

Constituency Congruency, Federalism, and Candidate Competition in U.S. House Elections

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Abstract

Previous research on candidate competition and strategic emergence in congressional elections has focused almost exclusively on factors at the federal level. Theoretically, we believe that state-specific variables may also be important in terms of candidate emergence decisions. If a candidate has previously served in a state legislature, the relative degree of overlap between the candidate's legislative district and the "new" set of voters at the congressional district level that she is seeking to represent may factor into the entry decision. Using GIS software, we are able to derive a measure of overlap by focusing on the degree of congruency between state legislative and congressional districts. Our results indicate that state legislators are more likely to run for a seat in the U.S. House if constituency congruency is relatively high. When candidates start with a strong voter base, they also do better in the election.

During the past few decades, students of congressional politics have sought to evaluate and better understand the declining rates of electoral competition in the United States. Starting with the first studies examining the advantages accruing to incumbents (see, e.g., Erikson 1971; Mayhew 1974) and continuing with more recent investigations of candidate competition (see, e.g., Carson 2005; Maestas, Fulton, Maisel, and Stone 2006), a considerable amount of evidence has been marshaled to explain this trend over time. Without a doubt, candidates weigh both the costs and benefits when considering the possibility of running for a seat in Congress. As the financial costs of waging a successful electoral campaign have increased exponentially over the past few decades, however, an increasing proportion of viable candidates have opted to avoid running altogether (Jacobson 2009). After all, an unsuccessful run for a seat in either the U.S. House or Senate could mean the end of an otherwise promising career for an ambitious politician (Jacobson 1989; Rohde 1979).

Given the potential costs associated with candidate entry decisions, when and under what conditions should we expect to see potential candidates emerge? In the context of research on strategic career decisions, Jacobson and Kernell (1983) and Jacobson (1989) have demonstrated that quality candidates—those with previous elective experience—are more likely to run when conditions are favorable for their candidacies. For instance, experienced candidates are more likely to emerge when there is an open seat, a weak or marginal incumbent, or national tides are favorable to their candidacy or political party. Moreover, these “strategic” politicians typically earn a higher percentage of the overall vote share than do political amateurs, even when they run against incumbents. As such, Jacobson (1989: 773) suggests that “strategic career decisions both reflect and enhance national partisan tides” since experienced candidates tend to do significantly better than those individuals who lack their political credentials.

Although evidence for the strategic politicians' thesis is convincing, we are left with an important and unanswered question pertaining to representation and electoral accountability. In particular, are quality candidates more likely to win because they have greater name recognition than political amateurs or are they simply better at the art of electioneering? While some might contend that it is actually a combination of both factors that determines victory in congressional races, we simply do not know how much each of these related explanations independently contributes to electoral success. Indeed, it could be the case that a candidate's name recognition is far more valuable than electioneering in determining who wins an election, especially if both candidates running for a particular seat in Congress have roughly the same financial resources. We seek to disentangle two of the elements that comprise candidate quality—the personal vote and electioneering via campaign fundraising.

In an attempt to gain leverage on this central question, we take advantage of a unique aspect of the federalist system whereby multiple districts at national and state levels of government overlap with one another. Previous research has overlooked this distinctive aspect of our electoral system, but we believe that it offers us invaluable insight into the candidate emergence process. In particular, we focus on candidate competition in recent U.S. House elections and examine the relative degree of overlap between a candidate's current constituency and the "new" set of voters that she is seeking to represent if elected. Using GIS software to match up the relative degree of constituency overlap between state legislative and congressional districts, we determine if these types of candidates are more likely to emerge when congruency is high and if these same candidates earn a higher share of the vote, all else being equal. If we find that state legislators with higher congruency rates are more likely to run for a seat in the House,

then this will suggest that name recognition (i.e., the personal vote) is a critical component of candidate quality—and on par with factors such as campaign fundraising.

The organization of the paper is as follows. In the next section, we discuss the theoretical considerations that motivate candidates when deciding whether to run for Congress and examine how constituency congruency can help us understand why quality candidates are more likely to win than political amateurs. From there, we examine the data used in the analysis, especially as it pertains to constituency overlap between state legislative and congressional districts before shifting the focus of attention to our central results. In the concluding section of the paper, we discuss the implications of our findings and explore possible extensions of the analysis in future work.

Theories of Competition and Candidate Emergence in Congressional Elections

Scholars interested in the subject of candidate competition in congressional elections have spent considerable energy examining the issue in question and have approached the topic from a variety of perspectives. While several early studies redirected attention away from an exclusive emphasis on the incumbent to focus on the role of the challenger in explaining election outcomes (see, e.g., Mann 1978; Mann and Wolfinger 1980; Hinckley 1980a, 1980b), Kazee (1980, 1983) was among the first to study various conditions under which candidates chose to emerge in House races.¹ Drawing upon interviews with individual candidates, Kazee (1980) found that many candidates ran for Congress simply for the experience or joy of running for office. In his subsequent work, Kazee (1983) confirmed that incumbency regularly served as an effective deterrent to potential challengers from emerging in congressional races.

¹ For a general discussion of ambition theory that examines the *motivations* for why individuals choose to run for office or make a career out of politics, see Schlesinger (1966) and Rohde (1979).

In their now classic study of challenger emergence in congressional elections, Jacobson and Kernell (1983) examine whether political candidates exhibit strategic behavior in deciding whether or not to seek office. Through an examination of aggregate patterns of candidates' career decisions, they speculate as to the underlying motivations for politicians' behavior. As their theory is premised on rational calculations, they argue that experienced candidates are more likely to run for the House when national and partisan conditions are more favorable in terms of their likelihood of success. Jacobson and Kernell test their theory of strategic behavior on data from the 1974, 1980, and 1982 congressional elections and find convincing evidence in support of their hypotheses concerning strategic politicians. Not only do they conclude that experienced challengers wait until circumstances are optimal before they decide to run, they also find that strategic politicians play a pivotal role in determining the results of both district-level elections and the overall partisan composition of Congress.²

Jacobson (1989) offers additional support for the strategic politicians' theory by testing it against congressional elections data from 1946 to 1986. Through his examination of elections data during this 40-year period, he finds that experienced challengers do not emerge arbitrarily. Rather, their likelihood of running varies with their perceived chance of winning (775). Indeed, Jacobson concludes that a greater proportion of experienced or quality candidates emerge when prospects appear favorable to their party. As a result, he argues that strategic decisions by congressional candidates, based on factors such as likelihood of victory, value of the seat, and opportunity costs, both reflect and enhance national partisan tides. In support of his contention that experienced politicians act strategically, he recognizes that quality challengers are more

² For critiques and extensions of the Jacobson-Kernell strategic politicians hypothesis in the context of House races, see Bianco (1984), Bond, Covington, and Fleisher (1985), and Born (1986).

likely to emerge when a seat is uncontested and they rely increasingly on an incumbent's prior margin of victory as an important cue in deciding whether or not to run (Jacobson 1989: 778).

In an attempt to further discern challengers' motivations in running for Congress, Banks and Kiewiet (1989) examine an interesting puzzle regarding the behavior of non-experienced or weak candidates who emerge to challenge incumbents. While they agree with Jacobson and Kernell (1983) concerning the deterrent effects of incumbency with respect to the emergence of experienced challengers, they seek to understand why incumbency does not have the same effect on weak challengers; as they point out, nearly all incumbents are challenged from one election to the next, usually by candidates lacking electoral or political experience. Through their analysis of congressional primary data from 1980 through 1984, Banks and Kiewiet conclude that weak challengers run against incumbents for the same reason that strong challengers are more likely to run in open seat contests—to maximize their probability of getting elected to Congress (1002).³ Even though their chances of defeat in the fall election are high, political amateurs recognize that running against an incumbent affords them the best opportunity to win their party's nomination, especially since more experienced challengers are likely to stay out of the race absent favorable national or partisan conditions.

Beyond these comprehensive and influential studies of challenger emergence in House races, other scholars have employed case study methodology to better understand candidates' motivations in running for Congress. Fowler and McClure (1989) both examine the behavior of candidates that chose to run and those that did not emerge in New York's 30th district during the 1984 election to draw a distinction between their individual motivations. In a series of collected

³ For an alternative perspective regarding political amateurs' motivation for running for Congress, see Canon (1990, 1993). In brief, Canon argues that amateurs would be better off running in open seat contests since they actually do *not* maximize their chances of winning by running against incumbents. Canon (1993: 1130-1138) adds that to fully understand why inexperienced candidates challenge "safe" incumbents, it is necessary for scholars to distinguish between experience-seeking amateurs and ambitious amateurs.

essays, Kazee (1994) showcases the work of authors who studied nine congressional districts during the 1991-1992 election cycle in an attempt to identify why some candidates chose to run for Congress while others preferred to stay on the sidelines. More recently, Maisel and Stone (1997) have employed an innovative analysis that seeks to identify potential candidates across the country in an attempt to ascertain what factors influence their decision calculus concerning whether or not to emerge in congressional races. As with each of the earlier studies, Maisel and Stone find that potential challengers' decisions about emergence are most directly influenced by their perceived chance of success.⁴

What factors do potential candidates normally consider when evaluating their chances of running a successful campaign for the House? Jacobson and Kernell (1983) and Jacobson (1989) have systematically shown that the incumbent's margin of victory in the previous election and the underlying political preferences of the district are important factors in influencing a potential challenger's decision calculus. The decision by an incumbent to forgo another term in office is another issue of consequence for potential candidates as evidence suggests that experienced or quality candidates are more likely to emerge in open seat contests, thus increasing the level of competitiveness of these races (Bianco 1984; Jacobson 1989; Banks and Kiewiet 1989; Squire 1989; Wrighton and Squire 1997; Gaddie and Bullock 2000).

An additional factor that has received widespread attention in the literature on candidate emergence is the influence of campaign fundraising on challengers' entry decisions. As is often the case, however, there is considerable disagreement among scholars over the precise effects of campaign spending on candidate emergence. On the affirmative side of the debate, Goldenberg, Traugott, and Baumgartner (1986) found evidence that preemptive fund-raising by the incumbent may deter strong challengers from entering a race. Similarly, Goidel and Gross (1994), Hersch

⁴ For a more recent and related analysis of candidate emergence, see Maestas, Fulton, Maisel, and Stone (2006).

and McDougall (1994) and Box-Steffensmeier (1996) concluded that campaign war chests do affect the entry decisions of experienced challengers in congressional races. More specifically, they found that incumbents are reasonably successful in “scaring off” potential challengers by raising large war chests early in their election campaign.

The previous results notwithstanding, other scholars argue that fundraising efforts and the accumulation of campaign war chests have virtually no effect on challengers’ entry decisions. In their examination of House races from 1972 to 1980, Krasno and Green (1988) conclude that preemptive spending by the incumbent has little effect on candidate emergence when compared with local conditions in the district. Epstein and Zensky (1995) employ a signaling model to evaluate the extent to which incumbent fundraising deters quality challengers from entering a race. While they find that the amount of money raised by the incumbent can convey information to a potential challenger, they also argue that it is unlikely that fundraising will deter quality challengers from emerging since the two factors are virtually unrelated (296). More recently, Goodliffe (2001) has considered the impact of campaign fundraising in House elections while controlling for possible selection effects and reached the conclusion that legislators’ war chests do not deter quality candidates from challenging incumbents (for a related analysis, see also Milyo 1998).

Previous work has focused almost exclusively on strategic emergence decisions at the congressional or state-level. Our theoretical contribution is that both matter. What happens in the states has consequences for congressional and state-level elections. Indeed, one additional consideration that may factor into this calculus of emergence is the degree of overlap between the candidate’s current constituency and the “new” set of voters that she is seeking to represent in the new position. For instance, state legislators may be more likely to run for a seat in the

U.S. House of Representatives if the degree of constituency congruency is relatively high between the state and congressional district. These candidates may also do better in the election if this condition is met because they do not have to convince an entirely new set of voters to support them since are already starting with a strong voter base. Indeed, voters who already have a strong connection with candidates who previously served in the state legislature may continue to support those individuals seeking a House seat as a result of their personal “homestyle” or unique style of representation (Fenno 1978).

In Fenno’s terminology, a state legislator who shares a large portion of their reelection constituency with their new congressional geographic constituency will have an advantage over other candidates who have to build their group of supporters from scratch. As Fenno (1978: 8) maintains, the reelection constituency are “those people in the district who he thinks vote for him.” If a candidate can get her state reelection constituency to support her at the congressional level, then she has a built in base of support that a non-quality challenger would not have. Additionally, when Fenno (1978: 20) asked a member of the U.S. House to describe his strongest supporters, he answered “...And the people who were in my state legislative district, of course.” This tells us that a state representative with a district that significantly overlaps the congressional district should be more likely to emerge and do well at the national level.

Our approach has analogs to a study conducted by Ansolabehere, Snyder, and Stewart (2000) with respect to the incumbency advantage. In their analysis, they take advantage of the “quasi-experiment” associated with congressional redistricting in the U.S. to determine the extent to which the advantage incumbents enjoy stems from their personal vote (the vote that incumbents receive as a result of the connection legislators maintain with their constituents). In particular, they compare legislative vote percentages in the old and new territory within redrawn

congressional districts while controlling for the political inclinations of both sets of voters. All else equal, they hold that incumbents should do better within the counties of their district that they have represented before since voters are already familiar with them and their policies, which positively shapes their personal vote. As expected, Ansolabehere, Snyder, and Stewart (2000) find that a significant portion of the advantage incumbents retain stems from a legislator's personal vote—in fact, they conclude that the personal vote comprises anywhere from one-half to two-thirds of the overall incumbency advantage on average. In lieu of generating a measure of the incumbency advantage, we derive a measure tapping the *challenger's* personal vote based on the degree of constituency congruency between “old” state and “new” congressional districts.

Although it is possible that a large proportion of state legislative districts match up well with congressional districts, we should not always expect to see all potentially eligible state legislators emerge to run in House contests. For instance, many state legislators may lack the requisite progressive ambition that is necessary to run for a seat in the House of Representatives. Additionally, some state legislators may not feel that the time is right to run for a race in a given year. Absent an open seat or strong national tides against the sitting incumbent, a state legislator may feel that the risks are too high to give up their current position, especially if they are happy with the status quo (i.e., they exhibit static ambition). All else equal, we should expect district overlap to be most important in candidate emergence decisions when conditions are ideal to a candidate's chance of success.

Measuring Constituency Congruency

The central variable of interest in our analysis of candidate competition is the degree of population overlap between a state legislative district and a congressional district for the 2004 and 2006 congressional election cycles. To make our measure clear, consider a hypothetical congressional district made up of 100 residents and four 50 constituent state legislative districts A, B, C, and D that partially overlap with the congressional district. Assume that out of the 100 residents in the congressional district, 40 came from state legislative district A, 30 from B, 25 from C, and 5 from D. We would then say that the overlap between district A and the congressional district is 40 percent, between district B and the congressional district is 30 percent and so on.

In order to generate this variable for our study, we turn to geographic information systems technology (GIS). Political scientists have begun recently to use GIS to study political phenomenon. Some examples include studies of interstate conflict (Berry and Baybeck 2005), electoral competition (Crespin 2005), turnout (Darmofal 2006) and campaign finance (Gimpel, Lee, and Kaminski 2006; Gimpel, Lee and Pearson-Merkowitz 2008). It is likely that a study such as ours would be impossible without GIS. Previous work that tried to match district boundaries without the aid of GIS (Carson, Crespin, Finocchiaro, and Rohde 2007) relied on large geographic units (the county) and was only able to provide a rough dichotomous measure of continuity. By using GIS, we can use small geographic units to get a continuous measure of overlap with minimal measurement error.

To create our measure, we took advantage of the Geographic Correspondence Engine, which allows us to select “source” and “target” geocodes to produce a file that lists the

percentage population overlap between the state and congressional districts.⁵ To better illustrate our measure, we have created Figures 1 and 2, which provide two examples of varying degrees of district congruency. These figures display the state house and senate districts as well as the U.S. congressional districts. We also highlight one congressional district and all of the state legislative districts that overlap with that district. In addition, we include a table that lists the percentage overlap between the state districts and the congressional districts for each figure.

In Figure 1, we show an example of a relatively large amount of variation in constituency overlap within the state of Ohio. In the first two maps, we illustrate the state house and senate districts that overlap with Ohio's 7th congressional district. As can be seen in the bottom part of the figure, the degree of overlap between the state legislative districts and the congressional district varies substantially. State senate district 10 (containing the city of Springfield), for instance, makes up the largest share of the congressional district as 46 percent of the population in the congressional district also reside in senate district 10. In contrast, only two percent of the population in the congressional district is from house district 25. Our theory would predict that if a state legislator were to run within this House district, the state legislator who represents the 10th senate district is most likely to emerge should circumstances align in her favor.⁶

Figure 2 highlights the case of Iowa where the state legislative boundaries are contained entirely within the U.S. congressional districts. There are exactly 10 state senate districts and 20 house districts in each of Iowa's 5 congressional districts. This means that each senate district has a 10 percent and each house district has a 5 percent population overlap. As such, this infers that while state senators might be more inclined to emerge than state house members, no state

⁵ See <http://mcrc2.missouri.edu/websas/geocorr2k.html>. This engine uses the block group data from the 2000 Census as the geographic unit for measuring population. For an application of this technique, see Crespin (2005).

⁶ For example, if both districts were represented by legislators from the same party, then she would be less likely to emerge absent an open seat contest.

legislator has an advantage over any other member from their state legislative chamber in low variation states like Iowa.

Following the lead of Jacobson (1989), we include several explanatory variables in our models to control for contextual factors affecting candidate competition in these House races. These include previous vote share for the corresponding candidate(s), the congressional district's partisanship measured independently of the candidate vote, incumbent and challenger spending, and challenger quality.⁷ Previous vote share is operationalized as the legislator's share of the two-party vote in the previous election. District Partisanship is measured in terms of the district-level two-party vote share for the presidential candidate from the congressional incumbent's party in the most recent presidential election (see, e.g., Ansolabehere, Snyder, and Stewart 2000; Jacobson 2009). Following Jacobson's (1980) seminal work on money in elections, the model also controls for the effects of incumbent spending and challenger spending. Specifically, we include the natural logarithm of both dollar amounts as separate independent variables in the model (Jacobson 1980: 40).⁸ Challenger Quality is operationalized as a dummy variable coded 1 if the candidate has previously held elected office, 0 otherwise. This coding also follows Jacobson's classic study that views a successful campaign for another public office as a proxy for candidate quality.

Additionally, we control for the presence of term limits at the state level. All else being equal, we might expect state legislators from states with term limits to be more likely to run for a seat in the U.S. House if they are progressively ambitious (see, e.g., Lazarus 2006; Powell 2000;

⁷ We examine both incumbent-contested and open seat races in our analysis to gain leverage on the question of entry by state legislators.

⁸ As Jacobson (1980) argues, the advantage of using the natural logarithm of expenditures for empirical analysis of elections is that doing so avoids the assumption of a linear relationship between money and votes, thereby accounting for diminishing returns from campaign spending. We employ the convention adopted by Jacobson in assuming a minimum of \$5000 spent by each candidate.

Steen 2006). Since the degree of legislative professionalism can influence career choices, we include a measure from Squire (2007) as a control variable. Legislators from more professional legislatures (those with higher pay, better staffs, greater retirement benefits, etc.) are giving up more if they decide to run for higher office so their decision calculus may differ from members from less professionalized state legislatures.⁹ We also include an election-specific fixed effect to control for any year-to-year differences that might otherwise bias the results.

We fit several models of candidate competition in the ensuing analysis focusing separately on two types of races – incumbent contested and open seat races in 2004 and 2006. Open seat races are typically more competitive than those contested by an incumbent (Gaddie and Bullock 2000; Jacobson 2009). In fact, we should expect state legislators to be more likely to emerge in these races since they represent the best chances for electoral success. The first two models examine candidate emergence among state legislators. In these models our dependent variable is coded “1” if a state legislator decides to run in a congressional race and 0 otherwise. The second set of model considers election results once the entry decision has been made. For incumbent contested races, our dependent variable is the incumbent’s vote share and for open seats, it is the Democrat’s share of the two-party vote.

Results

Emergence

If a prospective challenger has a personal vote with her state legislative constituency, then we should expect it to influence both entry decisions and election outcomes. In our initial set of regressions, we test the hypothesis that state legislators with greater district overlap will be more likely to emerge as quality challengers. Since the dependent variable is binary—emerge or

⁹ Professionalism is not highly correlated with our measure of district overlap.

not—we use logistical regression. Further, since we have units (state legislative districts) in multiple groups (congressional districts) we cluster the standard errors on the units.¹⁰

The results for incumbent contested races are displayed in the first two columns of Table 1. As expected, we find that as district overlap increases, a state legislator is more likely to emerge to challenge an incumbent member of Congress.¹¹ Consistent with previous literature (Jacobson 2009), we find that if an incumbent did well in their previous election, then a state legislator is less likely to run against them. For these races, we find that members from more professional legislatures are less likely to run, most likely because they are giving up a secure job for the small probability of winning a seat in Congress. Finally, we find no influence on emergence for states with term limits and no differences between the 2004 and 2006 election cycles. When it comes to open seats, we find that the only significant predictor of emergence is the amount of district congruency between the state legislative district and the congressional district.

To understand the substantive effect of district congruency on candidate entry decisions for different types of races, Figure 3 plots the predicted probability of a state legislator emerging on the y-axis as district overlap increases on the x-axis. The upper figure displays this probability for incumbent contested races and the lower line is for open seats. In both cases, we also report 95% confidence intervals. Although the probability of emerging against an

¹⁰ An alternative approach would be to use a random effects logit. Our results are similar using that method.

¹¹ The models we report in the paper do not control for the partisanship or electoral safety of state legislators. Since these variables could potentially bias our results if they are related to emergence decisions, we fit two additional models over a subset of the data where all state legislators of the same party of the incumbent were dropped. We also included a variable that measured the previous vote-share for state legislators, since this also could be a factor in their decision calculus. This variable is also interacted with overlap to create a variable that captures both the electoral success of the state legislator with the amount of district overlap. Our results remained substantively the same when these two additional variables were included in the model. Since we do not have these two variables for the full range of our dataset, however, we elected not to report these results in the paper (results available in the reviewer's appendix).

incumbent remains low at all times, there is a slight increase in the probability of emergence as district overlap increases. This is what we should expect since most quality challengers will only emerge when the context is in their favor (Banks and Kiewiet 1989; Gaddie and Bullock 2000; Jacobson 1989). For open seats, there is a dramatic and significant difference. When district congruency is low, so is the probability of a quality candidate emerging. If a member retires in a state like Iowa, for instance, the chance of any particular state legislator emerging is quite small. Once the degree of overlap approaches 50 percent, however, the probability that a state legislator will emerge skyrockets. In fact, when congruency reaches upward of 80 percent as it does for some California state senate districts, the probability that the state senator from the high overlap district will emerge in an open seat is over 80 percent as well. This suggests that state legislators take into account their personal vote when making entry decisions and this effect is strongest in open seats when quality challengers have the greatest chance of winning.

Outcomes

In the next set of regressions, we estimate the effect of a challenger's personal vote on election outcomes for incumbent-contested congressional elections.¹² Afterwards, we will examine open seat races. According to our theory, we expect to find a decrease in the incumbent's vote share as the congruency between a challenger's state district and congressional district increases. We measure congruency as the interaction between two variables, the population *overlap* between the state and congressional district, and the challenger's previous *state district vote* share measured as the percent of the two-party vote. Because we expect these

¹² Following the lead of Jacobson (1993), we exclude non-contested races in our analysis since including them could bias the results in our favor.

variables to act together, we multiply them together to create the interaction *overlap* × *state district vote*. Table 2 presents the results.

We initially estimated a naïve model that only included our congruency measures and a dummy variable (fixed effect) for the 2004 election. Due to the interaction terms, the standard errors for the coefficients do not accurately represent the significance of the variables. In order to determine statistical significance of each of the covariates, we conduct a joint hypothesis test that includes the interaction and its two component parts. For this model, the joint F-test is statistically significant ($F_{3,576} = 12.41, p < 0.01$) and the coefficients on all three terms are negative so we can conclude that as district congruency increases, the incumbent's vote share decreases. The fixed effect is positive and significant, which is consistent with the relatively poor showing for incumbents in the 2006 midterm elections compared to 2004.

In our full model we include the standard congressional election controls—*previous vote share*, *incumbent* and *challenger spending*, *quality challenger*—as well as the fixed effect for the 2004 election and a measure of professionalism.¹³ Due to the inclusion of the challenger quality variable and our set of district congruency variables, we are able to test for the influence of congruency above and beyond the standard measure of challenger quality.¹⁴ For our controls, we find that as the incumbent's previous vote share increases, so does her current share of the two-party vote. The coefficient on challenger spending is negative and significant as we would expect. The negative coefficient on incumbent spending is consistent with work by Jacobson

¹³ As a robustness check, we found that our estimates are consistent if we 1) measure spending as the difference between the challenger and incumbent; 2) dropped the spending variables; or 3) dropped spending and challenger quality altogether from the model. This suggests that even if there is a theoretical problem with endogeneity, it is not influencing our statistical results involving district congruency.

¹⁴ We acknowledge that including challenger quality and campaign spending on the right-hand side of the equation could result in potential endogeneity bias. Nevertheless, we do not believe that the effects in this particular case are especially problematic. In a recent paper, Bertelli and Carson (2008) demonstrate that although candidate quality is “theoretically” endogenous, including it as an exogenous regressor in models estimating candidate vote share does not bias one's statistical estimates. Additionally, their findings suggest that failing to instrument for campaign spending does not introduce significant bias into models estimating two-party vote share in House elections.

(1980, 1990) who suggests that incumbents may do increasingly worse the more they spend because high amounts of spending are indicative of a competitive race. We also find the coefficient on quality challenger is not statistically significant, most likely being subsumed by the spending variables.

When it comes to district congruency, we continue to find the hypothesized outcome as the variables are jointly significant ($F_{3,572} = 2.55, p < 0.055$). In order to offer a substantive interpretation to these results, we turn to a graphical procedure suggested by Brambor, Clark, and Golder (2005). The upper portion of Figure 4 displays the marginal effect of district overlap on incumbent vote share, conditional upon the challenger's previous vote share in the state district. The solid line is the marginal effect while the curved dashed lines indicate the 95 percent confidence intervals. If the confidence intervals bound the dotted zero line, then the effect is not significant at that point. In this figure, the x-axis represents the theoretical range of the challenger's previous state vote share and the y-axis is the marginal effect on the outcome. As indicated by the downward sloping line, we find that the marginal effect of overlap on the incumbent's vote share is negative and increases in magnitude along with previous vote share. The effect becomes statistically significant when the challenger's previous vote share reaches 31 percent. Intuitively, this makes sense as we would not expect a state legislator who lost in her last election to bring much of a personal vote to the race for a seat in the U.S. House.

Since the size of the effect varies with the challenger's previous vote share *and* percent overlap, the bottom portion of the figure presents the predicted change in the incumbents vote share holding previous vote share at 60 and letting district overlap vary. When overlap is at its minimum of 0.4 for candidates who decide to emerge, the predicted effect is small, about one tenth of a percent. However, as overlap increases, the predicted effect becomes quite large—

reaching just over 28 percent for the California state senate district that shared 98.7 of its geographic constituency with a congressional district. Based on this evidence, it is clear that district congruency has the potential to significantly influence the percent of the vote that incumbents and challengers expect to win in the general election.

For our last regression, we return to open seat elections. We hesitate to draw any strong conclusions from these results due to our small sample size (53), but report them nonetheless. Since these elections by definition do not have an incumbent, our dependent variable is the percent of the two-party vote received by the Democratic candidate. We then created two sets of independent variables, one for Republican challengers and one for Democrats and expect to find negative effects for Republicans and positive effects for Democrats. We measure these variables in the same fashion as above and include district overlap, state district vote, an interaction between the two, a spending variable, and the professionalism measure. A fixed effect for the 2004 election is also included to control for any election-specific differences. As expected, Table 3 indicates that Republican spending correlates with a decline in the Democratic vote share while Democratic spending does the opposite. Although the two separate interactions are jointly significant (Republican $F_{3,42} = 6.85, p < 0.01$ and Democrat ($F_{3,42} = 7.66, p < 0.01$) we turn to Figure 5 to better display the substantive effects.

Figure 5 presents the results for Democratic candidates in the left panel and Republicans on the right. The statistical and substantive effects can be interpreted in the same fashion as Figure 4 with the solid lines representing the marginal effect and the dashed lines are 95 percent confidence intervals. Again, the effect is only statistically significant when the confidence intervals do not bound zero. For Democratic candidates we find a positive and significant effect of district overlap when their previous vote share in the state district reaches 62 percent. With

respect to Republican candidates, we see the Democratic vote share will increase when their previous state vote share is low, but decrease when their vote share is high. This latter effect is significant when previous state vote share is above 73 percent. To compare the two effects, we hold previous vote share constant at 75 percent and calculate changes in the Democratic vote share. We see that the marginal effect for Democrats, .36, is greater than the effect for Republicans. When district congruency is at 50 percent, a Democratic candidate should expect the Democratic vote share to increase 18 percentage points while the decline for a Republican candidate is only 8.72 percent. Again, due to the small sample size we hesitate to draw any strong conclusions, but this may indicate that the personal vote is stronger for Democrats than it is for Republicans during the two elections we examine here. Compared to incumbent contested races, the effect of overlap is only significant when previous vote share is relatively high or low (for Republicans only). This suggests that other factors such as national party support come into play for open seats while things like personal vote are more important for incumbent-contested races.

Conclusion

This paper set out to add to the literature on representation and democratic accountability in congressional elections by taking advantage of a distinctive aspect of our electoral system—namely, the overlap of multiple districts within our federalist system. Previous research has focused almost exclusively on congressional district-specific factors and national trends in explaining why candidates emerge or are more likely to win. Although we believe these are indeed important, we argue that certain institutional features not exclusively related to the congressional district can influence elections as well. In particular, we consider the degree of

population congruency between state legislative and U.S. congressional district boundaries in seeking to understand candidate emergence and election outcomes. The level of congruency can vary across states, depending on how district boundaries are drawn. In some states such as California, the degree of overlap can be substantial and so can the effects on the corresponding elections. In other states like Iowa where overlap is low, no particular quality challenger should have an advantage relative to another.

We examine the effects of district congruency in two stages—candidate emergence and its impact on election outcomes. For entry decisions, we find that candidates with previous state legislative experience are more likely to emerge in the House seat that overlaps significantly with their legislative district. This effect is especially pronounced in open seat contests where there is no incumbent seeking reelection, which is consistent with prior research on strategic behavior by ambitious politicians (see, e.g., Jacobson and Kernell 1983; Jacobson 1989). However, we find that the combination of both an open seat and substantial district overlap appear to be necessary conditions for state legislators to emerge. As such, this strongly suggests that challengers take into account their “personal vote” with their state legislative constituency when deciding whether or not to run for a seat in the U.S. House.

Once state legislators commit to run in a House race, how effective is their personal vote in getting elected? Our results indicate that when constituency congruency is high and a member did well in their previous state legislative election, there is a significant return on Election Day. For example, in incumbent-contested races, a state legislator who received 60 percent of the vote in the previous election and shares 50 percent of the congressional district can expect to win approximately 14 percent more of the vote, all else equal. Not surprisingly, district congruency is also an important predictor of election outcomes in open seat contests. These are obviously

substantial effects and may help us better explain why so many prospective challengers are risk averse when it comes to running for higher office.

Previous research has focused almost exclusively on context regarding the decision to run for higher office. This research takes the next step by differentiating between *which* candidates within the pool of qualified challengers should opt to run for a seat in the U.S. House. As such, we find that the challenger's personal vote appears to be exerting an effect on electoral success independent of factors such as campaign spending and electioneering. In these circumstances then, it appears that challengers can seek to offset an incumbency advantage by relying on their "home style" with their shared constituents (Fenno 1978), which has obvious implications for representation and electoral accountability. Until now, the idea that spending and the personal vote would separately influence elections has been purely conjecture. However, our results confirm this independent influence. Additionally, our findings offer strong evidence that state legislative challengers take advantage of and can even bring a personal vote with them to Congress once they are elected.

The next step and a logical extension of this analysis would be to analyze candidate entry patterns at the primary election stage—especially for open seat electoral contests. Relatively few incumbent members of Congress face a serious challenge during the primaries. However, when they retire and their seat opens up, many state legislators jump in to the race. An analysis akin to this one will help us to predict which candidates should decide to run and then who will earn the right to carry their party's banner in the general election. In conjunction with the results reported here, this next step will serve to further enrich our understanding of candidate entry behavior and the politics of congressional elections.

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Table 1 – District Overlap and State Legislator Emergence

Variable	Incumbent Contested		Open Seats	
	Coefficient (Standard Error)	Change +/- ½ s.d. [†]	Coefficient (Standard Error)	Change +/- ½ s.d. [†]
Overlap	.031* (.009)	.0003	.065* (.012)	0.012
Professionalism	-4.79* (1.87)	-.0007	1.19 (1.22)	.003
Previous Incumbent Vote	-.049* (.018)	-.0004	---	
Incumbent Party Presidential Vote	---		.0003 (.014)	.0001
Term Limit	.144 (.468)	.0001	.102 (.341)	.001
2004	.038 (.414)	.0000	-.186 (.348)	-.002
Constant	-2.87* (1.08)		-4.66* (.843)	
<i>N</i>	15919		1623	
Number of clusters	4605		1289	
Wald χ^2	24.97*		53.53*	
% Correctly Classified	99.85		97.47	

Note: Dependent Variable = 1 if state legislator emerged
Standard errors clustered on state legislative districts

* $p < 0.05$ two-tailed test

[†]Continuous variables set to their mean, dichotomous variables set to 0

Table 2 – District Overlap and Election Results for Incumbent Contested Races

Variable	Coefficient (Standard Error)	
	Naïve Model	Full Model
Overlap [†]	-.387 (.309)	-.037 (.113)
State District Vote [†]	-.051 (.035)	.066* (.026)
Overlap × State District Vote [†]	-.001 (.005)	-.004 (.003)
Previous Incumbent Vote	---	.499* (.052)
Incumbent Spending	---	-1.21* (.467)
Challenger Spending	---	-1.90* (.182)
Quality Challenger	---	-.456 (.619)
Year 2004	1.79* (.769)	.715 (.459)
Professionalism	---	1.57 (1.20)
Constant	64.93* (.605)	69.77* (8.08)
<i>N</i>	581	581
<i>R</i> ²	.03	.67
<i>F</i>	10.44*	98.97*

Note: Dependent Variable is Percent of Incumbent's Two Party Vote Share

* $p < 0.05$ two-tailed test

[†] Test of joint significance, $p < 0.10$ two-tailed test

Table 3 – District Overlap and Election Results for Open Seats

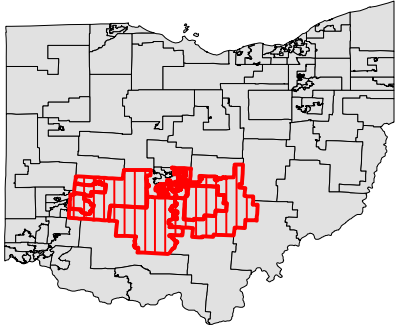
Variable	Coefficient (Standard Error)
<u>Republican</u>	
Overlap [†]	.809* (.336)
State District Vote [†]	-.036 (.037)
Overlap × State District Vote [†]	-.013* (.005)
Spending	-6.03* (.739)
<u>Democrat</u>	
Overlap [†]	-.246 (.177)
State District Vote [†]	.017 (.051)
Overlap × State District Vote [†]	.008* (.003)
Spending	3.39* (.687)
Professionalism	3.56 (7.12)
2004	-6.44* (2.13)
Constant	90.93* (11.46)
<i>N</i>	53
<i>R</i> ²	.85
<i>F</i>	49.32*

Note: Dependent Variable – Percent of Democratic Vote Share

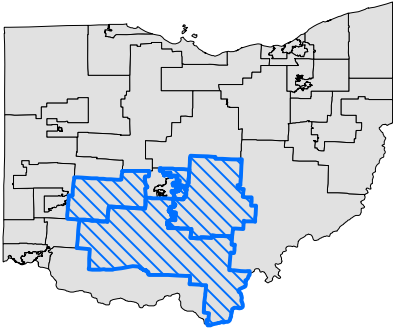
* $p < 0.05$ two-tailed test

[†] Test of joint significance for each Party, $p < 0.05$ two-tailed test

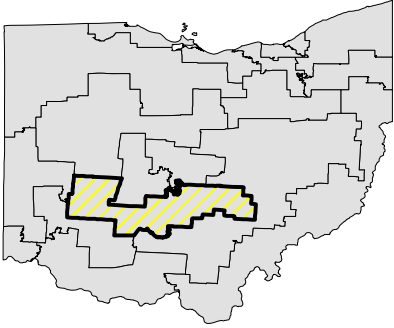
Figure 1 - High Variation District Congruency Example - Ohio



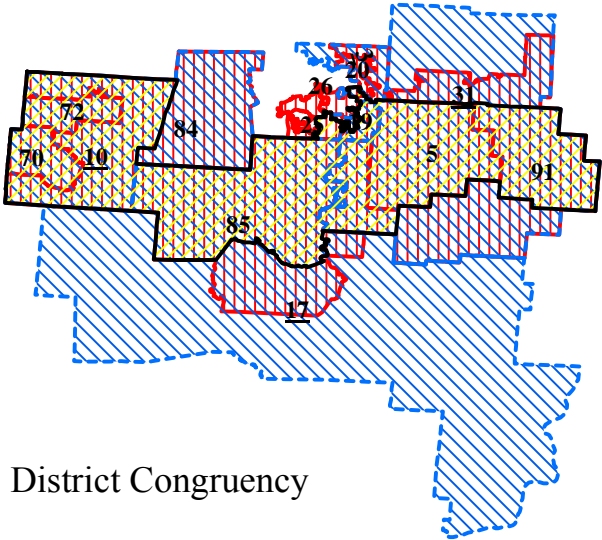
State House Districts



State Senate Districts



Congressional Districts

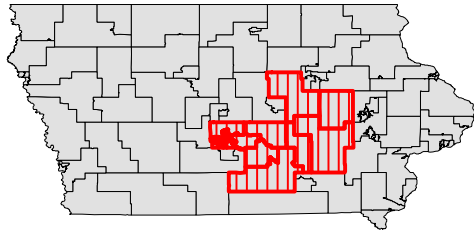


District Congruency

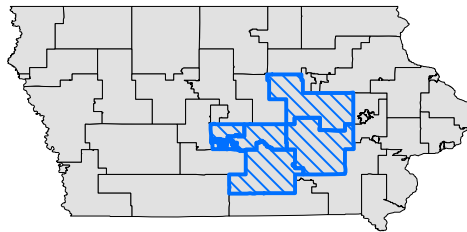
Overlap with congressional district 7			
State House District #	Percent Overlap	State Senate District #	Percent Overlap
5	0.20	3	0.09
19	0.06	10	0.46
20	0.03	15	0.04
25	0.02	17	0.11
26	0.02	31	0.29
70	0.18		
72	0.17		
84	0.11		
85	0.11		
91	0.09		
Total	0.99*		0.99*

*Totals do not sum to one due to rounding

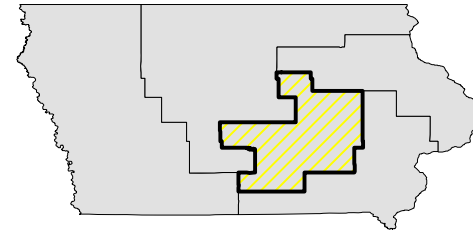
Figure 2 - Low Variation District Congruency Example - Iowa



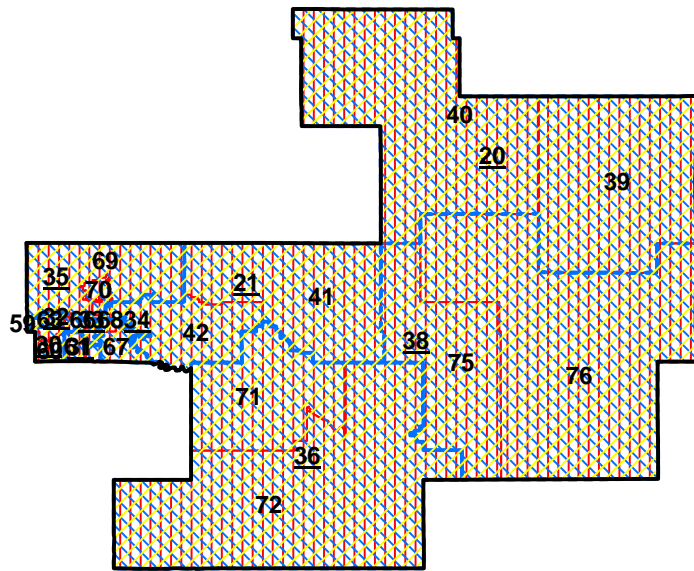
State House Districts



State Senate Districts



Congressional Districts

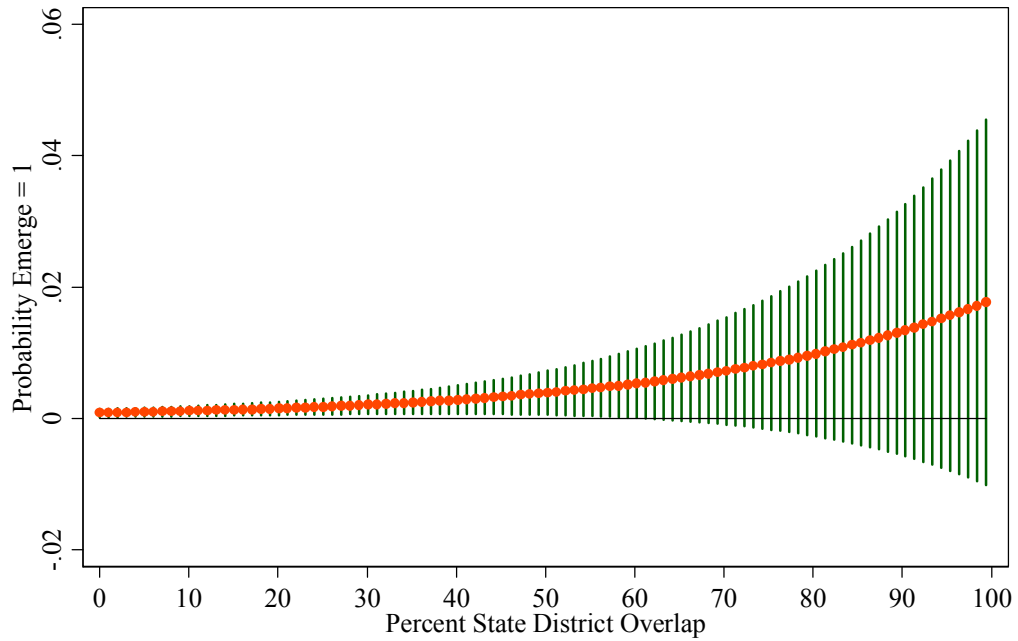


District Congruency

Overlap with congressional district 3			
State House District #	Percent Overlap	State Senate District #	Percent Overlap
39	0.05	20	0.10
40	0.05	21	0.10
41	0.05	30	0.10
42	0.05	31	0.10
59	0.05	32	0.10
60	0.05	33	0.10
61	0.05	34	0.10
62	0.05	35	0.10
63	0.05	36	0.10
64	0.05	38	0.10
65	0.05		
66	0.05		
67	0.05		
68	0.05		
69	0.05		
70	0.05		
71	0.05		
72	0.05		
75	0.05		
76	0.05		
Total	1		1

Figure 3 – Predicted Probability of Candidate Emergence

Incumbent Contested Seats



Statistically significant until District Overlap > 60

Open Seats

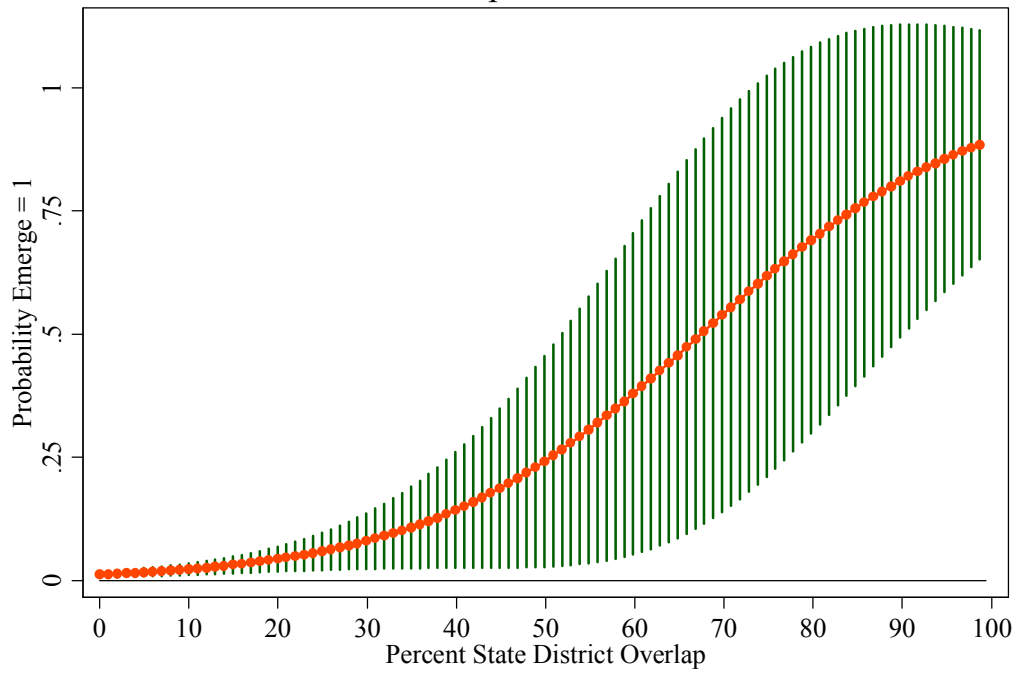
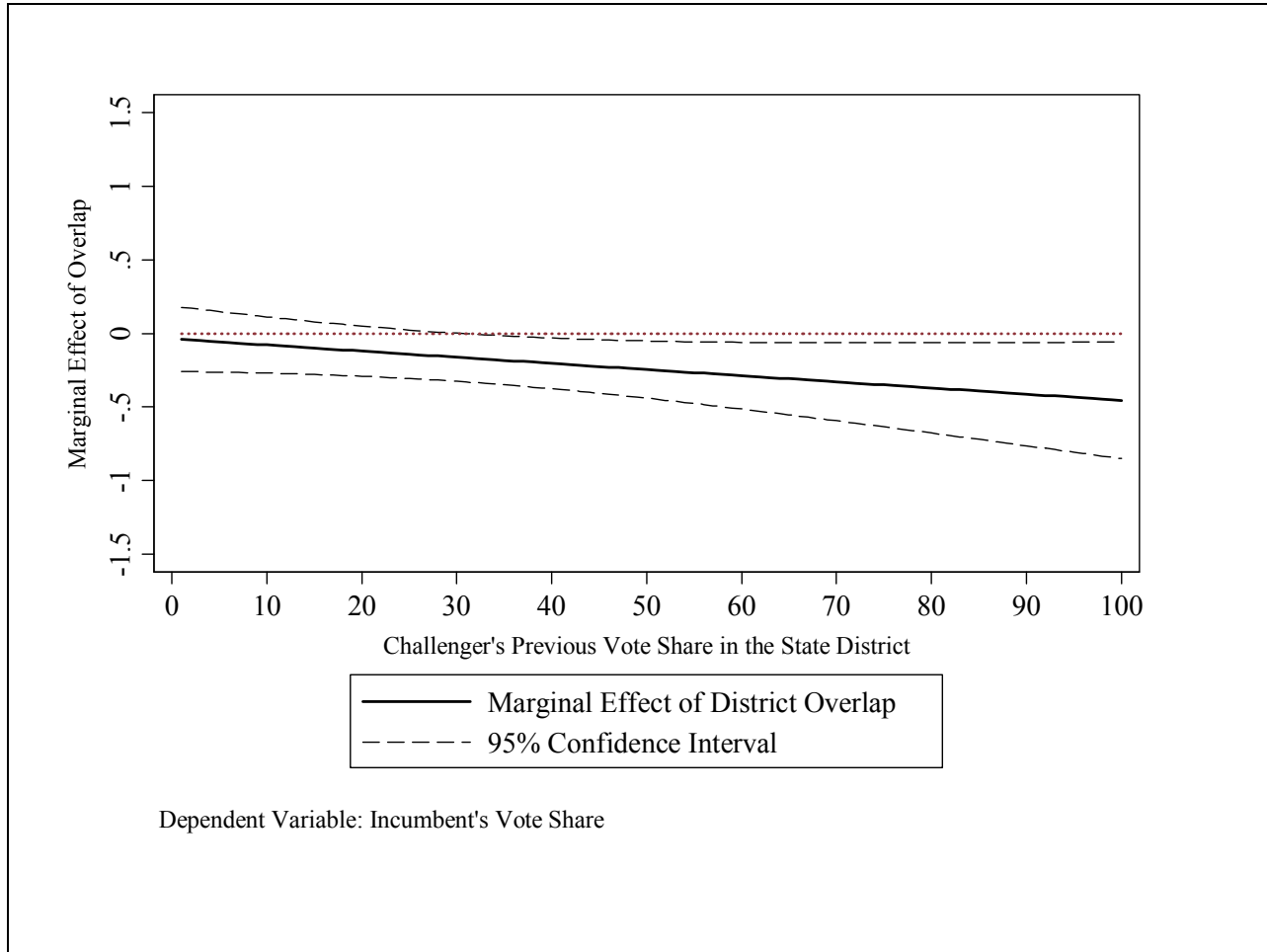


Figure 4 – Marginal Effect of District Overlap on Incumbent’s Vote Share, Incumbent Contested



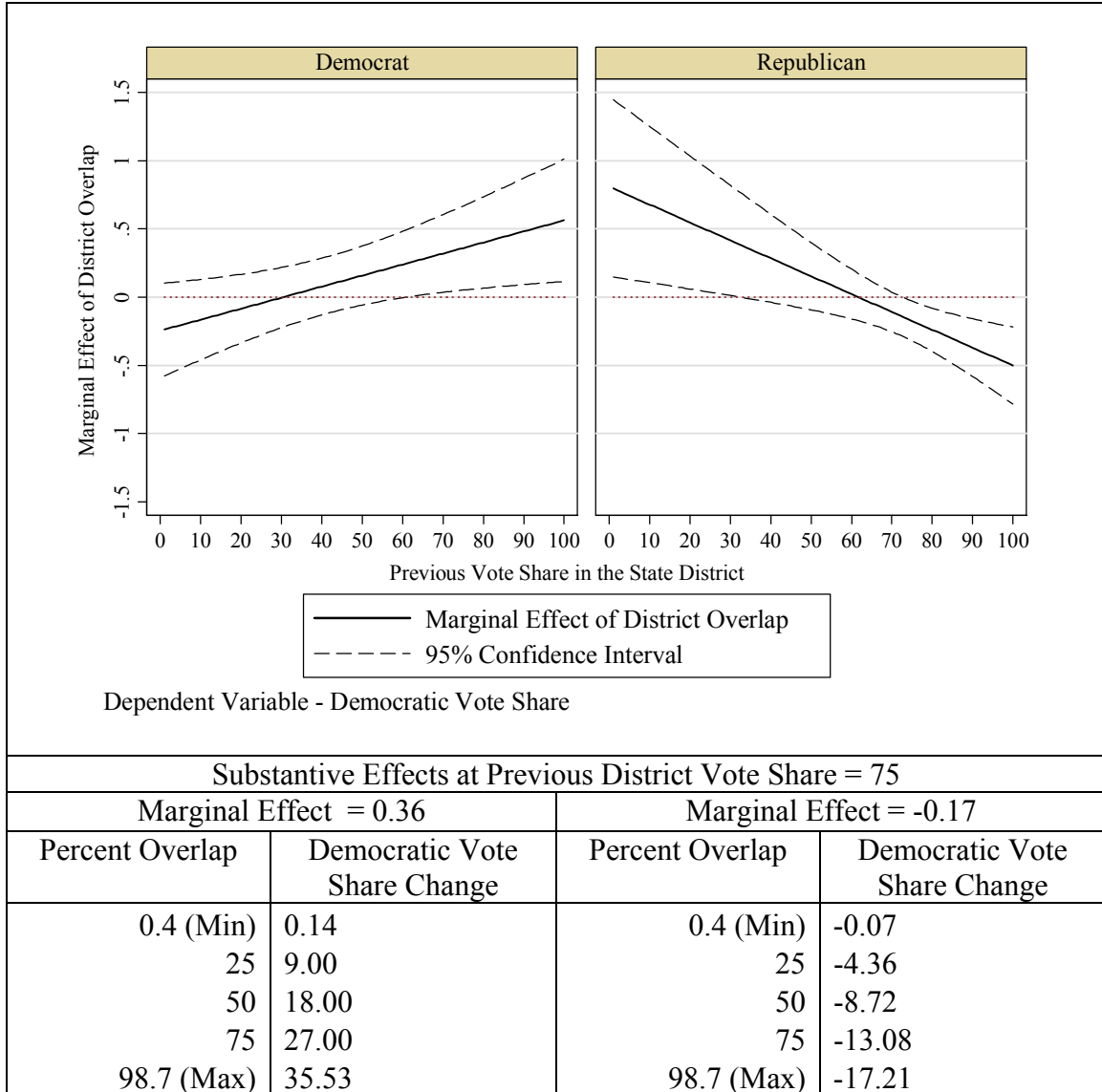
Dependent Variable: Incumbent's Vote Share

Substantive Effects at Previous Vote Share in State District = 60

Marginal Effect = -0.29

Percent Overlap	Vote Share Decline
0.4 (Min)	0.12
25	7.19
50	14.38
75	21.57
98.7 (Max)	28.38

Figure 5 – Marginal Effect of District Overlap on Democrat’s Vote Share, Open Seats



Reviewers Appendix

Table A1 – Results from model discussed in footnote 10

Variable	Coefficient (Standard Error)	
	Incumbent Contested	Open Seat
Overlap [†]	-.029 (.061)	.204* (.080)
Previous Vote - State Legislative Incumbent [†]	-.033* (.014)	.024 (.018)
Overlap × Previous Vote - State Legislative Incumbent [†]	.001 (.0007)	-.002 (.0009)
Previous Incumbent Vote	-.041* (.017)	---
Incumbent Party Presidential Vote		-.020 (.027)
Term Limit	.689 (.718)	-.168 (.632)
Professionalism	-5.28* (2.04)	-.034 (2.31)
Constant	-.181 (1.15)	-5.22* (2.25)
<i>N</i>	2351	550
Number of clusters	1799	481
Wald χ^2	126.12*	28.23*
% Correctly Classified	99.57	97.09

* $p < 0.05$ two-tailed test

[†] Test of joint significance, $p < 0.05$ two-tailed test

These estimates were run on states without multi-member districts for the 2006 election while dropping all state legislators of the same party of the incumbent. The interactive effect of overlap and previous vote for the state legislator is positive and significant when previous state legislative vote is over 60 percent for incumbent contested seats and positive and significant for all values for open seats.