

# **Challengers, Choices, and Competition in Congressional Primaries**

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## **Abstract**

Congressional primary elections have received a growing amount of scholarly attention during the past decade. On one level, this reflects growing media attention on ideology and increasing levels of polarization in Congress, for which primaries are often blamed. On another, it reflects an increasing awareness that primaries are where the locus of competition is often centered in congressional elections. In this paper, we explore the role that congressional primaries play with respect to competition in U.S. House elections, especially as elections have become significantly less competitive at the general election stage. We also examine the role that candidate quality plays in primary elections, a factor that has received surprisingly little attention in the primary elections literature to date. Our findings have notable implications for our understanding of congressional primary elections and suggest several avenues for future research in the study of these important democratic institutions.

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By the end of 2009, President Barack Obama’s approval rating dipped below 50 percent for the first time during his tenure as the economy’s recovery had been minimal at best under unified Democratic control of the government. As such, the 2010 primary elections saw a massive influx of Republican congressional candidates looking to unseat incumbent Democrats in competitive and leaning districts. The Rothenberg Political Report described substantial gains for the GOP as “inevitable.” As Representative Kevin McCarthy (CA-23<sup>rd</sup>) stated:

You get enough people on their surfboards, you send them in the right direction and see how many can get to shore. If the wave is big enough, we get there. But if you don't have them out there and you see the wave coming, it takes too long to paddle and try to turn around and catch it, so you've gotta be prepared.<sup>1</sup>

Given this harsh political climate, 17 Democratic incumbents chose to retire prior to the 2010 midterm elections. In Tennessee’s 8<sup>th</sup> district, 11-term incumbent and founder of the Blue Dog Democratic coalition John Tanner announced he would not seek another term in the House of Representatives, simply stating that, “20 years was an appropriate amount of time to serve.”<sup>2</sup> This resulted in a Republican field of five candidates with farmer and gospel singer Stephen Fincher emerging victorious. On the Democratic side, state senator Roy Herron defeated political amateur Kimberlee Smith. Fincher would ultimately win the district by more than 20 percentage points.

Not all vulnerable Democrats decided to retire, however. Former Montgomery mayor Bobby Bright won his initial bid for Alabama’s 2<sup>nd</sup> district in 2008 by less than 1 percent, and would go on to amass the second most conservative DW-Nominate score among Democrats while in the House, voting against legislation such as the Affordable Care Act and the Hate Crimes Prevention Act. Indeed, his actions left one observer to speculate that he might defect

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<sup>1</sup> <http://www.washingtonpost.com/wp-dyn/content/article/2010/01/07/AR2010010703555.html>

<sup>2</sup> <http://www.nashvillepost.com/home/article/20403766/tanner-to-retire>

from the Democratic Party to eventually join the Republicans.<sup>3</sup> Bright would run unopposed in the Democratic primary only to be defeated by city councilwoman Martha Roby by 2 percent in the 2010 general election. In contrast to Bright's uneventful nomination, Roby defeated three other candidates in the Republican primary, but did not secure a large enough percentage of the vote to avoid a runoff. She would ultimately defeat her opponent by a 20-point margin before participating in the district's most expensive race in history.<sup>4</sup>

By the time each House election was decided, Republicans gained 63 seats—the largest seat change since 1938. This historic result can largely be attributed to a concerted effort by the Republican Party to take advantage of national conditions to field and financially back as many candidates as possible to maximize their chances of regaining a majority in the House. Indeed, Republican primaries in 2010 featured 2.7 candidates on average, compared to the Democrat's 1.6 candidates.

This result stands in contrast to some of the outcomes witnessed in the 2016 elections. For example, Republican Representative Pete Sessions (TX-32<sup>nd</sup>) would easily win his bid for reelection as there was no Democratic candidate to compete against. However, Democratic presidential candidate Hillary Clinton received 48.5 percent of the vote in that district compared to her Republican counterpart Donald Trump's 46.6 percent. Though it is impossible to know how the outcome would have differed—if it would have differed at all—recruiting any potential Democratic challenger could have scored a major upset for the Democratic Party.

These anecdotes illustrate a number of determinates of primary elections. First, open seats garner greater candidate participation than incumbent contested elections as illustrated by the example from Tennessee's 8<sup>th</sup> district. Second, national conditions can influence who runs

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<sup>3</sup> <https://fivethirtyeight.com/features/2009s-most-valuable-democrat-is/>

<sup>4</sup> <https://www.nytimes.com/elections/2010/house/alabama/2.html>

for, and ultimately wins, primary elections, which in turn influence the partisan composition of Congress. As seen in the Texas 32<sup>nd</sup> district example, without clear and favorable electoral conditions, Democrats did not invest significant resources in the district. However, as seen in Alabama's 2<sup>nd</sup> district example, it was clear that voters would not be favorable to a Democratic candidate, even if that candidate were an incumbent and ideologically conservative. Third, quality challengers appear to be advantaged in primaries by their previous elective experience. This is evidenced by Martha Roby and Roy Herron's initial success.

Congressional primary elections have received a growing amount of scholarly attention in recent years (Boatright 2014; Hassell 2015; King 2017). One factor that seems to be in widespread agreement concerning primaries is that they have become the locus of competition relative to general elections where a declining number of seats are in play in any given election (Jacobson and Carson 2016; Jewitt and Treul 2014). Nevertheless, one important overlooked issue is the overall quality of the candidates that have been running in congressional primaries in recent years. For instance, we simply do not know if a greater proportion of quality candidates are emerging to run in primaries today compared with the past. In this paper, we expand on a budding literature of primary elections by further exploring these factors more systematically across a wide range of congressional elections.

We begin with a brief discussion of the importance of studying congressional primary elections before turning to our theoretical expectations and hypotheses. We then provide a short descriptive analysis of some important and revealing trends in congressional primaries before performing a more sophisticated test of our hypotheses. Lastly, we discuss the implications of our findings with respect to representation and electoral accountability as well as explore ideas for future research.

## Why Primaries?

During the nineteenth century, House candidates were selected primarily by state political parties and party machines. Following the adoption of the Australian ballot in the late nineteenth century, there was a growing demand for a system of candidate selection that would be less corrupt and more democratic. As a result, the direct primary would be adopted alongside other Progressive Era reforms. Oregon and Minnesota were the earliest adopters in 1901, while every state would implement this reform by the 1930s. Proponents of the change believed that taking power away from parties and machines would subsequently lead to increased competitiveness in the general election. Despite this seemingly intuitive belief, such a change never manifested as less appealing general election candidates who would have been unable to secure the party's support were able to win over a party's primary voters, therefore having a negative impact on that party's chances. Furthermore, experienced challengers were more hesitant to run without the promise of a patronage position provided by the local machine should they fail to win, which also had a negative impact on a party's chances of electoral success (Carson and Roberts 2013).

Figure 1 shows that this trend has continued as interparty competition in general elections continues to decrease, especially in recent decades. Here, we see that no election cycle within the past 60 years has yielded more than 1 in 4 competitive races, and fewer than 1 in 10 races since 2000 have been considered competitive.<sup>5</sup> This is further reflected in the consistent ability of more than 9 in 10 incumbents collectively retaining their seats in the U.S. House since World War II (Jacobson and Carson 2016).

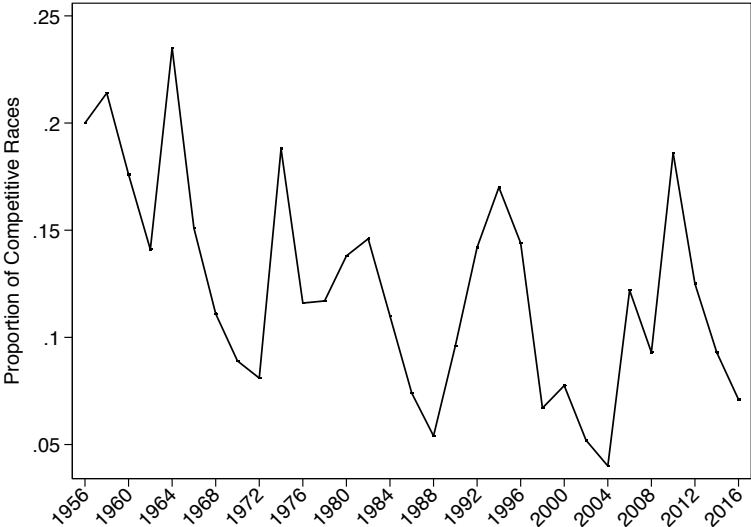
However, these numbers do not mean that incumbents are simply coasting to reelection. They must first win their party's nomination, which is not always a forgone conclusion. The

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<sup>5</sup> A competitive election is defined as one in which the winning candidate received 55 percent or less of the two party vote.

most notable recent example of this occurred in Virginia’s 7<sup>th</sup> district during the 2014 primary season. House Majority Leader Eric Cantor was framed as not adhering closely enough to the conservative principles of the Republican Party, and despite greatly outspending a political amateur, ultimately lost his bid for reelection to the current representative of the district, David Brat.<sup>6</sup>

**Figure 1: Proportion of Competitive House General Elections**



Incumbent defeats in primaries are indeed rare as only an average of about 4.5 such losses have occurred between 2000 and 2016 with the most coming in the post-redistricting years of 2002 and 2012. However, this number is quite impressive when considered in conjunction with other factors contributing to these election outcomes. First, incumbent defeats in the general election are also quite rare, and they usually are a product of national tides— a factor that should not theoretically influence primary elections in the same manner since each state holds separate primary elections at various times throughout the election year. Second, incumbents are seasoned

<sup>6</sup> According to [opensecrets.org](https://www.opensecrets.org/news/2014/06/dave-versus-goliath-by-the-numbers/), Cantor spent over 26 times as much money in the congressional primary than David Brat, but still lost in the VA primary. Cantor’s campaign ended up spending more on food than Brat spent during the entire campaign: <https://www.opensecrets.org/news/2014/06/dave-versus-goliath-by-the-numbers/>.

politicians who are acutely aware of and sensitive to the current political environment. This often results in strategic departures from office through retirement or pursuit of a higher office to avoid experiencing electoral defeat (Carson 2005). Indeed, an average of nearly 35 incumbents (almost 8 percent of the chamber) have decided to retire each year from the House of Representatives between 2000 and 2016 as seen in Table 1. Without these strategic exit decisions, there would likely be more primary and general election defeats.

**Table 1: Number of House Incumbents Leaving Office**

<b>Year</b>	<b>Primary Defeats</b>	<b>General Defeats</b>	<b>Retirements</b>
2000	2	6	30
2002	6	8	36
2004	3	7	28
2006	2	22	27
2008	4	19	33
2010	4	54	37
2012	13	27	40
2014	4	13	38
2016	5	8	43
Average	4.8	18.2	34.7

## **Theory and Hypotheses**

### *Candidate Emergence*

In this paper, we seek to explain who runs in congressional primaries, when they decide to do so, and how each candidate ultimately fares in the elections. First, candidates for office are progressively ambitious but also strategic in their decisions to seek higher office (Schlesinger 1966, Rohde 1979). Rohde (1979) shows that the decision to run is the product of calculating the risks inherent in seeking a certain office, the willingness of a candidate to bear those risks, the value of the seat being sought, and the probability of winning that seat based on the political environment of the time. When the decision to run is costless, Rohde maintains that individuals

will almost always seek higher office. Subsequent research has shown that such decisions often entail an opportunity or political cost, which is why individuals exhibit strategic behavior (see, e.g., Jacobson 1989; Carson 2005).

Furthermore, non-incumbents—both amateurs and quality candidates—will seek elective office when their probability of success is at its highest. However, the circumstances that are most promising for these two groups are not the same. Banks and Kiewiet (1989) demonstrate that quality challengers will most likely wait until the incumbent House member exits the office (through retirement, election to a higher office, or death) before seeking to represent that district. They may possess high name recognition, substantial legislative accomplishments, and favorable partisanship in the eyes of the district, but relying on those against an incumbent would be much riskier than doing so in an open seat. Failure to successfully defeat an incumbent could have numerous adverse consequences. First, defeat could result in the challenger being viewed more negatively by voters and potential donors, which could have adverse effects on future bids for office as well. Second, it would likely mean giving up the seat currently held such as a position in the state legislature (Bianco 1984; Carson, Crespín, Eaves and Wanless 2012). As the time between a challenger's last term in office and an election increases, the challenger enjoys far less name recognition and has fewer recent legislative accomplishments to claim credit for. Finally, possessing seniority in a smaller legislative chamber affords a politician considerable influence over policy. As such, losing a bid for higher office could also mean losing a substantial opportunity to enact meaningful change (Carey, Niemi, and Powell 1998).

Experienced politicians know that the probability of defeating an incumbent is small, which deters their entrance, but this fact has the opposite effect on amateur candidates as Banks and Kiewiet (1989) demonstrate. Though the probability of success is small, running against an



incumbent means there are fewer (if any) other candidates vying for the nomination, which reduces the overall level of competition. If the incumbent were to unexpectedly leave office after the filing deadline or were to become vulnerable through scandal or national tides, the political amateur would be much more likely to win, if not win by default.<sup>7</sup> Additionally, the decision by an amateur to run against an incumbent does not carry the same risks. An amateur is usually not expected to win, and therefore may not be viewed more negatively by voters and donors in the future. They also do not have to relinquish their existing position to run. Indeed, competing in the election may be their best opportunity to accrue name recognition, take public positions on issues, and influence policy indirectly by having the incumbents coopt pieces of their platforms.

Although Boatright (2014) explores challenger emergence in primaries in his important new book, he does not control for prior elective experience in his various analyses. Instead, he measures whether an incumbent faces a “serious challenge” by analyzing whether she receives less than 75 percent of the vote, which could easily be distorted by the overall number of candidates running. For example, only 22.4 percent of primary elections between 1980 and 2016 featured 2 candidates, and another 17.8 percent featured more than 2 with as many as 27 candidates in Maryland’s 7<sup>th</sup> district race in 1996. Here, the winning candidate received only 37 percent of the vote. However, this was 13 percentage points more than the second place finisher, and the other 25 candidates split the remaining 39 percent. As such, we believe considering the emergence of quality challengers is important to understanding primary elections. Additionally, in light of previous work analyzing the effect of strategic politicians at the general election stage of House elections (see, e.g., Jacobson and Kernell 1983; Jacobson 1989), we think it is also worthwhile to investigate this phenomenon in greater detail during congressional primaries.

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<sup>7</sup> For an alternative perspective regarding political amateurs’ motivation for running for Congress, see Canon (1993). In brief, he argues that amateurs would be better off running in open seat contests since they actually do *not* maximize their chances of winning by running against incumbents.

## *Nationalization*

Another factor that can influence who runs for and wins primary elections are national conditions. In his analysis of general elections, Jacobson (1989) argues that “strategic political elites play a pivotal role in translating national conditions into election results” and quality challengers “run when prospects appear to favor their party” (773). Additionally, in his more recent work, Jacobson (2015) demonstrates that elections have become increasingly nationalized during the past few decades. One consequence of this increasing nationalization, according to Jacobson, is that the value of incumbency decreases as partisanship increases, which therefore diminishes the advantage enjoyed by current officeholders. Furthermore, as nationalization increases, voters tend to base their decisions on which *party* they want governing the *country* more so than which *candidate* they want representing their *district*, which could ultimately result in a quality challenger losing a bid for office simply by virtue of being from the “wrong” party.<sup>8</sup>

Although there is still an ongoing debate over the underlying causes of nationalization in House elections (Abramowitz and Webster 2016; Carson, Sievert, and Williamson 2015; Carson, Roberts, and Surminsky 2017; Jacobson 2015), one point remains clear: general elections should be more nationalized than primary races since the former are held concurrently with presidential elections. Nevertheless, Boatright (2014) correctly notes that primaries have witnessed greater nationalization in recent years and this increased nationalization has brought greater attention to congressional primaries across the country. Rather than emphasizing candidate traits or district needs, these elections tend to focus more heavily on the ideological conflict between the parties. Therefore, during highly nationalized election cycles, the entry calculus changes for potential

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<sup>8</sup> This is somewhat analogous to the way elections were conducted during the nineteenth century when the party ballot was in use and voters selected from among competing parties rather than candidates. This changed following the adoption of the Australian ballot during the 1890s (Carson and Roberts 2013).

candidates. Challenges to incumbents are more likely and should be more likely to be successful during increased periods of nationalization.

### *Hypotheses*

Given the preceding discussion, we hypothesize the following relationships with respect to primary elections:

*H<sub>1</sub>: Quality challengers will be more likely to emerge when the incumbency advantage is the lowest (i.e. open seat race, vulnerable incumbent, competitive district, or high nationalization), while amateurs will be more likely to emerge when competition is the lowest (i.e. strong incumbent seeking reelection, non-competitive district, or low nationalization).*

*H<sub>2</sub>: Quality challengers will fare better in primary elections than amateur candidates, all else equal.*

*H<sub>3</sub>: The effect of candidate quality should be greater in primary elections compared to general elections when nationalization is higher.*

### **Data and Methods**

We have presented a theoretical argument for candidate emergence and the strategic behavior of politicians in primary elections. Now, we turn to an empirical investigation of our theoretical expectations. Our data are comprised of all candidates in House primary elections between 1980 and 2016. We created a new dataset of candidate emergence and competition, in House primary elections, based on data recorded by the *America Votes* series, which records election results for each state. We also incorporated district-level variables from Gary Jacobson's U.S. House general election dataset. The *America Votes* series provides valuable information pertaining to each election, such as candidate specific information (i.e. candidate name and party

affiliation) and primary election specific information (i.e. the election results and incumbency information). Furthermore, Gary Jacobson's data allows us to examine aggregate data specific to each district, such as presidential vote by district and previous congressional vote share. We built upon this information and crafted a unique data set of candidate emergence in House primary elections from 1980-2016.

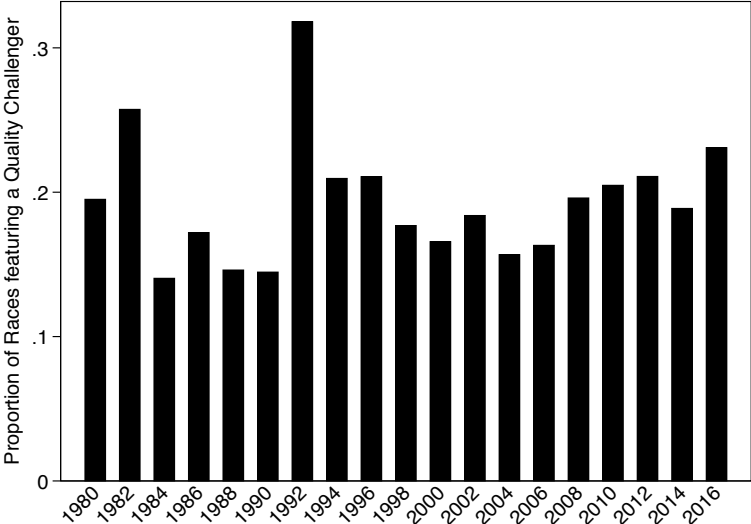
As mentioned previously, the extant literature on primary elections is relatively silent on the issue of candidate quality, with the exception of Banks and Kiewiet (1989) who test this issue directly (see also Boatright 2014). We extend the research of Banks and Kiewiet (1989) and Boatright (2014) by directly examining the effect of candidate quality in primary elections from nearly four decades of elections. To achieve this, candidate quality information was collected for each candidate, involved in a major party primary, for every primary election from 1980-2016. This massive undertaking required that every candidate, excluding incumbents, be individually searched to obtain information pertaining to their electoral experience. This information was collected by searching news records for each candidate. Specifically, we utilized Lexis Nexus Academic, ProQuest, *Newspapers.com*, and Google searches to find any information about the candidates. The coding of the data was systematic in nature. All sources mentioned above were searched in a previously discerned order to ensure that the information obtained on a particular candidate was reliable (i.e. multiple sources identified similar information about the same candidate). Also, for candidate information that could not be found, we wanted to ensure that a reasonable number of sources were searched before declaring that the information of a candidate could not be found.

Our coding criteria for quality candidates follows the guidelines of Jacobson (1989) where a candidate is considered to be a "quality" candidate if they were previously elected to

office (i.e. governor, state legislator, city councilman, etc.), and candidates are considered to be “amateurs” if they have never been previously elected to office. Unfortunately, we were not able to find every candidate that emerged during our election years. The candidates for which we were unable to find background information were coded as political amateurs.<sup>9</sup> Overall, we were successful in finding information for an overwhelming majority of the data. For each decade, the proportion of candidate information found was at least 90 percent.

*Descriptive Analysis*

**Figure 2: Quality Challenger Emergence in House Primary Elections**



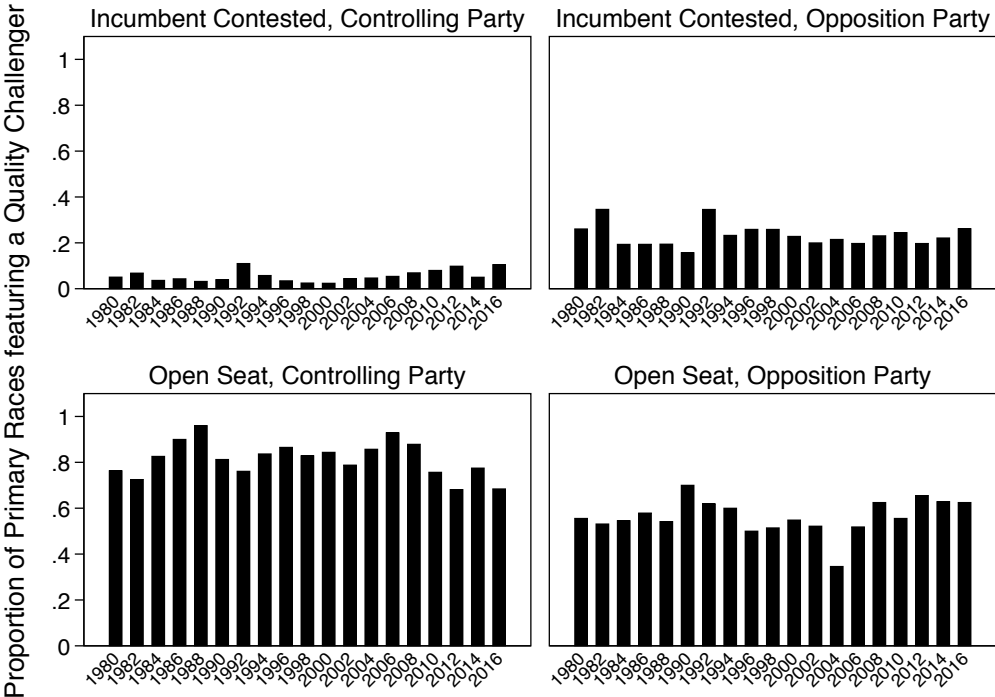
Our data comprise all candidates in House primary elections between 1980 and 2016 and we are largely interested in the emergence patterns of candidates. Figure 2 depicts the proportion of primary races featuring at least one challenger with previous elective experience. From this, we see that primary elections typically do not feature a quality challenger, but such instances

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<sup>9</sup> The candidates that we found no information about generally received 10-15 percent of the vote share or less. Therefore, we follow Gary Jacobson’s advice for those individuals where we could not find any information, and code them as amateur candidates (i.e. no previous electoral experience). The logic behind this relates to the notion that if no information is found, it is safe to assume that the candidate held no previous elected positions.

tend to be more common in years following a redistricting cycle (although the pattern is not as pronounced in 2012). This makes intuitive sense as redrawing congressional boundaries could produce a different constituency for a sitting member, therefore reducing his or her incumbency advantage. Aside from these fluctuations, quality challengers emerge at relatively low and consistent levels across time—an average of 19.4 percent during the period observed.

**Figure 3: Quality Challenger Emergence in House Primary Elections by Open Seats and Partisan Control**

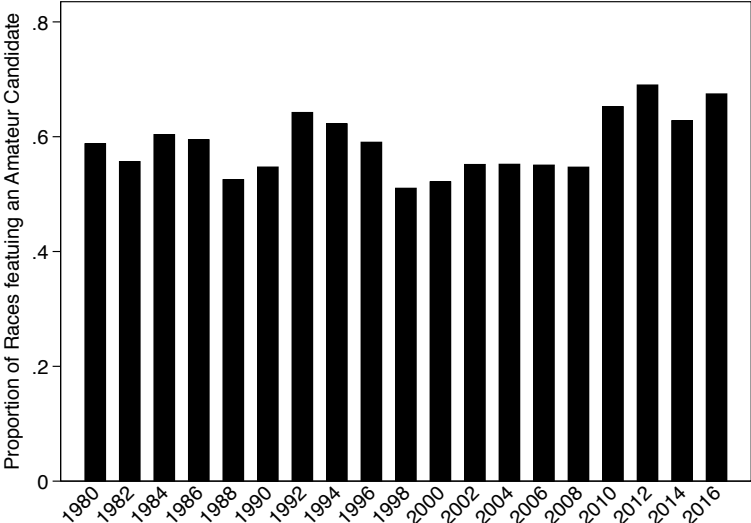


When we disaggregate races by open seat status and by partisan control of the district, however, considerable differences emerge as depicted in Figure 3. Consistent with our theoretical expectations, quality challengers are least likely to compete in an election if their party controls the district and the incumbent is seeking reelection. On average, only 5.5 percent of races meeting these criteria witness the emergence of a quality challenger. Alternatively, when an incumbent does not seek reelection, nearly 4 out of every 5 primaries for the incumbent’s

party featured a quality challenger. For members of the opposition party, open seat races are also more likely to solicit quality challenger participation than incumbent-contested ones, but at lower levels than seen among candidates from the in-party (22.9 percent fewer). Furthermore, experienced members of the opposition party are more likely to emerge in incumbent-contested elections than are the incumbent’s co-partisans, but this is still a relatively rare occurrence with fewer than 1 in 4 races fitting this description.

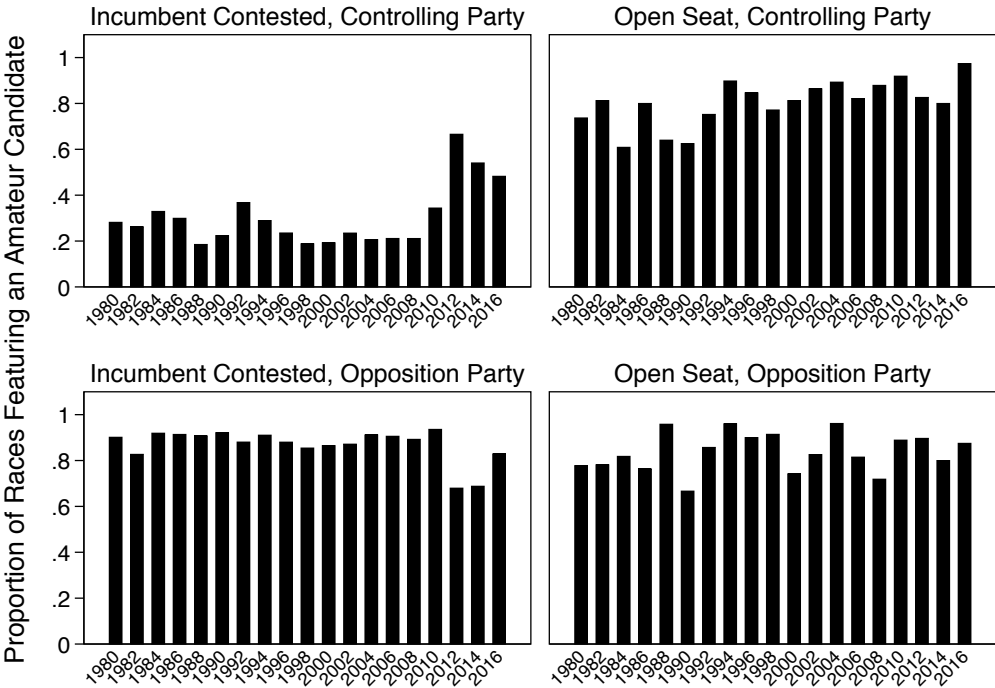
Since congressional primaries feature a mix of both experienced and amateur candidates running for office, Figure 4 illustrates the proportion of candidates lacking political experience competing in House primary elections. From this, we see that amateur candidates are much less selective than quality challengers about when they decide to run. This also makes intuitive sense as they are also much greater in number relative to experienced challengers. During the period of our analysis, for instance, nearly 3 out of every 5 primaries featured an amateur candidate. Additionally, some of the years with the greatest levels of amateur participation are following a redistricting cycle, but this difference is negligible.

**Figure 4: Amateur Candidate Emergence in House Primary Elections**



As with quality challengers, amateur candidates also emerge at markedly different levels depending on the context of the race as depicted in Figure 5. Here, we see that these candidates are much less likely to run when an incumbent copartisan is seeking reelection. However, the primaries of the opposition party are almost 3 times more likely to witness at least one amateur candidate (29.8 to 87.0 percent, respectively). Interestingly, amateur candidates are equally likely to emerge in open seat races regardless of whether or not they are members of the in-party or the out-party (81.0 to 84.1 percent, respectively).

**Figure 5: Amateur Candidate Emergence in House Primary Elections by Open Seats and Partisan Control**

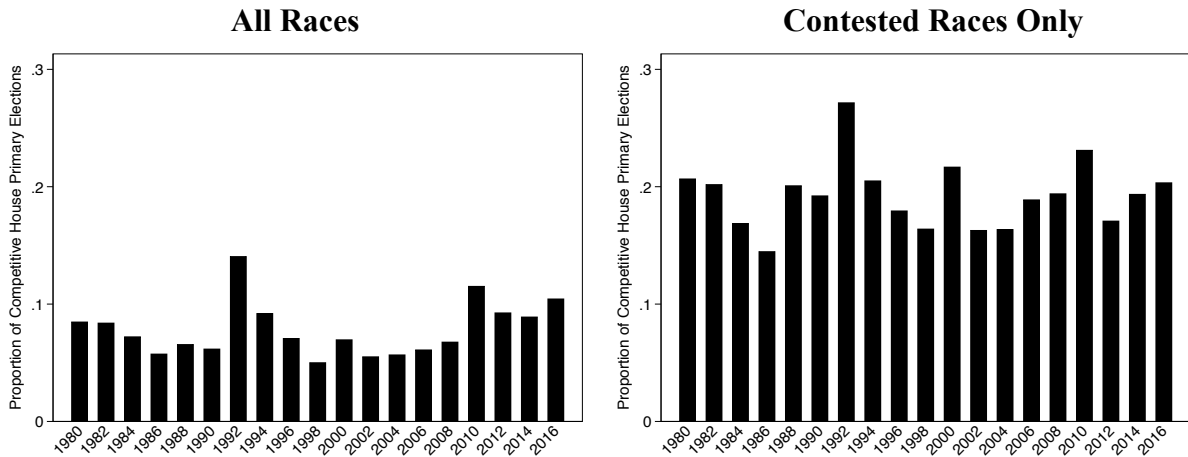


Lastly, we show the level of competitiveness in House primary elections in Figure 6. As the left panel demonstrates, primary elections are consistently uncompetitive affairs (less than 8 percent of all races during this time period were classified as such). One contributing factor to this is the large number of uncontested races. Indeed, nearly 60 percent of all races feature only

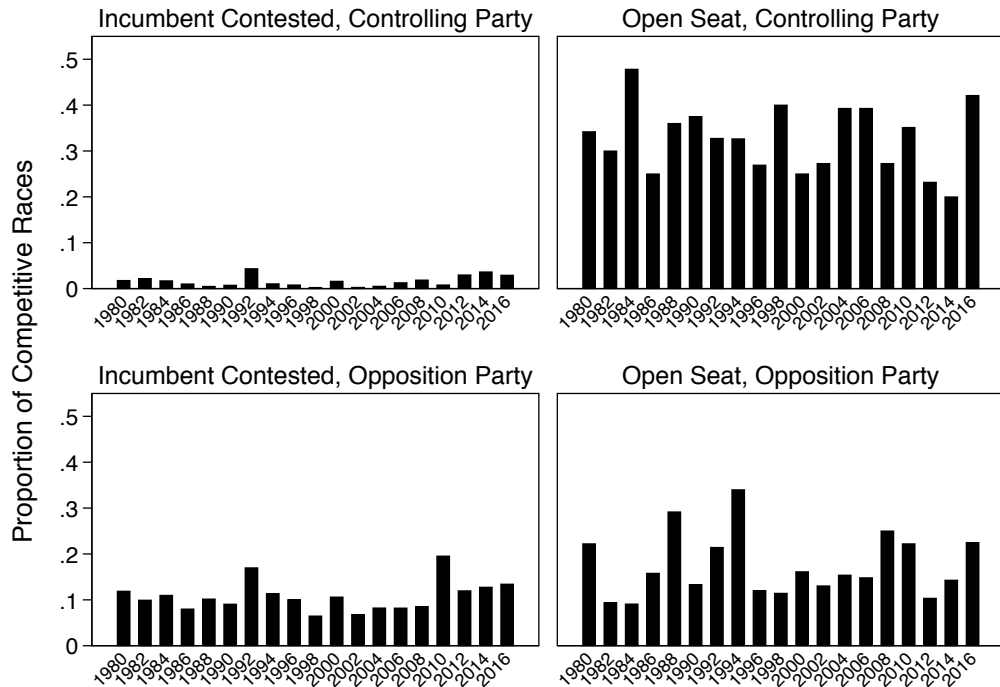


one candidate. However, even when only considering races with multiple candidates, fewer than 1 in 5 primaries are won by less than 10 percentage points.

**Figure 6: Proportion of Competitive House Primary Elections**



**Figure 7: Proportion of Competitive House Primary Elections by Open Seats and Partisan Control**



Again, context is important in understanding overall levels of competitiveness, as Figure 7 demonstrates. Incumbents face competitive primary elections fewer than 2 percent of the time. Between 1980 and 2016, for instance, there were only 111 instances of incumbents running in competitive primaries, though it should be noted that 33 of those cases have occurred in the 3 most recent election cycles. Conversely, competition is greatest in open seat elections for the incumbent's party. However, these races are still normally one-sided affairs as fewer than 1 in 3 races are decided by less than 10 percentage points.

### *Empirical Analysis*

For our more systematic analyses, we predict quality candidate emergence in one set of estimations and competitiveness in another in order to test our theoretical expectations regarding primary elections. Our models of quality candidate emergence are logistic regressions with the dependent variable coded as 1 for any primary election that had at least one quality candidate participating and 0 for primary elections that did not. Our models of competitiveness are also logistic regressions with the dependent variable coded 1 for primary elections where the difference in vote share between the first and second place candidates is 10 percent or less and 0 otherwise.

In the quality candidate emergence model, we control for open seats, freshman status, lagged competitiveness, the size of the pool of potential challengers, in-party status, concurrent presidential primaries, midterm elections, and district preferences. *Open Seat* indicates whether or not the incumbent member of the House of Representatives was seeking reelection. As previously explicated, quality challengers are strategic and we would therefore expect an increase in their emergence in these types of races (Jacobson 1989). *Freshman* indicates if the incumbent is running for reelection for the first time. Freshman incumbents experience different

electoral advantages and disadvantages than their more seasoned colleagues. Freshman members have not fully galvanized their electoral bases and may not be able to take full advantage of the electoral connection (Fenno 1978; Mayhew 1974). Therefore, an incumbent's freshman status might send a signal to quality challengers that they are vulnerable and potentially beatable. We also control for *lagged competition*, which is a dichotomous variable that indicates if in the previous primary election, the margin of victory was 10 percent or less. This may send a signal that the incumbent is also vulnerable, which could elicit greater quality challenger emergence.

*Potential Candidates* is a proxy for the number of quality challengers that potentially could emerge in a state. We calculate this measure by dividing the number of state legislators by the number of congressional districts.<sup>10</sup> We expect states with larger pools of potential challengers to witness greater levels of quality challenger emergence. For example, New Hampshire has 424 state legislative seats but only 2 federal congressional districts while Texas has 181 state legislative seats and 36 federal congressional districts. Therefore, this variable is coded as 212 for New Hampshire and 5.03 for Texas. Given this disparity, we expect quality challengers to emerge much more often in New Hampshire than Texas all else equal.

In light of prior work by Banks and Kiewiet (1989), we know that many candidates in primary elections will emerge even when they are from the opposite party that controls the district. We use in-party status as a way to capture this phenomenon. *Out-Party* status indicates whether or not the primary race is of the same party as the one that controls the district. This variable is coded 1 for the opposite party's primary and 0 for the incumbent parties' primary. For

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<sup>10</sup> We are aware that this does not fully capture the number of quality challengers that a state potentially has, but given that state legislative positions are natural stepping stones for federal legislative positions and there is enormous variation in the size of state legislatures, we feel it is a useful proxy for capturing this dynamic.

instance, if a congressional district is currently controlled by the Republicans, then the Republican primary is coded as in-party and the Democratic primary is coded as out-party.

To investigate the effects of nationalization as discussed by Jacobson (2015) in general elections and Boatright (2014) in primary elections, we control for concurrent presidential and congressional primaries. *Presidential Primary* indicates whether a state has their congressional and presidential primaries on the same day. *Midterm* is an indicator variable that distinguishes midterm elections years from presidential election years. A positive and significant coefficient for the former variable and a negative and significant coefficient for the latter would indicate that quality challengers are potentially using the more nationalized elections to bolster their chances of success as incumbents are more vulnerable under these circumstances (Abramowitz and Webster 2016, Carson et al. 2015).

We control for the preferences of the congressional district as well. *District Preferences* is a variable measuring the presidential two-party vote share that was received by each party in the district. This measure serves as an indication of how the district leans on a national scale. Finally, based on the structure of our data, we utilized random effects for each state and each election year.

## **Results**

Table 1 reports the results of our pooled quality candidate emergence model. We have calculated multiple iterations of the model across different subsets of the data and present them below. First, we discuss the results from the pooled model. In primary elections from 1980-2016, we find that quality candidate emergence is related to whether there is an incumbent, if the incumbent is a freshman, the number of potential quality candidates, out-party status, and district preferences. For open seats, the probability of a quality challenger emerging increases when the

seat is open compared to when there is an incumbent, all things equal for a given state in a given year. For instance, when there is an incumbent vying for reelection, the probability of a quality candidate emerging is 30 percent. Conversely, if the seat is open, the probability of a quality candidate emerging is 85 percent, all else equal. This conforms to our expectations regarding the strategic nature of candidates.

**Table 1: Logistic Regression Estimates of Quality Candidate Emergence**

	Pooled Model
Open Seat	<b>2.578</b> <b>(0.093)</b>
Freshman	<b>0.632</b> <b>(0.087)</b>
Lagged Competition	0.084 (0.104)
Potential Candidates	<b>0.006</b> <b>(0.002)</b>
Out-Party	<b>0.858</b> <b>(0.080)</b>
Presidential Primary	0.063 (0.108)
Midterm	0.038 (0.118)
District Preference	<b>0.034</b> <b>(0.003)</b>
Intercept	<b>-3.524</b> <b>(0.217)</b>
Random Effects:	Variance
State (Intercept)	0.077 (0.276)
Year (Intercept)	0.031 (0.177)
Observations	5,513
Log Likelihood	-2,950.863
AIC	5,923.727

\* Presented are both the fixed and random effects for the model. The random effects are presented with the variance and standard deviation in parenthesis. Bolded coefficients indicate  $p < 0.05$ . All models exclude Louisiana (all), California (2012-2016), and Washington (2012-2016).

As expected, we find that if the incumbent is a freshman, the probability of a quality challenger emerging in the primary increases, all things equal in a given state and year. Substantively, if the incumbent is a freshman, the probability of emergence is 45 percent, compared to just 30 percent when the incumbent is more senior. The number of potential candidates has an effect on the probability of quality candidate emergence as well. As the number of potential candidates increases, in a given state and year, the probability that a quality candidate emerges increases. Moving from the smallest value of our measure of the candidate pool (2) to the largest (217), the probability of a quality challenger emerging in any given primary election doubles, from 30 to 60 percent.

Providing additional support for Banks and Kiewiet's (1989) argument, we find that being a member of the out-party also increases the probability, from 15 to 30 percent, that a quality candidate will emerge, in a given state and year. Lastly, as expected, the political preferences of the district impact quality candidate emergence. We find that as the presidential two-party vote share of a district increases, the probability of a quality candidate emerging increases, in a given state and year. Substantively, at the lowest level of the presidential two-party vote share, there is around an 8 percent chance of quality candidate emergence. Alternatively, the probability of emergence approaches 70 percent at the highest level of presidential two-party vote share. Overall, these results support our expectations.

Table 2 presents the results for the quality candidate emergence model, this time separated by decade. The results provide a robustness check for our pooled model, and are largely consistent with the pooled model. Within each decade, we find that open seats, freshmen incumbents, being a member of the out-party, and the preferences of the district all affect the emergence of quality candidates. All of the previously mentioned variables are positive and

significant and indicate that they increase the probability of quality candidate emergence, in a given state and year.

**Table 2: Logistic Regression Estimates of Quality Candidate Emergence by Decade**

	1980s	1990s	2000s	2010s
Open Seat	<b>2.544</b> <b>(0.180)</b>	<b>2.644</b> <b>(0.165)</b>	<b>2.805</b> <b>(0.201)</b>	<b>2.368</b> <b>(0.251)</b>
Freshman	<b>0.633</b> <b>(0.168)</b>	<b>0.661</b> <b>(0.166)</b>	<b>0.874</b> <b>(0.198)</b>	<b>0.454</b> <b>(0.181)</b>
Lagged Competition	0.274 (0.203)	0.087 (0.191)	0.081 (0.237)	-0.150 (0.218)
Potential Candidates	<b>0.009</b> <b>(0.003)</b>	<b>0.008</b> <b>(0.003)</b>	0.005 (0.003)	0.004 (0.003)
Out-Party	<b>0.738</b> <b>(0.141)</b>	<b>0.872</b> <b>(0.149)</b>	<b>0.612</b> <b>(0.192)</b>	<b>1.556</b> <b>(0.208)</b>
Presidential Primary	0.181 (0.205)	-0.357 (0.204)	0.140 (0.202)	0.123 (0.225)
Midterm	<b>0.446</b> <b>(0.189)</b>	<b>-0.565</b> <b>(0.202)</b>	0.150 (0.185)	-0.024 (0.191)
District Preference	<b>0.025</b> <b>(0.005)</b>	<b>0.036</b> <b>(0.006)</b>	<b>0.031</b> <b>(0.007)</b>	<b>0.050</b> <b>(0.007)</b>
Intercept	<b>-3.355</b> <b>(0.354)</b>	<b>-3.258</b> <b>(0.409)</b>	<b>-3.328</b> <b>(0.498)</b>	<b>-4.739</b> <b>(0.494)</b>
Random Effects:	Variance			
State (Intercept)	0.171 (0.414)	0.129 (0.360)	0.113 (0.336)	0.072 (0.268)
Year (Intercept)	0.007 (0.088)	0.016 (0.127)	0.004 (0.066)	0.004 (0.067)
Observations	1,539	1,558	1,231	1,185
Log Likelihood	-801.010	-837.198	-662.463	-628.480
AIC	1,624.020	1,696.397	1,346.927	1,278.960

\*Presented are both the fixed and random effects for the model. The random effects are presented with the variance and standard deviation in parenthesis. Bolded coefficients indicate  $p < 0.05$ . All models exclude Louisiana (all), California (2012-2016), and Washington (2012-2016).

There are also differences between the decades that were not initially apparent in the pooled model. The effect of the pool of potential candidates, concurrent presidential primaries, and midterm elections vary over time. For the 1980s, 1990s, and 2000s, as the number of

potential candidates in a state increases, the probability that a quality candidate emerges in a given primary also increases. However, we do not observe the same dynamic for the 2010s. In the 1990s, states that held their congressional primaries on the same day as the presidential primary decreased the probability that a quality candidate would emerge, which provides some evidence of nationalization at the primary election level. We find no support of this relationship for any of the other decades though. Similarly, during midterm election years in the 1980s and 1990s, we find evidence that midterm elections influence quality candidate behavior. During midterm elections in the 1980s, the probability of a quality candidate emerging increases. Alternatively, in the 1990s, midterm election years decrease the probability of quality candidate emergence. As with the pooled model, our theoretical expectations are largely met.

Substantively, for the 1980s, we find that if there is an open seat, the incumbent is a freshman, the number of potential candidates, being a member of the out-party, if it is a midterm election year, and the preference of the district affect the emergence of quality candidates. In the presence of an open seat, the probability that a quality candidate emerges is around 79 percent, compared to 23 percent when an incumbent is present. We find that when the incumbent is a freshman, there is around a 36 percent chance of emergence versus just a 23 percent change when the incumbent is a senior member of Congress. The overall number of potential candidates available in a state dramatically affects the probability of emergence; moving from the minimum to the maximum, there is an increase in the probability of emergence of 42 percentage points. Similarly, when the candidate is a member of the out-party, there is around a 23 percent probability of emergence compared to a 12 percent probability when the candidate is of the in-party. The effect of midterm elections is not as strong, but there is a 32 percent probability of emergence during midterm election years, compared to a 20 percent probability in other election



years. Lastly, the preferences of the congressional district influence the probability of candidate emergence in a significant manner. By moving from the minimum presidential two-party vote to the maximum, there is an increase in the probability of emergence of 44 percentage points.

The 1990s present similar results to the 1980s. We find that if there is an open seat, the incumbent is a freshman, the number of potential candidates, being a member of the out-party, if it is a midterm election year, and the preference of the district affect the emergence of quality candidates. For an open seat, the probability of emergence is around 85 percent, compared to just 28 percent when an incumbent is present. If the incumbent is a freshman, the probability of emergence is 43 percent. Conversely, there is a 28 percent chance of emerge when the incumbent is not a freshman. The number of potential candidates shifts the probability of emergence from 25 percent, at its lowest level, to 66 percent at its highest level. If a candidate is a part of the out-party, the probability of emergence is 28 percent, compared to 13 percent when they are in the in-party. Opposite of the results in the 1980s, if the election is during the midterms, the probability of a quality challenger emerging is around 28 percent, compared to 41 percent when the president is at the top of the ballot. For district preferences, moving from the minimum level to the maximum level, there is a change in the probability from 6 to 70 percent.

The 2000s do not deviate that dramatically from the previous decades observed. As expected, the probability of a quality candidate emerging during an open seat is around 86 percent, compared to only 26 percent when an incumbent is running for reelection. Similarly, if the incumbent is a freshman, then, the probability of emergence is 46 percent, compared to just 26 percent when the incumbent is more senior. While not as drastic, when a candidate is a member of the out-party, there is a 26 percent chance of emergence versus just a 16 percent chance of emergence when the candidate is in the in-party. Again, we see the dramatic effect of

district preference on the probability of emergence. At the lowest levels of the presidential two-party vote, there is a 7 percent probability of emergence, compared to a 62 percent probability at the highest levels.

In the 2010s, we see similar trends that were present in the 2000s. The presence of an open seat, a freshman incumbent, being a member of the out-party, and district preferences affect the probability of quality candidate emergence. An open seat increases the probability of quality candidate emergence from 11 percent to 57 percent. The presence of a freshman incumbent increases the probability of emergence from 11 percent to around 17 percent. Similarly, being a member of the out-party increases quality candidate emergence to 37 percent, compared to just 11 percent for more senior incumbents. District preferences have an expected and strong relationship with the probability of emergence. From the lowest levels of the presidential two-party vote, there is a 9 percent chance of emergence, compared to a 57 percent chance at the highest level.

Table 3 presents the results of our quality candidate emergence model subset by partisanship and out-party status. This gives us a better understanding of how quality candidate emergence is affected by both political party and out-party status differences. When subset this way, both open seat and the preferences of the district increase the probability that a quality candidate will emerge in a primary election, in a given state and year. There are clear differences in the magnitude of the effects for open seat across out-party status, which is expected based on members of the in-party trying to maintain control of congressional districts once incumbents step down. If an incumbent is a freshman, the probability that a quality candidate will emerge increases for both Republicans in the out-party and Democrats that are in both party statuses. We find no support that the freshman status of the incumbent affects quality candidate emergence for

Republicans within the in-party. The number of potential candidates that are available increases the probability of quality candidate emergence for both Republican and Democrats that are in the out-party. We find no evidence that the number of potential candidates affects quality candidate emergence for Republicans or Democrats that are within the in-party, however. This model demonstrates quality candidate emergence is more nuanced and context specific in primaries.

**Table 3: Logistic Regression Estimates of Quality Candidate Emergence by Partisanship and Controlling Party Status**

	Republican In-Party	Republican Out-Party	Democratic In-Party	Democratic Out-Party
Open Seat	<b>3.967</b> <b>(0.247)</b>	<b>1.391</b> <b>(0.184)</b>	<b>3.711</b> <b>(0.210)</b>	<b>1.411</b> <b>(0.177)</b>
Freshman	-0.077 (0.285)	<b>0.844</b> <b>(0.165)</b>	0.293 (0.221)	<b>0.726</b> <b>(0.152)</b>
Lagged Competition	-0.036 (0.351)	0.126 (0.166)	0.599 (0.312)	-0.015 (0.173)
Potential Candidates	0.004 (0.003)	<b>0.010</b> <b>(0.003)</b>	0.003 (0.005)	<b>0.007</b> <b>(0.002)</b>
Presidential Primary	0.276 (0.282)	0.184 (0.202)	-0.365 (0.222)	0.066 (0.185)
Midterm	-0.073 (0.254)	0.082 (0.244)	-0.107 (0.182)	0.039 (0.181)
District Preference	<b>0.064</b> <b>(0.012)</b>	<b>0.061</b> <b>(0.007)</b>	<b>0.030</b> <b>(0.005)</b>	<b>0.057</b> <b>(0.009)</b>
Intercept	<b>-5.682</b> <b>(0.808)</b>	<b>-4.110</b> <b>(0.413)</b>	-3.251 (0.391)	<b>-3.510</b> <b>(0.426)</b>
Random Effects:	Variance			
State (Intercept)	0.478 (0.692)	0.265 (0.515)	0.093 (0.305)	0.075 (0.275)
Year (Intercept)	0.059 (0.243)	0.153 (0.391)	0.000 (0.000)	0.043 (0.208)
Observations	1,154	1,531	1,472	1,356
Log Likelihood	-482.777	-872.921	-650.632	-808.632
AIC	985.554	1,765.842	1,321.264	1,637.264

\*Presented are both the fixed and random effects for the model. The random effects are presented with the variance and standard deviation in parenthesis. Bolded coefficients indicate  $p < 0.05$ . All models exclude Louisiana (all), California (2012-2016), and Washington (2012-2016).

In the Republican In-Party model, we find that the presence of an open seat and the district's preferences affect the probability of emergence. As we have seen in the previous models, there is a dramatic difference in the probability of emergence for an open seat, 90 percent, compared to a race with an incumbent, 14 percent. Similarly, at the highest levels of the district's preference, there is around a 40 percent probability of emergence. Alternatively, there is only a 1 percent chance of emergence at the lowest levels.

Conversely, for the Republican Out-Party model, we find that an open seat, a freshman incumbent, the number of potential candidates, and the district's preferences affect the probability of quality candidate emergence. For open seats, there is a 57 percent chance of quality candidate emergence, compared to a 25 percent chance for non-open seats. Elections with freshman incumbents increase the probability of emergence from 25 to 43 percent. Similar to other models, the number of potential candidates increases the probability of emergence from 21 percent at its lowest levels, to 73 percent at its highest levels.

The Democratic In-Party model is similar to its Republican counterpart in that the same variables affect the emergence of a quality candidate and to a comparable degree. For an open seat, there is a 90 percent probability of emergence, compared to only 19 percent when an incumbent is present. For the district's preference, there is a shift from 5 percent to 44 percent when moving from the minimum to the maximum level of presidential two-party vote share.

In the Democratic Out-Party model, we find that an open seat, a freshman incumbent, the number of potential candidates, and the district's preferences affect emergence. There is a 62 percent probability of emergence during an open seat, compared to just a 28 percent probability for races with an incumbent. Similarly, there is a change in probability from 45 percent to 28 percent when the incumbent is a freshman. The number of potential candidates changes the

probability of emergence from the lowest level of 25 percent to the highest level of 60 percent. Lastly, there is a shift from 77 percent to 9 percent probability when moving from the highest to the lowest levels of a district's preferences.

Along with the model for quality candidate emergence, we also fit a model of electoral competitiveness. Recall, the model of competitiveness is a logistic regression model coded 1 for primary elections where the difference in vote share between the first and second place candidates is 10 percent or less, and 0 otherwise. In the competitiveness model, we control for all of the variables found in the quality candidate emergence model, with the addition of an indicator for a quality candidate and the total number of candidates in the primary election. For *quality candidate*, this is a dichotomous variable that indicates if a quality candidate was present in a primary election. The *total candidates* variable is a count of the number of candidates vying for the party's nomination in a given primary.

Table 4 presents the results from our pooled model of competitiveness. For primary elections from 1980-2016, we find that the presence of a quality challenger, an open seat race, being in the out-party, the total number of candidates in the race, and the preferences of the district can potentially increase the probability of a competitive primary election, all else equal, in a given state and year. The presence of a quality challenger increases the probability of a competitive election. Substantively, when there is a quality challenger, the probability of a competitive election is around 25 percent, compared to 19 percent without a quality challenger. The presence of an open seat also increases the probability of competitiveness. Without the presence of an incumbent, the probability of a competitive election is around 33 percent. Alternatively, when there is an incumbent present, the probability decreases to around 19 percent.

**Table 4: Logistic Regression Estimates of Competitive Primary Elections**

	Pooled Model
Quality Candidate	<b>0.300</b> <b>(0.085)</b>
Open Seat	<b>0.691</b> <b>(0.103)</b>
Freshman	0.096 (0.106)
Lagged Competition	0.120 (0.113)
Potential Candidates	0.001 (0.002)
Out-Party	<b>1.095</b> <b>(0.095)</b>
Presidential Primary	0.067 (0.122)
Midterm	-0.001 (0.113)
District Preference	<b>-0.009</b> <b>(0.003)</b>
Number of Candidates	<b>0.349</b> <b>(0.026)</b>
Intercept	<b>-3.093</b> <b>(0.239)</b>
Random Effects:	Variance
State (Intercept)	0.088 (0.296)
Year (Intercept)	0.016 (0.126)
Observations	5,513
Log Likelihood	-2.384.012
AIC	4,794.023

\*Presented are both the fixed and random effects for the model. The random effects are presented with the variance and standard deviation in parenthesis. Bolded coefficients indicate  $p < 0.05$ . All models exclude Louisiana (all), California (2012-2016), and Washington (2012-2016).

Furthermore, out-party is positive and significant, which indicates that being in the out-party increases the probability of a competitive election. The probability of a competitive election is more likely in the out-party election at 19 percent, compared to the in-party election at

only 7 percent. The district's preference is negative and significant, which indicates that an increase in the presidential two-party vote share for each party will decrease the probability of a competitive election. Notice that as the presidential two-party vote share increases, there is a decrease in the probability of a competitive election at 13 percent compared to 28 percent at lower levels of the presidential two-party vote share. Lastly, the number of candidates in an election will increase the competitiveness of an election. At the minimum number of candidates, the probability of a competitive election is around 11 percent, compared to 99 percent at the highest level.

Table 5 displays model estimates of competitiveness subset by decade. For the 1980s, we show that the presence of a quality challenger, an open seat election, being in the out-party, and the total number of candidates in an election can increase the probability of a competitive primary election. In the 1990s, the presence of a quality challenger, an open seat election, being in the out-party, and the total number of candidates in an election affect the probability of a competitive primary election. All of the variables are positive and significant, which indicates that they all increase the probability of a competitive election. In the 2000s, competitiveness is affected by an open seat election, being in the out-party, and the total number of candidates present. In the 2010s, the presence of a quality challenger, an open seat election, lagged competition, being a member of the out-party, and the total number of candidates running are positive and significant, indicating that these variables increase the probability of a competitive primary election. The preferences of the district (i.e. presidential two-party vote share in the district) are negative and significant, indicating that as the presidential two-party vote decreases, the probability of a competitive primary election also decreases.

**Table 5: Logistic Regression Estimates of Competitive Primary Elections by Decade**

	1980s	1990s	2000s	2010s
Quality Candidate	<b>0.395</b> <b>(0.161)</b>	<b>0.316</b> <b>(0.158)</b>	0.102 (0.186)	<b>0.401</b> <b>(0.186)</b>
Open Seat	<b>0.900</b> <b>(0.195)</b>	<b>0.626</b> <b>(0.175)</b>	<b>0.774</b> <b>(0.230)</b>	<b>0.558</b> <b>(0.092)</b>
Freshman	0.149 (0.198)	0.025 (0.207)	0.208 (0.250)	0.092 (0.211)
Lagged Competition	0.079 (0.224)	-0.151 (0.213)	0.087 (0.266)	<b>0.478</b> <b>(0.223)</b>
Potential Candidates	0.0005 (0.002)	0.002 (0.003)	0.0004 (0.003)	0.001 (0.003)
Out-Party	<b>1.081</b> <b>(0.170)</b>	<b>0.958</b> <b>(0.169)</b>	<b>1.131</b> <b>(0.230)</b>	<b>1.212</b> <b>(0.239)</b>
Presidential Primary	0.136 (0.189)	-0.002 (0.216)	0.213 (0.233)	-0.341 (0.262)
Midterm	-0.101 (0.181)	-0.045 (0.241)	0.018 (0.202)	0.059 (0.201)
District Preference	-0.004 (0.006)	-0.004 (0.007)	-0.005 (0.009)	<b>-0.020</b> <b>(0.008)</b>
Number of Candidates	<b>0.287</b> <b>(0.051)</b>	<b>0.356</b> <b>(0.046)</b>	<b>0.364</b> <b>(0.059)</b>	<b>0.341</b> <b>(0.053)</b>
Intercept	<b>-3.237</b> <b>(0.393)</b>	<b>-3.224</b> <b>(0.458)</b>	<b>-3.364</b> <b>(0.583)</b>	<b>-2.523</b> <b>(0.529)</b>
Random Effects:	Variance			
State (Intercept)	0.001 (0.039)	0.061 (0.247)	0.019 (0.446)	0.051 (0.227)
Year (Intercept)	0.000 (0.000)	0.032 (0.178)	0.000 (0.00001)	0.000 (0.0001)
Observations	1,539	1,558	1,231	1,185
Log Likelihood	-647.979	-704.491	-527.579	-492.041
AIC	1,321.959	1,434.981	1,081.159	1,010.082

\*Presented are both the fixed and random effects for the model. The random effects are presented with the variance and standard deviation in parenthesis. Bolded coefficients indicate  $p < 0.05$ . All models exclude Louisiana (all), California (2012-2016), and Washington (2012-2016).

For the 1980s, a quality candidate, open seat, being a member of the out-party, and the total number of candidates affects whether or not an election will be competitive. When there is a quality candidate present, the probability of a competitive election is 24 percent. Conversely,



with the presence of an incumbent, there is only a 17 percent probability of competitiveness. Similarly, the presence of an open seat leads to a 35 percent probability of a competitive election, compared to just a 17 percent probability otherwise. Being a member of the out-party increases the probability of a competitive election from 7 to 18 percent. Lastly, the number of candidates in the election increased the probability of competitiveness from 11 to 92 percent moving from the lowest to the highest levels.

For the 1990s, a quality candidate, open seat, being a member of the out-party, and the total number of candidates affects competition. Similar to the 1980s, there is a change in the probability of competition from 19 to 25 percent when a quality candidate is present. There is a shift in the probability of competition with the presence of an open seat from 19 to 32 percent. Members in the out-party have a 20 percent chance of experiencing competitive election, compared to just a 9 percent chance for members in the in-party. Lastly, as the number of candidates in an election increases, the probability of competition shifts from 15 to 99 percent.

In the 2000s, the presence of an open seat, being a member of the out-party, and the number of candidates affect competition. For an election with an open seat, the probability of a competitive election is 34 percent, compared to 19 percent for elections with an incumbent. Similarly, members who are in the out-party have a greater chance of experiencing a competitive election at 19 percent, rather than those in the in-party at 7 percent. Again, as expected, the number of candidates increase the probability of experiencing a competitive election. From the lowest level to the highest level of the number of candidates, there is shift from 15 to 93 percent.

The 2010s produce similar results to that of the 1980s but with different magnitudes for competition. We find that the presence of a quality candidate, open seat, lagged competition, being a member of the out-party, the district's preferences, and the number of candidates affect

competition. The probability of competition, with the presence of a quality candidate, is around 11 percent, compared to 8 percent with an amateur candidate. Similarly, an open seat increases the probability of a competitive election to 13 percent, compared to 8 percent when an incumbent is present. If an election was competitive in a district the previous cycle, then, the probability of a competitive election is around 12 percent, compared to 8 percent. Members of the out-party have a probability of experiencing a competitive election around 22 percent, compared to around 8 percent for those in the in-party. Again, we see that district preferences are negatively correlated to competition. At the highest levels of the party's presidential two-party vote, there is a 3 percent chance of competition, compared to 16 percent at the lowest levels. Lastly, the number of candidates dramatically increases the probability of a competitive election; at the lowest levels, there is a probability of 6 percent, compared to 88 percent at the highest levels.

Lastly, Table 6 presents the results from our competitiveness model that is subset by political party and out-party status. For Republicans and Democrats who are members of the in-party, the presence of a quality candidate, an open seat election, and the total number of candidates in the election all increase the probability of a competitive primary election. For Republicans as members of the out-party, the presence of a quality challenger, the candidate pool, and the number of candidates in the election influence the competitiveness of a primary. The presence of quality candidates is negative and significant, which indicates that quality candidates decrease the probability of a competitive election for Republicans in the out-party, in a given state and year. This further indicates the strategic nature of experience challengers as they are likely to run when competition is at its lowest.

The size of the candidate pool as well as total number of candidates present in the election are positive and significant, indicating that these variables increase the probability of

experiencing a competitive election. Furthermore, for Democrats in the out-party, the total number of candidates running and whether or not the previous primary was competitive increase the probability of competitiveness.

**Table 6: Logistic Regression Estimates of Competitive Primary Elections by Partisanship and Controlling Party Status**

	Republican In-Party	Republican Out-Party	Democratic In-Party	Democratic Out-Party
Quality Candidate	<b>0.913</b> ( <b>0.265</b> )	<b>-0.311</b> ( <b>0.137</b> )	<b>1.967</b> ( <b>0.297</b> )	0.023 (0.146)
Open Seat	<b>1.476</b> ( <b>0.283</b> )	-0.245 (0.191)	<b>1.346</b> ( <b>0.270</b> )	0.115 (0.196)
Freshman	-0.215 (0.444)	0.128 (0.166)	-0.039 (0.422)	-0.233 (0.164)
Lagged Competition	0.719 (0.435)	-0.208 (0.169)	0.322 (0.471)	<b>0.416</b> ( <b>0.174</b> )
Potential Candidates	0.002 (0.003)	<b>0.005</b> ( <b>0.002</b> )	0.0002 (0.006)	-0.001 (0.002)
Presidential Primary	-0.268 (0.303)	0.187 (0.172)	0.512 (0.399)	0.008 (0.186)
Midterm	-0.204 (0.273)	0.011 (0.152)	0.099 (0.283)	0.038 (0.163)
District Preference	-0.007 (0.012)	0.002 (0.005)	-0.016 (0.008)	-0.002 (0.008)
Number of Candidates	<b>0.305</b> ( <b>0.056</b> )	<b>0.375</b> ( <b>0.047</b> )	<b>0.186</b> ( <b>0.051</b> )	<b>0.277</b> ( <b>0.056</b> )
Intercept	<b>-3.489</b> ( <b>0.733</b> )	<b>-2.147</b> ( <b>0.299</b> )	<b>-3.922</b> ( <b>0.581</b> )	<b>-2.054</b> ( <b>0.383</b> )
Random Effects:	Variance			
State (Intercept)	0.117 (0.342)	0.016 (0.128)	0.260 (0.510)	0.025 (0.158)
Year (Intercept)	0.079 (0.281)	0.000 (0.0001)	0.014 (0.121)	0.000 (0.0008)
Observations	1,154	1,531	1,472	1,356
Log Likelihood	-357.787	-871.203	-333.532	-711.059
AIC	739.574	1,766.405	691.065	1,446.118

\*Presented are both the fixed and random effects for the model. The random effects are presented with the variance and standard deviation in parenthesis. Bolded coefficients indicate  $p < 0.05$ . All models exclude Louisiana (all), California (2012-2016), and Washington (2012-2016).

In the Republican In-Party model, the presence of a quality candidate, an open seat, and the number of candidates increase the probability of a competitive election. If there is a quality candidate in the race, the probability of a competitive election is around 12 percent. Conversely, there is only a 5 percent chance of the same phenomenon in the presence of amateur candidates. As expected, open seats dictate competition; when there is an open seat, there is a 19 percent probability, compared to a 5 percent probability, of experiencing a competitive election. Lastly, the number of candidates increases the probability of competition from 3 percent to 84 percent.

In the Republican Out-Party model, the presence of a quality candidate, the number of potential candidates, and the total number of candidates affect the probability of competition. The presence of a quality candidate decreases the probability of a competitive election from 29 percent to 23 percent. The number of potential candidates from a state doubles the probability of a competitive election from 27 to 54 percent, when moving from the lowest level to the highest. Also, the number of overall candidates increases the probability of competition from 17 percent to 90 percent, when moving from the lowest number to the highest.

The Democratic In-Party model is affected by the presence of a quality candidate, an open seat, and the overall number of candidates in the election. The presence of a quality challenger increases the probability of experiencing a competitive election from around 1 percent to 9 percent. Similarly, an open seat increases the probability of a competition from 1 percent to around 5 percent. The overall number of candidates in an election increases the chances of competition from 1 percent to 49 percent. These further results exemplify the strategic nature of candidates—incumbents who are vulnerable are not likely to seek reelection, and quality challengers are only likely to run when their chances of success are high.

Lastly, the Democratic Out-Party model lagged competition and the overall number of candidates. For a district that experienced a competitive election last cycle, the probability of experiencing a competitive election in the current cycle increases from 20 to 27 percent. A similar trend is apparent for the number of candidates in the election, where at the lowest level, there is a 16 percent probability of competition, compared to a 76 percent probability at the highest level.

## **Conclusion**

In summary, our empirical results demonstrate that there are discernible and predictable differences in the behavior of candidates running in House primary elections. Referring back to Hypothesis 1, quality challengers are indeed more likely to run when the incumbency advantage is diminished, and their behavior is considerably more strategic compared to their inexperienced counterparts. However, these emergence patterns are contingent on what party the quality candidate is a member of and what party currently represents that district. With respect to Hypothesis 2, we see that candidate quality does influence the outcome of primary elections as these challengers seem to fare better than amateur candidates. Lastly, in testing Hypothesis 3, we provide some preliminary evidence to suggest that national conditions influence the decision of whether to run in a given primary election.

These findings are especially instructive when we consider the current political situation in this country. The first seven months of the Trump presidency have been characterized by a series of missteps and numerous missed opportunities to deliver on many of the legislative promises (i.e., repealing and replacing the Affordable Care Act, implementing tax cuts, and building a wall along the US-Mexican border) that were made during the 2016 presidential campaign. One consequence of this legislative inaction is that Democrats are beginning to see

2018 as an ideal opportunity to attempt to win back control of the U.S. House of Representatives. Midterm elections are often considered to be referenda on sitting presidents and with President Trump's current dismal approval ratings (on top of his high disapproval ratings), there are numerous opportunities for Democratic candidates to take advantage of this during the 2018 primary elections, especially if an increasing number of Republican incumbents announce their decisions to retire from the chamber at the end of the 115<sup>th</sup> Congress.<sup>11</sup>

One significant obstacle for the Democrats in winning back control of the House in 2018 is their ability to recruit experienced or quality challengers to run in both open seat contests and against marginal Republicans. Although the Democrats have seen an influx in the number of female candidates and individuals with prior military experience announce their intention to run for House seats<sup>12</sup>, these types of political amateurs rarely do as well in primary elections as do experienced candidates. As our results show, quality candidates do significantly better in primary elections across the range of elections in our analysis just as has been shown in the context of general elections (Jacobson and Carson 2016). Thus, the ability of the Democrats to recruit the right kind of challengers (experienced vs. amateurs) will likely play a role in how large the potential "wave" is during the 2018 midterm elections.

Future iterations of this work will likely need to incorporate the ideological scores of incumbents seeking reelection (see Brady, Han, and Pope 2007) in addition to those variables considered in this analysis. As previously mentioned, in an increasingly polarized environment, some members fear being outflanked ideologically from within their own party. As such, we would like to test the hypothesis that less ideologically congruent members are more likely to

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<sup>11</sup> As of late August 2017, six House members (4 Republicans and 2 Democrats) have announced their decisions to retire from the chamber whereas 14 members (8 Republicans and 6 Democrats) are planning to run for some other office. See: <http://media.cq.com/departing-members/>

<sup>12</sup> <http://thehill.com/homenews/campaign/338875-dems-see-surge-of-new-candidates>

experience a quality challenger and/or a more competitive election. Additionally, in the vein of studying the strategic nature of candidates, we would like to identify any relationship between primary elections and an incumbent's decision to voluntarily leave office. Further analyses in this vein will seek to enrich our understanding of congressional primaries and the role that they play in promoting greater democratic accountability in U.S. House elections.

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