State Politics & Policy Quarterly
12(2) 127–145

DOI: 10.1177/1532440012438892
http://sppq.sagepub.com
SAGE

Constituency Congruency and Candidate Competition in Primary Elections for the U.S. House

Jamie Carson[1], Michael H. Crespin[1], Carrie P. Eaves[1], and Emily O. Wanless[2]

Abstract

Previous research has largely concluded that House elections have become less competitive in the modern era. Our research examines one area where we expect to observe more competition—namely, primary elections. In this article, we investigate when and where a state legislator will emerge to run in a congressional primary. All else equal, we expect that state legislators who can carry a large portion of their old state reelection constituency to the "geographic" congressional constituency will be more likely to emerge and receive a higher vote share in the election. Using geographic information systems (GIS) techniques, we are able to derive a measure of constituency congruency by focusing on the degree of intersection between state legislative and congressional districts. Our results indicate that state legislators are more likely to emerge in a primary if constituency congruency is high, especially in open seat contests. Congruency does not appear to provide an electoral advantage at the polls.

Keywords

federal/state, GIS/spatial analysis, legislative elections, primary elections, redistricting

Politicians, pundits, and political scientists alike agree that a candidate's familiarity with her constituency provides a critical advantage when seeking elected office. While generally accepted as political fact, this advantage can be difficult to test empirically.

[1]University of Georgia, Athens, USA
[2]Augustana College, Sioux Falls, SD, USA

Corresponding Author:
Emily O. Wanless, Augustana College, 2001 South Summit Avenue, Sioux Falls, SD 57197, USA
Email: orchare@gmail.com

Employing a unique aspect of our federalist system, where decisions made by governments at the *state* level affect electoral outcomes at the *national* level, we use geographic information systems (GIS) technology to examine the congruency of state legislative districts with U.S. House districts and test if district overlap between these two levels of government can influence emergence decisions and outcomes. Specifically, for 2004 and 2006, we examine the participation and outcomes of the first hurdle candidates must face, a congressional primary. Given that competition—regardless of the stage in the process—is a cornerstone of representative democracy, neglecting this important step leaves a serious gap in our understanding of who participates in the electoral process, who succeeds, and why.

Consistent with previous research, we maintain that state legislators will act strategically, taking into consideration the costs and benefits of seeking higher office, running when their chances of winning are highest (Banks and Kiewiet 1989). One potential advantage generally overlooked, due to an inability to accurately measure it, is the amount of "personal" vote a quality candidate can bring with them from one office to the next. Consistent with previous theoretical accounts (Fenno 1978; Rohde 1979; Schlesinger 1966), our use of GIS technology allows us to test the theory that state legislators who can bring a larger "personal" vote (the congruency between their state legislative constituency and the "new" constituency of the congressional district) to the primary election will be more likely to emerge, and fair better, than those with a smaller personal vote.

Ambition and Candidate Emergence

In congressional elections research, many prior studies have examined the question of why someone decides to run for elected office. Deeply intertwined with the study of candidate emergence is the discussion of strategic politicians and "quality" challengers. Acknowledging that not all candidates for elected office begin a campaign with the same skills and experience, Jacobson and Kernell (1983) found that candidates with any previous elective office experience are more successful candidates, likely due to their knowledge about how to wage an effective campaign. In addition, scholars note the utilization of an emergence calculus by quality challengers, whereby these strategic politicians are more likely to run when conditions are most favorable to their chance of success—when costs are low, risks are minimal, and the likelihood of winning is greatest. In particular, quality challengers are most likely to emerge when there is an open seat and when national and partisan conditions favor the challenger (Bianco 1984; Goodliffe and Magleby 2001; Herrnson and Gimpel 1995; Jacobson 1989; Jacobson and Kernell 1983; Maestas and Rugeley 2008), their odds of success for a primary or general election bid are greater (Banks and Kiewiet 1989; Herrnson and Gimpel 1995; Maisel and Stone 2001; Taylor and Boatright 2005), and incumbents' advantages, such as electoral security and size of war chest, are easier to overcome or are not overwhelming (Maisel and Stone 1997; Stone and Maisel 2003; Stone, Maisel, and Maestas 2004).

Congressional Primaries

Despite the apparent opportunities for competition in congressional primaries, much of the literature examining candidate emergence and competition in elections has focused almost exclusively on the general election (for a notable exception, see Ansolabehere et al. 2006). Yet, with a majority of congressional districts dominated by one political party, the only real choice between candidates for voters in many races occurs during the nomination stage of the electoral process. Specifically, we see heightened competition in races where incumbents are challenged by members of their own party, or in open seat contests, where intra- and interparty competition is greatest (Gaddie and Bullock 2000).

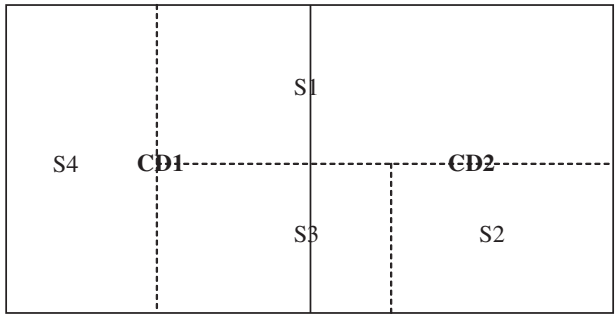
An additional consideration in the study of primary elections making them distinct from general elections is their low salience. Analyzing his personal bid for Congress, Maisel (1982) noted that his chances of winning were faint, as he did not have the early name recognition necessary to survive the first contest. In these daunting races, candidates deciding whether to make a bid for Congress must take into account their current connection with potential voters and the amount of resources they possess early in the election season (Ezra 2001).

Theoretical Factors Affecting Candidate Emergence

In Fenno's (1978) terminology, a state legislator who shares a large portion of her state "reelection constituency" with her new congressional "geographic constituency" will have a distinct advantage from the start of an election.[1] 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." Applying this reelection constituency idea to a measure of district congruency leads us to believe that candidates with significant congruency between their state legislative and congressional districts will hold an advantage in the primaries, as other candidates with less congruency will have to create a group of supporters from scratch. These factors should be especially helpful in low-information primary elections given that voters cannot rely simply on party identification when deciding between candidates at the ballot box.

Research has also found that voters with established connections to state legislators, as a result of their personal homestyle, are more likely to continue to support those individuals when they seek a seat in the House (Desposato and Petrocik 2003; Fenno 1978). Similarly, Carson et al. (2011) found that state legislators with greater district congruency run at higher rates when a congressional seat is open in the general election. Our work seeks to provide empirical support of this well-accepted idea that familiarity and congruency both encourage candidates to emerge and aid in their chances of winning a primary election.

If the intersection between the state and congressional districts is large, primary candidates emerging from the state legislature may be the strongest for a number of



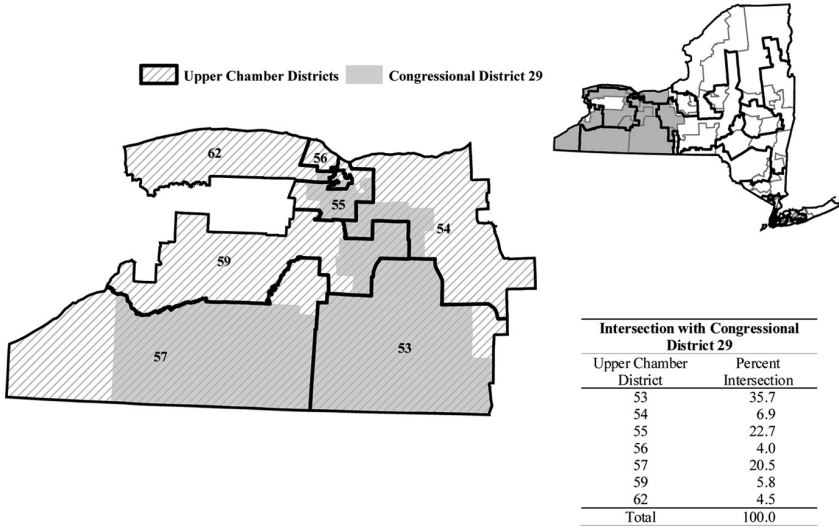
Observation	State Leg. District	Congressional District	Constituency Congruency
1	S1	CD1	.17
2	S1	CD2	.33
3	S2	CD2	.50
4	S3	CD2	.17
5	S3	CD1	.33
6	S4	CD1	.50

Figure 1. Constituency Congruency for Hypothetical State

reasons. Similar to advantages afforded sitting incumbents, high congruency grants state legislators similar *a priori* knowledge of the congressional district, a greater understanding of voter preferences, information about political elites, and experience bringing groups together into an electoral coalition. In addition, these experienced challengers, much like incumbents, can capitalize on this information and name recognition from the start of a race. However, we should not always expect to observe state legislators emerge to run in primaries. Many state legislators may not be progressively ambitious and seek to move to the U.S. House (Maestas et al. 2006), whereas others may not feel that the timing is personally or politically appropriate. Ultimately, and all else equal, we should expect district congruency to influence emergence decisions the most when conditions appear to be the most favorable for a state legislator's success.

Data and Research Design

The key independent variable in our analysis of primary elections is the percentage of population congruency between a state legislative district and a congressional district for both the 2004 and 2006 primaries. Essentially, we want to capture the amount of a *future* congressional district that a state legislator already represents in her *current* district. To describe this measure, we present a simplified example in Figure 1 before moving on to an actual example. In this figure, we present a "state" that has two congressional districts and four state senate districts that are either partially or fully contained within a congressional district.[2] In addition, we depict how we would have



Intersection with Congressional District 29	
Upper Chamber District	Percent Intersection
53	35.7
54	6.9
55	22.7
56	4.0
57	20.5
59	5.8
62	4.5
Total	100.0

Figure 2. Example of Constituency Congruency: New York's 29th Congressional District
John Kuhl, then the sitting state senator from District 53, emerged in 2004 to run and win the Republican nomination for New York's 29th congressional district. He replaced the retiring Amo Houghton.

structured the data using Figure 1 as an example. Here, the congruency between District S1 and CD1 is 17%, between S3 and CD1 is 33%, and between S4 and CD1 is 50%. For CD2, congruency values are 33% (S1), 50% (S2), and 17% (S3). The theory outlined above suggests that in CD1, S4 is the most likely to emerge, followed by S3, and finally S1. For CD2, the predicted ordering is S2 > S1 > S3.[3] One advantage to studying primary elections is that multiple candidates can emerge to run in the same district. This means if S4 emerges to run, it does not rule out S3 from also emerging in CD1.

To better illustrate our measure and how we anticipate constituency congruency to affect emergence, we have created Figure 2. This figure depicts the actual intersection between New York's 29th congressional district and eight state senate districts (53, 54, 55, 56, 57, 58, 59 and 62).[4] We chose this example to demonstrate the relatively large amount of variation in constituency congruency within a state. State Senate District 53 (containing the cities of Ithaca and Elmira), for instance, makes up the largest share of the congressional district as 35.7% of the population in the congressional district also resides in the 53rd state senate district. In contrast, only 4% of the population in the congressional district is from Senate District 56. The congruency theory would predict that if any state legislator were to run within this House district, the state legislator who represents the 53rd senate district is most likely to emerge and should

be able to carry a substantial portion of her reelection constituency over to the congressional district. This was the case, as John Kuhl, state senator for the 53rd district, not only emerged as a candidate in the race but also won the highly competitive Republican primary. As this map illustrates, simply counting the number of state legislators might not adequately give us a clear picture of who is most likely to emerge and run for a House seat.

To create the congruency measure, we rely on GIS technology. Prior to the use of GIS techniques, research concerned with matching district boundaries was only able to rely on the size of the candidate pool in the state (Canon 1990; Jacobson and Kernell 1983; Squire 1989) or large geographic units such as the county or precinct (Carson, Crespin, Finocchiaro, and Rohde 2007; Engstrom 2006; Hood and McKee 2009; Rush 1992, 1993, 2000) and were only able to provide a rough measure of congruency. By using GIS, we can use small geographic units to obtain a measure of intersection with minimal measurement error. This new technology has recently gained traction in the field of political science.[5]

To create our *congruency* variable, we use the Geographic Correspondence Engine, which allows the user to select both "source" and "target" geocodes to obtain a file with the population intersection between the upper and lower chamber of each state legislature and U.S. congressional districts.[6] In many states, state legislative districts are not entirely contained within the boundaries of one congressional district. Instead, state legislative districts intersect several different congressional districts. As a result, each state legislative district can appear multiple times, once for every time it intersects with a House district.[7] If the state district is entirely contained within one congressional district, it will be in the data once; if it intersects with two, it will appear twice and so forth. Again, our unit of analysis is each state legislative district matched with as many congressional districts as it intersects for 2004 and 2006.

We find considerable variation across and within states in the degree of congruency. For example, in California, the average degree of congruency is 22%, whereas in states like Rhode Island and Mississippi, the average amount of congruency is quite small (3%).[8] To help illustrate this variation in constituency congruency across states, we created Figure 3. This figure depicts the average constituency intersection of the congressional districts and the upper chambers for the 50 state legislatures. As expected, there is significant variation in average intersection across the country. The minimum amount of congruency found was 1%, whereas the maximum amount, 99.4%, can be found between State Senate District 32 and California's 43rd congressional district. Among all districts across the United States, the average amount of constituency congruency is 8.3% with 12.4 for the upper chambers and 6.3 in the lower houses. The figure shows that less populous states tend to have lower average levels of constituency intersection, whereas in larger, more populous states, the maximum intersection is quite high. This is likely a function of the fact that larger states, such as California, Florida, and New York, do not generally have proportionally larger legislatures (Squire and Hamm 2005). In contrast, potential quality challengers (i.e., state legislators) in the Mountain West states and Alaska only bring a small portion of

Figure 3. Average Constituency Congruency: Upper Chamber

their old geographic constituency up to the congressional district. In those states, if a challenger could bring their entire geographic constituency with them to the congressional district, they would still have to earn the votes of a rather large portion of the new district. Taken as a whole, this figure demonstrates the impact state-level choices concerning the size of state legislatures can have on electoral competition.

Next, to obtain a list of all candidates who emerged in a congressional primary, we relied on the Federal Election Commission (FEC) Candidate Financial Summary Files.[9] These files provided each candidate's name, party, and a wealth of fundraising data and electoral outcomes. To identify which candidates were state legislators, we cross-referenced the FEC files with the *State Directory of Elected Officials*, 2003 and 2005, an annual publication from the Council of State Governments. In the 2004 and 2006 elections, 120 state legislators emerged in a primary election for the U.S. House of Representatives.[10] Of those 120 legislators, 47 were Democrats and the remaining 73 were Republicans.

To test our expectations, we fit several models of candidate competition in the ensuing analysis focusing first on candidate emergence and then outcomes in the 2004 and 2006 House elections. In our initial set of models, we test for candidate emergence in all congressional primaries, and then separate models conditional on whether the incumbent party was the same as the state legislator. Our dependent variable is coded "1" if a state legislator decided to run in a primary race and "0" otherwise. Because our dependent variable is dichotomous, we use probit to test our hypotheses regarding

candidate emergence in the primary. In addition, we cluster robust standard errors on the state legislative districts.[11]

Our second analysis addresses the impact constituency congruency has on the outcome of these quality candidate's emergence decisions. Because we are now testing for electoral success, our unit of analysis switches from the state legislative level to the congressional district level. Operating under the assumption that emergence and outcomes are related, we model this process using a Heckman selection regression where the initial stage is the same as the emergence model described above, and a secondary analysis uses this information to draw conclusions about electoral success. By modeling candidate emergence in this fashion, we can account for any correlation that may exist in the errors (Heckman 1979). Our dependent variable for the outcome stage is the challenger's share of the two-party vote.

In addition to the degree of congruency described above, we include a number of theoretically relevant control variables. In the general election, open seat races are typically more competitive than those contested by an incumbent (Gaddie and Bullock 2000; Jacobson 2009). As such, we would expect these types of races to be particularly competitive at the primary stage as well. We also expect the effect of constituency congruency to be more pronounced for state legislators in open seat primary races, as this typically represents the best chances for electoral success.

We also include a measure of state legislative professionalism developed by Squire (2007), as the varying levels of professionalism in legislatures may affect career choices. The most professional state legislatures provide their members with larger salaries, better staff, and greater retirement benefits. As a result, the opportunity costs for these members are higher if they opt to run for higher office and their progressive ambition may be stifled (Banks and Kiewiet 1989; Canon 1990; Krasno and Green 1988). Some have suggested that members of professional legislatures may be more likely to emerge in a congressional contest, as it is believed these legislators must be more skilled in campaigning to obtain their current state legislative seat and have a greater chance of having progressively ambitious tendencies (Black 1972; Francis and Kenny 2000; Squire 1988). However, we maintain that serving in a professional legislature increases the costs associated with running for higher office enough that we will see fewer emerge from these legislatures.[12]

We include a variable that controls for the presence of term limits at the state level. Progressively ambitious state legislators may be more likely to seek a seat in the U.S. House if they face term limits within their state legislature (Lazarus 2006; Powell 2000; Steen 2006). Congressional districts safely held by one party decreases the likelihood of a candidate of the opposite party winning, and therefore it is less likely they will emerge. To control for relative electoral safety and overall popularity of the state legislator, we also included the state legislator's vote share within their state legislative district in the previous election.[13] We also include a measure of district partisanship, which includes the district-level two-party vote share for the presidential candidate from the congressional incumbent's party in the most recent presidential election (see, for example, Ansolabehere, Snyder, and Stewart 2000; Jacobson 2009). We also include an election-specific fixed effect to control for any differences in election years.

For our second analysis, our dependent variable is the state legislator's vote share in the primary election. Again, our key variable of interest is the amount of congruency between the state legislative district and the congressional district the legislator is seeking to represent. We expect those state legislators with a larger percentage of congruency to obtain a higher share of the vote. In this model, we also include a variable that measures spending. As candidates spend more, measured as the natural log of the candidates' net expenditures in the congressional primary, we expect their vote share to decrease.[14] Similarly, we included the number of candidates in each primary race, expecting a greater number of candidates present to divide the vote share. In addition, we control for the legislator's vote share in their most recent election. We expect legislative candidates who do better in their state legislative districts to perform better in the congressional districts, all else equal.

Results

Candidate Emergence

To test our emergence hypotheses, we first ran a series of three probit models breaking down primary contests by type—all races, races where the challengers were of the same party as the incumbent, and races where the challengers were of the opposite party as the incumbent. We include the latter two models to better determine if the party controlling the seat relative to the challenger ultimately matters. Table 1 presents the results from each of these models as well as the changes in predicted probabilities. Consistent with our hypothesis, we find that as the amount of congruency between a state legislative district and a congressional district increases, a state legislator is more likely to emerge in a congressional primary. This key result holds when either the challenger's party holds the seat or it is held by the opposite party.[15] It appears that the "personal" vote a state legislator is able to carry with him to a congressional contest promotes grater emergence than challengers who do not currently have a constituency they already serve.

In addition, we find that a number of our control variables also influence the decision to run for higher office. As expected, experienced candidates are more likely to emerge in open seat primary races as indicated by the positive and significant coefficient for the open seat variable. In addition, the partisan leaning of the congressional district appears to affect the emergence decisions of experienced candidates in all races and races where the candidate is of the opposite party of the current member of Congress who holds the seat. As the presidential vote share for the incumbent party increases, the likelihood of a state legislator—and specifically a state legislator of the opposite party—emerging significantly decreases. District partisanship had no effect on state legislators of the incumbent's party. Finally, in the all-races model, a significant negative coefficient on the professionalism variable confirms expectations. As the level of professionalism increases, quality challengers are less likely to emerge to run in a House seat, as the benefits of holding the higher office are less enticing.

Table 1. Candidate Emergence in Congressional Primaries for All Races

Variables	All races		All races same party of incumbent		All races opposite party of incumbent	
	Coefficient (standard error)	Change[a]	Coefficient (standard error)	Change[a]	Coefficient (standard error)	Change[a]
Congruency	0.024* (0.003)	.0015	0.023* (0.004)	.0008	0.034* (0.007)	.0023
Professionalism	−1.009* (0.404)	−.0010	−0.526 (0.546)	−.0003	−1.291* (0.605)	−.0018
Term limit	0.047 (0. 092)	.0003	0.016 (0.122)	.0001	0.159 (0.124)	.0017
District partisanship	−0.011* (0.004)	−.0007	0.002 (0.006)	.0001	−0.016* (0.006)	−.0015
State legislator previous vote share	0.002 (0.001)	.0003	0.002 (0.002)	.0001	0.003 (0.003)	.0008
Open seat	1.216* (0.085)	.0401	1.540* (0.131)	.0489	0.873* (0.133)	.0253
Upper chamber	−0.029 (0.096)	−.0002	−0.004 (0.133)	−.0000	−0.094 (0.145)	−.0009
2006	0.099 (0.084)	.0006	0.079 (0.119)	.0003	0.081 (0.123)	.0008
Constant	−2.472* (0.272)		−3.563* (0.387)		−2.105* (0.312)	
N	18130		11338		6792	
Number of clusters	5750		4486		3095	
% Correctly classified	99.48		99.52		99.41	
Wald χ^2	243.57*		154.58*		100.33*	

[a] ±½ *SD* for continuous variables and 0–1 for dichotomous variables. Robust standard errors in parentheses.
*$p < .05$.

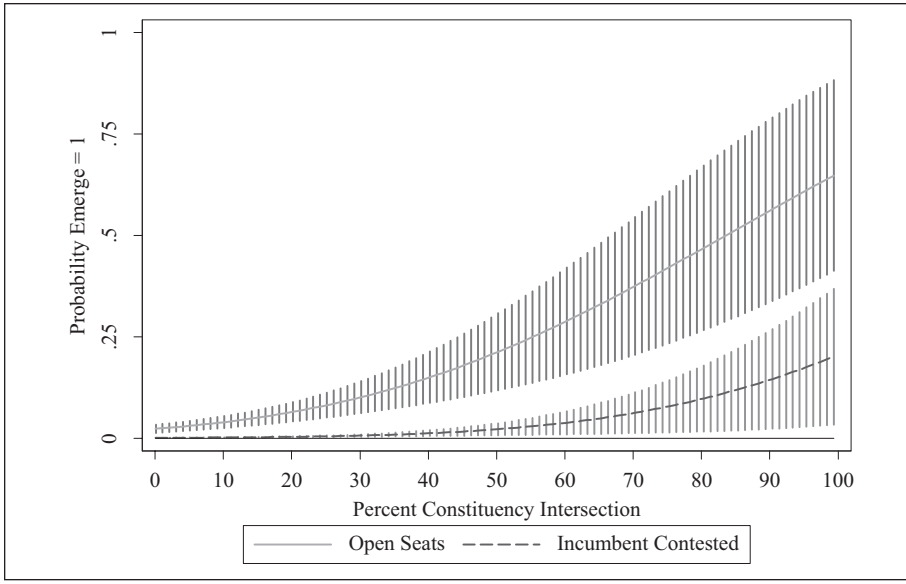


Figure 4. Effect of Congruency on Open Seat and Incumbent-Contested Races

For races where an experienced candidate would have to run for a seat already held by their party, district congruency and the lack of an incumbent in the race are the only significant results. As anticipated, both have a positive effect on emergence. However, when the opposite party controls the seat, we see quality candidates acting more strategically. In these situations, quality challengers consider the amount of their current district that intersects and will be voting in the congressional election, as well as the electoral weakness of the party that holds the seat, the professionalism of their legislature, and whether the incumbent is running. A quality challenger will thus be more likely to emerge when they have greater district congruency and when the other party appears to be vulnerable.

In Figure 4, we compare the effect of congruency in open seat and incumbent-contested races. In particular, the figure plots the probability of candidate emergence over the theoretical range of constituency intersection for both types of races. Because the confidence intervals do not overlap, this figure clearly demonstrates that the effect of congruency is significantly larger in open seat than incumbent-contested races. For incumbent-contested races, the influence of congruency is statistically significant but rather small. In open seat races, the probability of emergence is relatively low when congruency is small, but as congruency increases, the probability of candidates emerging increases dramatically. This means that for some states with low average measures of congruency, it is not a strong predictor of emergence. However, in districts where

Table 2. Effect of Overlap on Emergence and Challenger's Vote Share

	Coefficient	Standard error
Variable	**Emergence**	
Congruency	0.029*	0.004
Professionalism	−1.189*	0.425
Term limit	−0.101	0.105
District partisanship	−0.005*	0.005
State legislator previous vote share	0.002	0.002
Open seat	1.397*	0.103
Upper chamber	−0.110	0.113
2006	0.091	0.099
Constant	−2.942*	0.356
Variable	**Outcome**	
Congruency	−0.185 [0.308]	0.202
Open seat	−16.716 [7.286]	11.026
Spending(ln)	−3.238*	1.208
State legislator previous vote share	0.137 [−0.107]	0.110
Number of candidates	−4.238*	0.833
Upper chamber	−0.504 [−2.391]	4.980
2006	0.956 [2.513]	5.206
Constant	166.305*	39.472
N	18103	
Censored *N*	18037	
Number of clusters	5749	
Wald χ^2	50.44*	
ρ	−.740*	

Note: Selection dependent variable is emergence, second stage is challenger's two-party congressional election vote share. Continuous variables set to their mean, rest set to zero except for open seat. Transformed marginal effects in brackets.
*$p < .05$ two-tailed test.

overlap is greater, it plays a larger role in emergence decisions. At the extreme end in a state like California, where overlap can surpass 90%, the probability of emergence is close to 55%. This finding reinforces the strategic behavior of candidates in primaries.

Election Results

We present the results of our election outcome model in Table 2.[16]

Unexpectedly, the coefficient on the intersection variable is not significant. We find this result interesting as it indicates that while encouraging state legislators to run in a primary election, it does not affect their overall success in the contest. By looking

at the two stages of an election, emergence and outcome, we are able to draw conclusions about the influence constituency congruency has. It appears that having name recognition and previous experience with voters persuades a state legislator enough to run in primary, but is not enough to alter a voter's preferences at the polls. Rather, the influence of the number of challengers and amount of campaign spending indicates that forces besides voter familiarity are driving election outcomes. As the amount of money spent and number of candidates in the race increases, the vote shares across all the candidates decrease. Theoretically, this makes sense, as both measures are indicative of a competitive race in which diminished vote shares are more likely regardless of whether a candidate has the advantages of voter recognition.

This nonsignificant finding is also interesting when compared with how constituency congruency influences emergence and outcome in general elections held for the U.S. House of Representatives. Similar to the primary stage, we find that greater amounts of constituency congruency increase the likelihood of emergence in general elections (Carson et al. 2011). However, unlike what is discovered here, Carson et al. find that election outcomes are positively influenced by greater amounts of constituency congruency. State legislators running in general elections for the House received a higher percentage of the vote share. Although purely speculative, this may be a function of the more diverse types of individuals who vote in the general election compared with the more homogeneous voters in the primary elections.

Conclusion

By focusing on the congruency of districts within our electoral system, we are able to make an addition to the literature on candidate emergence, primary elections, and the impact of our federalist system. Specifically, we argue that our new measure of constituency congruency between state legislative and U.S. congressional districts may help us fully understand why certain state legislators emerge, and succeed, in congressional primaries. Our models look at the two stages where district congruency may play a part—candidate emergence and its impact on primary election outcomes. For the initial emergence decision, we find congruency between the state legislative district and the contested U.S. House seat significantly increases the likelihood of entering a primary contest. Greater constituency congruency increases the likelihood of emergence regardless of whether an incumbent is present or whether the quality challenger serves the party not currently in control of the seat. Indeed, we find that the combination of both an open seat and substantial district congruency appear to be central concerns for state legislators to emerge in congressional primaries. As such, this strongly suggests that challengers take into account their "personal vote" with their state legislative constituency when deciding whether to run for a seat in the U.S. House (Fenno 1978).

Once state legislators emerge to run in a House primary, how much impact does their personal vote from their state legislative district have in earning the congressional nomination? Our results lead us to the conclusion that constituency congruency

does not seem to yield any additional influence during the primary election. This is a surprising result given the positive affect a transferable personal vote has, not only on the decision to emerge in a race but also on electoral fortunes in general elections. It may be the case that the voters who were influential to the emergence decision are already planning to vote for these candidates, thus there is no additional effect at the margins once we account for the initial emergence stage.

Prior research has emphasized the role of context in explaining progressive ambition. We take this research a step further by differentiating between *which* candidates within the pool of qualified challengers should opt to run for a U.S. House primary. There is a well-established literature on the power of the incumbency advantage in the legislative arena. This study sheds light on one aspect of the incumbency advantage, but from a different angle. Given the overlap between state legislative and congressional districts, studying the congruency between districts and the "personal" vote that can be carried from one office to another leads us to conclude that familiarity with the district and its voters is a vital part of the incumbency advantage. Among other findings, we discover that a candidate's "personal" vote appears to influence emergence decisions independent of other factors, particularly in open seat contests. Given that the first step toward earning a congressional seat involves winning in the primaries, our findings also have notable consequences for elections and competitiveness. Indeed, in an era when political pundits increasingly lament the exceedingly high reelection rate of incumbents and lack of competition, our results suggest that primaries may provide some of the few exceptions to the rule.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. Theoretically we will discuss constituency congruency in terms of the "reelection constituency." However, due to data constraints, we only measure "geographic constituency."
2. Note that because we are dealing with population, and not geographic size, the area of overlap does not have to necessarily coincide with population overlap.
3. An alternative measure would capture the percentage of a state legislative district that a candidate could take with them to the future congressional district. We think our measure is superior for this analysis because this alternative measure fails to distinguish between a large state senate district and a less populous state house district that are both entirely contained within a congressional district. Using this alternative measure, both would be coded as 100%, but it is clear to us that the state senator with the more populous district has a greater chance of emerging to run for congress because he or she currently represents more

of the future congressional constituents. So, for states like Iowa where state house districts are nested inside state senate districts and senate districts are nested inside congressional districts, every state legislator from that state would have the same measure of overlap.

4. For clarity, we do not show the intersection for the lower chamber in this figure, but they are included in our statistical models.
5. Geographic information systems mapping has been used to evaluate electoral competition (Crespin 2005; Hayes and McKee 2009), voter turnout (Darmofal 2006), redistricting and the personal vote (Desposato and Petrocik 2003), and campaign finance (Gimpel, Lee, and Kaminski 2006; Gimpel, Lee, and Pearson-Merkowitz 2008).
6. See http://mcdc2.missouri.edu/websas/geocorr2k.html.
7. A plurality of state legislative districts appeared only once in the data, and a majority of the candidates who ran emerged in these single-observation districts. To test whether the multiple occurrences of legislative districts is a problem, we reestimated our model on two subsets of data: a subset only including districts entirely within congressional districts and a subset only including legislative districts that crossed congressional district boundaries. In both cases, we continued to find that congruency significantly predicts emergence. In addition, it is possible that we have created a number of "matched" observations in which a state legislator would never run because they do not live in that congressional district. However, given that the Constitution only requires living in the state—and not the district—that one represents, there is a possibility that one could emerge in a congressional district that he or she does not reside in, especially if the congruency in that district is lopsided toward that district. Despite the improbability of this type of emergence, we chose to err on the side of not omitting any cases of emergence rather than exclude any districts.
8. California only has 40 state senators compared with 53 members of Congress, so state senators actually represent more voters than members of the U.S. House.
9. Any individual wishing to campaign for Congress is required to file with the Federal Election Commission (FEC) once he or she has raised or spent $5,000 on campaign-related activities. Within 15 days, a new candidate for office is required to submit a statement of candidacy to the FEC, designate a principal campaign committee, and begin filing regular fundraising reports (Federal Elections Commission 2008). Each individual who filed with the FEC in a given election cycle is included in the Candidate Financial Summary Files.
10. We excluded six states from the analysis (Georgia, Idaho, Louisiana, New Hampshire, Texas, and Vermont). New Hampshire and Vermont were excluded because we were unable to match state legislative district names across the various files. Georgia and Texas were excluded because they both redrew their state legislative districts during the period studied. We exclude Louisiana because of the unique nonpartisan blanket primary elections it holds in its state (see Taylor and Boatright 2005). Under this system, members of the different political parties compete in one primary and the top two candidates compete in the general election only if a candidate does not obtain a simple majority. We discovered errors in the state legislative boundary files for Idaho; thus, we decided to exclude it from the analysis.
11. We used the cluster option in Stata. As a robustness check of our use of clusters, we also ran the entire model clustering robust standard errors on individual members and without

clusters at all. In all cases, we found constituency congruency to be positive and a significant predictor of emergence.

12. For a more in-depth discussion of the varying influences serving in a professionalized legislature has on the career decisions of state legislatures, see Maestas et al. 2006.
13. Data on each state legislator's previous vote share was collected from Carsey et al. for 2004 and from each state's board of election website for 2006. For the 2004 primary elections, the previous vote share came from the 2002 and 2003 state legislature general elections. For the 2006 primary elections, the previous vote share came from the 2004 and 2005 state legislature general elections. If there was not an election for the state legislator in those years (i.e., if a state senate only elects their members every four years), the most recent election held for them was used.
14. To determine each state legislator's primary campaign expenditures, we used the FEC Federal Disclosure Database. Each candidate in a congressional primary is required to file a preprimary report no later than 12 days prior to their primary election, from which we collected their preprimary net expenditures. For those individuals who did not file a preprimary report, the contributions and expenditures from their quarterly report prior to the date of the primary were used. If no report was filed that could be properly identified, then they were coded as having received and spent $5,000 (Jacobson 2009). We also coded individual candidate vote shares from the FEC website: http://www.fec.gov/pubrec/electionresults.shtml.
15. As a robustness check, we estimated the same models separately for open seats and incumbent-contested races and continued to find significant effects for the congruency variable. In addition, we ran the models using Rare Events Logistic Regression and found that the congruency variable remained statistically significant.
16. Because we include intersection and several other variables in the emergence (top of Table 2) and outcome stage (bottom of Table 2) of the Heckman model, we cannot directly interpret the marginal effects of the reported coefficients. Instead, we follow the formula from Sigelman and Zeng (1999) and also report the adjusted coefficients where appropriate.

References

Ansolabehere, Stephen, J. Mark Hansen, Shigeo Hirano, and James M. Snyder Jr. 2006. "The Decline of Competition in U.S. Primary Elections, 1908–2004." In *The Marketplace of Democracy*, eds. Michael McDonald and John Samples. Brookings Press.

Ansolabehere, Stephen, James M. Snyder Jr., and I. Charles Stewart II. 2000. "Old Voters, New Voters, and the Personal Vote: Using Redistricting to Measure the Incumbency Advantage." *American Journal of Political Science* 44:17–34.

Banks, Jeffrey, and D. Roderick Kiewiet. 1989. "Explaining Patterns of Candidate Competition in Congressional Elections." *American Journal of Political Science* 33:997–1015.

Bianco, William T. 1984. "Strategic Decisions on Candidacy in U.S. Congressional Districts." *Legislative Studies Quarterly* 9:351–64.

Black, Gordon. 1972. "A Theory of Political Ambition: Career Choices and the Role of Structural Incentives." *American Political Science Review* 66:1260–88.

Canon, David T. 1990. *Actors, Athletes, and Astronauts: Political Amateurs in the United States Congress*. Chicago, IL: University of Chicago Press.

Carsey, Thomas M., William D. Berry, Richard G. Niemi, and Lynda W. Powell. State Legislative Election Returns, 1967–2003, Release Version 5.

Carson, Jamie L., Michael, H. Crespin, Carrie Eaves, and Emily Wanless. 2011. "Constituency Congruency and Candidate Competition in U.S. House Elections." *Legislative Studies Quarterly* 36(3):461–82.

Carson, Jamie L., Michael H. Crespin, Charles J. Finocchiaro, and David W. Rohde. 2007. "Redistricting and Party Polarization in the U.S. House of Representatives." *American Politics Research* 35:878–905.

Crespin, Michael H. 2005. "A Spatial Analysis of Congressional Redistricting, 2000–2002." *Political Analysis* 13 (Summer 2005): 253–60.

Darmofal, David. 2006. "The Political Geography of Macro-Level Turnout in American Political Development." *Political Geography* 25:123–50.

Desposato Scott, W., and John, R. Petrocik. 2003. "The Variable Incumbency Advantage: New Voters, Redistricting, and the Personal Vote." *American Journal of Political Science* 47: 18–32.

Engstrom, Erik J. 2006. "Stacking the States, Stacking the House: The Politics of Congressional Redistricting in the 19th Century." *American Political Science Review* 100 (August 2006): 419–28.

Ezra, Marni. 2001. "The Benefits and Burdens of Congressional Primary Elections." In *Congressional Primaries and the Politics of Representation*, eds. Peter F. Galderisi, Marni Ezra, and Michael Lyons. New York: Rowman and Littlefield Publishers.

Federal Elections Commission. 2008. "Congressional Candidates and Committees." http://www.fec.gov/pdf/candgui.pdf

Fenno, Richard F. Jr. 1978. *Home Style: House Members in Their Districts*. New York: Harper Collins Publishers.

Francis, Wayne L., and Lawrence W. Kenny. 2000. *Up the Political Ladder*. Thousand Oaks, CA: Sage.

Gaddie, Ronald Keith, and Charles S. Bullock III. 2000. *Elections to Open Seats in the U.S. House: Where the Action Is*. New York: Rowman & Littlefield Publishers.

Gimpel, James G., Frances, E. Lee, and Joshua Kaminski. 2006. "The Political Geography of Campaign Contributions in American Politics." *Journal of Politics* 68:626–39.

Gimpel, James G., Frances, E. Lee, and Shanna Pearson-Merkowitz. 2008. "The Check is in the Mail: Interdistrict Funding Flows in Congressional Elections." *American Journal of Political Science* 52:373–94.

Goodliffe, Jay, and David B. Magleby. 2001. "Campaign Finance in U.S. House Primary and General Elections." In *Congressional Primaries and the Politics of Representation*, eds. Peter F. Galderisi, Marni Ezra, and Michael Lyons. New York: Rowman and Littlefield.

Hayes, Danny, and Seth C. McKee. 2009. "The Participatory Effects of Redistricting." *American Journal of Political Science* 53:1006–23.

Heckman, James J. 1979. "Sample Selection Bias as a Specification Error." *Econometrica* 47:153–61.

Herrnson, Paul S., and James G. Gimpel. 1995. "District Conditions and Primary Divisiveness in Congressional Elections." *Political Research Quarterly* 48:117–34.

Hood, M. V. III, and Seth McKee. 2009. "What Made Carolina Blue? In-Migration and the 2008 North Carolina Presidential Vote." *American Politics Research* 38:266–302.

Jacobson, Gary C. 1989. "Strategic Politicians and the Dynamics of U.S. House Elections, 1946–1986." *American Political Science Review* 83:773–93.

Jacobson, Gary C. 2009. *The Politics of Congressional Elections*. 7th ed. New York: Pearson Longman.

Jacobson, Gary C., and Samuel Kernell. 1983. *Strategy and Choice in Congressional Elections*. 2nd ed. New Haven: Yale University Press.

Krasno, Jonathan S., and Donald Philip Green. 1988. "Preempting Quality Challengers in House Elections." *Journal of Politics* 50:920–36.

Lazarus, Jeffrey. 2006. "Term Limits' Multiple Effects on State Legislators' Career Decisions." *State Politics and Policy Quarterly* 6 (Winter 2006):357–83.

Maestas, Cherie D., and Cynthia R. Rugeley. 2008. "Assessing the 'Experience Bonus' Through Examining Strategic Entry, Candidate Quality, and Campaign Receipts in U.S. House Elections." *American Journal of Political Science* 52:520–35.

Maestas, Cherie D., Sarah A. Fulton, L. Sandy Maisel, and Walter J. Stone. 2006. "When to Risk It? Institutions, Ambitions, and the Decision to Run for the U.S. House." *American Political Science Review* 100 (May 2006):195–208.

Maisel, L. Sandy, and Walter, J. Stone. 1997. "Determinants of Candidate Emergence in U.S. House Elections: An Exploratory Study." *Legislative Studies Quarterly* 22:79–96.

Maisel, L. Sandy, and Walter, J. Stone. 2001. "Primary Elections as a Deterrence to Candidacy for the U.S. House of Representatives." In *Congressional Primaries and the Politics of Representation*, eds. Peter F. Galderisi, Marni Ezra, and Michael Lyons. New York: Rowman and Littlefield Publishers.

Maisel, L. Sandy. 1982. *From Obscurity to Oblivion: Congressional Primary Elections in 1978*. Knoxville: University of Tennessee Press.

Powell, Richard J. 2000. "The Impact of Term Limits on the Candidacy Decisions of State Legislators in U.S. House Elections." *Legislative Studies Quarterly* 25:645–61.

Rohde, David W. 1979. "Risk Bearing and Progressive Ambition: The Case of Members of the United States House of Representatives." *American Journal of Political Science* 23:1–26.

Rush, Mark E. 1992. "The Variability of Partisanship and Turnout: Implications for Gerrymandering Analysis and Representation Theory." *American Politics Research* 20:99–122.

Rush, Mark E. 1993. *Does Redistricting Make a Difference?* Baltimore: Johns Hopkins.

Rush, Mark E. 2000. "Redistricting and Partisan Fluidity: Do We Really Know a Gerrymander When We See One?" *Political Geography* 19:249–60.

Schlesinger, Joseph A. 1966. *Ambition and Politics: Political Careers in the United States*. Chicago, IL: Rand McNally.

Sigelman, Lee, and Langche Zeng. 1999. "Analyzing Censored and Sample-Selected Data with Tobit and Heckit Models." *Political Analysis* 8:167–82.

Squire, Peverill, and Keith Hamm. 2005. *101 Chambers: Congress, State Legislatures, and the Future of Legislative Studies*. Columbus: Ohio State University Press.

Squire, Peverill. 1988. "Career Opportunities and Membership Stability in Legislatures." *Legislative Studies Quarterly* 13:65–82.

Squire, Peverill. 1989. "Challengers in U.S. Senate Elections." *Legislative Studies Quarterly* 14:531–47.

Squire, Peverill. 2007. "Measuring State Legislative Professionalism: The Squire Index Revisited." *State Politics and Policy Quarterly* 7 (Summer 2007):211–27.

Steen Jennifer, A. 2006. "The Impact of State Legislative Term Limits on the Supply of Congressional Candidates." *State Politics and Policy Quarterly* 6:430–47.

Stone, Walter J., L. Sandy Maisel, and Cherie D. Maestas. 2004. "Quality Counts: Extending the Strategic Politician Model of Incumbent Deterrence." *American Journal of Political Science* 48:479–95.

Stone, Walter J., and L. Sandy Maisel. 2003. "The Not-so-Simple Calculus of Winning: Potential U.S. Candidates' Nomination and General Election Prospects." *Journal of Politics* 65:951–77.

Taylor, Andrew J., and Robert G. Boatright. 2005. "The Personal and the Political in Repeat Congressional Candidacies." *Political Research Quarterly* 58:599–607.

Bios

Jamie L. Carson is an associate professor of political science at the University of Georgia. He has published broadly in the field of American politics and his research interests include congressional politics and elections, American political development, and separation of powers.

Michael H. Crespin is an associate professor of political science at the University of Georgia. Currently, his research is focused on the interaction between political geography and the U.S. Congress. His research has appeared in the *American Journal of Political Science*, the *Journal of Politics*, and other leading outlets.

Carrie P. Eaves is a PhD candidate in political science at the University of Georgia. She received an MPA from the University of Georgia in 2006. Carrie's primary research interests are American political institutions and congressional elections.

Emily O. Wanless is an associate professor of political science at Augustana College. She has published in the field of American politics and focuses her research on American political institutions, elections, and political ambition.