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Abstract

Failure to take into account 'strategic retirement' leads to inflated estimates of the incumbent electoral advantage. The one attempt to address this issue in the context of US House elections implies that much of the supposed incumbency advantage and most of its presumed increase over time are illusory (Cox and Katz, 2002). This paper identifies possible problems with the Cox and Katz (2002) method and develops a new approach based on simulating the counterfactual condition of incumbents standing for re-election rather than retiring. The results show that when the bias induced by strategic retirement is removed, much of the apparent incumbency advantage and its increase over time remain evident.

Keywords

congressional elections; incumbency; incumbent advantage; strategic retirement

1. Introduction

There is widespread agreement that strategic behavior by key political actors structures the congressional election system (Jacobson and Kernell, 1983).[1] The behavior of incumbents is no exception. For instance, the negative relationship between incumbent spending and incumbent vote shares does not mean that incumbents would be well advised to spend less in order to improve their chances. Instead, it indicates that faced with greater electoral threats, incumbents respond by spending more.[2] Similarly, the difficulty of demonstrating that constituency service boosts incumbents' electoral fortunes is likely due to the fact that the incumbents with greater incentive to provide more service are those whose electoral circumstances are most precarious (Fiorina, 1981; Cain et al., 1987; King, 1991).[3]

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Another behavior plausibly influenced by strategic calculations is the decision about whether to seek re-election or retire. If some incumbents decide to retire rather than face unusually tough re-election contests, then those who stand for re-election will receive, on average, more votes and win more often than what would be observed in the absence of 'strategic retirement'.[4] Likewise, a party will be more successful when its candidate is the incumbent compared to when its candidate is not. But, the implication may not be that parties should encourage their incumbents who are considering retirement to run for re-election instead. A large *apparent* incumbent electoral advantage may be illusory, due to the self-selection of vulnerable incumbents out of the pool of those seeking re-election.

This paper argues that, while sometimes ignored, strategic retirement is a phenomenon sufficiently plausible that it should be taken into account when estimating the incumbency advantage. At the same time, the paper suggests that the only approach employed to correct for the bias introduced by strategic retirement in House elections (Cox and Katz, 2002; Katz, 2008) may be inadequate, with biases of its own. As a result, while it is unwise to assume that estimates of the incumbency advantage that do not take into account strategic retirement are correct, the contention that 'the estimated value of incumbency is statistically insignificant before 1966 and less than half of the conventional estimates after 1966' (Cox and Katz, 2002: 161) is also suspect. The question of how strategic retirement influences estimates of the incumbency advantage in House elections remains unanswered. I propose a new approach based on simulating the counterfactual condition of incumbents standing for re-election rather than retiring.

Determining the degree to which strategic retirement biases estimates of the incumbency advantage is important for two reasons. First, our understanding of the causal forces at work in the congressional election process and how they have changed over time is at stake. Second, the extent to which the apparent incumbency advantage is real bears directly on important normative issues about democratic responsiveness. A free, open, and competitive electoral system is typically cited as a necessary condition for a country to be 'governed democratically' (Dahl, 2005). Large incumbent advantages and high incumbent re-election rates may indicate lack of competition and therefore pose a threat to the quality of American democracy. But, from the perspective of *turnover* in public officials, election loss and retirement produce the same effect: incumbent replacement. If retirement is caused by the same forces as election loss, then the goals of electoral competition may be realized even though re-election rates are notoriously high (Stone et al., 2010). Indeed, total turnover in the House is nearly four times the rate of incumbent defeat in general elections (Stanley and Niemi, 2007). Thus the question of how much electoral competition truly exists – and consequently the level of democratic accountability – depends on how much strategic retirement contributes to the appearance of the incumbency advantage (Issacharoff, 2002; Persily, 2002).

2. Strategic incumbent retirement and the electoral advantage of incumbency

A variety of recent studies reinforces the proposition first advanced by Jacobson and Kernell (1983) that incumbents' decisions about whether to seek re-election include a 'strategic' dimension; they are influenced by their re-election prospects. First, a recent study measured House incumbents' re-election prospects by surveying local activists in

advance of candidate-filing deadlines and reports a strong correlation between electoral prospects and incumbents' decisions to seek re-election (Stone et al., 2010). Second, a study of the competence and integrity of House incumbents finds that lower-quality incumbents are more likely to retire (Mondak, 1995). Third, an analysis of Senators' approval ratings and their re-election-seeking decisions implies strategic retirement, as higher approval ratings are associated with seeking re-election and lower approval is associated with retirement (Highton, 2008). Finally, there have been instances when political events appear to lead directly to strategic retirement. One example that received quite a bit of scholarly attention relates to the problems some incumbents faced after the public revelation of how many times House members overdrafted their House bank accounts (Groseclose and Krehbiel, 1994; Hall and Van Houweling, 1995; Jacobson and Dimock, 1994). Incumbents with more overdrafts – and therefore at greater electoral risk – had higher retirement rates than those with fewer or no overdrafts.

To see how strategic retirement leads to bias in most estimates of the incumbency advantage, consider the widely influential model proposed in Gelman and King (1990). Gelman and King (1990) rely on a straightforward regression model that avoids many problems associated with previous measures of incumbency advantage. The model is:

$$vote_i = \alpha + \beta_1 * voteprev_i + \beta_2 * party_i + \beta_3 * incumb_i + \varepsilon_{ai} \quad (1)$$

The variable *vote* is the two-party Democratic vote share in a district; *voteprev* is the two-party Democratic vote share in the previous election; *party* differentiates elections based on whether they are for a seat held by the Democratic or Republican party; *incumb* indicates whether the election features a Republican incumbent (−1), a Democratic incumbent (+1), or is open (0); ε_a is a disturbance term that takes into account other, unmeasured, causes of *vote*; β_1, β_2, and β_3 specify the effects of *voteprev*, *party*, and *incumb*, respectively; and, finally, *i* indexes districts. Estimating Equation (1) with Ordinary Least Squares (OLS) produces $\hat{\beta}_3$, which indicates the difference in vote shares when there is an incumbent running versus an open seat, and serves as the estimate of the incumbency advantage. For example, if $\hat{\beta}_3 = 8.0$, then compared to an open seat, the Democratic vote is expected to be eight percentage points higher if the Democrats defend a seat with an incumbent and eight percentage points lower if a seat is defended by a Republican incumbent.

As noted in Gelman and King (1990), for the estimate of the incumbency advantage ($\hat{\beta}_3$) to be unbiased, the unmeasured causes of *vote* (ε_a) must be uncorrelated with *incumb*. If incumbent decisions to stand for re-election or retire are correlated with unmeasured causes of *vote*, then depending on the strength and direction of the correlation, the estimated incumbent advantage may be biased upward or downward to a greater or lesser extent. Why might the correlation between *incumb* and the unmeasured causes be nonzero? If incumbents read the 'tea leaves' and diagnose their prospects of winning re-election, and some respond to these prospects by choosing to retire rather than stand for re-election, then strategic retirement may produce a positive correlation between *incumb* and ε_a: expectations of higher Democratic vote shares increase the chances that Democratic incumbents stand for re-election – and Republican incumbents retire – while expectations of lower Democratic vote shares increase the chances of Democratic retirements – and Republican incumbents standing for re-election.

Two conditions are necessary for bias to be introduced. First, the tea leaves being read must go beyond incumbents' previous vote shares and beliefs about an impending national partisan tide. The reason for this is that both of these factors are explicitly accounted for in Equation (1) and are therefore not unmeasured causes. The second necessary condition is that incumbents' assessments of their prospects must be, at least, partially valid. If incumbents' perceived prospects are based on factors that will not influence their vote shares – if they are poor forecasters – then there is no correlation between *incumb* and ε_a. If both conditions are met, then ($\hat{\beta}_3$) will be biased upward. Democratic incumbents are more likely to seek re-election when $\varepsilon_a > 0$ and more likely to retire when $\varepsilon_a < 0$ (Republican incumbents are more likely to seek re-election when $\varepsilon_a < 0$ and more likely to retire when $\varepsilon_a > 0$); open seats are caused, at least in part, by incumbents correctly perceiving threats to their electoral fortunes in the upcoming election that go beyond risks associated with their previous vote shares and national partisan tides. In light of the work cited above about the factors that influence incumbent retirements, there is good reason to think that ε_a and *incumb* are correlated.[5] As a result, previous estimates of the incumbency advantage that do not take strategic retirement into account are likely biased (e.g. Alford and Hibbing, 1981; Cover, 1977; Cox and Morgenstern, 1993; Cox and Katz, 1996; Erikson, 1971, 1972; Gelman and King, 1990; Highton, 2000; Kostroski, 1973; Krehbiel and Wright, 1983).[6]

3. Estimating incumbency advantage in the presence of strategic retirement

Given the plausibility that strategic retirement exists and therefore produces bias in estimates of the incumbency advantage that do not take it into account, how should the problem be addressed? Only one approach has been employed in the analysis of House elections.[7] It is based on differentiating how seats become open (Cox and Katz, 2002; Katz, 2008). Cox and Katz (2002) point out that incumbents do not always exercise choice about whether to stand for re-election. 'Involuntary' retirements occur when House members die in office or lose in primaries. In neither case has an incumbent decided to retire. While open seats are created, strategic retirement can be ruled out as the cause. As a result, these elections provide an arguably more plausible baseline from which to estimate the incumbency advantage. The Cox and Katz (2002) model is:

$$incvote_i = \alpha + \beta_4 * incvoteprev_i + \beta_5 * incparty_i + \beta_6 * openvol_i + \beta_7 * openinvol_i + \varepsilon_{bi} \quad (2)$$

Cox and Katz model the incumbent party's vote (*incvote*) as a function of the party's vote in the previous election (*incvoteprev*), the incumbent party (*incparty*), and two indicators of open seats. Seats that are involuntarily open due to death and primary losses are coded 1 in *openinvol* and 0 otherwise; seats that are open due to voluntary retirement are coded 1 in *openvol* and 0 otherwise. With this setup β_6 indicates the difference between the vote share the incumbent's party receives when the incumbent is the party's candidate compared to when the incumbent voluntarily is not the incumbent party's candidate; β_7 indicates the difference between the vote share the incumbent's party receives when the incumbent is the party's candidate compared to when the incumbent involuntarily is not the incumbent party's candidate. Cox and Katz argue that incumbent party vote losses

in involuntarily open seats (β_7) are due solely to loss of the incumbent advantage, while incumbent party votes losses in voluntarily open seats are due to loss of the incumbent advantage along with the adverse political conditions that caused the incumbent to retire. Thus β_7 is the true incumbency advantage while β_6 is biased. For the 1966–1998 period, Cox and Katz estimate that β_6 is more than twice the size of β_7, which provides the basis for the proposition that much of the apparent incumbent advantage in contemporary House elections is illusory, due to strategic retirement. Further, in comparison to the 1946–1964 period, Cox and Katz report that the change in β_6 is more than twice the change in β_7, implying that most of the apparent increase in the incumbency advantage is also illusory.

In order for the Cox and Katz (2002) approach to provide unbiased estimates of the incumbency advantage, several conditions must hold. One is that 'when the incumbent anticipates a bad vote share, it is not typically for purely idiosyncratic reasons but instead for reasons that will affect the vote of any nonincumbent who runs in her stead should she withdraw' (p. 145). The reason this is a necessary condition for β_7 to be unbiased becomes clear with a modification of (2):

$$\begin{aligned} incvote_i = \alpha + \beta_4 * incvoteprev_i + \beta_5 * incparty_i + \beta_6 * openvol_i \\ +\beta_7 * openinvol_i + \varepsilon_{ci} + \varepsilon_{di} + \varepsilon_{ei} \end{aligned} \quad (3)$$

Let ε_c be the unmeasured causes of the vote that influence the incumbent party's vote share if the incumbent is the party's candidate, but that have *no* influence if the incumbent exits (e.g. incumbent ideological extremism or House bank overdrafts); let ε_d be other unmeasured causes of the incumbent party's vote that influence *incvote* equally, whether the incumbent is the party's candidate or not (e.g. district economic performance); and let ε_e be the remaining causes of the incumbent party's vote.

The Cox and Katz (2002) approach depends on the assumption that the correlation between ε_c and *openvol* is zero. To see why, suppose the incumbents' retirement decisions are influenced only by ε_c, unmeasured factors linked to the incumbent but not the incumbent's party. If this is the case, then incumbents who do not voluntarily retire (some of whom subsequently exit involuntarily and the remainder who stand for re-election) will be stronger – of higher quality – than incumbents in general. The incumbent party will not suffer more in voluntarily open seats compared to involuntarily open ones because the incumbent's electoral liabilities are not the party's ($\varepsilon_d = 0$). Hence, how seats become open becomes irrelevant and estimating incumbency advantage using either type of open seat will be problematic because the incumbent party vote shares in all open seat contests will be compared to the incumbent party vote shares for the stronger than average incumbents who ultimately stand for re-election. Thus, if incumbents voluntarily retire in response to ε_c, the Cox and Katz approach will overestimate the incumbency advantage.

If the only potential problem with the Cox and Katz (2002) approach was that it assumes incumbents do not retire in response to ε_c, then estimates of the incumbency advantage relative to involuntarily open seats ($\hat{\beta}_7$) could be interpreted as upper-bound estimates of the incumbency advantage. And, because $\hat{\beta}_7$ appears small relative to the estimate of the incumbency advantage based on voluntarily open seats ($\hat{\beta}_6$) and small in an absolute sense, the conclusion that there is little true incumbency advantage would still rest on firm empirical footing. But, another necessary condition for the Cox and Katz

approach to be valid is of greater concern. Whether a seat becomes voluntarily open must be uncorrelated with ε_e, the remaining causes of the vote; and a variety of reasons suggest that it is correlated with ε_e and that $\hat{\beta}_7$ may actually underestimate the true incumbent advantage.

Consider a recent critique: Gelman contends that:

> [I]nvoluntary exit is not itself a randomly assigned treatment; deaths in office are rare and commonly occur in congressmembers who have been in office in safe seats for a long time, and primary losses also are rare events that commonly occur in safe seats. (2008: 450)

The fact that involuntary exits are nonrandom is not necessarily a problem. To pose a problem, involuntary exits must be correlated with unmeasured causes of *incvote*. Cox and Katz (2002) do not offer an argument in this regard and just as one should not assume there is no strategic retirement it seems reasonable that one should not assume that all unmeasured causes of the vote are uncorrelated with involuntary exit. For example, if Gelman (2008) is correct that involuntary exits are more likely to occur in safe seats and if the incumbent advantage is smaller in safe seats because there are fewer out-partisans from which to generate partisan defections (Ansolabehere et al., 2000), then using involuntarily open seats as a baseline will lead to underestimates of the incumbency advantage.

Another possibility has to do with the fact that spouses of incumbents who die in office sometimes succeed them. Spouses usually share the same last name and therefore can benefit from the deceased incumbent's name recognition. Further, whoever follows the incumbent – the spouse or someone else – may inherit the incumbent's staff and campaign organization, enabling them to run a stronger campaign than is typical for nonincumbents. Thus in cases of involuntary exits due to death, some portion of the incumbency advantage may pass on to the nonincumbent candidates that succeed them, making the observed vote losses underestimates of the true incumbency advantage. Still further, in the case of involuntary exit due to primary defeat, the incumbent party candidate replacing the incumbent may be unusually strong, given the difficulty of beating an incumbent in a primary, and therefore be more able than typical nonincumbent candidates of the incumbent's party to prevent vote losses after the departure of the incumbent. Overall, then, the assumption that ε_e is uncorrelated with *incvote* seems dubious and ought not to be the basis for estimating incumbency advantage in the presence of strategic retirement.

4. A new approach: simulating the counterfactual condition of no strategic retirement

If incumbents who chose to retire for strategic electoral reasons could be forced to seek re-election instead, then their vote shares could be observed, strategic retirement would be eliminated, and incumbency advantage could be estimated without bias using the Gelman and King (1990) approach. This notion motivates the approach employed in this paper. To begin, suppose γ percent of incumbent retirements are strategic (the strategic retirement rate) and that had those incumbents sought election they would have received, on average, δ percent of the vote. The solution I propose is to vary γ and δ across a range of values. For each set of values, I randomly select γ percent of open seats and simulate having

the retiring incumbents stand for re-election instead.[8] For these elections, I assign a new value of *vote* (*vote**) according to the following:

$$vote^* = \delta + \varepsilon_f;\ \varepsilon_f \sim N(0, 6.7) \quad (4)$$

Rather than use the observed value of *vote* for when the seat was open, a new value of *vote* (*vote**) is substituted with an average of δ. Uncertainty is included through ε_f, which is distributed normally with a standard deviation of 6.7.[9] For example, if $\delta = 50$, then strategically retiring incumbents are simulated to seek re-election and receive 50 percent of the vote on average, implying that half would lose and half would win if they were forced to stand for re-election rather than retire. For the selected incumbents, the values of *vote** are substituted for the observed values of *vote* and along with the recoded *incumb*, Equation (1) – the Gelman King (1990) model – is estimated. For each combination of γ and δ in each period, this process is repeated 1000 times, with a different random set of retiring incumbents simulated to stand for re-election each time.

4.1. The strategic retirement rate (γ)

Any precise specification about the rate at which incumbents strategically retire (γ) would undoubtedly be wrong, but it should be possible to identify a range of values that includes the true rate. To start, it is useful to return to the original invocation of the term 'strategic retirement' (Jacobson and Kernell, 1983). Jacobson and Kernell (1983) report that incumbent retirement rates by party are negatively correlated (higher Democratic retirement rates are associated with lower Republican rates, and vice versa), which is suggestive of strategic retirement in response to anticipated national party tides. For the purposes here, what is relevant is that Jacobson and Kernell do not claim that all, or even most, retirements are strategic.

> Representing safe constituencies serves to insulate senior congressmen from the marginal effects of short-term partisan forces. And contentment with a House career eliminates the risky decision to give up the current office to pursue another. Add to these considerations the fact that age and health frequently necessitate departure without regard to politics, retirements should be among the least strategic career decisions. (Jacobson and Kernell, 1983: 52)

Moreover, whatever strategic retirement that may have been present in response to anticipated national party tides during the period of time analyzed by Jacobson and Kernell (1912–1970) may no longer be operative. A more recent study has found that neither presidential approval nor economic performance are related to net party retirement rates between 1954 and 1996 (Moore and Hibbing, 1998). In addition, I computed the differences in party retirement rates (Democratic minus Republican) for the election years under study here and calculated the correlation with the Democratic percentage of the national two-party House vote. If there is strategic retirement in response to correctly forecasting national partisan tides, then higher Democratic (relative to Republican) retirement rates should be associated with elections where the Democrats do worse. To be sure, the correlation is negative, but it is not especially strong ($r = -.24; p = .23$).[10]

Next, consider the relationship between *voteprev* and retirement. Gelman and King (1990) find no relationship between *voteprev* and retirement. Two other studies report

the same result (Brace, 1985; Kiewiet and Zeng, 1993). For the periods under investigation in this paper, probit models of exit that include previous vote along with party and year effects produce very modest relationships. In the 1946–1964 period, the estimated difference in retirement rates for incumbents that previously won with 75 percent rather than 50 percent of the vote is 0.7 percent ($p = .59$). In the 1966–2006 period, incumbents that previously won with 75 percent of the vote are less likely to retire, but the estimated difference with those who previously won with 50 percent of the vote is just 1.4 percent ($p = .16$).[11]

National party tides and previous electoral performance are indicators of electoral prospects. The findings that incumbents are not much influenced by them to retire suggests that strategic retirement is not pervasive. Before confidently drawing this conclusion and setting a low value of γ, the possibility that national partisan tides and previous vote shares are too blunt as indicators of electoral prospects should be considered.

Perhaps substantial numbers of incumbents do strategically retire in response to more reliable and valid indicators of their electoral prospects: 'all politics is local and the local politicians know it a lot better than we [political scientists] do' (Cox and Katz, 2002: 144). If so, then substantial strategic retirement could coexist with the lack of strong relationships discussed above. However, persuasively arguing against this view is that national party tides and previous vote shares are strongly related to entry decisions of other well-known strategic actors: 'quality' challengers (Jacobson, 2009). While there is only a modest correlation between retirement rates by party and national congressional outcomes, there is a strong relationship between party advantage in experienced challengers and national congressional vote shares ($r = .66, p < .01$).[12] Further, Jacobson (2009) shows that the relative quality of the parties' challengers responds to both national economic performance and presidential approval. Likewise, while incumbents' exit decisions are not much related to their previous vote shares, entry of quality challengers is (Jacobson, 2009; Krasno and Green, 1988).[13] For the 1966–2006 period, the estimated difference in incumbent retirement rates of 1.4 percentage points between those that previously won with 50 percent of the vote and those that won with 75 percent of the vote is dwarfed by the estimated difference of 36 percentage points between the rate at which experienced challengers enter races that were previously won with 50 percent rather than 75 percent of the vote.[14]

The fact that experienced challenger entry is strongly responsive to national conditions and previous incumbent vote shares while incumbent retirement is only weakly related to them lends credence to the view that the level of strategic retirement is not too high. All indications are that non-strategic retirement is a more common phenomenon than strategic retirement. Consequently, in the simulations that follow I vary the incumbent strategic retirement rate parameter (γ) from a low of 10 percent to an upper bound of 50 percent, which implies that non-strategic retirement ranges from a high of 90 percent to a low of 50 percent.[15]

4.2. The expected vote for strategically retired incumbents (δ)

The next question concerns the expected vote for strategically retiring incumbents. If these incumbents stood for re-election instead, how would they do? Setting $\delta = 50$ implies that on average, half would lose, which certainly represents diminished

Table 1. The distribution of incumbent vote shares.

Incumbent percent of two-party vote	All incumbents			Incumbents with less than 50 percent of the vote		
	1946–1964 (%)	1966–2006 (%)	1946–2006 (%)	1946–1964 (%)	1966–2006 (%)	1946–2006 (%)
<35	0.03	0.02	0.02	0.42	0.38	0.40
35–40	0.13	0.13	0.13	1.67	3.07	2.40
40–45	1.31	0.80	0.98	16.74	18.39	17.60
45–50	6.38	3.44	4.43	81.17	78.16	79.60
50+	92.14	95.61	94.44	–	–	–

electoral prospects in the world of House elections where more than 90 percent routinely win (Jacobson, 2009).[16] I use $\delta = 50$ as the *best-case* scenario for strategically retiring incumbents, and make their electoral prospects progressively worse from there.[17] To identify a reasonable worst-case scenario of strategically retiring incumbents, Table 1 reports the distribution of vote shares for incumbents that stood for re-election from 1946 to 2006. About 95 percent of incumbents won and therefore received more than 50 percent of the two-party vote. Of those that lost, most lost narrowly with 45 to 50 percent of the vote (4.4 percent of all incumbents and 79.6 percent of losing incumbents). About one percent of all incumbents (nearly 18 percent of losing incumbents) received between 40 and 45 percent of the vote. Taken together, 99.8 percent of all incumbents and 97.2 percent of losing incumbents received at least 40 percent of the vote. Of the small minority of remaining incumbents, most received between 35 and 40 percent of the vote. Just 0.02 percent of all incumbents and 0.4 percent of losing incumbents lost with less than 35 percent of the vote. As a result, while I make $\delta = 50$ as the best-case scenario for strategically retiring incumbents, I set $\delta = 35$ as the worst-case scenario for strategically retiring incumbents. Note that to assign $\delta = 35$ is to assume that strategically retiring incumbents would do worse, on average, than 99.98 percent of all incumbents that actually stood for election and worse than 99.6 percent of incumbents that stood for re-election and lost.

In the simulations that follow, I vary the number of strategic retirements from 10 percent to 50 percent, in 10 point increments, and the expected vote from 50 percent to 35 percent, in five point increments. Thus there are 20 combinations of γ and δ. With 1,000 simulations for each combination in each of the two periods, I produce a total of 40,000 estimates of the incumbency advantage.

5. Results

The data I draw on are House elections from 1946–2006. Like Cox and Katz I distinguish two periods based on the 1966 elections because the incumbency advantage appears to have 'increased abruptly in 1966, with little trend before or after' (Cox and Katz, 2002: 130). I exclude the first election for newly drawn districts because *voteprev* exists beginning with the second. After dropping the small number of elections

Table 2. Estimating the incumbency advantage under the assumption of no strategic retirement.

Variable	1946–1964	1966–2006
Incumbency	3.06*	8.86*
	(0.36)	(0.31)
Previous vote	0.72*	0.63*
	(0.01)	(0.01)
Incumbent party	0.62	−1.92*
	(0.38)	(0.33)
Adj. R^2:	0.86	0.86
N:	3347	6563

Standard errors in parentheses. * indicates $p < 0.05$. The models also include separate intercepts for each year to allow for national partisan tides.

where non major party candidates won or where there were other unusual circumstances (e.g. a handful of elections in Louisiana), there are 3347 elections in the 1946–1964 period and 6563 elections in 1966–2006 period for the analysis.[18] To provide a baseline, Table 2 reports the estimates of Equation (1), which is based on the assumption of no strategic retirement. Consistent with previous research, the estimated incumbency advantage almost tripled, from 3.1 points in the 1946–1964 period to 8.9 points in the 1966–2006 period (Jacobson, 2009).[19]

The key question to answer is by how much the estimates are inflated and biased due to strategic retirement. Suppose that 20 percent of retired incumbents did so strategically to avoid the possibility of a difficult election ($\gamma = 20$), and that had those 20 percent stood for re-election, they would have averaged 45 percent of the vote ($\delta = 45$). Figure 1 shows the results of the 1000 trials for each period by displaying kernel density plots of the estimates. Recall that the estimated incumbency advantage under the assumption of no strategic retirement is 8.9 points in the 1966–2006 period. With an estimated strategic retirement rate of 20 percent and average vote of 45 percent for those incumbents had they stood for re-election, the average of the 1000 estimates is just barely lower: 8.4 percentage points. Under these conditions, then, strategic retirement leads to only a very modest bias of 0.5 percentage points in the incumbency advantage when the assumption of no strategic retirement is employed (8.9–8.4 = 0.5). For the 1946–1964 period, the average estimate is 2.7 points, implying a bias of 0.4 points (3.1–2.7 = 0.4).

Figure 2 shows the kernel density plots of incumbency advantage for the 1,000 trials for each of the 20 combinations of γ and δ in each period. One noticeable feature of the figure is that the variance of the estimates increases as the rate of strategic retirement (γ) increases. This is due to the growing correlation between *incumb* and *party*.[20] Also evident in Figure 2 is that the incumbency advantage is always positive and ranges from about one to three percentage points in the 1946–1964 period and from 6 to 9 points in the 1966–2006 period.

Table 3 provides more precision, reporting the average incumbency advantage estimate for each of the conditions in both periods. Each parameter clearly influences the incumbency advantage. Higher rates of strategic retirement and lower vote shares produce smaller estimates of incumbency advantage. But, the influences on the magnitude of the incumbency advantage are modest. First, consider the post-1964 period, when

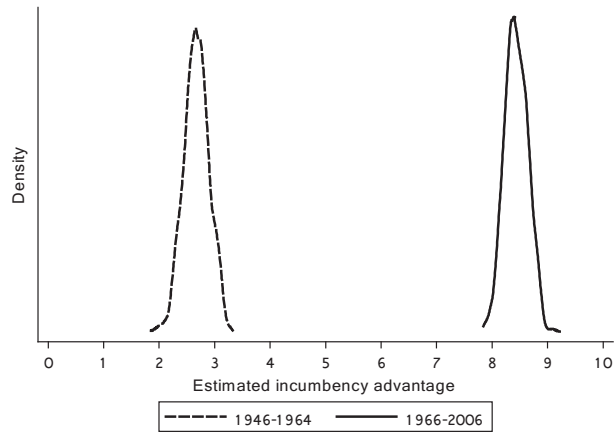

Figure 1. Estimated incumbency advantage ($\gamma = 20$; $\delta = 45$; 1000 trials).

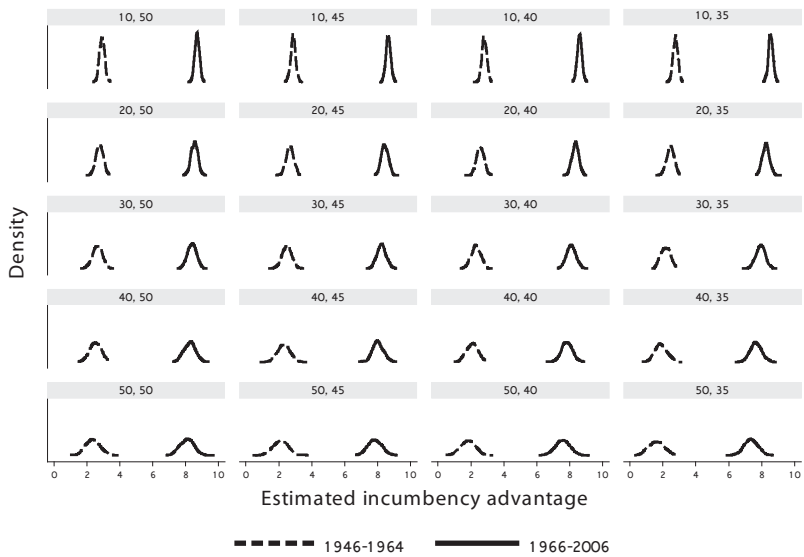

Figure 2. Estimated Incumbency Advantage by γ and δ.

Each figure shows a kernel density plot of the 1000 estimates of the incumbency advantage in each period under the assumption that γ percent of retirements are strategic, and that if strategic retirees stood for re-election instead they would receive δ percent of the vote, on average. The value of γ varies vertically (from 10 percent to 50 percent), and the value of δ varies horizontally (from 50 percent to 35 percent)

Cox and Katz (2002) suggest the most bias in conventional measures of incumbency advantage. Even in the most extreme case where 50 percent of incumbents strategically retire with an average vote share of just 35 percent if they stood for re-election, the incumbency advantage is still 7.4 percentage points, only 1.5 points less than the

Table 3. Incumbency advantage simulation results.

Percentage of exiting incumbents assumed to retire strategically (γ):	Expected vote if incumbents stood for re-election rather than retired (δ):			
1946–1964	50	45	40	35
10	2.92	2.87	2.82	2.77
	(0.15)	(0.15)	(0.15)	(0.15)
20	2.78	2.67	2.58	2.46
	(0.22)	(0.23)	(0.23)	(0.23)
30	2.65	2.49	2.31	2.18
	(0.30)	(0.29)	(0.29)	(0.29)
40	2.52	2.30	2.09	1.89
	(0.35)	(0.37)	(0.36)	(0.37)
50	2.37	2.11	1.83	1.61
	(0.44)	(0.46)	(0.44)	(0.46)
1966–2006	50	45	40	35
10	8.70	8.65	8.60	8.55
	(0.14)	(0.14)	(0.14)	(0.14)
20	8.54	8.44	8.35	8.26
	(0.20)	(0.21)	(0.20)	(0.20)
30	8.39	8.24	8.10	7.93
	(0.27)	(0.28)	(0.28)	(0.28)
40	8.25	8.03	7.84	7.65
	(0.35)	(0.33)	(0.34)	(0.34)
50	8.08	7.84	7.58	7.35
	(0.41)	(0.42)	(0.43)	(0.41)

Note: Cell entries report the average incumbency advantage based on 1,000 simulations with the designated values of γ and δ. The standard deviations of the simulations are in parenthesis.

estimated incumbency advantage of 8.9 points when the assumption of no strategic retirement is employed. In this situation, the biased estimate (8.9) based on no strategic retirement is 20 percent larger than the actual advantage (7.4). For comparison, in Cox and Katz (2002), the biased estimate appears to be 155 percent larger than the putatively real advantage.

For only the most extreme values of γ and δ does the incumbency advantage drop below eight percentage points. For 14 of the 20 combinations, the 'true' incumbency advantage still exceeds eight points, including one case where 50 percent of incumbents retire strategically ($\gamma = 50, \delta = 50$) and two cases where retired incumbents' vote shares would average just 35 percent if they ran for re-election ($\gamma = 10, \delta = 35; \gamma = 20, \delta = 35$). Persuasively making the argument that strategic retirement accounts for even half of the apparent incumbency advantage in contemporary House elections would therefore

require implausible assumptions about the rate of strategic retirement and the electoral consequences that strategic retirees were evading.[21]

The simulation results also strongly suggest that the apparent increase in the incumbency advantage over time was real. Consider the most favorable conditions to make the argument that there was no increase in the advantage: a relatively low rate of strategic retirement ($\gamma = 10$) with relatively strong expected outcomes ($\delta = 50$) in the first period compared to a relatively high rate of strategic retirement ($\gamma = 50$) with the worst expected outcomes ($\delta = 35$). Under these conditions, the incumbency advantage averages 2.9 percentage points in the 1946–1964 period, less than half the average incumbency advantage of 7.4 points, in the second period.

6. Discussion and conclusion

Hardly any scholar of congressional elections would question the observation that '[w]hat appears at first glance to be incumbent entrenchment is partly explained as self-selection by risk-averse candidates' (Persily, 2002: 659). Undoubtedly, some incumbents would rather retire than face the possibility of ending their congressional careers in electoral defeat. However, the implications of this proposition depend critically on the question of *how much* the appearance of incumbent entrenchment is due to strategic retirement. Two common measures of the degree of incumbent safety are the incumbency advantage and the incumbent re-election rate. If most of the apparent incumbency advantage results from electorally vulnerable incumbents choosing retirement, then high incumbent re-election rates do not pose a threat to democratic accountability. On the other hand, if the apparent incumbency effect is real and explains why incumbents so often are beyond the reach of electoral competition, then concerns about whether the electoral system produces a hallmark of democracy – responsiveness – cannot be so easily set aside.

Only one previous study has attempted to separate the effects of strategic retirement from estimates of the incumbency advantage in US House elections. Cox and Katz (2002) take advantage of the fact that some incumbent 'retirements' – those due to death and primary defeat – are not subject to strategic calculations. Cox and Katz claim that most of the apparent incumbency advantage is illusory, due to strategic retirement, lending support to the view that there is far less incumbent entrenchment than usually presumed. This, in turn, serves as the basis for optimistic interpretations of high incumbent re-election rates with regard to democratic accountability and responsiveness.

In contrast, this paper points to a more pessimistic conclusion. Even with generous assumptions about how frequently strategic retirement occurs and what would have happened to incumbents had they stood for re-election rather than retired, strategic retirement cannot account for most, or even a majority of what appears to be a large incumbency advantage in contemporary House elections and a substantial increase relative to the incumbency advantage in earlier times. As a result, while offering a theoretically interesting possibility that much of what we think of as the incumbency advantage is really due to strategic retirement, the reality appears to be quite different. A sizable incumbency advantage exists, and it dampens electoral competition.

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Notes

1. The literature on congressional elections and the behavior of strategic actors in the process is immense. The best synthesis is provided by Jacobson (2009).
2. This proposition is widely accepted. Among the first to observe and explain the relationship was Jacobson (1978).
3. This claim has been the subject of some debate with Johannes and McAdams arguing for minimal casework effects (Johannes and McAdams, 1981; McAdams and Johannes, 1981).
4. Many incumbents that leave the House do not technically 'retire' as they subsequently do things like seek election to other offices, join lobbying firms, or even teach political science. I use the term retirement to mean exit from service in the House.
5. In addition, while partisan tides are included in Equation (1), variation in party tides across districts is not. If national conditions, like economic performance, are felt unevenly across districts, then partisan tides may have (unmeasured) local components that incumbents would be in a good position to know and (potentially) respond to. Gelman and King (Gelman and King, 1994a, 1994b; King, 1989; King and Gelman, 1991) have forcefully argued for heterogeneity in partisan tides across districts.
6. It is possible that the estimated incumbency advantage will be biased downward if the incumbents who retire would be stronger candidates – on average – than those who seek re-election. Based on previous quantitative and qualitative studies, this possibility appears unlikely to be the case.
7. Outside the domain of House elections, only one other approach has been used, which is based on taking advantage of forced retirements due to term limits, which presumably are not strategic (Ansolabehere and Snyder, 2004; Engstrom and Monroe, 2006). This, of course, is not possible in the case of House elections because there are no term limits for House membership.
8. For open Democratic seats the value of *incumb* is changed from 0 to 1; for open Republican seats the value of *incumb* is changed from 0 to −1.
9. The value of 6.7 comes from regressing incumbents' vote shares on their previous vote shares, party, and election year. 6.7 is the standard deviation of the residuals – the variability in incumbent vote shares that is not 'explained' by previous vote, party, and election year.
10. It is also instructive to consider the often cited 1974 elections. Republican retirements were higher than Democratic ones (13.4 percent compared to 10.6 percent), but the Democratic advantage in retirements (2.8 percentage points) was smaller in 1974 – when they received 58.7 percent of the vote – than than in 1970 when their retirement advantage was larger (4.8 points) and their vote share was smaller, 54.2 percent. It is also worth noting that Jacobson and Kernell (1983) may have mistakenly reported too much strategic retirement in 1974. Jacobson and Kernell (1983: 50) states that Republican retirements were 'twice' the proportion of Democratic retirements in 1974. This is not consistent with Moore and Hibbing (1998) or the figures reported here.
11. The probabilities and differences were estimated with *Clarify* (King et al., 2000).
12. For each election year, I computed the difference in the percentage of quality Democratic and quality Republican challengers and calculated the correlation of the difference with the national congressional vote.

13. In the postwar period, incumbents who received less than 55 percent of the vote in their previous election faced challengers with prior elective office experience about 44 percent of the time; incumbents that received 70 percent or more of the vote in their last election faced experienced challengers just 7 percent of the time (Jacobson, 2009).
14. The 36 percentage point difference is based on a probit model of experienced challenger entry that includes previous incumbent vote along with party and year effects. The parameter estimate for previous vote is −.052 (se = 0.002) which produces a predicted probability of 42.8 percent that an experienced challenger enters a race previously won with 50 percent of the vote compared to a predicted probability of 6.8 percent for a race previously won with 75 percent of the vote. (The effects are similar for the 1946–1964 period.)
15. If those who retire for non-strategic reasons have a larger incumbent advantage than those who stand for re-election, then their retirements would bias estimates of the incumbent advantage downward. For example, an anonymous reviewer noted that those who retire in order to seek higher office might be unusually safe. As best as can be determined from previous research, those who seek higher office are from neither less (nor more) marginal districts (Kiewiet and Zeng, 1993). Nevertheless, if the incumbent advantage is actually larger than it appears, then the simulations employed in this paper will provide estimates that are too small. The fact that the simulation estimates are sufficiently large to raise normative concerns means that if the incumbent advantage is even larger, so should be the level of normative concern.
16. At the same time, on average half would win with approximately 27 percent receiving between 50 and 55 percent of the vote and 23 percent receiving more than 55 percent of the vote.
17. To the extent that strategically retiring incumbents would do better than receive 50 percent of the vote (on average), by setting $\delta = 50$ as the best case for incumbents, the simulations will produce estimates of the incumbent advantage that are too small.
18. Following extensive work to figure out the best way to treat uncontested elections (Gelman and King, 1994b; King and Gelman, 1991), I code them with vote shares of 25 or 75, depending on the winning party. If they are excluded or coded 0 and 100, the results are the same.
19. In the text I round estimates to the nearest tenth. The tables provide more precision.
20. If $\gamma = 100$, then all retiring incumbents are assumed to retire strategically. Removing strategic retirement through the simulation would make the correlation between *incumb* and *party* is perfect as all incumbents would seek re-election.
21. A more extreme, but highly implausible, condition is that 90 percent of incumbents strategically retire rather than receive a mere 35 percent of the vote on average. Even in this case, the average incumbent advantage across 1000 simulations is 6.2 percentage points in the second period.

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