incumbent before and after redistricting (in which case everybody in the neighborhood was an "old voter") or (2) came from another district (which made everybody in the neighborhood a "new voter"). The analysis is limited to races where a Democrat and a Republican were the major candidates.

This dataset is particularly rich for examining incumbency effects because we have multiple observations per district. Most research on incumbency and the personal vote advantage rely on district-level data—an approach that risks confounding new voter effects with many campaign or district-specific factors. District-level data are particularly vulnerable to endogeneity problems since patterns might reflect the choices of savvy candidates who decide to run as a function of the environment of the election (as it is created by redistricting, domestic or foreign events, and so forth). Our neighborhood-level units of analysis effectively eliminate any correlation between incumbent status and the fraction of new voters. Each district has many of these blocks, their party registration varies from no Democratic party registrants to 100 percent Democratic registration, and we can accurately categorize each block as being "new" to a district—or not. As a result, we can precisely observe the behavior of old and new voters within districts across a wide range of partisan and political environments, while holding constant "strategic candidate factors" such as candidate quality and funding that could not be eliminated if we used district data. In addition, because we have data for state legislative and Congressional races for the 1990–1994 period, we can in part replicate and check our findings, and, to some degree, estimate the variability of the personal vote advantage in two arenas.

Lastly, because our anchor model, contrary to the bonus model of incumbency, suggests that the personal vote component of the incumbency advantage will vary with the short-term forces in the election, we include the 1992 and 1994 elections. The use of multiple elections allows assessments of the incumbent's performance

<sup>5</sup>The data are compiled by the Institute for Governmental Studies at the University of California, Berkeley. IGS collects precinct-level electoral returns and registration figures statewide. The precinct-

level registration and voting data is tied to census blocks by geocoding registered voters according to their addresses in the Statement of Registration. See McCue 1994, for more details.

across context and challenger quality. In addition, it allows for a gradual development of a personal vote—not just a sophomore surge—by including the “new” variable in the 1994 elections.

## The Model

Our anchor model of the incumbency advantage offers several observable implications for these redistricting data. First, all else equal, incumbents should receive a smaller vote share among new neighborhoods than among old neighborhoods. Among new voters, incumbents have lost their personal vote advantage; among old voters, incumbents retain the personal vote they have cultivated. Second, the magnitude of this incumbency effect should vary as a function of the partisanship of the voters: new voters should fall back on their partisanship in the absence of personal vote cues. Third, these incumbency effects should vary with the saliency of the election. All personal vote effects should be substantially smaller when voter information is low.

We use the following model to estimate this formulation personal vote costs of redistricting:

$$\begin{aligned} V_{bdy} = & B_{0dy}E_{dy} + B_{1y}D_{by} + B_{2py}I_{dpy}D_{by} \\ & + B_{3py}I_{dpy}N_{by} + B_{4py}I_{dpy}N_{by}D_{by} \\ & + B_{5py}I_{dpy}N_{by}Q_{dy} + B_{6py}I_{dpy}N_{by}D_{by}Q_{dy} \\ & + \varepsilon_{by} \end{aligned}$$

Where:

- $p, y, d,$  and  $b$  are subscripts for party of incumbent, year, district, and census block, respectively.
- $V_{bdy}$  is the percentage of the two-party vote received by the Democratic candidate in block  $b$ , district  $d$ , year  $y$ .
- $E_{dy}$  is an indicator variable for district  $d$  in year  $y$ .
- $D_{by}$  is the percentage of voters that are registered Democratic in block  $b$  and year  $y$ .
- $I_{dpy}$  is a set of indicator variables for the presence of an incumbent from party  $p$  in district  $d$  in year  $y$ , coded  $-1$  for Republicans,  $0$  for Open-Seats, and  $1$  for Democrats.
- $N_{by}$  identifies block  $b$  as being “new” to the incumbent in district  $d$  in year  $y$ . New is coded  $1$  for blocks that were new to an incumbent and  $0$  for blocks in open districts, all “old” blocks, and for all blocks in the 1990 election—prior to redistricting.
- $Q_{dy}$  is the quality of the challenger in district  $d$  and year  $y$ , measured using campaign expenditures. To make the expensive Congressional races comparable with the less taxing Assembly races, we measured challenger qual-

ity as the ratio of challenger to incumbent spending. Using raw challenger spending does not change our conclusions, though it makes cross-legislature comparisons more confusing.

The key quantities in the model are  $B_3$  through  $B_6$ . The first two,  $B_3$  and  $B_4$ , capture the interaction of new voters with partisanship and year—in other words, they capture the difference between new and old voters’ behavior, showing the electoral costs associated with new voters. The other key coefficients,  $B_5$  and  $B_6$ , capture the interaction of incumbency and challenger quality. Specifically, they allow the personal vote costs of incumbency to vary with challenger quality. Our expectation was that higher challenger quality would increase these costs.

The other coefficients in the model,  $B_0$  through  $B_2$ , establish a baseline vote-share against which the interactions can be compared. That is, they predict neighborhood electoral returns among old voters where incumbents have the benefit of personal vote cultivation. Specifically, the baseline Democratic vote is modeled as a simple linear function of party registration and incumbency status for each party’s candidate.<sup>6</sup> Thus any personal vote impact will be reflected in deviations from the party incumbency baseline, that is, coefficients  $B_3$  through  $B_6$  will be significant.

The model is a fixed-effects regression. This is equivalent to adding a dummy variable for each district in each year to the equation, in this case represented by  $E_{dy}$ . Herein lies the advantage of using subdistrict data. Most studies of Congressional elections use district-level data and the comparisons that drive their inference are cross-district, often reflecting district-level variables such as the quality of a challenger or a scandal with the incumbent. Such idiosyncratic district effects can confound district-level analysis, but our approach controls these factors. The dummy variable for each district controls for the peculiarities of the district—including the crucial variable of candidate quality. What remains are the differences between new and old voters, which we allow to vary across year and party. The estimation uses a linear model because most neighborhoods have registration figures and vote shares between 20 and 80 percent of the registration or vote (although neighborhoods do vary from 0 to 100 percent Democratic registration), where a linear model is reasonable.<sup>7</sup>

<sup>6</sup>The district-year fixed effects (discussed next) preclude the inclusion of a simple dummy variable for party-incumbency status.

<sup>7</sup>We also tried to estimate a nonlinear model, specifically an extended-beta binomial model (see Palmquist 1998). But after 12 hours working on a dataset of approximately 800,000 observations, the estimation routine had not yet completed its first

Several previous studies have approached the problem similarly. Rush (1993) compared electoral returns for New England towns redistricted into other incumbents' districts. He found that "new" towns quickly begin to vote like old towns, suggesting the emergence of a strong personal vote. Banducci and Karp (1994) studied the interaction of redistricting and scandal in the 1992 elections. Petrocik and Desposato (1998) explored the interaction of new voters, redistricting, and minority majority districts in the South. They found that Democrats' Congressional losses in 1992 and 1994 in the South were not the result of "packing" minority voters, but resulted from the intersection of new voters and short-term anti-Democratic tides. Finally, Ansolabehere, Snyder, and Stewart (2000) use county-level data and identify as new voters all those in the county when it was shifted to a new incumbent by redistricting.

Our statistical model is similar to Ansolabehere, Snyder, and Stewart but the design and analysis has several key differences. We trade longevity for detail. They examine an extended time-series of county-level data; we use block-level returns from a six-year period, providing depth and detail. Our small and quite homogeneous census block-size neighborhoods provide more precise estimates of the behavior of new voters.<sup>8</sup> Lastly, we use party registration figures to measure the underlying normal vote, rather than relying on lagged votes or average Presidential vote shares, which are themselves subject to short-term tides and candidate-quality confounding.

Two practical factors could bias the results *against* our hypotheses. The first is that new voters may have had some personal-vote generating contact with an incumbent. Incumbents have been known to anticipate boundary changes to their districts with a cultivation of voters in areas that they expect to find in their redrawn districts. Certainly voters in "border" neighborhoods may have interacted with or heard of the incumbent, but as we saw in the case of Congressman Gallegly (see Figure 1c),

iteration. As an alternative, we also tried a simple logit transformation of the original data. This is not entirely appropriate, since the data reaches its natural bounds of 0 and 1, but the results of this crude proxy to a better nonlinear model concur with the linear model's conclusions.

<sup>8</sup>Their approach leaves out urban areas—where a substantial share of the districts are located—because district lines rarely correspond to county boundaries. This analysis includes urban and rural areas, precluding any bias that might arise because of urban-rural differences. Although our data are specific to California and the patterns may not generalize to the nation, we think that they probably are representative and we cannot offer a reason for believing they are different given the "professionalized" politics of California's national and state-level politicians.

new voters can be relatively far from the old district.<sup>9</sup> We believe that there are only a few cases where this behavior is substantial. The second factor is that incumbents have other nonpersonal vote advantages, including financial resources, prestige, and franking privileges. Clever use of these resources might compensate for the costs of new voters. Regardless, both factors are conservative to our hypothesis test: they work against our hypotheses and should weaken the impact of new voters. Any significant findings are thus quite robust.

## Results

Figure 3 shows the interaction of redistricting, new voters, and partisanship on the vote share of incumbents in 1992 and 1994. Each graph allows an assessment of the typical incumbent's personal vote costs as a function of the partisan profile of the district. The x-axis in each is the Democratic registration of the neighborhood, *not* the district (see the previous explanation of the data); the y-axis is the predicted difference for incumbents among new and old voters (the results on which the calculations are based appear in Table 2).

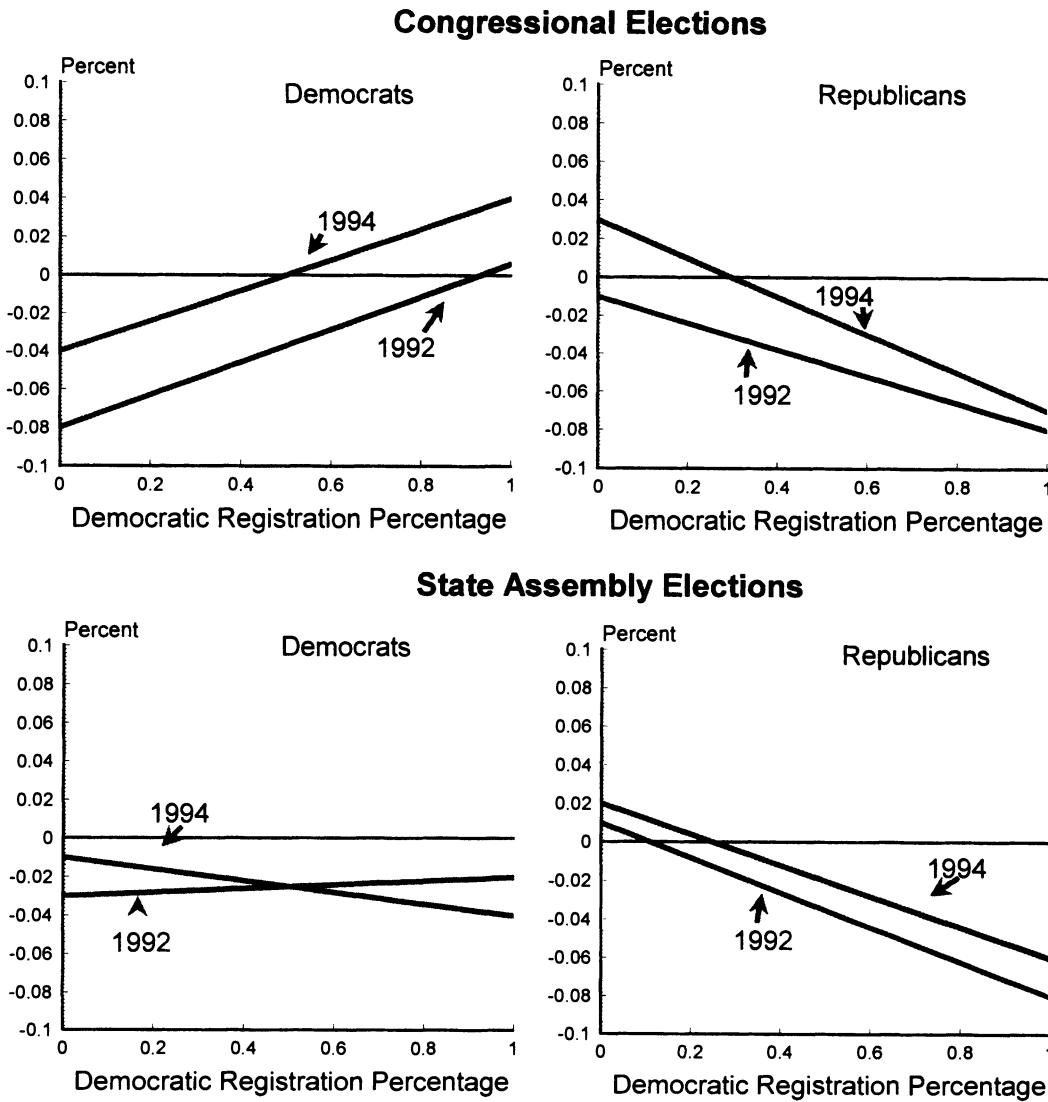
The lines compare the choices of new voters in 1992 and 1994 with the neighborhood pattern for 1990. In each graph, the horizontal line represents the baseline vote share an incumbent could expect among old voters (among whom incumbents had no personal vote costs). The lines labeled "1992" and "1994" plot the predicted differences in voting behavior between old and new voters. Specifically, the slopes and intercepts of the 1992 and 1994 lines are calculated using the coefficients from the second half of Table 2—the coefficients that interact with "new neighborhood." For example, the 1992 Congressional Democrat line is calculated using the baseline intercept and slopes from Table 2. The intercept of the line ( $-.09$ ) is the *Incumb\*New Voter* coefficient for Democrats in 1992. The slope of the line ( $.09$ ) is the *Incumb\*New Voter\*Dem. Reg. 1992* Democratic estimate. The lines in Figure 4 use the same approach, but add to the slope and intercept the relevant estimates for challenger quality interactions.<sup>10</sup>

<sup>9</sup>Although new and old voters could be in the same media market, that may not help awareness. Urban media with multiple elections rarely provide much coverage to legislative candidates while local media may have very narrow readership markets. From the Gallegly example, Simi Valley and Santa Paula, though close, are served by different local newspapers.

<sup>10</sup>The 0 to 100 percent range in the figures is correct. Many of the neighborhood (census block) units of analysis are homogeneously Democratic or Republican. Although proportionately few, there are several thousand cases at the limit of the range.



**FIGURE 3 New Voters and the Personal Vote**  
**(Congressional and State Assembly Elections: 1992 & 1994)**



Where the 1992 or 1994 line is below the 1990 (horizontal) baseline, our model predicts that the incumbent loses votes among new voters. Where the 1992 or 1994 lines is above the baseline, the model predicts that incumbents perform better than average among new voters. The slopes of the 1992 and 1994 lines show how incumbents' vote losses (or gains) are related to the partisan profile of the district. We hypothesize that, in the absence of incumbency, voters fall back on weak partisanship, resulting in higher or lower new voter costs, depending on the partisanship of the new voters (as represented by Democratic registration in the neighborhoods).

The four graphs in Figure 3 allow an examination of the pattern for the State Assembly and Congressional races for both parties. The first column of graphs in the figure represents the relationships for Democratic incumbents; the second column represents the position of Republican incumbents. We expected new voters to produce a decline in the incumbent's vote relative to the behavior of old voters. We also expected new voters to have their largest effect in the election immediately following the redistricting because, with time, the incumbent would do the things that create a personal vote among his or her new constituents. Finally, we expected the decline to be moderated by the partisanship of the neighborhoods,

with the largest losses occurring in neighborhoods with the largest fraction of voters from the challenger's party.

We found all of these things. First, there are significant personal vote costs to redistricting. The 1992 and 1994 lines are consistently below the baseline vote share, indicating that incumbents lose votes among new voters, even holding constant candidate and challenger quality. In the "average" neighborhood (a 50 percent Democratic neighborhood, represented by the center point of the graphs), the average new voter cost is approximately 5 percent, the standard incumbency advantage estimate. This simple finding of new voter costs is strong evidence for the incumbency advantage and against Zaller's notion (1998) that candidate quality explains the incumbency advantage. If candidate quality were such a powerful force, there should be no systematic difference between the behavior of new and old voters because candidate quality is constant across the new and old neighborhoods. One might conjecture that incumbents choose not to campaign as aggressively among new voters, but why they would systematically ignore all new voters—those most in "need" of campaign attention—is completely unclear and not in keeping with the "wholesale politics" character of California campaigns.

More notable is the variability of the losses. The personal vote advantage of incumbents systematically varies with the partisan strength of the district: reaching about 8 percent in unfriendly neighborhoods and approaching zero in friendly districts. Incumbents can earn votes in unfriendly neighborhoods—but they are personal, not partisan votes. Constituency service and publicity can be worth as much as 8 percent of the vote in an unfriendly neighborhood. For Republicans, this means that as neighborhoods are increasingly Democratic, the expected vote loss among new voters rises. For Democrat incumbents, the inverse pattern appears. Democratic new voter losses are highest where there are many GOP voters. In the absence of the personal vote, voters return to their partisanship, reducing the incumbent's vote share. When the new voters passed to the incumbent are homogeneously supportive of his or her party (at some number above 70 percent registered in the incumbent's party) they seem to simply follow their partisan leaning.

Finally, although the first post-redistricting election has the largest new voter effect (as expected), new voter effects persist into the 1994 elections. The 1994 lines are almost uniformly below the baseline horizontal line. New voters continued to cost incumbents votes, even after two years of constituency service and personal vote cultivation. There is evidence of a sophomore surge. By 1994, the cost of new voters has fallen in almost all districts (the 1994 lines are almost uniformly above the 1992 lines). Republicans in a median neighborhood (one with

50 percent Democratic registration) lost about 5 percent of the vote among new voters; by 1994 constituency service had reduced this loss to about 2 percent. Democrats' gains in 1994 are similar: their performance among new voters increases by about 4 percent. The implication is that the sophomore surge may largely be an incumbent skill phenomenon and that the personal vote advantages takes time to develop.

The State Assembly pattern does not conform so neatly, although most expectations are met. Incumbents of both parties lost votes among new voters—the 1992 and 1994 lines are consistently below the baseline for both Republicans and Democrats. Vote losses among Assembly Republicans matches the losses among Congressional Republicans. In Democratic neighborhoods it reaches about 8 percent in 1992 and 6 percent in 1994. In Republican neighborhoods, personal vote costs largely vanish. Again, the implication is that without the cues provided by the personal vote, the electorate falls back on latent partisanship. Finally, there is evidence of a weak and incomplete sophomore surge in 1994. Republican incumbents performed about 2 percent better among new voters in 1994 than in 1992. Democratic Assembly incumbents meet expectations least well. There are consistent new voter costs—about 2 percent—but these do not vary with neighborhood partisanship as expected. Incumbents lose about 2 percent of their predicted vote in both friendly and unfriendly neighborhoods.

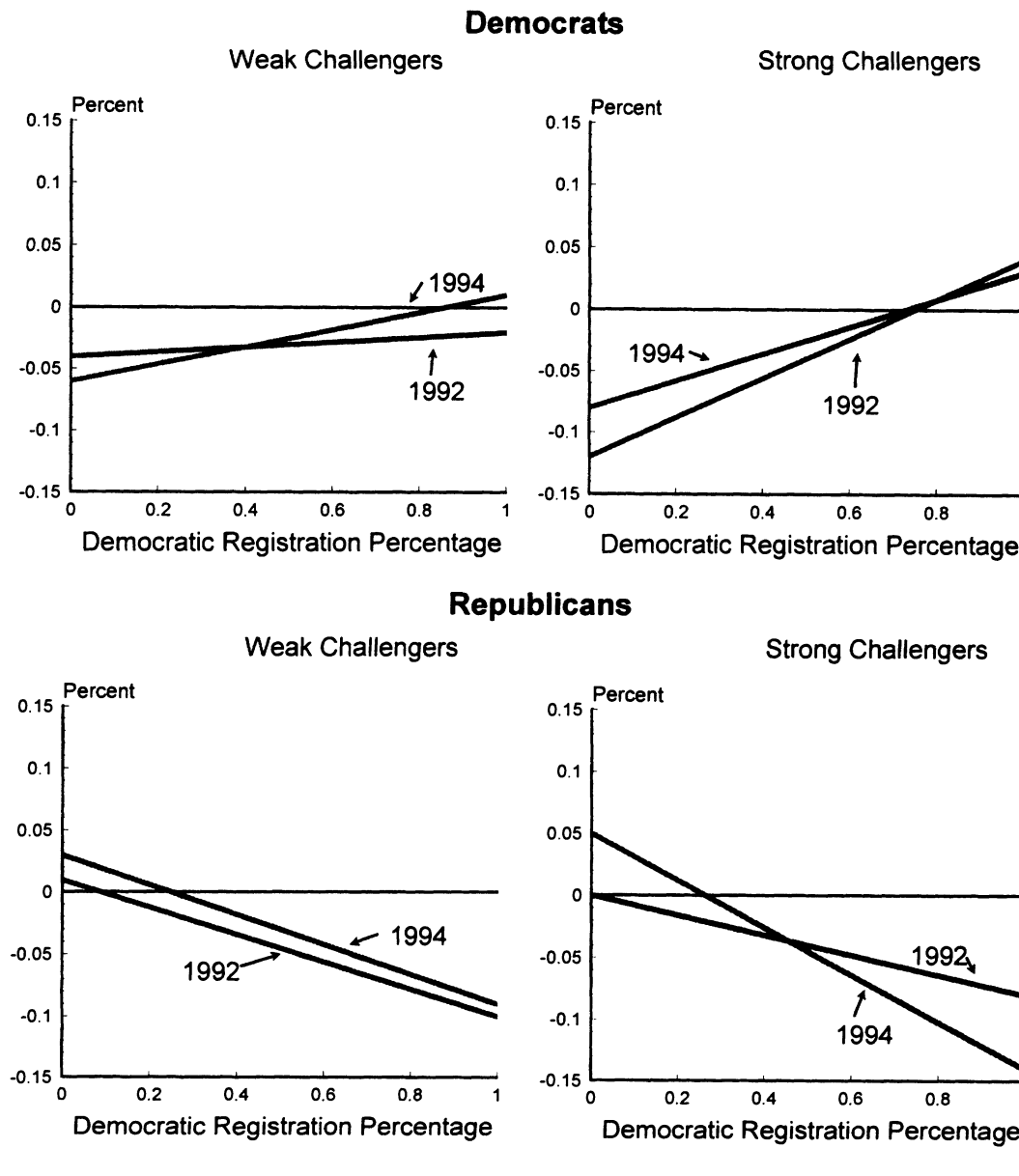
As noted above, the reason for examining the California Assembly elections is that the electoral dynamics of the professionalized California legislature should parallel what is observed for Congress. Consequently, the flat vote-loss lines for Assembly Democrats are a surprise. The difference may reflect the design of the Democratic Assembly districts. It may be a residual of the relatively centralized politics of California Democrats (perhaps a declining feature as the era of Speaker Willie Brown recedes further into the past). It may be nothing more than an anomalous spike in an otherwise general pattern if we had more data. In any case we have no explanation for it.

### The Effects of Competition on New Voters

Figure 4 shows that new voter costs are highest where incumbents face strong challengers (strong by virtue of an ability to fund and wage a campaign or because of a positive short-term tide).<sup>11</sup> The effect, as expected, is strongest in the election that immediately follows a

<sup>11</sup>We use money to index competition because the ability to raise funds is usually the best index of competitiveness. Although prior political experience makes a candidate an effective campaigner for reasons other than fund-raising prowess, money measures most of

**FIGURE 4 Competition and the Personal Vote  
(Congressional Elections of 1992 and 1994)**



redistricting—before the incumbent has the opportunity to create a personal vote anchor among the new voters. The first column in Figure 4 shows the new–old voter differences where incumbents faced relatively underfunded challengers. The second column shows districts that had strong challengers.<sup>12</sup>

what prior office experience captures with regard to the strength of a candidate’s campaign.

<sup>12</sup>A noncompetitive district is one where a challenger spent just 5 percent of the incumbent’s total spending. More than half of all challengers in 1992 and 1994 spent significantly less than this.

Personal vote costs vary with challenger quality. The relationship between voter partisanship and new voter costs is significantly stronger for Democratic incumbents facing competitive challengers than those facing weak challengers. Democratic incumbents who faced a competitive challenger lost about 15 percent of their expected vote share in 1992 and 8 percent in 1994, in unfriendly

Competitive districts are those where challenger spending was 40 percent of incumbent spending. About 80 percent of House incumbents and 90 percent of Assembly incumbents faced challengers that were much weaker than this.

neighborhoods (0 percent Democratic). In contrast, Democratic incumbents facing weak challengers lost less than 5 percent of the vote in both years in unfriendly neighborhoods. The impact of competitiveness for Republican incumbents is similar. In 1994, the cost of new voters rises dramatically where there are competitive challengers. Competition has weaker effects on GOP incumbents in 1992.

### Competition in the State Assembly Races

The interactions between challenger quality and new voter costs in the California State Assembly races were largely unsystematic. Some of the interaction coefficients for the State Assembly are not significantly different from zero, and the observed patterns are unstable. In some contexts, competitiveness seems to increase new voter costs (Republicans 1994); in others the reverse is apparent (Democrats 1992 and 1994). We speculate that this reflects the dominance of party preference over personal vote cues in low-information Assembly elections: new voter costs are typically smaller because the personal vote already matters less in these elections. The low levels of competitiveness in most California State legislative districts may exacerbate these effects.

### Conclusions

In this article we formulated and tested a model of the personal vote costs of redistricting. Not unexpectedly, we observed significant vote costs due to redistricting. The inevitable boundary shuffles associated with redistricting means that incumbent legislators often face significant numbers of new voters after redistricting. Our analysis demonstrates that legislators lose part of their incumbency advantage—and expected vote share—among these new voters.

But more importantly, we demonstrated that the existing “bonus model” of incumbency should be reformulated. Incumbents facing new voters don’t simply lose the stable 6 or 7 percent bonus that incumbency provides—because incumbency is not a bonus. Rather, incumbency is an anchor that stabilizes the votes of the less partisan. When redistricting cuts these voters loose from their old representative, their behavior depends on their underlying partisanship, the saliency of the election, and short-term political tides. Our analysis has shown that the interaction of these factors can produce a personal vote advantage as large as 15 points or none at all. The average seven-point incumbency advantage is an average, and not a bonus on which incumbents can depend.

The State Assembly data are an unresolved puzzle. In principle, these elections are a good observatory for attempting to replicate and, therefore, test further the variable incumbency effects observed for the congressional races. The State Assembly is, like the Congress, a highly professionalized body. Members have large personal staffs, large office budgets, engage in a lot of constituent service, and they run similar and expensive campaigns. However, we found something similar, but not identical. The difference has several possible sources. First, the low salience of state legislative offices may limit the ability of these incumbents to create a very substantial personal vote despite resource similarities. Alternatively, the difference may be aberrant; after all, not every data point exactly fits a pattern. Replications in other legislatures, especially if the design contrasts bodies that give members the resources that permit developing a personal vote compared to those that do not, may smooth out the pattern. Finally, assuming the pattern is general, we may be observing differences that may be peculiar to short-term California politics, e.g., the end of a strong Speaker era in California politics. Some elaboration and replication of this study in more states—not just at the congressional level—will further our understanding of incumbency.

## Appendix 1

### Fixed-Effects Models of Democratic Vote Share Congressional and Assembly Elections, 1990–1994

		Congress		Assembly	
		Coefficient	SE	Coefficient	SE
<b>Baseline Vote Variables</b>					
Democratic Reg.					
	1990	0.81	0.01	0.80	0.01
	1992	0.57	0.00	0.57	0.00
	1994	0.52	0.00	0.54	0.00
Incumb*Dem. Reg.					
Republicans					
	1990	0.18	0.01	0.10	0.01
	1992	0.10	0.00	0.08	0.00
	1994	0.14	0.00	0.17	0.01
Democrats					
	1990	-0.02	0.01	-0.11	0.01
	1992	-0.05	0.00	-0.05	0.00
	1994	0.03	0.00	0.08	0.00
<b>New Voters Effects</b>					
Incumb*New Voter					
Republicans					
	1992	0.01	0.00	0.01	0.00
	1994	0.04	0.00	0.02	0.00
Democrats					
	1992	-0.09	0.00	-0.03	0.00
	1994	-0.07	0.00	-0.01	0.00
Incumb*New Voter*Dem. Reg.					
Republicans					
	1992	-0.10	0.01	-0.08	0.01
	1994	-0.16	0.01	-0.08	0.01
Democrats					
	1992	0.09	0.00	0.01	0.00
	1994	0.10	0.00	-0.03	0.01
	<b>R<sup>2</sup></b>	0.79		0.80	
	<b>N</b>	734,250		717,842	

**Appendix 2**  
**Competition and Predicted New Voter Costs**  
**Fixed-Effects Models of Democratic Vote Share**  
**Congressional and Assembly Elections, 1990–1994**

		Congress		Assembly	
		Coefficient	SE	Coefficient	SE
<b>Baseline Vote Variables</b>					
Democratic Reg.					
	1990	0.81	0.01	0.80	0.01
	1992	0.57	0.00	0.57	0.00
	1994	0.52	0.00	0.54	0.00
Incumb*Dem. Reg.					
Republicans					
	1990	0.18	0.01	0.10	0.01
	1992	0.12	0.00	0.12	0.01
	1994	0.18	0.01	0.17	0.01
Democrats					
	1990	-0.02	0.01	-0.11	0.01
	1992	-0.05	0.00	-0.08	0.00
	1994	0.04	0.00	0.10	0.01
Incumb*Dem Voters*Challenger Qual					
Republicans					
	1992	-0.10	0.01	-0.24	0.02
	1994	-0.14	0.02	-0.20	0.14
Democrats					
	1992	0.00	0.01	0.10	0.01
	1994	-0.04	0.00	-0.22	0.02
<b>New Voters Effects</b>					
Incumb*New Voter					
Republicans					
	1992	0.01	0.00	0.05	0.00
	1994	0.03	0.00	0.02	0.00
Democrats					
	1992	-0.03	0.00	-0.07	0.00
	1994	-0.06	0.00	-0.03	0.00
Incumb*New Voter*Challenger Qual.					
Republicans					
	1992	-0.04	0.01	-0.25	0.01
	1994	0.05	0.01	-0.05	0.08
Democrats					
	1992	-0.23	0.01	0.13	0.01
	1994	-0.04	0.00	0.25	0.02
Incumb*New Voter*Dem. Reg.					
Republicans					
	1992	-0.11	0.01	-0.16	0.01
	1994	-0.11	0.01	-0.07	0.01
Democrats					
	1992	0.00	0.01	0.07	0.00
	1994	0.07	0.00	0.01	0.01
Incumb*New Voter*Challenger Qual.*Dem. Reg.					
Republicans					
	1992	0.08	0.02	0.50	0.03
	1994	-0.20	0.03	-0.12	0.19
Democrats					
	1992	0.41	0.02	-0.16	0.01
	1994	0.09	0.01	-0.45	0.03
	<b>R<sup>2</sup></b>	0.79		0.80	
	<b>N</b>	734,250		717,842	

## References

- Alford, John R., and David W. Brady. 1993. "Personal and Partisan Advantages in U.S. Congressional Elections, 1846–1990." In *Congress Reconsidered*, ed. Lawrence C. Dodd and Bruce I. Oppenheimer. Washington, DC: CQ Press.
- Ansolabehere, Stephen, James M. Snyder, Jr., and Charles Stewart III. 2000. "Old Voters, New Voters, and the Personal Vote: Using Redistricting to Measure the Incumbency Advantage." *American Journal of Political Science* 44(1):17–34.
- Arceus, Francisco, and Allan H. Meltzer. 1975. "The Effect of Aggregate Economic Variables on Congressional Elections." *American Political Science Review* 69(1):232–39.
- Banducci, Susan A., and Jeffrey A. Karp. 1994. "Electoral Consequences of Scandal and Redistricting in the 1992 House Election." *American Politics Quarterly* 22(1):3–26.
- Bartels, Larry M. 2000. "Partisanship and Voting Behavior." *American Journal of Political Science* 44(1):35–50.
- Blunt, Christopher C., John R. Petrocik, and Frederick T. Steeper. 1998. "Priming and Issue Agenda in American Campaigns: Wofford vs. Thornburgh in the 1991 Pennsylvania Senate Race." Presented at the Annual Meeting of the Midwest Political Science Association.
- Butler, David, and Bruce Cain. 1992. *Congressional Redistricting: Comparative and Theoretical Perspectives*. New York: MacMillan.
- Cain, Bruce E. 1985. "Assessing the Partisan Effects of Redistricting." *American Political Science Review* 79(2):320–33.
- Cain, Bruce, John Ferejohn, and Morris Fiorina. 1987. *The Personal Vote*. Cambridge: Harvard University Press.
- Campbell, James E. 1993. *The Presidential Pulse of Congressional Elections*. Lexington: University of Kentucky Press.
- Cover, Albert D., and Bruce S. Brumberg. 1981. "Baby Books and Ballots: The Impact of Congressional Mail on Constituency Opinion." *American Political Science Review* 76(2):347–59.
- Cox, Gary W., and Jonathan Katz. 1996. "Why did the Incumbency Advantage in U.S. House Elections Grow?" *American Journal of Political Science* 40(2):478–97.
- Dimock, Michael A., and Gary C. Jacobson. 1995. "Checks and Choices: The House Bank Scandal's Impact on Voters in 1992." *Journal of Politics* 57(4):1143–59.
- Erikson, Robert S. 1971. "The Advantage of Incumbency in Congressional Elections." *Polity* 3(3):395–405.
- Erikson, Robert S. 1990. "Economic Conditions and the Congressional Vote: A Review of the Evidence." *American Journal of Political Science* 34(2):373–99.
- Fiorina, Morris, and Douglas Rivers. 1989. "Constituency Service, Reputation, and the Incumbency Advantage." In *Members of Congress at Home and in Washington*, ed. Morris P. Fiorina and David Rhode. Ann Arbor: University of Michigan Press.
- Garand, James C., and Donald A. Gross. 1984. "Changes in the Vote Margins for Congressional Candidates: A Specification of Historical Trends." *American Political Science Review* 78(1):17–30.
- Gelman, Andrew, and Gary King. 1990. "Estimating the Incumbency Advantage without Bias." *American Journal of Political Science* 34(4):1142–64.
- Huckfeldt, Michael, and John Sprague. 1995. *Citizens, Politics, and Social Communication: Information and Influence in an Election Campaign*. New York: Cambridge University Press.
- Iyengar, Shanto, and Donald Kinder. 1987. *News that Matters: Television and American Public Opinion*. Chicago: University of Chicago Press.
- Jacobson, Gary C., and Michael A. Dimock. 1994. "Checking Out: The Effects of Overdrafts on the 1992 House Elections." *American Journal of Political Science* 38(3):601–24.
- Jacobson, Gary C. 2001. *The Politics of Congressional Elections*. New York: Addison Wesley Longman.
- Jacobson, Gary C., and Samuel Kernell. 1981. *Strategy and Choice in Congressional Elections*. New Haven: Yale University Press.
- Johannes, John R., and John C. McAdams. 1981. "The Congressional Incumbency Effect: Is It Casework, Policy Compatibility, or Something Else." *American Journal of Political Science* 25(3):512–42.
- Kazee, Thomas A. 1994. "Ambition and Candidacy: Running as a Strategic Calculation." In *Who Runs for Congress? Ambition, Context, and Candidate Emergence*, ed. Thomas A. Kazee. Washington, DC: CQ Press.
- Keith, Bruce, et al. 1992. *The Myth of the Independent Voter*. Berkeley: University of California Press.
- Kernell, Samuel. 1977. "Presidential Popularity and Negative Voting: An Alternative Explanation of the Midterm Congressional Decline of the President's Party." *American Political Science Review* 71(1):44–66.
- Kousser, Morgan J. 1996. "Estimating the Partisan Consequences of Redistricting Plans—Simply." *Legislative Studies Quarterly* 21(4):521–41.
- Lewis-Beck, Michael, and Tom W. Rice. 1992. *Forecasting Elections*. Washington, DC: CQ Press.
- Maisel, Louis Sandy, and Walter P. Stone. 1997. "Determinants of Candidate Emergence in U.S. House Elections: An Exploratory Study." *Legislative Studies Quarterly* 22(1):72–96.
- McCue, Kenneth F. 1994. "California Statewide Election/Registration Data Merged to Census Data 1990–1992." Documentation distributed by the Data Archive, Institute for Government Studies. University of California, Berkeley.
- Palmquist, Bradley. 1998. "The Extended Beta Binomial Model in Political Analysis." Prepared for the 1998 Annual Meeting of the Southern Political Science Association.
- Petrocik, John R. 1989. "An Expected Party Vote: Some New Data for an Old Concept, With Applications." *American Journal of Political Science* 33(1):44–66.
- Petrocik, John R. 1991. "Divided Government: Is It All in the Campaigns?" In *The Politics of Divided Government*, ed. Gary Cox and Samuel Kernell. Boulder: Westview Press.
- Petrocik, John R. 1996. "Issue Ownership in Presidential Elections, with a 1980 Case Study." *American Journal of Political Science* 40(3):825–50.

- Petrocik, John R., and Scott W. Desposato. 1998. "The Partisan Consequences of Majority-Minority Redistricting in the South 1992 and 1994." *Journal of Politics* 60(3):613–33.
- Rush, Mark E. 1993. *Does Redistricting Make a Difference: Partisan Representation and Electoral Behavior*. Baltimore: Johns Hopkins University Press.
- Sellers, Patrick. J. 1998. "Strategy and Background in Congressional Campaigns." *American Political Science Review* 92(1):159–71.
- Serra, George, and Albert D. Cover. 1992. "The Electoral Consequences of Perquisite Use: The Casework Case." *Legislative Studies Quarterly* 17(2):233–46.
- Yiannakis, Diana E. 1981. "The grateful electorate: Casework and Congressional Elections." *American Journal of Political Science* 25(3):568–80.
- Zaller, John R. 1998. "Politicians as Prizefighters: Electoral Selection and Incumbency Advantage." *Party Politics and Politicians*, ed. John Geer. Baltimore: Johns Hopkins University Press.