Ideology, Polarization and Candidate Entry

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ABSTRACT

Nicholas Lafayette Pyeatt: Ideology, Polarization and Candidate Entry
(Under the direction of George Rabinowitz)

This dissertation examines the role of incumbent ideology on the entry decisions of congressional opponents, particularly high quality opponents. In order to better understand the interplay between incumbent ideology and opposition entry, this relationship is investigated in three distinct types of elections: House primary, House general and Senate general elections. The findings strongly point to an advantage for clear ideological positioning in primary elections and in the majority of general elections. These findings have strong relevance for students of polarization and congressional behavior. Instead of ideological extremity being a detrimental strategy for incumbents, it serves to deter the entry of strong opponents for the majority of representatives and senators.

Dedicated to my wife, without her love, patience and support this would not have been possible.

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CHAPTER 1

An Introduction to Challenger Entry in Congressional Elections

For any incumbent congressman, there are two ways to be challenged. They can receive an internal challenge—one that comes from their own political party—or they can receive an external challenge—one that comes from the opposing political party. It is generally been thought the ideal ideological position for incumbents is different when considering the possibility of internal or external challenges. This dissertation examines the potential entry factors that lead to incumbent challenges both internal and external. The final results suggest that for most incumbents there is little difference in terms of the ideal position between the two types of challenges.

In Chapter 2, when looking at House primaries, I find evidence that incumbents receive an advantage from clear ideological positioning. For incumbents in primaries, one of the best ways to avoid internal challenges is to position themselves towards the ideological edge of their party.

In Chapter 3, when looking at House general elections, based on directional theory, I argue that there are two types of districts—sympathetic and antagonistic, and for incumbents from sympathetic districts, it is advantageous in terms of opposition entry to be more ideologically extreme. The basic reasoning is that as the median voter in such districts is oriented in the direction of the incumbent, then a clearer ideological position will serve to motivate the sympathetic parts of the electorate. With a better motivated electorate, high

quality potential opponents concerned with victory will be less likely to enter the race. The only incumbents that face penalties in terms of entry for extremity are those that represent districts that are naturally oriented in opposition to their position. In those districts, greater extremity will serve to motivate the electorate in opposition to the incumbent, leading a strategic challenger to see a greater potential for victory.

In Chapter 4, I investigate the role of ideological positioning in terms of sympathetic and antagonistic states for Senate elections. Similarly to the House, I find that senators from sympathetic states, the majority of all senators, have an incentive towards ideological extremity. Conversely, senators from antagonistic states, such as Arlen Specter before he changed parties or Ben Nelson (D-NE), face more difficult external opponents as they become more ideologically extreme.

Overall, this work finds that most incumbent congressmen are not cross pressured in terms of the ideal ideological strategies for internal and external challengers. Instead, most have incentives in terms of opposition entry for ideological extremity. The minority, officials such as Specter or Nelson, are cross pressured between internal and external challengers. Specter faced challenges from his own party due to his moderate stances on many social issues but his position in the general election was also uncomfortable due his moderate to conservative positions. In his case, the cross pressures were severe enough that he ended up changing parties. For most members of Congress, however, this cross pressure between internal and external challenges does not appear to exist. Instead, for those representing sympathetic states or districts, being more ideologically extreme is advantageous in terms of avoiding both high quality primary and general election candidates.

CHAPTER 2

An Unlikely Entry: Primary Challenges to House Incumbents

"If one's goal is electoral success, it is not rational to challenge an incumbent."

Louis Sandy Maisel, From Obscurity to Oblivion

Unlike countries with closed recruitment processes, the American system allows voters not one, but two opportunities per cycle to approve or reject incumbents. Yet, in many cases, incumbents are able to completely avoid primary contests. This is somewhat surprising, since, due to the length of congressional careers and the lopsided partisan nature of many congressional districts, challenging a sitting incumbent in a primary may be the only immediate way for would-be challengers to truly compete for a congressional seat. From that perspective, we might expect a large number of primary challenges to incumbents, yet they are relatively rare. Conversely, given the large number of institutional and political advantages available to incumbents and the low probability of victory, one might expect that primary challenges to incumbents would be virtually unheard of, yet they arise every congressional election cycle. Thus, to understand modern congressional elections it is essential to figure out when, and why, potential challengers decide to enter a primary. In this paper, I examine this very specific and relatively rare type of entry and seek to identify the factors influencing the strategic calculations of candidates that challenge an incumbent in a primary.

The central puzzle of this paper is to discover why and when politicians choose to run against a sitting member of their own party. Conventional wisdom suggests it should never

happen; incumbents simply have too many political advantages at their disposal. As a result, the otherwise impressive literature on challenger entry has tended to deemphasize primaries. Yet, primary challenges, and even defeats, occur with surprising regularity. For instance, in 2008, two incumbents from Maryland, comprising one-quarter of that state's House delegation, were defeated in primary elections (Rep. Gilchrest and Rep. Wynn, respectively). In the 2008 election cycle, out of the twenty-three total incumbent losses, four or roughly seventeen percent lost in the primary. Regular primary challenges and periodic incumbent losses such as these suggest that primary entrance decisions merit specific investigation.

In this paper, I adapt the standard calculus of candidate entry for the specific case of primary challenges. Using this approach, I find compelling evidence for strategic behavior among primary candidates. I find a number of factors that motivate serious primary challenges to incumbents. Incumbents that represent party dominated districts, face a scandal, and are ideologically moderate are all more likely to face challengers. Additionally, differences in ballot type, which can increase or reduce costs for potential challengers, play a substantial role in entry decisions, particularly among less competitive candidates.

Primary Elections and Candidate Entry

While the overall literature is comparatively limited, primaries have been found to be both strategically and normatively important. For instance, in areas where one party dominates, primaries may be the locus of political conflict (Key 1956; Jewell and Olsen 1982; for a different historical view see Turner 1953).

Potential primary candidates are responsive to their election environment. Maestas et al. (2006) found that individuals with ambitions for a congressional seat carefully weigh the benefits and costs of both the nomination and the general election before seeking office (also

Stone and Maisel 2003). Stone and Maisel, in their study of potential candidates, found that challengers were more worried about winning whichever election, primary or general, where they faced an incumbent. Remarkably in their research, candidates viewed both contests with similar estimations of success. On average, the respondents perceived probability of winning each election was between one-quarter and one-third, which shows that not only do candidates consider challenging an incumbent in a primary, but they view the probability of success as roughly comparable to facing an incumbent of the opposite party.

What factors motivate potential challengers to run against an incumbent? Challenging an incumbent is no easy task. Even in the best of years – when there is national anti-incumbent sentiment to 'throw the bums out' – in-party challenges might seem a long-shot at best. Incumbents tend to be well-funded, have more name recognition, and the resources to generate credit-claiming projects. To be successful, possible primary challengers must examine the partisanship of their district as their election hopes hinge on winning both a primary and a general election. Since the general election prospects are higher, challengers are more common in strongly partisan districts but, even then, generally only when they view the incumbent as vulnerable (Grau 1981; Galderisi et al. 2001; Goodliffe and Magleby 2001; Bibby 2000). Since nominations for safe party seats are more valuable and the benefits more likely to outweigh the costs, seeking these seats reflects strategic behavior on behalf of challengers (Maisel 1987).

What factors signal a vulnerable incumbent? Both the size of previous election victory and scandal have the potential to encourage an insurgent primary candidate as they are signals of potential weakness. Maisel and Stone argue that candidates consider an array of factors including how well an incumbent's ideology fits their district, their tenure,

demographic characteristics, fundraising ability and partisan organizations when making an entry choice (1997).

When challenged, how often do incumbents lose in their battle for re-nomination? The quick answer is very infrequently. Bibby (2000), looking at all congressional races between 1980 and 1998, finds that roughly ninety-nine percent of incumbents who ran for reelection were successfully re-nominated. But, of course, most of the time incumbents are not challenged; looking at races between 1994 and 1998, Maisel and Stone find that at least one-quarter of incumbents faced contested nominations (2001). Parsing out the clearly unqualified candidates, their results find roughly ten percent of incumbents faced serious challengers. As for the number of defeated members, that number is highly variable with higher numbers of incumbent primary losses in redistricting years. In 1992, nineteen incumbent members were defeated for their primary nomination (although the House Bank scandal played a role) and from 1946 to 1998 an average of approximately seven members per election year have been defeated for re-nomination (Goodliffe and Magleby 2001).

Since defeating a same-party incumbent is relatively uncommon, it is somewhat surprising that congressmen are regularly challenged for their nomination. Jacobson and Kernell argue that potential candidates act strategically, thus they will seek out conditions when victory is perceived as most likely (1983; also Maisel and Stone 1987). Maisel et al. (1990) find that candidates look at their entry choice both objectively (considering fundraising, partisan nature of the district, etc.) and subjectively (examining their personal reasons, ideology, etc.). In addition, Stone et al. (2004) find that potential candidates frequently make their decision, in part, on their personal as well as political feelings about

the incumbent.[1] Huckshorn and Spencer (1971) argue that because winning a primary (whether against an incumbent or not) adds cost to the election equation, most potential candidates will naturally seek to avoid one. However, if they choose to challenge an incumbent, then ideology is the most likely motivating factor. According to their research, half of the primary challengers interviewed identified ideology as their major reason for seeking office. Brady et al.'s (2007) recent work found that ideologically moderate incumbents were more likely to face challengers than more extreme members. These results correspond with Maisel's candidate interviews, which found that most people based their entry decision on a feeling that the time was right strategically or a certain issue was being ignored (1982).

Data, Measurement and Model

Expectations

As we would expect from Black (1972) and Jacobson and Kernell (1983), elite surveys, conducted by the Candidate Emergence Study, have found evidence of strategic decision making among potential primary candidates (for example, Maestas et al. 2006; Stone et al. 2004). These findings illustrate that potential primary candidates consider both the probability of winning and the value of the seat in question and those considerations should then be weighed against the expected cost of running for the office.[2] Following strategic entry logic, we should expect entry only when the probability of winning and the

1 If these personal considerations are widespread, it will interject a level of randomness into the entry decision. While I agree with the authors that personal feelings may be at play, due to their idiosyncrasy, they will be effectively impossible to model.

2 As this paper is focused solely on the primary, these factors (value of the seat/nomination, cost of the election and the probability of winning) are all in reference to the primary election.

value of the seat are greater than the costs of the campaign.[3] While the probability of winning, cost of the election and the value of the seat are not directly observable, it is possible to obtain proxies that will reflect the general concepts.[4]

Probability of Winning

Since, for serious challengers, campaigning is an inherently costly task in terms of both time and money, the decision to run for Congress requires strong consideration of the likelihood of victory.[5] Especially for those individuals currently holding elected office, a congressional challenge has the potential to cost them their existing position.

As congressmen serve a larger number of terms, their probability of defeat should decline. Long serving members have been repeatedly electorally tested in their district and should be more difficult to dislodge than relatively new members. Generally, challengers will face an uphill battle in terms of overcoming the incumbent's name recognition advantage but that weakness should be particularly pronounced when facing longer serving members.

One of the chief advantages of incumbents is their ability to point directly to legislative accomplishments and goods delivered for the district. Conversely, challengers must depend on their promises of future Washington action. While all members have some ability to deliver goods for the district, members that serve on power committees should, as a result of their privileged committee assignment, have even more results to highlight than the average congressman. Power committee membership allows members to gain legislative

3 Applying the model from Black and Jacobson and Kernell, we would expect entry when PB>C (with P being the probability of victory, B being the benefit from the seat and C being the cost of seeking the seat). Conversely, we would not expect entry when PB<C.

4 Of course, potential challengers will not be able to measure these concepts either due to the inherent uncertainty of an election campaign. As such, candidates will likely be using proxy indicators as well.

5 Obviously, truly frivolous challenges will not be particularly costly as the candidates will not either have resources or the desire/ability to spend on the race. Fundamentally, the more serious the challenger is, the more predictable their behavior should be.

success on the most important political issues as well as illustrates acceptance from the national party leadership. Since it would reduce the probability of winning the primary, opponents should be more wary of challenging power committee members in primaries.

Redistricting has the potential to affect the probability of an election victory. As previously mentioned, voter familiarity is a chief advantage of incumbents; thus, alterations to district boundaries can reduce the incumbency advantage. Additionally, massive changes to the district lines may introduce a new group of political elites interested in a congressional seat. Most of the years with the largest numbers of incumbent primary losses are redistricting years, suggesting that challenges should be more common when district boundaries are redrawn.

It has been noted that primary electorates are, on average, both more politically knowledgeable and ideologically extreme than the general electorate. Thus, primary voters may be less accepting of moderate positions than the broader voting public (Brady et al. 2007). As turnout in primaries tends to be much smaller than in general elections, challengers will need to motivate a smaller number of total voters. Ideologically extreme voters should be easier to motivate than moderate voters, so in primaries, challenging a more moderate member may increase the probability of victory.[6] Theoretically, the impact of ideology would be expected to be the most pronounced in states with closed primaries. As such a system limits primaries to voters willing to register with a party, the primary electorate would be more extreme in such states (Gerber and Morton 1998). Incumbent moderation should

6 A good example of this type of challenge is Tim Walberg's challenge of incumbent one term congressman Joe Schwarz. Walberg challenged and defeated Schwarz in the Republican primary for the seventh district in Michigan in 2006, primarily criticizing his opponent for moderation on a small number of social issues.

increase the probability of challenger victory, while extremity should reduce the probability of primary victory.

Theoretically, one of the most important factors influencing the probability of challenger victory is whether the incumbent is facing a scandal. Members facing ethical charges should be more vulnerable to challengers both in the primary and general election. The appearance of scandal, whether proven or not, should make primary challenges more likely as the probability of challenger victory increases.

Cost of the Election

There are three state ballot arrangements that have the potential to influence the cost of a primary contest: party ballot restrictions, primary run-offs and blanket (or 'jungle') primaries. In nine states, party conventions have control over which candidates make the primary election ballot.[7] Generally, in these states challengers must secure a certain percentage of the vote at convention in order to be on the ballot. This requirement should make an incumbent challenge more costly because, in effect, the challenger must wage two battles against the sitting member.[8] Thus, primary election contests should be less likely in states where access to the primary ballot is comparatively restricted, with the effect more pronounced for less serious candidates.

Eight states have electoral rules that require a primary winner to received a certain percentage of the primary vote in order to proceed to the general election.[9] If no candidate

7 The nine states are Colorado, Connecticut, Iowa, New Mexico, New York, North Dakota, Rhode Island, Utah and Virginia.

8 This was the situation in Utah's second district. In 2000, challenger Derek Smith had to prevent Rep. Merrill Cook (R-UT) from receiving more than 60% of the vote at the state convention before being able to challenge in a primary election. While the precise threshold differs from state to state, in all cases the convention requirement adds cost to the battle against an incumbent.

receives that percentage in the first round of voting a primary runoff is held to determine the nominee. As this ballot arrangement potentially increases the cost of the election for the potential challengers, it would be expected that primary contests should be less common under this arrangement.

One ballot arrangement that has the potential to reduce the cost of entry is that of a blanket primary. This method was practiced, until recently, in three states and allows voters of all parties to cast a vote for members of any party for each office in the primary.[10] This system has the potential to aid a primary challenger as voters can be drawn from either party. Also, the free-for-all nature of the system adds a further level of unpredictability that could alter the final outcome.

Prospective challengers should examine the previous general election percentages of the incumbent in order to determine if the incumbent shows signs of electoral vulnerability. In many cases, a weak showing of the incumbent in the previous election may create an impression among primary voters that the incumbent needs to be replaced, thus lowering the electoral cost.[11]

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9 The states of Alabama, Arkansas, Florida, Georgia, Mississippi, Oklahoma, South Carolina and Texas all require a primary winner to receive at least 50% of the vote. Two other states, North Carolina and South Dakota also use a runoff system but have lower percentages of the vote (40% and 35% respectively) required for a candidate to proceed to the general elections. These higher thresholds lead to the run-off rules being used much less frequently than in the other eight states. For this analysis, I will focus only on the eight states that require a majority of the vote in a primary. All of the states listed continue to use the practice expect for Florida, which repealed its primary run-off rules prior to the 2006 election.

10 The states that used this method were Washington, Alaska and California. California used this system from 1998 to 2001, when it was overturned in California Democratic Party vs. Jones. Washington stopped using this system prior to the 2004 primary. Alaska stopped using a blanket primary in 2001. Louisiana previously used a similar system but one that led to quite different results. In that state, the two candidates with the largest percentage of the vote go on to a runoff provided that no one receives fifty percent. This frequently has led to races between candidates of the same party in the general election. As the Louisiana system was so unique (it was changed in 2006), it has been excluded from the analysis.

Value of the Seat

The value of the seat is harder to conceptualize than the other factors expected to influence the probability of entry. First, potential candidates have a constrained ability to seek seats based on where they live. Second, there is a rough equality of benefits across congressional seats in terms of staff, salary, etc. Most of the differentiation between seats, such as placement on committees, leadership, office space, etc. is determined in Washington and is not directly related to the seat in question.[12]

Since there is relative consistency between the values of congressional seats, the chief difference should involve whether or not the candidate is challenging a member of the majority party. Because of their greater ability to influence policy as well as having more institutional perks, potential members will place more value on seats in the majority party.[13] Thus, due to the relatively higher value of the seats, there should be a larger number of challenges to members in the majority.

Because they require fewer resources to maintain, party dominated seats are more valuable. Therefore, primary contests in partisan dominated districts should also be more likely than those in marginal districts, since there is less cost to holding the seat in the general

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11 One example of this type of this scenario was the 2004 Missouri Democratic Gubernatorial primary, where the incumbent Governor Bob Holden was defeated for re-nomination by current US Senator Clair McCaskill. McCaskill was able to translate general dissatisfaction among Democrats with the Governor as well concerns about his electoral strength (nicknamed 'OTB' or One Term Bob) into a primary victory.

12 Some seats have been linked to certain committee assignments, such as the link between the southeast Virginia seat and membership on the House Armed Services Committee. Despite a small number of such arrangements, generally seats in the House of Representatives can be considered roughly comparable in value.

13 Some possible candidates may place a greater value than others on a congressional seat in general, a difference that is exceedingly difficult to operationalize. Rather than investigating the motivations of individual candidates, which would require elite level surveys, this paper takes a macro approach focusing only on the broader factors that predict primary challengers.

election. Challengers considering a run against an incumbent have to consider the possibility of losing in the following general election.[14]

One factor that may make a congressional seat more valuable is state legislative term limits. State legislative service is one of the most common previous positions for congressmen and many states in the past two decades have adopted term limits for those positions. In states with legislative term limits, seats in Congress should be more valuable as a number of experienced political elites may be losing their positions in each election cycle. Additionally, term limited legislators will face a lower cost for their run for Congress than will legislators from states where they could remain in their positions indefinitely. Term limits, as they reduce entry costs for a large set of potential candidates, should create a larger pool of potential primary challengers than states without such laws. Finally, congressional seats in smaller states may be more valuable than seats in larger states as those seats would receive more local media attention and be more conducive to advancement into the Senate or the governor's office.

Data

The data consists of all congressional primary elections between 1998 and 2004.[15] Each case is an individual district (or an incumbent, depending on perspective) but the sample had to be reduced from 1740 to 1512. Open seats were omitted, because they did not have an incumbent running and would present unique characteristics, which have been

14 A good example of this situation is when Republican incumbent Merrill Cook (UT)was defeated by Derek Smith in the 2000 primary. That fall, Smith was defeated by Democrat Jim Matheson. While this district is not marginal in terms of presidential elections, the primary served to weaken the Republican candidate and aid Matheson in winning the seat.

15 The time period is designed to be long enough to ensure that the effects are not driven by a single election cycle but are limited due to some asymmetry of available data.

studied separately in the literature.[16] Independents running for reelection were eliminated since they were not constrained by the normal direct primary. Cases where two incumbents were pitted against each other due to redistricting were omitted since in those cases the competition was forced, rather than the result of strategic action. Due to the peculiarity of the inter-decade redistricting in Texas and Pennsylvania in 2004, district continuity data was not available and those cases had to be excluded.[17]

Candidate name, party, terms, age, state, percentage presidential vote, committee status, congressional delegation size and district number were all gathered by using the National Journal's Almanac of American Politics. Previous incumbent vote percentages and the number of primary challengers were collected from the America Votes series and The Almanac. The amount of money raised by challengers was gathered from the Federal Election Commission website. The ideological data came from the DW-NOMINATE scores from Keith Poole's website. Partisan strength was measured by using Cook's PVI (Partisan Voting Index), which is calculated based upon each district's difference in presidential vote from the national average. Scandal was collected from Congressional Quarterly Almanac's report on the Committee on Standards of Official Conduct. Redistricting data came from Michael Crespin's measure of district change.

Measurement

The dependent variable will be two separate measures of the number of challengers. For the first model, all challengers will be counted with no regard to their seriousness. From this count a dichotomous measure will be created, testing the

16 Candidate entry in open seats is generally viewed as the norm, while this paper is focused on the much less common in-party challenges to incumbents.

17 The data set was created by the author and is available by request.

probability of facing a challenger of any type.[18] Of greater substantive interest is the second model, which uses a dichotomous dependent variable to assess the probability of facing a serious opponent.

One pertinent issue is parsing out serious challengers from the wider number of frivolous challengers. In this analysis, serious contests are identified as those where the challenger spends at least $50,000 according to the FEC.[19] This threshold is set high enough that it should exclude candidates with no chance of victory, while at the same time casting the net wide enough to include individuals likely to exhibit strategic behavior.[20] There is also a natural trough in the data, with the majority of challengers raising little or no money and a smaller subset raising $100,000 or more. There are a very small number of candidates in the range from $50,000 to $100,000, so doubling the threshold does not seriously alter the number of cases.[21] Theoretically, I believe that it is important to use the lowest reasonable threshold which excludes cases that are clearly frivolous. Candidates

18 This measure is imperfect because in a small number of cases an incumbent faced multiple challengers. While losing information is clearly to be avoided whenever possible, in this case it is necessary to compress this relationship into a binary choice. Theoretically, the main reason a strategic elite would challenge an incumbent is visible weakness, and these factors should be apparent to multiple political elites. The occurrence of multiple challengers in the same election merely reflects the visibility of such cues. A count model of all challengers has been computed and is included in the appendix.

19 If this analysis is extended for a longer period, allowances would need to be made for changes in the relative value of money.

20 I originally attempted to replicate the Jacobson measure of quality challengers, but found it impossible. No information could be found on many of the unsuccessful candidates with common surnames. Rather than assuming that they were not quality challengers, I took another tact. As a test, in 2000, I took all of the candidates identified as serious under my system and looked into their backgrounds to determine if they would qualify as quality using the Jacobsen measure. While the overlap was not universal, it did occur in roughly three quarters of cases. Additionally, several of the most successful primary challengers, including a few of the winners, did not qualify as quality under that measure. Instead of conceptualizing my measure as one of quality, rather I view it as a threshold for basic seriousness.

21 As a robustness check, the model was computed using a threshold of $100,000. The results remain consistent and are available in the appendix.

willing to spend and/or raise more than a very small amount of money are likely to exhibit strategic behavior.[22]

Candidate Measures (Majority Party, Terms and Power Committee)

Several variables were collected based on the descriptive characteristics of the members. *Majority Party* is a dichotomous variable, with the higher value being Republicans as they were the majority party in this period. *Terms* is a count variable based upon the number of times that the member has been elected. Therefore, a member who was elected for the first time in a special election in 2001 would be recorded as serving one term in 2002, identical to the person elected for the first time in 2000.[23] *Power Committee* is a dichotomous variable with the higher value reflecting that the member sits on one of the three power committees (Rules, Appropriations, or Ways and Means).

Ideology

Ideology is the absolute value of the Poole and Rosenthal DW-NOMINATE score, making all higher values more extreme, both in conservative and liberal directions. Unlike the findings of Canes-Wrone et al., who focused on general elections, extremity should be an advantage to members in the primary as they face a more ideological part of the electorate (2002).[24]

Political Factors (District Partisanship, Previous General Election Per and Redistricting)

22 The intuition for this dichotomy echoes the work of Canon (1993).

23 This is a slightly different interpretation than the one used in the Almanac, but I believe that it more accurately reflects the relevant factor which is the number of times the member has faced the electorate.

24 It is possible that in some cases, strongly partisan dominated districts for instance, the median primary election voter and the median general election voter might look very similar to each other. However, in the vast majority of cases, the median primary election voter will be more extreme than the median general election voter.

District Partisanship is based upon the Partisan Voting Index (PVI) and is coded in the direction of the party holding the seat.[25] As this measure increases, challenges should be more likely, as the seat is of more value to a strategic elite. In terms of the primary election, holding a more marginal seat may be an electoral advantage, as it reduces the attractiveness of the seat to competitors. *Previous General Election Per* is the percentage of the vote that the incumbent received in the most recent general election, including special elections. As this value will reflect a more politically successful member, I expect higher percentages will lead to a reduced probability of facing a primary opponent. It should be noted that this expectation runs counter to the findings of Brady et al. (2007).

Redistricting is a measure created by Michael Crespin (2005). Using his measure of the continuity of the district, a higher value reflects that a greater portion of the district is retained after redistricting. This factor can play a role in the calculations of a strategic elite because the more an existing district changes, the weaker the member's incumbency advantage.

State Factors (Ballot Restrictive State, Run-off State, Blanket Primary State, Open Primary)

Ballot Restrictive State is a dichotomous measure of the nine states where the party convention has control over the candidates that make it onto the primary ballot. *Run-off State* reflects the eight states that require a primary winner to receive 50% of the vote or compete in a primary run-off election. *Blanket Primary State* is a binary variable with positive values for the three states that used a blanket primary for all or part of the period

25 For example, if seat A is currently held by a Republican and had a PVI of R+1.1, it would be coded as 1.1. Conversely if seat B was held by a Republican and had a PVI of D+1.1 it would be coded as -1.1. Previous models were also computed using two party presidential vote in the district and the results are comparable.

in question. *Open Primary* is a dichotomous measure of whether the district is in a state where the primary is not limited by party registration.[26] While this measure does not include all of the variations within primary types, it reflects whether the electorate is limited to partisans.[27] As I expect the effects of ideology to be more pronounced in states with closed primaries, *Open Primary* will be interacted with ideology in order to isolate the effects of ideology under the two types of primary.

Scandal

Possibly the most important factor in a serious challenge, scandal, is also the most difficult to operationalize. Because of their visible political weakness, members facing scandal should be more likely to be challenged in both the primary and the general election. The difficulty is that there is no definitive measure of what exactly constitutes a scandal. Also, the accusation of scandal, provided it is plausible, has the potential to increase challenges as well. In an imperfect attempt to get at both of these issues, I chose to use the instances of reported investigation (whether they ended in a penalty or not) in the Congressional Quarterly Almanac's report on the House Committee on Standards of Official Conduct. It has been noted that many scandals avoid investigation by this committee due to partisan or institutional reasons but, generally, the most blatant of scandals are examined. This method has the advantage of being systematic, if underestimating the instances of scandal or accusations of scandal.

Results

26 This variable comes from the America Votes series and excludes both closed and semi-closed (referred to as modified in the series) primaries. These values were excluded because the key factor for this analysis is that cross partisans are prevented from participating.

27 Blanket primaries can be thought of as open primaries because the voters will have the ability to choose candidates from a party without pre-registering. Since such a system also has the ability for incumbents to draw on their bases outside of their respective parties, blanket primary states are not coded as closed primary states.

When considering the strategic concerns of potential candidates, we expect to see differences between serious and non-serious challengers. When looking at all challengers, there will be limited evidence of strategic behavior as the challengers both have a lower likelihood of victory and have less personally and politically invested in the race. Conversely, among more serious challengers, as their races are more costly, we should observe clearer evidence of strategic action.

In Table 1, we observe limited evidence of strategic behavior when looking at the probability of facing challengers of any type. Most of the variables exhibit the expected signs, but few variables reach statistical significance. Importantly for the theory, ideology operates in the expected direction and is statistically significant. The surprising fact, however, is that the impact of ideological extremity is significant only in open primary states.[28] In those states, incumbent extremity offers a clear benefit in the form of a reduced probability of facing a primary challenger. In closed primary states, the effect of ideology is signed in the correct direction but not statistically significant.

When looking at all challengers, it does appear that higher election percentages in the previous race reduces the probability of facing a primary opponent. Additionally, incumbents in ballot restrictive states are less likely to face primary challengers as the institutional features of those states increase the cost to potential challengers. As expected, serving in a more partisan district increases the probability of challenge, which is reasonable because a 'safer' district is both more desirable to represent and the primary is more likely to be the locus of political competition.

28 The interaction will interpreted in the manner described by Brambor et al. (2006).

Restricting the data to only serious candidates, we observe much greater evidence of strategic behavior on the behalf of primary entrants.[29] Contrary to expectations, incumbents that serve more terms are more likely to face a challenger, although the effects are relatively modest. As expected due to their prominent positions, members serving on power committees were less likely to face serious challengers. Representatives that have been investigated by the House are clearly more likely to face a primary challenger. This finding suggests that primary challengers are likely to react to incumbent impropriety (whether proven or not) when deciding whether to enter the race.

Members that were more successful in their previous election were less likely to face a serious challenger. As expected, running in a ballot restrictive state does not have the depressing effect on serious challengers that it does on all challengers. Running for reelection in a state with a blanket primary increases the likelihood of a congressman facing a serious challenger from their own party. Blanket primaries increase the uncertainty in a primary election and it seems that challengers look at this type of election as strategically advantageous. As with all candidates, members representing more strongly partisan districts were clearly more likely to face serious challengers. These seats are more valuable and make the overall electoral calculus more attractive to potential candidates. Recall, a challenger that faces an incumbent still needs to consider the general election, when considering entering in a primary, assuming that election, rather than protest, is their ultimate goal.

29 Given that the number of positive cases in this logistic regression is small, there may be concern about bias in the estimates. In order to react to that issue, a rare event logistic regression was also computed with the results presented in the appendix. Allowing for the estimates to be adjusted based on the small number of positive values does not lead to substantial changes in interpretation.

Importantly for theory, we see among this smaller subset of challengers that ideological extremity serves to decrease the likelihood of challenge.[30] Looking the impact of ideology on the predicted probability of facing a serious challenger in Figure 1, the interesting result is that the effect seems more pronounced in open primary states than closed primary states.[31] This result, which holds under a variety of model specifications, suggests that challengers in closed primary states are less reactive to the ideological positioning of the incumbent than challengers in open primary states. It should be noted that effect of extremity in closed primary states also illustrates this deterrent effect of ideological extremity but does not reach statistical significance. Overall, it appears that serious challengers are examining incumbents' ideological positioning and are more likely to enter if the members are positioned moderately.

Conclusion

This research strongly suggests that possible primary challengers engage in strategic behavior when considering entry against an incumbent congressman. Strong candidates consider the ethical and ideological positions of the incumbent, their institutional and political strength and the partisanship of the seat. Overall, the results point to primary challengers weighing the probability of victory, the cost of the election and the value of the seat. Rather than entering into a difficult race without examination of the consequences, intra-party challenges represent another location of strategic political behavior.

Coming at the question from another direction, these findings serve to complement the results of Brady et al. (2007) who were concerned with the role of primary elections in

30 Previous versions of this model have been run without the interaction on primary type and those results consistently illustrated that incumbents could successful decrease the likelihood of a primary challenger through greater ideological extremity.

31 This figure was creating using the SPOST commands from Long and Freese (2005) and holding all other predictors to their mean values.

producing the ideological polarization of American political parties. In this study, I find that ideological moderation not only encourages primary challenges but encourages entry among the smaller subset of serious challengers. This is critical, because if an incumbent is really concerned about reelection, their principle concern will be candidates with a legitimate chance of winning. Contrary to expectations, this effect is particularly pronounced in open primary states and comparably muted in closed primary states. However, across all states, if an incumbent wants to play it safe as far as the primary electorate is concerned, other than avoiding scandal, ideological extremity is one of the best ways, under their control, to reduce the risk of a primary contest.

This project also finds that electoral strength or weakness in the general election carries over to the subsequent primary. If an incumbent barely holds on to win a general election, not only are they more likely to face a general election opponent, based on this analysis, they are also more likely to be challenged by a member of their own party. Additionally, while our expectations might be that incumbents gain an advantage from serving a greater number of terms in office, these results show that longer serving members are more likely to be challenged both by more and less serious challengers. The results suggest that power committee membership is a more advantageous factor for incumbents seeking to avoid primary challengers than extended service. In other words, in this study, political elites are more likely to challenge a long standing member but less likely to challenge a member that serves on one of the House's most powerful committees.

Finally, this analysis suggests an important role for state and district factors when considering the entry decisions of primary opponents. While representing a strongly partisan district has clear benefits in the general election, in the primary, it is better to be a member

from a marginal seat. For incumbents, they are more likely to avoid a primary challenge if they are from a state with strong ballot restrictions, but it will only deter weaker challengers. Blanket primaries, however, encourage more serious candidates to emerge, likely viewing the format as advantageous.

Table 2.1: U.S. House Incumbents Facing a Primary Challenger of Any Type 1998-2004

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.02 (.02)
Power Committee	-.09 (.14)
Redistricting	-.01 (.01)
Ideology	-.79 (.74)
Open Primary State	.63 (.64)
Open Primary State*Ideology	-1.15 (1.28)
Scandal	.73 (.71)
Election Cost	
Previous General Election Per	-.02 (.01)*
Ballot Restrictive State	-.75 (.28)*
Blanket Primary State	.12 (.34)
Run-off State	-.36 (.27)
Value of Seat	
Majority Party	.15 (.25)
District Partisanship	.06 (.01)*
Term Limit State Leg.	-.11 (.23)
Congressional Delegation Size	.00 (.01)
Time	
Presidential Year	.14 (.19)
Constant	.49 (.99)
N	1512
Pseudo R^2	.04
% Correctly Predicted	78%
Effect of Ideology Closed Primary States	-.79 (.74)
Effect of Ideology Open Primary States	-1.94 (.88)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

Table 2.2: U.S. House Incumbents Facing a Serious Primary Challenger 1998-2004

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.06 (.02)*
Power Committee	-1.10 (.31)*
Redistricting	-.02 (.01)
Ideology	-.74 (1.31)
Open Primary State	.76 (.92)
Open Primary State*Ideology	-3.92 (2.08)+
Scandal	2.35 (.92)*
Election Cost	
Previous General Election Per	-.03 (.01)*
Ballot Restrictive State	.39 (.26)
Blanket Primary State	.95 (.40)*
Run-off State	.61 (.38)
Value of Seat	
Majority Party	.61 (.42)
District Partisanship	.08 (.02)*
Term Limit State Leg.	.35 (.27)
Congressional Delegation Size	.00 (.01)
Time	
Presidential Year	.50 (.34)
Constant	-.73 (1.38)
N	1512
Pseudo R^2	.12
% Correctly Predicted	95%
Effect of Ideology Closed Primary States	-.74 (1.31)
Effect of Ideology Open Primary States	-4.66 (1.68)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

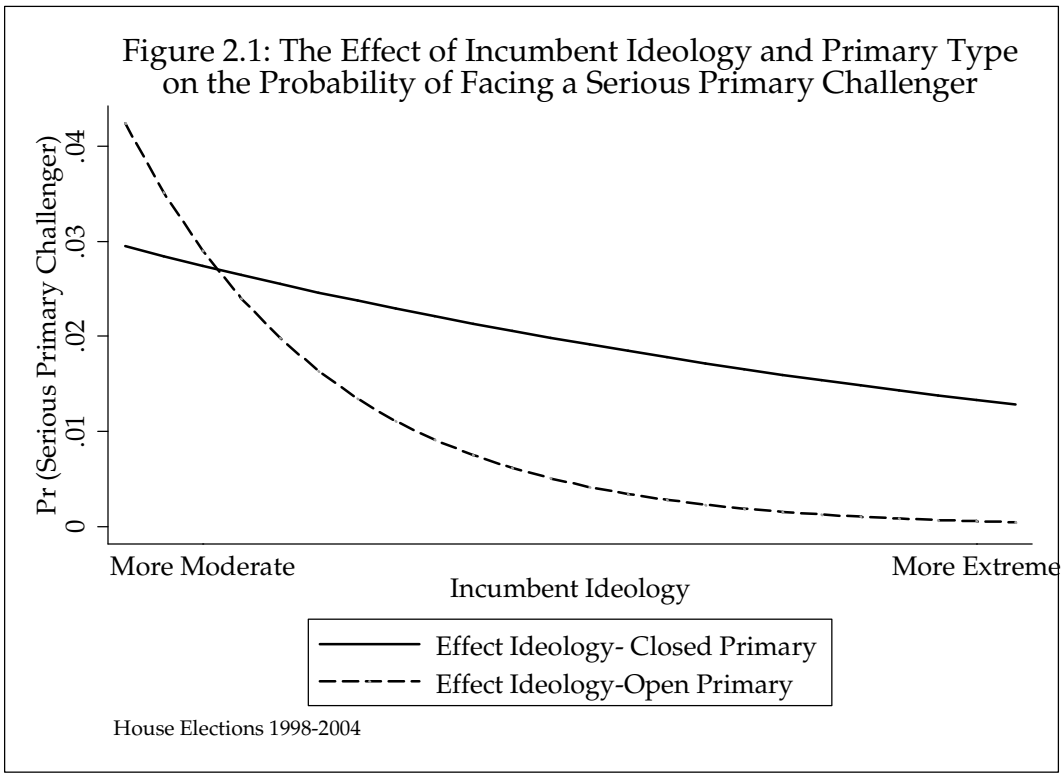
Figure 2.1: The Effect of Incumbent Ideology and Primary Type on the Probability of Facing a Serious Primary Challenger
Pr (Serious Primary Challenger)
0
.01
.02
.03
.04
More Moderate
More Extreme
Incumbent Ideology
Effect Ideology- Closed Primary
Effect Ideology-Open Primary
House Elections 1998-2004

CHAPTER 3

Ideology and Candidate Entry in U. S. House Elections: A Direct or Conditional Effect?

What effect does an incumbent's ideology have on the type of general election challengers that they face? Whether or not an incumbent faces a quality challenger is important to election scholars because of the strong link between candidate quality and election outcomes (Jacobson 1989). While incumbents are difficult to defeat under most circumstances, the quality of the challenger that they face plays a major role in their ultimate electoral result.

There have been relatively few works that have tried to directly link challenger quality with incumbent ideology. Bond et al. (1985) found that incumbents who were further away from their constituencies were more likely to face quality opponents. Additionally, Canes-Wrone et al. (2002) found that incumbents that were more extreme received a lower percentage of the vote. Taken together, these findings suggest that incumbents have strong incentives to place themselves near the middle of the ideological spectrum.

This intuition, however, might not be completely correct. At the least, it seems partially contrary to the predictions of the directional theory of voting (Rabinowitz and Macdonald 1989). Under directional theory, greater ideological extremity is valuable, since it provides a clearer signal to the voters, provided that an incumbent is oriented in the same direction as the median voter in their district. When an incumbent is oriented counter to the median voter in their district, ideological extremity should be a costly behavior as it is stimulating the electorate to oppose rather than support the incumbent. In either scenario, the

electorate requires that politicians appear responsible, which provides a limited constraint on their ideological extremity.

Thus, directional intuition suggests a role for ideology on candidate entry that is conditional on the type of district at play. In districts ideologically antagonistic to the incumbent (i.e. in which the ideological preference of the district median runs counter to that of the incumbent's party), greater ideological extremity is a costly behavior, increasing the likelihood of facing a formidable challenger. When looking at representatives from districts ideologically sympathetic to the incumbent (i.e. where district and incumbent party ideology are in the same direction), the effect of ideology is reversed; greater ideological extremity should lead to a lower probability of facing a quality opponent. While the minority of Congress, who represent antagonistic districts, has an incentive towards moderation in terms of challenger entry, most congressmen represent sympathetic districts, therefore, the majority of Congress has a motivation towards relative ideological extremity. If these directional-based intuitions are supported empirically, the conventional wisdom, that ideological extremity hurts incumbents in terms of quality challenger entry is true but only in a subset of congressional districts. Most critically, the pressure on incumbents to moderate is a more selective and less general than is commonly assumed.

Candidate Emergence and Incumbent Characteristics

What factors serve to predict the probability of a candidate entering against an incumbent? In their seminal work, Jacobson and Kernell found that strategic politicians will enter when they see their perceived chance of victory to be the highest (1983). Their work modeled the entry decision calculus as one where potential candidates measured their probability of winning, the value of the seat and the cost of the election. This analysis of the

costs and benefits of entry is still widely used throughout the discipline, although, recent work, focused on potential candidates, has modeled ambition as a preceding step in the entry process (Maestas et al. 2006).

Looking at candidate entry, Bianco (1984) finds that challengers are more likely to emerge when incumbents do less well in terms of previous vote share (see also Squire 1989b). Similarly, Krasno and Green note, "[T]he cost of a tight election for an incumbent is the increased probability of facing an even tougher challenger (if possible) the next time around, in turn leading to another close call, or worse" (1988, 932). Thus, previous incumbent vote share is critical to potential entrants because it is both a reflection of incumbent strength and district partisanship (see Kazee 1983; Maisel and Stone 1997).

Furthermore, Bianco finds that challengers are more likely to emerge from the in-party when the economy is doing well and challengers are more likely to emerge from the out-party when the economy is doing poorly (1984). Finding that national events drive House elections is consistent with Jacobson's work on candidate emergence and strategic challengers. Jacobson finds that more qualified candidates are likely to run when the national conditions favor their party, specifically when personal income or presidential popularity change (1989; opposing view Born 1986). These results are particularly important given that Jacobson's work finds clear evidence that quality challengers are much more likely to lead to incumbent defeats. In other words, changes in the partisan breakdown of the House are strongly related to both national trends and challenger emergence.

While potential challengers react to the national political environment and the incumbent's political strength, what role does incumbent ideology play in the entry decision? Overall, the relationship between challenger entry and ideology has received relatively

limited scholarly attention. The chief finding, from Bond et al. (1985), discovers a moderate effect for ideological distance in terms of promoting potential challenges. Their work on quality candidate entry finds that previous incumbent percentage and district partisanship are both strong predictors of an incumbent facing a quality challenger. To analyze the effect of ideological distance, Bond et al. created a measure of district ideology using a series of demographic predictors. Ideological distance was then measured using the difference between an incumbent's average support for the Americans for Constitutional Action (ACA) and the ACA scores of incumbents of the same party, representing similar demographic districts. Their findings were that members that were further away from their districts' median were more likely to face better financed and overall more qualified challengers, although not necessarily more politically experienced candidates. [32]

While Bond et al.'s work does not exactly test the effect of extremity on entry, it strongly suggests that if incumbents are out of step with their district's median voter, then they are more likely to face quality opponents. If one assumes that most districts' medians are not particularly extreme, then the results from Bond et al. point toward a penalty for being extreme, at least relative to one's district.

This assumption comports nicely with recent findings by Canes-Wrone et al. that shows when incumbents become more extreme, they generally receive a lower vote share (2002). Their work also finds that as members of Congress vote more frequently with their party, they become less likely to be reelected. These two pieces, together, suggest that incumbents may be stung twice by ideological distance from their electorate, once through the emergence of better challengers and again through reduced vote margins.

32 Although, the institutional structures are substantively different, it should be noted that Adams and Squire (1997) find, looking at the Senate, that incumbent ideology does not appear to play a major role in the probability of an incumbent senator facing a quality challenger.

The work of Bond et al., Bianco and Canes-Wrone et al. are all generally consistent with the proximity model of voting. Proximity theory expects voters to have locations in a policy space and to select the politician whose position is nearest to their own (Downs 1957; Davis et al. 1970). This implies, at least in unidimensional competition, that the position of the median voter is dominant. This contrasts with the directional model, where the ideological orientations of voters are more general and broadly divided between sides. This means that in the unidimensional case, the median voter will be on one side or the other of the ideological spectrum, and suggests that if the incumbent operates on the same side, then there is no disadvantage in terms of the probability of victory for being reasonably extreme (Rabinowitz and Macdonald 1989).[33] As voters' orientations are general, rather than specific, greater extremity in districts such as these provides the electorate with clearer, more distinct signals to indicate to the electorate what side the incumbent is on. Based on this logic, directional theory has different expectations between districts that are sympathetic and antagonistic (Rabinowitz et al. 2007). In sympathetic districts (those where the incumbent is on the same side as the median voter), ideological extremity is a benefit, but in antagonistic districts (those where the incumbent and the median voter are on opposite sides) there is a marked cost to extremity. This theory broadly comports with Bond et al. and Canes-Wrone et al in one way, that is the idea that the incumbent should operate in sync with their district. However, it differs in its view about the incentives that candidates face in sympathetic districts.

Expectations

33 One critical caveat is that representatives must operate within the region of acceptability. Provided that a candidate is not so ideologically extreme that they stray from this region, extremity is not penalized. For the purposes of this paper, the assumption is made that all incumbents operate within the region of acceptability. That assumption was not made lightly and analyses have been run omitting the most extreme members and the results remain substantively identical to those presented in the text.

Fundamentally, this piece incorporates ideology into the Jacobson and Kernel framework of candidate entry (1983; see also Black 1972). Their model illustrates that the probability of entry is related to the probability of victory, the value of the seat in question and the cost of the election. Central to this analysis is the idea that the ideology of the incumbent has the potential to influence the probability of challenger victory and thus change the likelihood of candidate entry.[34]

Probability of Victory

Based on the work of Rabinowitz et al. (2007), I expect that the way ideology affects entry is conditional on the type of district at play. If the median voter in a district is oriented in the incumbent's ideological direction, then greater levels of ideological extremity will discourage quality candidates from entering. This is based on the idea that as the median voter is already disposed towards the view of the incumbent, greater ideological extremity will serve to make the activation of the median voter easier. Activation is critical to the directional view of elections as voters lack specific ideological positions and politicians need to provide them with clear signals in order to motivate support. As members projecting a clear directional orientation will have an easier time activating the electorate, the probability of entry should decrease with extremity in this type of district.

Conversely, in districts where the median voter is oriented counter to the direction of the incumbent, greater levels of ideological extremity in favor of their party should encourage quality challengers from the opposing party to enter. As the median voter is not naturally inclined towards the incumbent's policy direction, greater levels of extremity will make it more difficult for the incumbent to maintain the majority of the district, even if other

34 In this paper, the Jacobson and Kernell model will be used as way to conceptualize the potential predictors rather than as a direct use of the model.

factors (such as visibility, constituency services, etc.) are in their favor. As the probability of the challenger winning is increasing under this scenario, quality challenges should be more likely.

While ideological positioning is the principle interest of this piece, it is important that the overall model be fully specified. In this regard, freshmen members, individuals facing their first election since their initial election, should see more quality challengers than experienced members. A freshman member will have the smallest possible incumbency advantage and, as such, should offer a potential challenger a higher probability of winning. As previously observed in the literature, the partisanship of the district is also a key predictor of challenger emergence. An incumbent who holds a district more strongly oriented in their direction in terms of partisanship should have a higher probability of victory than a member representing a more marginal seat. Therefore, the more partisan the district is in the direction of the incumbent, the less likely a quality challenger should emerge.

Some incumbents are more politically powerful than others. Therefore, one would expect that members with stronger political support would be less likely to draw challengers than members that are comparatively weaker. While there are a number of ways to consider incumbent strength, one straightforward method is to look at their previous electoral success. Members who won their previous election by larger margins should see a lower probability of facing a quality challenger than members who were less successful.

Value of the Seat

The value of the seat is harder to measure than the factors expected to influence the probability of winning. First, potential candidates have a geographically constrained ability to seek seats. Second, there is a rough equality of benefits across congressional seats in terms

of staff, salary, etc. Most of the differentiation between seats, such as placement on committees, leadership, office space, etc. is determined in Washington and is not directly related to the seat in question. However, as a seat in the majority party is more valuable to potential candidates, members of the minority party will be more likely to face quality challengers; since, if the challenger wins the election they are likely to be in the majority party.[35]

Cost of the Election

There are a number of factors that can influence the cost-benefit calculus of the election. As previously observed by Jacobson, challengers should be highly responsive to the overall state of the country, particularly the economy and presidential popularity (1989). Thus, when adjusted by the incumbent's party, presidential approval, income change and midterm elections should all have the ability to predict quality challenger entry. For members of the same party as the president, higher presidential approval ratings should decrease the chance of facing a challenger while lower ratings should make challenges more likely. One would also expect that robust income growth or decline would similarly alter the electoral calculus for potential candidates. Finally, it has been widely observed that midterm elections generally see seat losses for the party of the president.[36] These three macro factors, adjusted by party, should all play a role in predicting quality challenger emergence as they change the likelihood of a successful challenge.

35 Clearly, there is year to year variation in the attractiveness of seats for the majority and minority party. For instance, in 2006, a year widely predicted to be poor for the Republicans saw relatively few minority party members, i.e. Democrats, face strong challengers. This year to year variation in party expectations is partially controlled by using presidential approval and income change as these variables are reflective of changes in the national political environment. While the models used in this paper do not include a control variable for year or decade, all models have been computed with a variety of time variables and are substantively similar.

36 The only recent exceptions to the general trend have been the midterm elections of 1998 and 2002.

Data and Measurement

For this paper, the unit of analysis is House general elections between 1954 and 2006. The only races that are excluded are open seats, seats redistricted since the last election and races where the two party presidential vote percentage was not available by congressional district.

Dependent Variable

The dependent variable is a dichotomous measure of whether the incumbent's opponent is a quality challenger using the Jacobson definition -- the challenger has held previous elective office. While it has been acknowledged that holding previous office is an imperfect measure of the strength of a candidate, this quality challenger measure is both easy to conceptualize and available for the entire period. Furthermore, it has been widely observed that candidates with previous electoral experience are more likely to defeat incumbents and more likely to exhibit strategic electoral behavior than candidates without political experience.

Independent Variables

The two key predictors in this analysis are incumbent ideology and the interaction of ideology with whether the seat is orientated in the ideological direction of the party of the incumbent. Ideology is measured using the incumbent's first dimension DW-Nominate score.[37] These ideological values were then adjusted so that higher values were orientated in the general ideological direction of their party. For illustration, after the adjustment, the most

37 Models using ADA scores have also been computed and the findings are substantively similar.

liberal Democrat and the most conservative Republican would both score over one on *Ideological Extremity*.[38]

In order to measure whether the district median was generally oriented towards the incumbent, a straightforward measure was used.[39] Districts where the incumbent's presidential candidates, over all the presidential elections in that decade, received more than 50% of the two party vote were coded as sympathetic to the incumbent. Conversely, seats where the incumbent's presidential candidates, over that decade, received less than 50% of the vote were coded as antagonistic districts. To illustrate this measure, for a Republican district in 1994, district sympathy would be determined based on the average of George H. W. Bush's vote in 1992, Bob Dole's vote in 1996 and George W. Bush's vote in 2000. If the average of the two party vote over those three elections was greater than 50%, the district would be considered to be sympathetic; if the average was less than 50%, it would be considered antagonistic.[40] Over the entire period, roughly 70% of districts were sympathetic with the remainder being antagonistic (Rabinowitz et al. 2007).[41]

38 Conversely, theoretically, the most liberal Republican and the most conservative Democrat would both receive roughly negative one as they are oriented counter to the ideological direction of their party. One potential critique of this method is that the zero point in DW-Nominate is not necessarily a natural middle point on the ideological spectrum. To respond to this critique, models were run for both the Democrats and Republicans separately without adjusting around zero. The results remain substantively similar.

39 The critical relationship is between the ideology of the incumbent and the district, but unique district level ideological measures are problematic to compute. Even if satisfactory district ideological measures could be created, it would be hard to put them on a similar scale to ideological measures of representatives. However, using directional intuition avoids the need for precise district measures. Based on the logic of directional theory, where reasonable ideological extremity is advantageous and individuals' ideological orientations are general and motivation is a factor, it is only important to know whether the median voter in the district is generally oriented towards the left or the right (Rabinowitz and Macdonald 1989).

40 There was some concern that there might be differences between decades where three presidential votes by district were available, such as the 1990s, and decades where only two presidential votes were available, such as the 1960s. To consistently test this potential issue, models were used that determined sympathy based on either one or two presidential votes. These results were substantively identical.

Presidential Vote in District is the percentage of the two party vote received by the incumbent congressman's presidential candidate in the most recent presidential election. *Income Change* is the percentage change in personal disposable income, as computed by the Bureau of Economic Advisors, between the first and second quarters of the year of the election.[42] That variable is adjusted by party so if the incumbent is of the party of the president and income is rising it is positive; the variable is also positive if income is declining and the incumbent is not of the same party as the president.

Previous Incumbent Percentage is a measure of the two party House vote percentage that the incumbent received in the previous congressional election. *Incumbent Majority Party* is a dummy variable reflecting whether the incumbent is a member of the majority party. *Presidential Approval* is the president's job approval as measured by the Gallup Poll occurring closest to March 1st of the election year. This variable is multiplied by negative one if the incumbent congressman is not of the same party as the president. *Midterm* is a dummy variable reflecting whether or not the election year is a midterm, i.e. a non presidential year. If the incumbent is of the same party as the president this variable is coded as a one, for members of the opposing party this variable is coded as negative one.

Analysis

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41 As the measure for whether a district is sympathetic comes from the presidential vote, this measure could be sensitive to landslide presidential elections. Analyses was computed excluding presidential landslides of 60%+ (1964 and 1972) and 55%+ (1956, 1964, 1972 and 1984). The exclusion of these years did not alter the results or any of the substantive conclusions. Additionally, models were tested adjusting for years with substantial third party votes (such as 1968, 1980, 1992, 1996). These adjustments did not alter the final results.

42 It should be noted that this concept presented a difficulty in operationalization. What I sought to do was find the measure that would be concurrent with most candidates announcing their intention to enter a congressional race. Since there is a wide difference by states of primary election dates, it was hard to find a perfect measure. In the end, this measure was used because it seemed that more entry decisions would occur during this period rather than prior. It should be noted that income change from the 4th quarter of the preceding year to the 1st quarter of the election year and the 1st quarter to the 2nd quarter correlate at over .65, suggesting the variables are strongly related. All analyses have been computing using both variables and the results remain substantively similar.

Looking at Table 1, it is clear that the model performed as expected by theory.[43] As the key relationship is an interaction, this and all substantive analyses will be interpreted in the manner described by Brambor et al. (2006). Looking at the effects at the bottom of Table 1, ideological extremity in antagonistic districts has a positive sign and is statistically significant. Therefore, greater extremity increases the chances of facing a quality challenger from the opposing party in antagonistic districts. As the magnitudes of relationships in maximum likelihood models are hard to visualize, the critical relationship in this and subsequent regressions will be graphed. Looking at Figure 1, according to the changes in predicted probabilities, the effect of moving from the most moderate to the most extreme in antagonistic districts would lead to roughly a 30 percentage point increase in the probability of facing a quality challenger.[44] To put it another way, in an antagonistic district, the most moderate congressman would have a predicted probability of less than 10% of facing a quality challenger while the most extreme incumbent would have a probability of almost 40%.[45]

In a sympathetic district as incumbents become more ideologically extreme they are less likely to face a quality challenger. In those districts, moving from the most moderate to the most extreme reduces an incumbents' probability of facing a quality challenger. Therefore, in the 70% of districts that are sympathetic to the incumbent, extremity does not

43 It should be noted that this and the subsequent models all exclude incumbent fundraising as a predictor. This decision was made consciously on the work of Goodliffe (2001; 2004) and others about the role of fundraising on candidate emergence. Fundamentally, the assumption that an incumbent, even a damaged and vulnerable one, can raise the necessary funds to be competitive seems reasonable. As such, a fundraising variable is largely endogenous to the race at hand. Alternative versions of all of the models were run with incumbent fundraising included and those models exhibited similar findings.

44 This graph is created holding all of the other variables to their mean values.

45 All predicted probabilities are computed using the SPOST package for Stata from Long and Freese (2005). The changes in probabilities are changes in the individual variable, holding the other predictors in the model to their means.

hurt incumbents but instead helps them avoid quality challengers. Looking at Figure 1, in a sympathetic district, the most moderate congressperson would have a predicted probability of facing a quality opponent of roughly 25%. Conversely, the most ideologically extreme incumbent would have a probability of facing a quality opponent of less than 10%. In this model, the effect of ideology was clearly conditioned by the type of district represented.

In this first model, the control variables behave as expected and are statistically significant. Freshman members are more likely to face quality challengers than longer serving members. Members that represent safer districts are less likely to face quality challengers than members that represent more marginal districts. Increases in presidential approval or personal income both serve to reduce the probability of a quality challenge for members of the president's party. Challengers are more likely to emerge if they are running for a seat in the majority party, a logical finding given that such seats would be seen as more valuable by strategic actors.

Overall, Table 1 shows strong evidence of reactions to national events among potential congressional challengers as previously shown by Jacobson as well as support for the expectation that the effect of ideology would be conditional on the type of district. One potential criticism of this result is that the South was a regional outlier for a significant part of the time period in question, favoring both the Democratic Party and generally conservative policy outcomes. Additionally, the lack of competition in the South may be creating some artificially sympathetic districts in the early period. As a check, the analysis was replicated excluding the southern states.[46]

46 Southern states are defined for this analysis as the eleven states of the confederacy. Additional models have been run using broader definitions of southern states but the results remain the same.

Looking only at the races outside of the South, the conclusions largely hold. The effect of ideology in antagonistic districts remains correctly signed but is no longer statistically significant. This suggests that in non-southern antagonistic districts ideological extremity neither hurts nor helps incumbents. However, in sympathetic districts, ideological extremity decreases the likelihood of facing a quality opponent. Looking at the changes in predicted probabilities in Figure 2, it is clear that extremity offers incumbents a clear benefit, dropping the probability of facing a quality challenger by roughly 30 percentage points. Outside of the South, the other variables retain their effects and directions, generally providing additional evidence for the strategic calculations of quality opponents.

There is some concern that districts on the borderline will behave differently than those that are more clearly sympathetic or antagonistic. To examine that potential effect, *Marginal District*, a dichotomous variable reflecting whether or not the district received between 47.5% and 52.5% in the most recent presidential election will also be included.[47] This variable will also be interacted with district sympathy in order to isolate the effects of ideology in districts that are sympathetic and not marginal, sympathetic and marginal, antagonistic and not marginal, and antagonistic and marginal.

Including district marginality into the model in Table 3, leads to a similar but more nuanced story. All national and district level control variables operate as expected, but the critical difference concerns the effect of ideology. Looking at sympathetic and antagonistic districts that are not marginal, the effect of ideology is similar to what was observed in the previous models. Looking at Figure 3, in the minority of districts, the antagonistic subset, greater extremity increases the likelihood of facing a strong opponent, while in the majority

47 Additionally, models have been computed that use a 10% point spread for marginality (i. e. 45% to 55%) as well as a decade measure for marginality. The results remain consistent across those specifications.

of districts, the sympathetic subset, greater extremity decreases the likelihood of facing a quality opponent. Examining the effect of ideology in marginal districts, we observe similar but more muted effects. In antagonistic and marginal districts, greater extremity leads to a slightly increased, but not significant, probability of a facing a quality challenger. This effect is much less pronounced than the effect observed in antagonistic and non-marginal districts. In sympathetic and marginal districts, greater extremity reduces the likelihood of facing a quality opponent but the effect is less pronounced than in sympathetic and non marginal districts. This more muted finding among marginal districts is entirely consistent with the expectations of directional theory, which predicts weaker ideological constraints in districts that are narrowly divided (Rabinowitz and Macdonald 1989).[48]

The result for marginal districts deserves some additional attention as the finding is somewhat counterintuitive. In both sympathetic and antagonistic marginal districts, it is clear that increased extremity does not lead to a pronounced increase in the likelihood of strong opposition entry. While both sympathetic and antagonistic marginal districts have similar orientations to the non marginal types, in neither case is there a clear advantage or disadvantage to ideological extremity. These findings run counter to the conventional wisdom, which would suggest that districts not clearly oriented in one direction or another would be ones most penalizing of incumbents further from the center. Instead, these results provide no evidence that marginal districts of either type are compelling their representatives towards moderation, at least in terms of candidate entry.

Conclusion

48 The model in Figure 3 has also been computed for states outside of the South. Those results are similar and available in the appendix.

The results point to a common finding: if an incumbent is in an ideologically sympathetic district, even one that is not overwhelmingly oriented in his direction, being reasonably ideologically extreme reduces the probability of facing an experienced challenger from the other party. This finding is reversed where the incumbent represents an ideologically antagonistic district. These results add a new dimension to the literature on candidate emergence illustrating that an incumbent can be relatively extreme and avoid facing strong opponents, provided that he is on the 'correct' side of the median voter in their district. This finding complements and modifies the work of Canes-Wrone et al., in that it suggests that an incumbent needs to remain broadly in line with his district to be successful. Yet, being in sync, even in fairly centrist districts, requires being ideologically well defined. Only incumbents out of step with the broad direction of their districts need worry about extremity leading to better challengers. This contributes to the literature as it illustrates that the majority of the House holds incentives towards relative extremity based on the factors motivating high quality challenges.

Table 3.1: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.31 (.09)*
Ideological Extremity	.86 (.37)*
Pres. Vote in District	-.02 (.01)*
Income Change	-.07 (.04)
Prev. Incumbent Percentage	-.06 (.00)*
Incumbent Majority Party	-.48 (.10)*
Pres. Approval	-.01 (.00)*
Midterm	.36 (.06)*
Symp. District	.21 (.17)
Ideological Extremity* Symp. District	-1.47 (.44)*
Constant	4.39 (.39)*
N	5948
Pseudo R^2	.13
Ideological Extremity Antagonistic Districts	.86 (.36)*
Ideological Extremity Sympathetic Districts	-.62 (.28)*

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

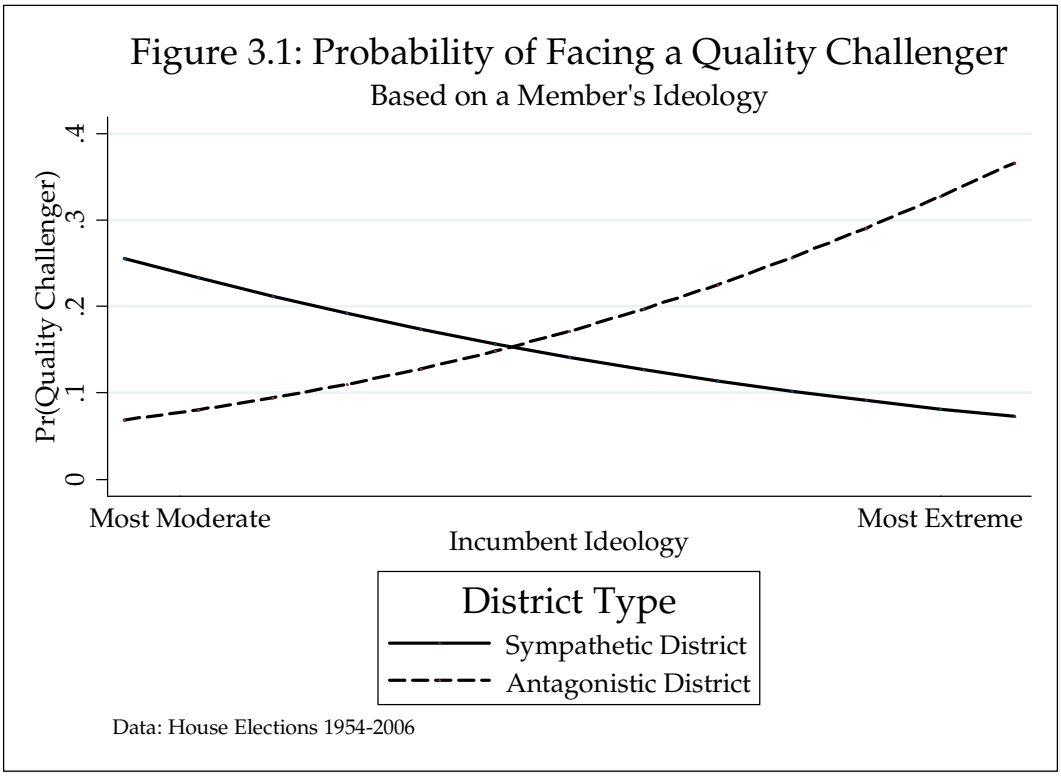


Figure 3.1: Probability of Facing a Quality Challenger
Based on a Member's Ideology
Pr(Quality Challenger)
0
.1
.2
.3
.4
Most Moderate
Most Extreme
Incumbent Ideology
District Type
Sympathetic District
Antagonistic District
Data: House Elections 1954-2006

Table 3.2: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 – Outside the South (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.21 (.10)*
Ideological Extremity	.05 (.48)
Pres. Vote in District	-.02 (.01)*
Income Change	-.05 (.04)
Prev. Incumbent Percentage	-.07 (.01)*
Incumbent Majority Party	-.33 (.11)*
Pres. Approval	-.01 (.00)*
Midterm	.30 (.06)*
Symp. District	.07 (.21)
Ideological Extremity* Symp. District	-1.07 (.55)*
Constant	4.76 (.47)*
N	4224
Pseudo R^2	.12
Ideological Extremity Antagonistic Districts	.05 (.48)
Ideological Extremity Sympathetic Districts	-1.02 (.32)*

*Note: The universe of cases is all House elections from 1954 to 2006 outside of the South where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

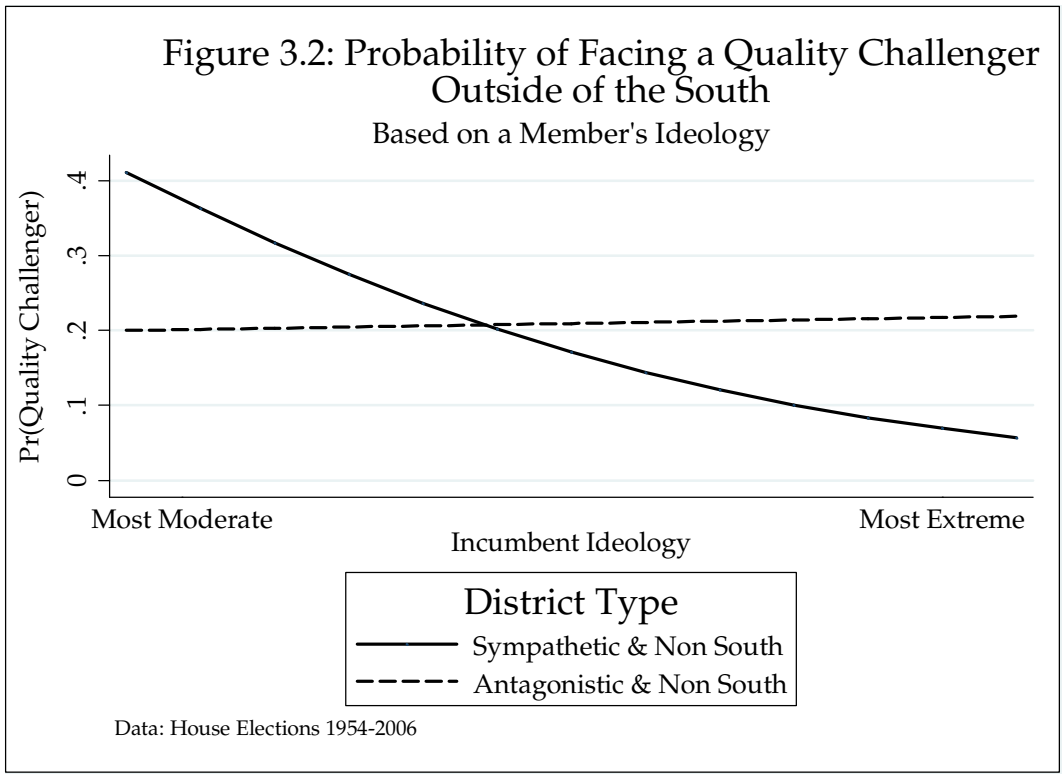


Figure 3.2: Probability of Facing a Quality Challenger Outside of the South
Based on a Member's Ideology
Pr(Quality Challenger)
0
.1
.2
.3
.4
Most Moderate
Most Extreme
Incumbent Ideology
District Type
Sympathetic & Non South
Antagonistic & Non South
Data: House Elections 1954-2006

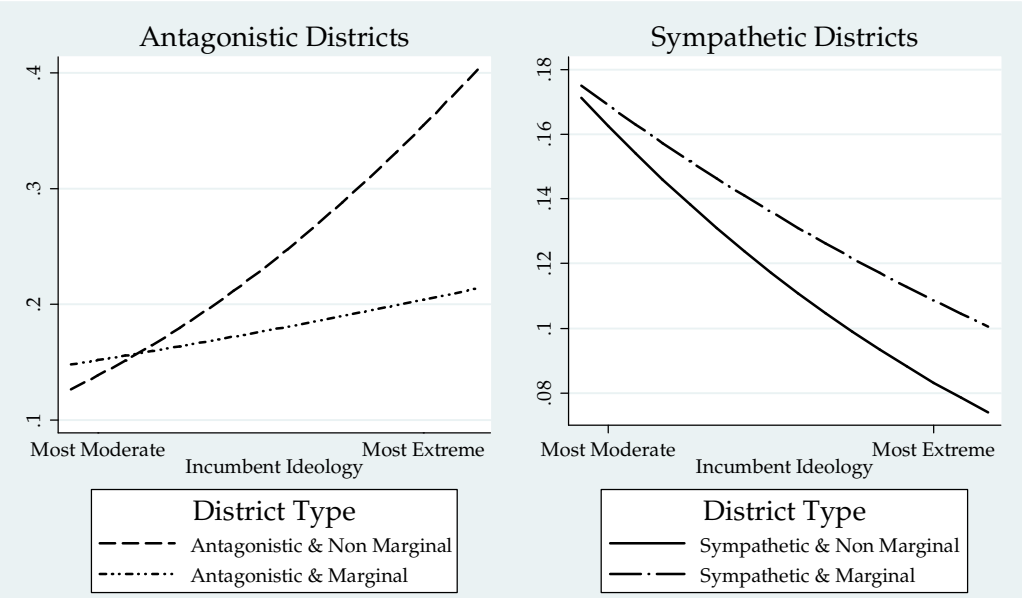
Table 3.3: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 – Including District Marginality (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.31 (.09)*
Ideological Extremity	1.02 (.41)*
Pres. Vote in District	-.02 (.01)*
Income Change	-.07 (.04)
Prev. Incumbent Percentage	-.06 (.00)*
Incumbent Majority Party	-.49 (.10)*
Pres. Approval	-.01 (.00)*
Midterm	.36 (.06)*
Symp. District	.19 (.20)
Ideological Extremity* Symp. District	-1.66 (.49)*
Marginal District	.11 (.28)
Marginal*Sympathy	-.06 (.42)
Marginal*Ideological Extremity	-.72 (.86)
Marginal*Ideological Extremity*Sympathy	.93 (1.21)
Constant	4.28(.40)*
N	5948
Pseudo R^2	.13
Ideological Extremity Antagonistic & Non Marginal Districts	1.02 (.41)*
Ideological Extremity Antagonistic & Marginal Districts	.30 (.76)
Ideological Extremity Sympathetic & Non Marginal Districts	-.63 (.30)*
Ideological Extremity Sympathetic & Marginal Districts	-.43 (.81)

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available for two elections and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

Figure 3.3: Probability of Facing a Quality Challenger

Based on a Member's Ideology & District Marginality



Data: House Elections 1954-2006

CHAPTER 4

Candidate Entry in U. S. Senate Elections: The Conditional Effect of Ideology

It has been observed that ideological extremity in primary elections may offer benefits for incumbents in terms of electoral outcomes and opponent quality (Brady et al. 2007). This observation is frequently contrasted with the expectation that relatively extreme positioning will be costly in a general election. Using logic drawn from the directional theory of voting (Rabinowitz and MacDonald 1989), this paper seeks to investigate the influence of senators' ideology on the emergence of high quality challengers in general elections. Underpinning the analysis is the assumption that incumbents are strategic and tend to pursue a representational strategy whereby they avoid high quality challengers, if possible, as these challenges are costly, and more likely to end in defeat (e.g. Krasno and Green 1988; Jacobson 1989; Squire 1992). The relationship between candidate entry and incumbent positioning is complicated, however, by the fact that senators face diverging ideological motivations based on the type of state that they represent.

The central finding is that the relationship between incumbent ideology and challenger entry in general elections is conditioned by the overall ideological orientation of the state. In states where the incumbent and the incumbent's party are positioned on the same side of the ideological spectrum as the median voter (a sympathetic state), greater ideological extremity reduces the likelihood of a facing a quality general election challenger.[49]

Conversely, if the incumbent and the incumbent's party are oriented in the opposite ideological direction of the median voter (an antagonistic state), greater ideological extremity increases somewhat the probability of facing a quality opponent. This conditional relationship suggests that senators have substantially different strategic incentives depending on whether they represent a sympathetic or an antagonistic state.

Furthermore, this paper considers dual conceptualizations of challenger quality. In Senate elections, the conceptualization of quality challengers developed for House elections may be too expansive. While still used in many Senate election models, defining quality candidates as previous officeholders obscures a fair amount of variation among quality candidates.[50] Therefore, in order to fully understand the effect of incumbent ideology on the entry decisions of the most competitive challengers, this study examines challenger quality using a slight modification of the categories developed by Lublin (1994). The conditional effect of ideology on candidate entry observed using the standard definition of quality also holds when using this detailed view of quality challengers. These analyses illustrate that, whether using a straightforward or a nuanced view of candidate quality, senators face competing motivations in terms of positioning based upon the type of state represented.

Previous Literature

What factors help to explain when a quality challenger will take on a sitting senator? Jacobson and Kernell (1983) found that strategic challengers enter when they perceive a significant likelihood of winning. They modeled the entry decision as one where potential

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49 The idea of interacting sympathetic states with incumbent ideology comes generally from directional theory (Rabinowitz and MacDonald 1989) and specifically from Rabinowitz et al. (2007).

50 For instance, a state representative and a governor are both quality challengers under this conception, although one would probably expect the latter to be a much more competitive challenger to an incumbent Senator.

entrants looked at the probability of victory, the value of the seat, and the cost of the election.[51] Their model provides an important and general framework for conceptualizing the entry decision.

Prior research has shown that potential challengers react both to the previous election percentage of the incumbent as well as the state of the economy (Bianco 1984; Bond et al. 1985). Candidates from the president's party are more likely to emerge when the economy is doing well while candidates from the opposing party are more likely to enter when the economy is doing poorly.[52] Additionally, the size of the quality candidate pool has also been found to be a strong predictor of quality candidate emergence in the Senate (Adams and Squire 1997; Squire 1989). Based on the results of this research, it is important to know how many potential high quality aspirants there are from the opposing party within a given state.

Previous efforts to investigate the role of incumbent ideology on candidate entry have found contradictory evidence. Adams and Squire (1997) compared the ideological ratings of respondents from the ANES and incumbents (creating a measure of distance) with the types of challengers that emerged. They found no relationship between ideological distance and the quality of the challenger that entered the race. On the other hand, Carson (2005) found that when senators vote increasingly with their own party in Congress on key votes, they face an increased likelihood of challenges. Looking at election results, Abramowitz (1980; expanded findings 1988) found that ideology and partisanship mattered more in Senate than in House

51 Based on their work, we would expect entry when PB>C (with P being the probability of victory, B being the benefit from the seat and C being the cost of seeking the seat). Conversely, we would not expect entry when PB<C.

52 Both of the previously cited works were based upon elections to the House. While House and Senate elections are institutionally and theoretically distinct, I believe that the intuition that potential Senate challengers react to previous incumbent vote and national economic conditions is inherently logical.

elections. More recently, Carson (2006) found a modest reduction in incumbent vote share for ideological extremity but a small increase for greater party unity.

As its framework for candidate quality directly informs the subsequent analysis, one previous work on candidate quality in Senate elections deserves specific attention. Lublin (1994) found that while facing a challenger who has held previous office lowers incumbent vote share, on average, the more important factor is the political experience of the challenger. He starts with a dichotomous measure of quality and then expands to use a graduated scale of quality. He finds that stronger quality challengers are more dangerous to incumbents than standard quality challengers. Looking at entry, more qualified candidates base their decisions on the incumbent's previous election percentage, presidential approval and changes in personal income. Overall, he observes a relatively limited effect for national economic factors on entry. This finding dovetails with work from Stewart (1989) that finds that in terms of entry, Senate elections are less reactive to national tides than House elections. The logic is that Senate races are statewide, highly salient, relatively uncommon and the impact of aggressive party recruitment would be more important with a smaller number of total seats to fill.[53]

The analysis that follows approaches the relationship between incumbent ideology and candidate entry from a directional perspective. Specifically, the intuition for the conditional role of ideology stems from the logic of directional theory.[54] In directional

53 In other words, a strategic actor interested in a House seat could look at a given election and decide not to enter as the macro political and economic factors look disadvantageous, knowing that they could run again in two years. A challenger that contemplating the same decision about entering a senatorial race would need to wait another six years, a much less appealing concept.

54 This paper does not seek to compare directional theory (Rabinowitz and MacDonald 1989) to proximity theory (Downs 1957; Davis et al 1970) but, the fundamental logic of directional theory, that ideological extremity can be advantageous in places where the median voter is located on the same side as a political elite, is central to this work.

theory, provided that an elected official is responsible and operates on the same side of the ideological spectrum as the median voter, then being more extreme should not lower the probability of victory (Rabinowitz and MacDonald 1989).[55] Similarly to proximity theory, the median voter is also the pivotal actor in directional theory, but the key is not how close the incumbent is to the median voter but whether they are located on the same side of the ideological spectrum. Directional theory works under the assumption that a voter's ideological placement is general, rather than specific. Therefore, given that the median voter and an incumbent are located on the same side of the ideological spectrum, additional extremity by the incumbent, provided its remains responsible, is positive because it provides the electorate with a clearer cue about the orientation of the incumbent. Based on this logic, directional theory has different expectations for states that are sympathetic and antagonistic (Rabinowitz et al. 2007). In sympathetic states, ideological extremity is beneficial, as it sends clearer signals to the electorate, but in antagonistic states there is a cost to extremity, as the incumbent is motivating an electorate oriented counter to their direction.

Expectations

The key expectation for this analysis is that the effect of incumbent ideology will be conditional on the type of state represented. If the state's median voter is oriented in the same ideological direction as the incumbent and the incumbent's party, greater extremity should decrease the probability of a quality challenge. This should be the case as political elites are basing their decision on whether or not to enter the race on assessments of the likelihood of victory. An incumbent, operating on the same side as the median voter and sending a clear

55 The caveat that representatives must be responsible is essential to direction theory. Representatives must operate within the region of responsibility, which is the area in which the electorate considers politicians to be responsible. Provided that a candidate is not so ideologically extreme that they stray from this region, extremity is not penalized. For the purposes of this paper, I am assuming that all incumbents operate within the region of acceptability.

signal reminding that voter that they are on the same side will be highly difficult to defeat. An incumbent sending a more muddled signal to the electorate should be more vulnerable as the median voter will be receiving a less clear sign of the incumbent's orientation. This effect should be reversed in states where the median voter is oriented counter to the incumbent and the incumbent's party. In those states, as the incumbent becomes more extreme, they should have an increased probability of facing a quality challenger.[56] In these cases, as the median voter and the incumbent are oriented in opposite directions, if that incumbent sends the electorate a clearer ideological signal by being more extreme, they will be, in effect, reminding that voter they are not similar in orientation. Therefore greater extremity should increase the likelihood of incumbent defeat and increase the likelihood that a quality opponent from the opposing party will emerge.

To offer an illustration of this conditional relationship, I will briefly examine four senators from the 111th Congress. Senators John Kerry (D-MA) and Jim DeMint (R-SC) both represent states that are clearly oriented in their political party's ideological direction. In other words, in both cases, based on evidence from recent presidential elections, the median voters in those states are inclined in the same ideological direction as their senator's party. For those senators, increasing ideological extremity would be positive and should reduce the probability of facing a quality challenger from the opposing party because they are sending a

56 While the subsequent analysis uses traditional conceptualizations of quality candidates, it is conceded that candidates with limited political experience can be successful challengers in some cases. Challengers such as Jim Webb and Hillary Clinton will appear in this paper as non quality challengers due to their lack of previous elected experience. These candidates obviously start with political advantages that are different from other candidates without previous electoral success. Despite these exceptions, candidates with previous electoral success will be stronger, on average, than candidates lacking such experience.

clearer signal to both political elites and the electorate.[57] Increased moderation would send the electorate a less clear signal and should increase the likelihood of a quality challenge.

The above relationship is directly opposite to the one faced by Senators Ben Nelson (D-NE) and Susan Collins (R-ME). Based upon recent election results, both senators are oriented ideologically counter to the median voter in their respective states. For those senators, increased ideological extremity should increase the likelihood of facing a quality opponent from the other party. Conversely, if they moderate, they should face a lower probability of facing a quality challenger.[58]

While the ideological positioning of the incumbent is the central focus of the analysis, other factors are also likely to play a role in the probability of quality candidate entry. First, based on the work on Squire and colleagues (1989; Adams and Squire 1997), it is reasonable to expect that the size of the high quality candidate pool should be a factor in the probability of an incumbent challenge. As the size of the high quality candidate pool increases, the probability of a senator facing a quality challenger should increase as well. Second, the incumbent's vote percentage in the previous election should send a strong signal to potential challengers. Incumbents with larger margins of victory in previous years should be less likely to face quality challengers, while incumbents that exhibited prior electoral vulnerability should face an increased likelihood of challenge.[59] Third, state partisanship should be a major

57 Strictly speaking, this paper is more interested in the strategic logic of political elites/potential candidates than the views and actions of the electorate as a whole. However, as I believe that political elites are informed by their own perceived probability of victory, then they should react to a senator that has successfully motivated (or failed to motivate) the electorate.

58 Of course, senators from antagonistic states will initially face a relatively high probability of facing a quality challenger as the opposing party will view their seat as one that they 'should' hold. That being said, greater ideological extremity should increase that probability.

59 Previous incumbent margin should be a less powerful predictor of senator challenger emergence than House challenger emergence given that the length of time between elections is relatively high. Over a six years, the electoral fortunes of the incumbent's party in their state

factor in the emergence of challengers. If the state is more partisan in the direction of the incumbent's party, then challenges should be less likely, separate from the positioning of the incumbent. While state partisanship is partially related to the size of candidate pool, some states are more supportive of one party at the state level than the national level.[60] Fourth, since seats in the majority are more valuable, challenges to members of the majority party should be less common as victors would subsequently join the minority (barring a shift in party control). Fifth, since the South was a largely uncompetitive region for the early part of the analysis, quality challengers should be less likely in that region. Finally, traditional controls from the congressional election literature such as national economic conditions, presidential popularity, midterm election and whether or not the incumbent is a freshman are also necessary to employ.

Data and Measurement

The universe of cases is all Senate general elections from 1952 to 2006 where an incumbent sought reelection and ideological measures were available for the Congress preceding the election. Elections from Louisiana are excluded due to that state's peculiar electoral system, where 'general' election contests frequently include opponents both from the incumbent's party and the opposition party.

Dependent Variable

The paper uses two dependent variables: first, a dichotomous measure of whether the senator faced an opponent that had previously been elected to any office and second, an

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may have changed dramatically. Nevertheless, on average, incumbents with larger previous margins should be political powerful than incumbents with lower election margins.

60 For example, prior to the most recent presidential election, Democrats have been more successful at the state level in North Carolina than at the national level. This would create a large candidate pool but the state would not look particularly Democratic in terms of presidential vote.

ordered measure of the quality of the opponent.[61] With regard to the ordered variable, the absence of a candidate or a candidate with no elected experience would be coded as the lowest (0), followed by a local elected official (1), a state legislator (2), a governor, other statewide elected official, a congressman or a former senator (3).[62]

Independent Variables

The two key predictors in this analysis are ideology and the interaction of ideology with whether the median voter in the state is oriented in the ideological direction of the incumbent's party. Ideology is measured using the incumbent's first dimension DW-Nominate score for the Congress immediately preceding the election.[63] Over time, DW-Nominate scores are centered at zero and it is reasonable to conclude that higher absolute values, sensitive to party, express ideological extremity. I adjusted (i.e. multiplied by -1) the ideological scores for Democrats, so that higher values are common across parties and indicate ideological extremity consistent with a senator's party affiliation. After the adjustment, liberal Democrats and conservative Republicans would both have large positive values (near 1) on *Ideological Extremity*.[64]

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61 For both dependent variables, an incumbent that did not face a challenger of any type would be coded as not facing a quality challenger (0). The initial ordered measure of quality challengers came from David Lublin (1994) and was extended by the author to cover the entire time span.

62 This coding scheme combines the top categories used by Lublin in his work. The reason for this change is that when the ordered logistic regression models were computed, the models violated the proportional odds assumption. Combining the top two categories solved the statistical problem. Theoretically, I believe that after the change the categories still represent increasing political experience and potentially more competitive senate challengers.

63 All of the models have also been computed using ADA scores and are available from the author. The findings are substantively similar, so a single set of ideological measures was presented for the reader's convenience.

64 Theoretically, strongly liberal Republicans and conservative Democrats would both receive large negative scores (near -1) as they are oriented counter to the ideological direction of their party. In practice, very few cases are less than one (less than 10%), illustrating that the zero point in DW-Nominate scores reflects a natural dividing line between the two parties.

In order to determine the state's ideological orientation, states where the incumbent's presidential candidates received more than 50% of the two party presidential vote over the two most recent elections were coded as sympathetic to the incumbent. Conversely, states where the incumbent's presidential candidates received less than 50% of the vote were coded as antagonistic.[65] Over the entire period, slightly less than 60% of senators represented sympathetic states.

Another key independent variable is the size of the opposing party's candidate pool . This variable, *High Quality Candidate Pool*, was created by the author and is the sum of all of the congressmen and statewide elected officials from the opposing party from that state in the given year. The variable ranges from a low of zero to a high of 37, reflecting both state differences in congressional delegation size and differences in numbers of partisan statewide elected officials.[66]

Freshman is a dummy variable reflecting whether or not the incumbent is facing the first contest since their initial election. *Pres. Vote in State* is the percentage of the two party vote received by the incumbent senator's presidential candidates over the two most recent presidential elections. *Income Change* is the percentage change in personal disposable income, as computed by the Bureau of Economic Advisors, between the first and second

65 Models have also been computed using the three most recent presidential votes as the measure of state sympathy. These models have similar results to those in the text but theoretically, I believe that data from more than a decade prior does not give an accurate reflection of the orientation of the current electorate.

66 In an attempt to replicate the work of Squire on candidate pool, I used The Book of the States supplement State Elected Officials and the Legislature. One problem with this source is that there is variation from year to year in how many statewide elected officials are listed. Luckily, this variation does not occur within years but only between years. While imperfect due to this variation, the measure does give a general sense of the size of the quality candidate pool.

quarters of the year of the election, with the sign adjusted based on the match between the partisanship of the senator and the president.[67]

Previous Incumbent Vote is a measure of the two party Senate vote percentage that the incumbent received in the previous election.[68] *Majority* is a dummy variable reflecting whether a challenger is facing a senator that is currently a member of the majority party. *Presidential Approval* is the president's job approval as measured by the Gallup Poll occurring closest to the first of March of the election year. This variable is adjusted by the partisan match between the incumbent and the president.[69] *Midterm* is a dummy variable reflecting whether or not the election year is a midterm, i. e. a non presidential year. If the incumbent is of the same party as the president this variable is coded as a one, for members of the opposing party this variable is coded as negative one. *South* is a dummy variable reflecting whether or not the incumbent represented one of the eleven former Confederate

67 It should be noted that this concept presented a difficulty in operationalization. What I sought to do was find the measure that would be concurrent with most candidates announcing their intention to enter a senate race. Since primary election dates differ widely by state, it was hard to find a perfect single measure. In the end, this measure was chosen because it seemed that more entry decisions would occur during this period than before. It should be noted that income change from the 4th quarter of the preceding year to the 1st quarter of the election year and the 1st quarter to the 2nd quarter correlate at over .52, suggesting the variables are strongly related. All analyses have been computed using both variables and the results remain substantively similar. Models have also been computed using annual income change with no major differences in interpretation.

68 The value includes results from the most recent on-cycle or off-cycle election but excludes elections results from irregular election years For example, Kay Bailey Hutchison (R-TX) was first elected in a special election in 1993. That total was excluded from the data set due to the irregular date. Conversely, Zell Miller's (D-GA) election in 2000 (following Sen. Coverdell's death), which was not scheduled until 2004, was included because it occurred on a standard election date. Excluding off-cycle elections does not alter the substantive findings.

69 Models have also been run using presidential approval both earlier and later in the election year and the results remain highly similar.

states.[70] *Marginal State* is a dummy variable for states where the most recent two party presidential vote was between 47.5% and 52.5%.[71]

Results and Analysis

The initial model presented in Table 1 provides partial evidence for the expected conditional relationship of incumbent ideology on candidate entry. As the critical relationship is an interaction, the effect of ideology will be interpreted in the manner described by Brambor et al. (2006). In antagonistic states greater ideological extremity increases the probability of quality challenges, although the effect is not statistically significant.[72] Looking at the interaction, in sympathetic states being more ideologically extreme is clearly advantageous to incumbents as it reduces the probability of facing a quality challenger. This illustrates that if the state is oriented in the same direction as the incumbent, then ideological extremity offers incumbents a distinct benefit in terms of preventing quality challengers. Given that recent work from Brady et al. (2007) finds that primary elections encourage incumbents towards extremity, this general election result illustrates that senators from sympathetic states, roughly three-fifths of the institution's members, have dual motivations for extremity, in terms of avoiding both primary and general election challengers.[73]

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70 The states in question are Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, Tennessee and Virginia.

71 Models have also been computed using 45% to 55% as the standard for marginality. They are not substantively different and are available from the author.

72 All subsequent predicted probabilities are computed using Long and Freese (2005).

73 Strictly speaking the paper from Brady et al. was focused on House rather than Senate primaries. However, the intuition logically extends to the Senate as well. Additionally, recent primary challenges to Lieberman in Connecticut (2006) and Specter in Pennsylvania (2004 and 2010) provide anecdotal evidence of the type of relationship implied by Brady and his coauthors.

Overall, the controls are generally correctly signed but do not reach statistical significance. Outside of the critical relationship, *Previous Incumbent Vote* is statistically significant and reflects that senators who were politically successful in the past are less likely to face strong opponents. Clearly, doing well in the previous election is one of the clearest signals to potential challengers that an incumbent is politically powerful. As expected, senators from the South were less likely to face a quality opponent than those from other regions of the country.[74] Additionally, incumbents from states with larger pools of high quality opponents were more likely to be challenged.

While initial results suggest that senators from the majority of states receive an electoral benefit from relative ideological extremity in terms of entry, there is some concern that this effect may be driven statistically by states that are clearly dominated by one party. To try and investigate that possibility, state marginality will be interacted with the critical relationship in order to isolate the effects of ideology on states that are antagonistic and non marginal, antagonistic and marginal, sympathetic and non marginal and sympathetic and marginal. Looking at Table 2, the addition of the marginal interaction, leads to substantively similar but more nuanced findings. In antagonistic and non marginal states, there does appear to be some increase in the likelihood of a quality opponent from greater extremity, although the finding is again not statistically significant. In both types of marginal states, antagonistic and sympathetic, greater extremity has a negative, non significant coefficient. This effect suggests that even in states on the border between the two parties that greater extremity does not lead to a higher likelihood of quality candidate entry and may lead to reduction of such challenges. While there is not much certainty that extremity reduces the chances of a quality

74 All models have been run with senators from the South excluded and the results remain the same.

challenger emerging in marginal states, it is clear that those states are not penalizing their senators for greater extremity. Finally, in states that are sympathetic and non marginal (roughly 50% of all states) there is clear benefit to more defined ideological positioning.

In order to gauge the magnitude of the effect of ideology on entry, Figure 1, based upon the regression model in Table 2, illustrates the diverging effect of incumbent ideological extremity in sympathetic and antagonistic states.[75] Looking at the effect of ideology on incumbents from antagonistic and non marginal states, greater incumbent extremity has the effect of modestly increasing the probability of facing a quality challenger. The effect is reversed and amplified when looking at incumbents in sympathetic and non marginal states. In those states, greater extremity leads to a marked decline in the probability of facing a quality challenger, with such challenges roughly 40 percentage points less likely. The effects of ideology in marginal states, both sympathetic and antagonistic, illustrates a clear reduction in the likelihood of challengers. These effects, while visually striking, should be interpreted very cautiously as they are not statistically discernable from zero. What can be taken away from the negative slopes is that in marginal states, where the two parties are close to being evenly divided, there is no penalty for incumbents for ideological extremity in terms of challenger entry. This observation, while seemingly counter intuitive, fits perfectly with directional expectations which finds that centrist polities are the least ideologically constraining and only require their elected representatives to be ideologically reasonable.

The previous models have both looked at candidate quality in a simple way—whether or not a challenger has held an elected office of any type. It is reasonable to assume that senators are not generally concerned about challengers who have held less powerful elected

75 This graph was created holding all of the other predictors to their mean values.

positions. Using a more detailed view of candidate quality, we observe very similar findings to those observed in Tables 1 and 2. In antagonistic and non marginal states, ideological extremity again is correctly signed, but fails to reach statistical significance. As before, the two categories of marginal states are negatively signed but not significant. In sympathetic and non marginal states, the majority of all states, the effect of ideology is consistent with previous models with greater extremity reducing the probability of facing a strong challenger.

In order to get a better sense of the magnitude of the key variables, Table 4 illustrates the predicted probability of a challenger of every type emerging in each type of state. Looking at the table, a senator at the 80th percentile of the ideological spectrum from a sympathetic and non marginal state has a probability of 47% of facing a challenger without electoral experience. Conversely, the probability of a senator at 20th percentile of the ideological spectrum facing a politically inexperienced challenger is 38%. The effects are less pronounced, but more substantively important, at the higher end of the table. The senator at the 80th percentile from a sympathetic and non marginal state has a probability of just 25% of facing a governor, statewide officeholder, congressperson or a former senator, as opposed to a probability of 32% for the more moderate senator. The percentages are similar in orientation but weaker for sympathetic and marginal states reflecting that greater extremity in these states is not harmful and may help incumbents discourage possible opponents. The differences in this table illustrate the advantage of extremity in terms of discouraging high quality challengers if the incumbent represents a sympathetic state. Additionally, it also illustrates that moderation in a sympathetic state makes an incumbent more likely to face a higher quality challenger, exactly the type of opponent a senator would most like to avoid.

There may be some concern that the effects observed in the preceding models were driven by southern states. The South was a regional outlier in the early part of the time period, favoring the Democratic Party but generally conservative policy outcomes. In order to ensure that the South was not biasing the result, a final model was computed that excluded the eleven former states of the Confederacy.[76] Looking at Table 5, it is clear that the results hold up in the absence of the South.[77] Similar to the results in Tables 3 and 4, senators from antagonistic and non marginal states appear to have some political incentive to moderate, although that effect does not reach statistical significance. As before, marginal states both antagonistic and sympathetic indicate a non significant negative impact illustrating that these states do not offer a penalty for extremity and may offer the incumbent some electoral benefit. The majority of senators, however, those from sympathetic and non marginal states, have an incentive toward ideological extremity with it clearly deterring challengers of increasing quality.

Conclusion

The previous findings point strongly towards incumbent ideology playing an important, but conditional role, on candidate entry. In the roughly 60% of states where an incumbent and the median voter of the state are oriented in the same ideological direction, moderation serves to encourage challengers while greater levels of extremity reduces the probability of quality challenge. This finding holds both when using the standard definition

76 Models have also been computed excluding the border states as well and the results are highly similar.

77 A table analogous to Table 4 was created, illustrating the predicted probabilities of a challenger of each type emerging when an incumbent positioned themselves at the 20th and 80th percentiles of the ideological extremity spectrum. This table is available in the appendix.

of a quality challenger or when challenger quality is addressed with Lublin's more nuanced measure.

In states that are oriented in opposition to the incumbent's ideological direction, evidence suggests that greater extremity increases the likelihood of a quality challenge. This effect, however, is surprisingly weak. It does not reach statistical significance in any model and shows modest changes in the predicted probabilities. This suggests that in antagonistic states, greater extremity may increase the likelihood of facing a strong opponent, but the effect is not certain. In all of the models computed the effect was positive, which is consistent with expectations, with the lack of certainty likely a result of the relatively small number of cases.

Looking at the results from the marginal states, it is clear that these states are not punishing their senators for ideological extremity. In every model, the impact of ideology in antagonistic and marginal states and sympathetic and marginal states was negative and non significant. These states, roughly evenly divided between the two parties do not appear to be constraining their senators, in terms of entry, to the center of the ideological spectrum. This effect, while initially somewhat curious, is consistent with the expectations of directional theory, which indicates that the most moderate districts only require their representatives to be ideologically responsible.

Aside from the central finding, several ancillary findings have also been observed. The economy and presidential approval have a surprisingly limited impact on candidate emergence in Senate elections. This seems to correspond with the work of both Lublin (1994) and Stewart (1989) and suggests that some of the macro factors that are strong predictors of emergence in House elections are less predictive in Senate elections. As these

races are highly competitive and of high salience, most of the time, party leaders' ability to recruit quality challengers will have more to do with the general partisan orientation of the state and the size of the potential candidate pool (as illustrated by Squire and his colleagues) and less to do with macro political and economic factors.

Table 4.1: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	-.13 (.19)
Ideological Extremity	.26 (.75)
Pres. Vote in State	-.88 (1.32)
Income Change	.06 (.10)
Majority	-.11 (.19)
Prev. Incumbent Percentage	-.05 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.11 (.14)
Symp. State	.52 (.39)
Ideological Extremity * Symp. State	-1.61 (.93)*
High Quality Candidate Pool	.08 (.02)***
South	-.74 (.24)***
Constant	3.98 (.95)***
N	680
Pseudo R^2	.12
Ideological Extremity Antagonistic States	.26 (.75)
Ideological Extremity Sympathetic States	-1.35 (.58)**

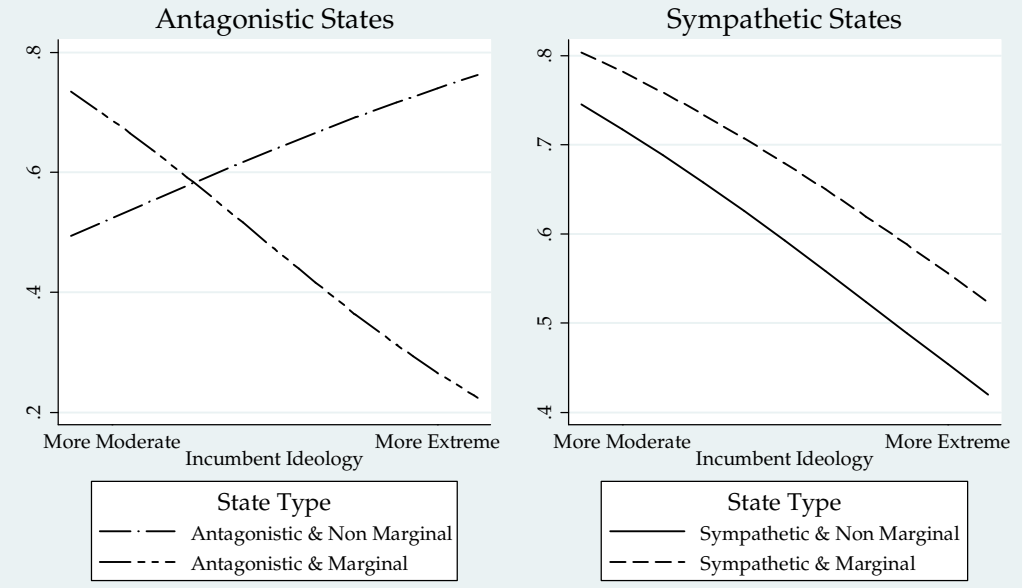
Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 4.2: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	-.10 (.19)
Ideological Extremity	1.19 (.85)
Pres. Vote in State	-.50 (1.44)
Income Change	.05 (.10)
Majority	-.08 (.19)
Prev. Incumbent Percentage	-.05 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.13 (.14)
Symp. State	.58 (.45)
Ideological Extremity * Symp. State	-2.59 (1.05)**
High Quality Candidate Pool	.09 (.02)***
South	-.73 (.24)***
Marginal State	.35 (.68)
Marginal State * Symp. State* Ideological Extremity	3.53 (2.33)
Marginal State * Symp. State	-.63 (.92)
Marginal State * Ideological Extremity	-3.44 (1.86)*
Constant	3.71 (.97)***
N	680
Pseudo R^2	.13
Ideological Extremity Antagonistic & Non Marginal States	1.19 (.85)
Ideological Extremity Antagonistic & Marginal States	-2.26 (1.67)
Ideological Extremity Sympathetic & Non Marginal States	-1.40 (.65)**
Ideological Extremity Sympathetic & Marginal States	-1.32 (1.28)

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Figure 4.1: The Probability of a Senator Facing a Quality Opponent
Based on Ideology, Marginality and State Type



Data: Senate Elections 1952-2006

Table 4.3: U.S. Senate Incumbents Facing an Increasingly Quality Challenger from 1952-2006 (DW-Nominate)

Independent Variables		Coefficients (S.E.)
Freshman		-.10 (.16)
Ideological Extremity		1.13 (.73)
Pres. Vote in State		-.41 (1.30)
Income Change		.01 (.09)
Majority		-.03 (.17)
Prev. Incumbent Percentage		-.05 (.01)***
Pres. Approval		-.01 (.00)**
Midterm		.24 (.12)*
Symp. State		.46 (.38)
Ideological Extremity * Symp. State		-2.22 (.89)**
High Quality Candidate Pool		.08 (.01)***
South		-.58 (.22)**
Marginal State		.13 (.59)
Marginal State * Symp. State* Ideological Extremity		2.75 (2.02)
Marginal State * Symp. State		-.43 (.78)
Marginal State * Ideological Extremity		-2.24 (1.62)
	/Cut 1	-3.88 (.88)
	/Cut 2	-3.00 (.87)
	/Cut 3	-2.63 (.87)
N		680
Pseudo R^2		.08
Ideological Extremity Antagonistic & Non Marginal States		1.13 (.73)
Ideological Extremity Antagonistic & Marginal States		-1.11 (1.46)
Ideological Extremity Sympathetic & Non Marginal States		-1.09 (.54)**
Ideological Extremity Sympathetic & Marginal States		-.58 (1.11)

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 4.4: Probability of a Senate Incumbent Facing a Challenger of Each Type by State Type

Type of Challenger	*Incumbent Ideology*	*Antagonistic & Non Marginal*	*Antagonistic & Marginal*	*Sympathetic & Non Marginal*	*Sympathetic & Marginal*
0-No Prior Office	20th Percentile Extremity	41%	46%	38%	34%
	80th Percentile Extremity	33%	55%	47%	38%
1-Local Official	20th Percentile Extremity	22%	21%	22%	21%
	80th Percentile Extremity	21%	20%	21%	22%
2-State Legislator	20th Percentile Extremity	8%	8%	9%	9%
	80th Percentile Extremity	9%	6%	8%	9%
3-Governor, Statewide Office, Former Senators and Congressman	20th Percentile Extremity	29%	25%	32%	36%
	80th Percentile Extremity	37%	19%	25%	32%

Note: The predicted probabilities in this table are drawn from the model shown in Table 3. The values may not add to exactly 100 due to rounding.

Table 4.5: U.S. Senate Incumbents Facing an Increasingly Quality Challenger from 1952-2006 (DW-Nominate) Outside of the South

Independent Variables		Coefficients (S.E.)
Freshman		-.15 (.18)
Ideological Extremity		1.21 (.78)
Pres. Vote in State		-.31 (1.49)
Income Change		-.01 (.09)
Majority		.17 (.18)
Prev. Incumbent Percentage		-.05 (.01)***
Pres. Approval		-.01 (.00)**
Midterm		.22 (.13)*
Symp. State		.78 (.41)*
Ideological Extremity * Symp. State		-2.63 (.95)***
High Quality Candidate Pool		.08 (.02)***
Marginal State		.03 (.63)
Marginal State * Symp. State* Ideological Extremity		2.46 (2.24)
Marginal State * Symp. State		-.28 (.87)
Marginal State * Ideological Extremity		-1.80 (1.70)
	/Cut 1	-3.40 (.98)
	/Cut 2	-2.49 (.97)
	/Cut 3	-2.11 (.97)
N		563
Pseudo R^2		.06
Ideological Extremity Antagonistic & Non Marginal States		1.21 (.78)
Ideological Extremity Antagonistic & Marginal States		-.59 (1.52)
Ideological Extremity Sympathetic & Non Marginal States		-1.42 (.58)**
Ideological Extremity Sympathetic & Marginal States		-.76 (1.37)

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Appendix

Table 1: Count Model of the Number of Primary Challengers Facing a House Incumbent 1998-2004

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.01 (.01)
Power Committee	-.17 (.12)
Redistricting	-.01 (.00)*
Ideology	-.94 (.56)+
Open Primary State	.50 (.48)
Open Primary State*Ideology	-1.09 (.93)
Scandal	1.15 (.55)*
Election Cost	
Previous General Election Per	-.02 (.01)*
Ballot Restrictive State	-.64 (.23)*
Blanket Primary State	.22 (.28)
Run-off State	-.38 (.24)
Value of Seat	
Majority Party	.12 (.20)
District Partisanship	.06 (.01)*
Term Limit State Leg.	-.10 (.17)
Congressional Delegation Size	.00 (.00)
Time	
Presidential Year	.16 (.18)
Constant	.75 (.80)
N	1512
Effect of Ideology Closed Primary States	-.94 (.56)+
Effect of Ideology Open Primary States	-2.02 (.61)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using negative binomial regression with standard errors adjusted by state. *p≤ .05; +p≤.10*

Table 2: U.S. House Incumbents Facing a Serious Primary Challenger 1998-2004 (Rare Events)

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.06 (.02)*
Power Committee	-1.04 (.31)*
Redistricting	-.02 (.01)
Ideology	-.67 (1.29)
Open Primary State	.79 (.91)
Open Primary State*Ideology	-3.82 (2.06)+
Scandal	2.33 (.91)*
Election Cost	
Previous General Election Per	-.03 (.01)*
Ballot Restrictive State	.41 (.26)
Blanket Primary State	.95 (.39)*
Run-off State	.62 (.37)+
Value of Seat	
Majority Party	.59 (.41)
District Partisanship	.08 (.02)*
Term Limit State Leg.	.36 (.27)
Congressional Delegation Size	.00 (.01)
Time	
Presidential Year	.49 (.34)
Constant	-.65 (1.37)
N	1512
Effect of Ideology Closed Primary States	-.67 (1.29)
Effect of Ideology Open Primary States	-4.49 (1.66)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using rare events logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

Table 3: U.S. House Incumbents Facing a Serious Primary Challenger 1998-2004 (100K Threshold)

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.08 (.03)*
Power Committee	-1.17 (.43)*
Redistricting	-.01 (.01)
Ideology	-.58 (1.63)
Open Primary State	1.07 (1.22)
Open Primary State*Ideology	-5.07 (3.03)+
Scandal	2.06 (.86)*
Election Cost	
Previous General Election Per	-.03 (.01)*
Ballot Restrictive State	.45 (.32)
Blanket Primary State	.77 (.46)+
Run-off State	.44 (.36)
Value of Seat	
Majority Party	.74 (.43)+
District Partisanship	.07 (.02)*
Term Limit State Leg.	.41 (.33)
Congressional Delegation Size	.00 (.01)
Time	
Presidential Year	.23 (.45)
Constant	-1.99 (1.67)
N	1512
Pseudo R^2	.10
% Correctly Predicted	96%
Effect of Ideology Closed Primary States	-.58 (1.63)
Effect of Ideology Open Primary States	-5.64 (2.45)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

Table 4: U.S. House Incumbents Facing a Serious Primary Challenger 1998-2004 (No Ideology Interaction)

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.06 (.02)*
Power Committee	-1.14 (.29)*
Redistricting	-.01 (.01)
Ideology	-1.83 (1.18)
Open Primary State	-.89 (.32)*
Scandal	2.03 (.86)*
Election Cost	
Previous General Election Per	-.03 (.01)*
Ballot Restrictive State	.46 (.23)*
Blanket Primary State	.88 (.40)*
Run-off State	.64 (.39)+
Value of Seat	
Majority Party	.52 (.41)
District Partisanship	.08 (.02)*
Term Limit State Leg.	.41 (.29)
Congressional Delegation Size	.00 (.01)
Time	
Presidential Year	.49 (.34)
Constant	-.26 (1.33)
N	1512
Pseudo R^2	.11
% Correctly Predicted	95%

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

Table 5: U.S. House Incumbents Facing a Serious Primary Challenger(Logged Terms) 1998-2004

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Logged Terms	.44 (.14)*
Power Committee	-1.15 (.30)*
Redistricting	-.01 (.01)
Ideology	-.68 (1.31)
Open Primary State	.73 (.92)
Open Primary State*Ideology	-3.83 (2.07)+
Scandal	2.34 (.90)*
Election Cost	
Previous General Election Per	-.04 (.01)*
Ballot Restrictive State	.40 (.27)
Blanket Primary State	.95 (.40)*
Run-off State	.64 (.38)+
Value of Seat	
Majority Party	.58 (.42)
District Partisanship	.08 (.02)*
Term Limit State Leg.	.38 (.27)
Congressional Delegation Size	.00 (.01)
Time	
Presidential Year	.48 (.34)
Constant	-.72 (1.37)
N	1512
Pseudo R^2	.12
% Correctly Predicted	95%
Effect of Ideology Closed Primary States	-.68 (1.31)
Effect of Ideology Open Primary States	-4.52 (1.66)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The model is computed using logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

Table 6: Ordered Model of Primary Challengers Facing a House Incumbent 1998-2004

Independent Variable	Coefficients (S.E.)
Probability of Victory	
Terms	.02 (.02)
Power Committee	-.15 (.14)
Redistricting	-.01 (.00)$^{+}$
Ideology	-.78 (.74)
Open Primary State	.65 (.65)
Open Primary State*Ideology	-1.33 (1.31)
Scandal	1.04 (.89)
Election Cost	
Previous General Election Per	-.02 (.01)*
Ballot Restrictive State	-.67 (.28)*
Blanket Primary State	.15 (.32)
Run-off State	-.31 (.27)
Value of Seat	
Majority Party	.18 (.25)
District Partisanship	.06 (.01)*
Term Limit State Leg.	-.09 (.23)
Congressional Delegation Size	.00 (.00)
Time	
Presidential Year	.16 (.19)
N	1512
R^2	.04
/cut 1	-.48 (.95)
/cut 2	1.29 (.92)
Effect of Ideology Closed Primary States	-.78 (.74)
Effect of Ideology Open Primary States	-2.11 (.90)*

*Note: The universe of cases is all House elections from 1998 to 2004 where an incumbent sought reelection excluding Louisiana. The dependent variable is (0)no challenger, (1)a weak challenger or(2) a serious challenger. The model is computed using an ordered logistic regression with standard errors adjusted by state. *p≤.05; +p≤.10*

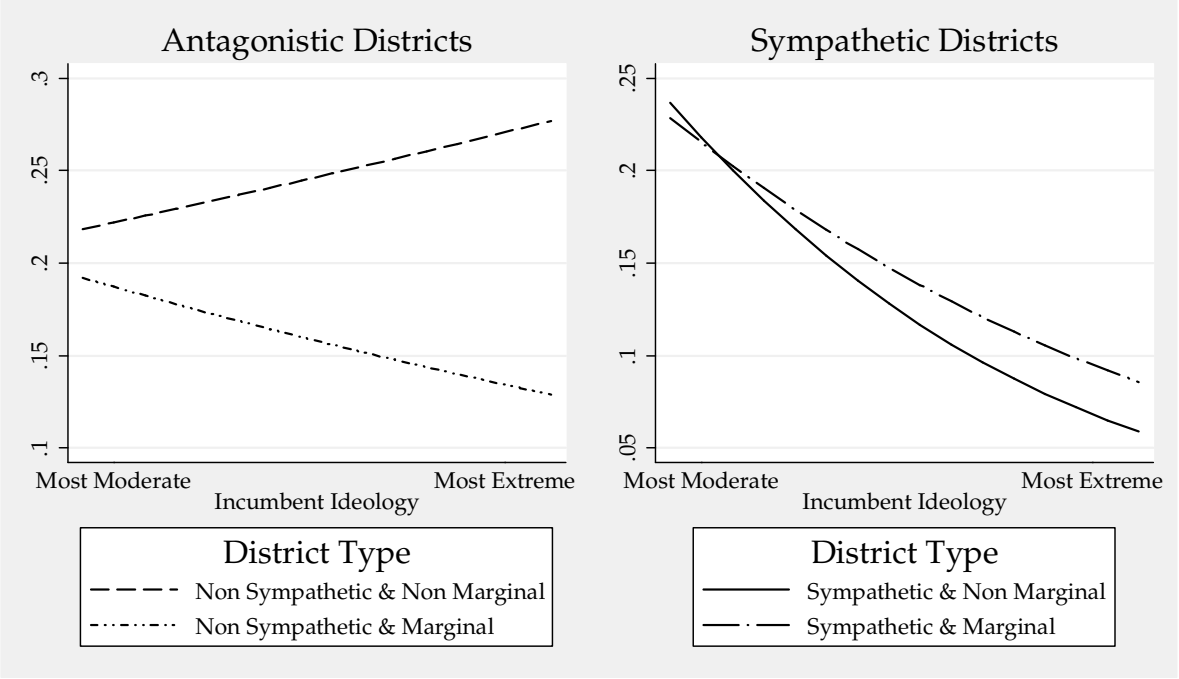
Table 7: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 – Including District Marginality Outside of the South (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.21 (.10)*
Ideological Extremity	.21 (.54)
Pres. Vote in District	-.01 (.01)
Income Change	-.05 (.05)
Prev. Incumbent Percentage	-.07 (.01)*
Incumbent Majority Party	-.33 (.11)*
Pres. Approval	-.01 (.00)*
Midterm	.30 (.06)*
Symp. District	-.02 (.24)
Ideological Extremity* Symp. District	-1.28 (.62)*
Marginal District	-.21 (.39)
Marginal*Sympathy	.20 (.52)
Marginal*Ideological Extremity	-.53 (1.13)
Marginal*Ideological Extremity*Sympathy	.83 (1.47)
Constant	4.61 (.48)*
N	4224
Pseudo R^2	.12
Ideological Extremity Antagonistic & Non Marginal Districts	.21 (.54)
Ideological Extremity Antagonistic & Marginal Districts	-.32 (1.00)
Ideological Extremity Sympathetic & Non Marginal Districts	-1.07 (.34)*
Ideological Extremity Sympathetic & Marginal Districts	-.77 (.90)

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available for two elections and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

Figure 1: Probability of Facing a Quality Challenger

Based on a Member's DW-Nominate Score & District Marginality
Districts Outside of the South



Data: House Elections 1954-2006

Table 8: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 (ADA)

Independent Variables	Coefficients (S.E.)
Freshman	.31 (.09)*
Ideological Extremity	1.01 (.27)*
Pres. Vote in District	-.02 (.01)*
Income Change	-.06 (.04)
Prev. Incumbent Percentage	-.06 (.00)*
Incumbent Majority Party	-.53 (.09)*
Pres. Approval	-.01 (.00)*
Midterm	.38 (.06)*
Symp. District	.70 (.29)*
Ideological Extremity* Symp. District	-1.31 (.36)*
Constant	3.99 (.43)*
N	5920
Pseudo R^2	.13
Ideological Extremity Antagonistic Districts	1.01 (.27)*
Ideological Extremity Sympathetic Districts	-.30 (.25)

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

Table 9: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 – South Only (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.60 (.18)*
Ideological Extremity	1.32 (.72)+
Pres. Vote in District	-.03 (.01)*
Income Change	-.16 (.09)+
Prev. Incumbent Percentage	-.05 (.01)*
Incumbent Majority Party	.89 (.20)*
Pres. Approval	-.01 (.01)
Midterm	.52 (.13)*
Symp. District	-.07 (.35)
Ideological Extremity* Symp. District	-.39 (.97)
Constant	3.93 (.80)*
N	1724
Pseudo R^2	.16
Ideological Extremity Antagonistic Districts	1.31 (.72)+
Ideological Extremity Sympathetic Districts	.93 (.69)

*Note: The universe of cases is all House elections from 1954 to 2006 in the South where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *$p \leq .05$; +$p \leq .10$*

Table 9: U.S. House Incumbents Facing a Quality Challenger from 1980-2006 (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.38 (.12)*
Ideological Extremity	1.18 (.56)*
Pres. Vote in District	-.04 (.01)*
Income Change	.06 (.06)
Prev. Incumbent Percentage	-.05 (.01)*
Incumbent Majority Party	-.29 (.16)+
Pres. Approval	-.01 (.01)
Midterm	.35 (.10)*
Symp. District	.16 (.26)
Ideological Extremity* Symp. District	-1.01 (.66)
Constant	4.36 (.64)*
N	3476
Pseudo R^2	.12
Ideological Extremity Antagonistic Districts	1.18 (.56)*
Ideological Extremity Sympathetic Districts	.17 (.43)

*Note: The universe of cases is all House elections from 1980 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05; +p≤ .10*

Table 10: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 Excluding Most Extreme Members (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.35 (.09)*
Ideological Extremity	.78 (.49)
Pres. Vote in District	-.02 (.01)*
Income Change	-.07 (.04)
Prev. Incumbent Percentage	-.06 (.00)*
Incumbent Majority Party	-.47 (.10)*
Pres. Approval	-.01 (.00)*
Midterm	.38 (.06)*
Symp. District	.12 (.21)
Ideological Extremity* Symp. District	-1.29 (.59)*
Constant	4.29 (.42)*
N	5359
Pseudo R^2	.12
Ideological Extremity Antagonistic Districts	.78 (.49)
Ideological Extremity Sympathetic Districts	-.51 (.36)

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. Incumbents in the top 5% of ideological extremity and the bottom 5% of extremity were excluded as a check on robustness. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

Table 11: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 Excluding Presidential Landslides (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.33 (.09)*
Ideological Extremity	1.11 (.39)*
Pres. Vote in District	-.04 (.01)*
Income Change	-.04 (.04)
Prev. Incumbent Percentage	-.06 (.00)*
Incumbent Majority Party	-.26 (.09)*
Pres. Approval	-.01 (.00)
Midterm	.18 (.07)*
Symp. District	.83 (.18)*
Ideological Extremity* Symp. District	-1.92 (.46)*
Constant	4.66 (.45)*
N	5739
Pseudo R^2	.13
Ideological Extremity Antagonistic Districts	1.11 (.39)*
Ideological Extremity Sympathetic Districts	-.81 (.27)*

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available and the district had not been redistricted in the previous year. District sympathy is now computed using a single presidential because the landslide elections of 1956, 1964, 1972, and 1984 were excluded. All of the italicized variables are adjusted by party. The model is computed using logistic regression. *p≤ .05*

Table 12: U.S. House Incumbents Facing a Quality Challenger from 1954-2006 – Expanded District Marginality (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.30 (.09)*
Ideological Extremity	1.65 (.50)*
Pres. Vote in District	-.02 (.01)*
Income Change	-.07 (.04)
Prev. Incumbent Percentage	-.06 (.00)*
Incumbent Majority Party	-.49 (.10)*
Pres. Approval	-.01 (.00)*
Midterm	.35 (.06)*
Symp. District	.21 (.22)
Ideological Extremity* Symp. District	-2.35 (.58)*
Marginal District	.04 (.23)
Marginal*Sympathy	-.11 (.34)
Marginal*Ideological Extremity	-1.44 (.74)
Marginal*Ideological Extremity*Sympathy	1.72 (.98)
Constant	4.19 (.41)*
N	5948
Pseudo R^2	.13
Ideological Extremity Antagonistic & Non Marginal Districts	1.65 (.50)*
Ideological Extremity Antagonistic & Marginal Districts	.20 (.56)
Ideological Extremity Sympathetic & Non Marginal Districts	-.70 (.32)*
Ideological Extremity Sympathetic & Marginal Districts	-.42 (.58)

*Note: The universe of cases is all House elections from 1954 to 2006 where an incumbent sought reelection, presidential vote by congressional district was available for two elections and the district had not been redistricted in the previous year. All of the italicized variables are adjusted by party. Marginality was coded if the incumbent's presidential candidates received between 45% and 55% of the two-party vote over the course of the decade. The model is computed using logistic regression. *p≤ .05*

Table 13: Probability of a Senate Incumbent Facing a Challenger of Each Type by State Type Outside of the South

Type of Challenger	*Incumbent Ideology*	*Antagonistic & Non Marginal*	*Antagonistic & Marginal*	*Sympathetic & Non Marginal*	*Sympathetic & Marginal*
0-No Prior Office	20th Percentile Extremity	39%	45%	31%	28%
	80th Percentile Extremity	30%	50%	41%	33%
1-Local Official	20th Percentile Extremity	22%	21%	22%	21%
	80th Percentile Extremity	22%	21%	22%	22%
2-State Legislator	20th Percentile Extremity	9%	8%	9%	10%
	80th Percentile Extremity	9%	7%	8%	9%
3-Governor, Statewide Office, Former Senators and Congressman	20th Percentile Extremity	30%	25%	38%	41%
	80th Percentile Extremity	39%	22%	28%	36%

Note: The predicted probabilities in this table are drawn from the model shown in Table 1. The values may not add to exactly 100 due to rounding.

Table 14: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 (ADA)

Independent Variables	Coefficients (S.E.)
Freshman	-.13 (.19)
Ideological Extremity	-.01 (.01)
Pres. Vote in State	-.08 (1.36)
Income Change	.04 (.10)
Majority	-.13 (.18)
Prev. Incumbent Percentage	-.05 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.08 (.14)
Symp. State	.39 (.64)
Ideological Extremity * Symp. State	-.01 (.01)
High Quality Candidate Pool	.09 (.02)***
South	-.85 (.25)***
Constant	4.19 (.97)***
N	681
Pseudo R^2	.12
Ideological Extremity Antagonistic States	-.01 (.01)
Ideological Extremity Sympathetic States	-.01 (.00)**

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 15: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 with Three Presidential Lags (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	-.13 (.19)
Ideological Extremity	-.05 (.74)
Pres. Vote in State	-.15 (1.19)
Income Change	.07 (.10)
Majority	-.16 (.19)
Prev. Incumbent Percentage	-.05 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.08 (.14)
Symp. State	.09 (.36)
Ideological Extremity * Symp. State	-1.06 (.92)
High Quality Candidate Pool	.08 (.02)***
South	-.72 (.24)***
Constant	3.83 (.91)***
N	679
Pseudo R^2	.12
Ideological Extremity Antagonistic States	-.05 (.74)
Ideological Extremity Sympathetic States	-1.11 (.59)*

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. District sympathy is conceptualized as the average of three most recent presidential votes. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 15: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 outside of the South (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	-.17 (.20)
Ideological Extremity	.51 (.78)
Pres. Vote in State	-1.24 (1.52)
Income Change	.04 (.11)
Majority	.13 (.20)
Prev. Incumbent Percentage	-.05 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.06 (.15)
Symp. State	1.05 (.43)**
Ideological Extremity * Symp. State	-2.45 (1.00)**
High Quality Candidate Pool	.08 (.02)***
Constant	3.72 (1.06)***
N	563
Pseudo R^2	.08
Ideological Extremity Antagonistic States	-1.24 (1.52)
Ideological Extremity Sympathetic States	-1.94 (.65)***

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of the former states of the Confederacy where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 16: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 South Only (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	.26 (.56)
Ideological Extremity	-1.16 (2.16)
Pres. Vote in State	-1.24 (2.93)
Income Change	.23 (.30)
Majority	-1.80 (.63)***
Prev. Incumbent Percentage	-.06 (.02)**
Pres. Approval	-.01 (.02)
Midterm	.69 (.43)
Symp. State	-2.45 (1.18)**
Ideological Extremity * Symp. State	3.28 (2.96)
High Quality Candidate Pool	.10 (.05)*
Constant	5.62 (2.81)**
N	117
Pseudo R^2	.31
Ideological Extremity Antagonistic States	-1.16 (2.16)
Ideological Extremity Sympathetic States	2.11 (2.26)

Note: The universe of cases is all Senate elections from 1952 to 2006 within the former states of the Confederacy where an incumbent sought reelection. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 17: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 Excluding Most Extreme Senators (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	-.23 (.20)
Ideological Extremity	.10 (.99)
Pres. Vote in State	-.55 (1.40)
Income Change	.04 (.10)
Majority	-.08 (.19)
Prev. Incumbent Percentage	-.06 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.04 (.15)
Symp. State	.86 (.48)*
Ideological Extremity * Symp. State	-2.45 (1.25)**
High Quality Candidate Pool	.09 (.02)***
Constant	4.39 (1.02)***
N	612
Pseudo R^2	.11
Ideological Extremity Antagonistic States	.10 (.99)
Ideological Extremity Sympathetic States	-2.35 (.81)***

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. Incumbents in the top 5% of ideological extremity and the bottom 5% of extremity were excluded as a check on robustness. All of the italicized variables are adjusted by party. The model is computed using logistic regression.

**p≤ .10; **p≤ .05 ; ***p≤ .01*

Table 18: U.S. Senate Incumbents Facing a Quality Challenger from 1952-2006 Expanded Marginality (DW-Nominate)

Independent Variables	Coefficients (S.E.)
Freshman	-.13 (.19)
Ideological Extremity	.79 (1.01)
Pres. Vote in State	-.61 (1.64)
Income Change	.06 (.10)
Majority	-.10 (.19)
Prev. Incumbent Percentage	-.05 (.01)***
Pres. Approval	-.01 (.01)
Midterm	.12 (.14)
Symp. State	.66 (.55)
Ideological Extremity * Symp. State	-2.59 (1.24)**
High Quality Candidate Pool	.09 (.02)***
South	-.74 (.24)***
Marginal State	-.07 (.53)
Marginal State * Symp. State* Ideological Extremity	2.00 (1.88)
Marginal State * Symp. State	-.40 (.75)
Marginal State * Ideological Extremity	.89 (1.47)
Constant	3.85 (1.02)***
N	680
Pseudo R^2	.12
Ideological Extremity Antagonistic & Non Marginal States	.79 (1.01)
Ideological Extremity Antagonistic & Marginal States	-.10 (1.09)
Ideological Extremity Sympathetic & Non Marginal States	-1.80 (.75)**
Ideological Extremity Sympathetic & Marginal States	-.69 (.92)

Note: The universe of cases is all Senate elections from 1952 to 2006 outside of Louisiana where an incumbent sought reelection. Marginal states are those between 45% and 55% as a check on robustness. All of the italicized variables are adjusted by party. The model is computed using logistic regression.
**p≤ .10; **p≤ .05 ; ***p≤ .01*

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