

# Competition in Congressional Elections: Money versus Votes

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**C**ompetition among candidates or parties is a necessary condition for democracy. But who counts as a candidate and what counts as competition? The influence of money in American elections makes fundraising an appropriate alternative to vote totals, and it provides a new vantage point to assess the quality of electoral competition. I draw on a dataset of preelection campaign receipts to measure competition in U.S. House primaries from 1980 to 2020. When competition is measured with receipts, it looks markedly worse than vote share measures suggest. Moreover, the difference between vote share and fundraising measures is largest in open-seat primaries, or the best-case scenarios of competition. The disparity between measures is driven largely by candidates who have little chance of winning. The findings shed new light on resource disparities in elections and demonstrate that our conclusions about the quality of competition are tied to our measures.

**C**ompetition among candidates or parties is a necessary condition for democracy (Dahl 1956; 1971; Key 1949; Schlesinger 1966; Schumpeter 1942). But who counts as a candidate and what counts as competition? The competitive struggle for the people's vote is so central to our understanding of democratic government that the makeup of the ballot and the outcomes of elections have, mostly implicitly, come to dominate our depictions of the state of electoral competition. Political scientists have relied on vote totals and victory margins to examine core questions in the study of American politics and representation such as whether citizens are able to hold their elected officials accountable and whether elections are living up to democratic ideals (i.e., Achen and Bartels 2016; Ansolabehere, Snyder, and Stewart 2001; Bonica and Cox 2018; Canes-Wrone, Brady, and Cogan 2002; Fraga and Hersh 2018; Hirano and Snyder 2019).<sup>1</sup> It is almost exclusively through the lens of the ballot that scholars have evaluated the nature and quality of competition in the United States over the short and long run.

One strength of vote share measures of candidates and competition is that the data collection is straightforward. Candidates are listed, votes are tallied, and some win and others lose. Vote totals also have theoretical appeal because they have the most direct consequences for the election of officeholders and the makeup of legislative institutions. Yet the reliance on votes has limitations as well. Ferejohn (1977, 166) alluded to the imperfections of vote share measures

over four decades ago, noting that they have “the defect of suggesting that what might be called the vulnerability of a seat is related in some way to vote margin.” Vote totals can indicate which races were likely viewed as competitive during the campaign cycle, but only after the election has occurred. Nor do vote totals always reflect how candidates were perceived prior to the election. Upset victories are an obvious example, but candidates often outperform or underperform expectations.

This article departs from the use of vote shares and examines the quality of competition through the lens of fundraising. The influence of money in American elections makes fundraising an especially appropriate alternative to the ballot. Campaign war chests are one of the most widely used indicators of viability and vulnerability prior to the election.<sup>2</sup> Fundraising reports are shorthand for who is ahead or behind in the race and who is stronger or weaker as a candidate. Coverage of the “financial horse race” gives a barometer of support for a candidate and their likelihood of winning (La Raja 2007). The use of receipts as a heuristic for electability has become even more prevalent as candidates raise record sums of money with each election cycle.<sup>3</sup> Additional evidence of the importance of money is that it is explicitly incorporated in prominent forecasting models. Fundraising is one of the “fundamentals” in 538's models, and the Cook Political Report similarly

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<sup>1</sup> Others have instead examined the influence of competition on a host of political outcomes such as voter turnout, political engagement, and government responsiveness (i.e., Ansolabehere, Brady, and Fiorina 1992; Cox and Munger 1989; Gimpel, Kaufmann, and Pearson-Merkowitz 2007; Griffin 2006; Lipsitz 2011; Patterson and Caldeira 1983).

<sup>2</sup> Scholars of presidential nominations have given significant attention to the “money primary,” or the competition for financial resources prior to the election, and its implications for viability and success (i.e., Adkins and Dowdle 2002; Aldrich 1980; Feigenbaum and Shelton 2013; Goff 2005; Mayer 2003; Norrander 2006).

<sup>3</sup> Candidates raise as much or more today before the primary than general election candidates did in the 1980s. The top fundraiser in opposed primaries raised an average of \$196,000 in 1980, compared with \$1.1 million in 2020—an increase of more than fivefold. What is more, this average includes primary winners who are unlikely to win the general election. The top-raising general election candidate, who is likely to be elected, raised an average of \$239,000 in preprimary funds in 1980, compared with \$1.5 million in 2020 (all in 2020 dollars). The million dollar price tag of primary elections would have been unforeseen by the earliest reformers who set total spending limits several times lower than this amount.

draws on fundraising data for their reputable ratings of competitive House and Senate races.

Candidates run against their opponents throughout an election cycle, and the race culminates in, but is not limited to, a vote. Resource disparities matter for material and symbolic reasons well before the election. Donations have direct implications for whether candidates can hire staffers and consultants, buy advertisements, and access the goods and services that fuel their campaigns. A strong fundraising haul also attracts attention from the media and partisan elites. Following the money during the campaign cycle has become a staple of political journalism, in part because it is measurable, comparable across candidates, and fits easily into the horse race frame (Graber and Dunaway 2017; La Raja 2007). Resource disparities influence candidate behavior prior to the election as well, and those who struggle to raise money are more likely to exit the race (Bonica 2017). Of course, at the heart of the emphasis on fundraising is the strong association between money and election outcomes (Bonica 2017; Center for Responsive Politics 2020).<sup>4</sup> In short, money has meaning because it matters for the resources available to candidates, because receipts are readily accessible and widely cited during the campaign, and because the top fundraiser usually wins.

The influence and even necessity of money in modern campaigns compels us to examine resource disparities among candidates, and it provides a new vantage point to assess the quality of competition in American elections. I focus on primaries due to the recent emphasis on the primary stage and their increasing role in the selection of officeholders.<sup>5</sup> I leverage preelection receipts in more than 16,000 U.S. House primaries from 1980 to 2020. I first show that receipts and votes differ in important ways that bear on our understanding of competition. In particular, long-shot candidates, or those who raise little or no money, outperform their receipt share at the ballot box. I then construct new fundraising measures of competition to examine how they differ from

vote share measures. The first is a binary indicator of whether the top fundraiser raised less than 57.5% of preprimary receipts or whether their fundraising margin is within 20 points of the second highest fundraiser. The second is a measure of the effective number of candidates in the race calculated with receipts (Laakso and Taagepera 1979).

When the quality of primary competition is viewed through a fundraising lens, it looks markedly worse than recent research suggests. Fewer races are competitive with fundraising measures, and the number of candidates decreases. Open-seat primaries are often held up as bright spots in an era of declining general election competition, but the difference between vote share and fundraising measures is largest in open seats. The likelihood that an open-seat primary is competitive with vote share measures but not fundraising measures increases by 15 percentage points, and the effective number of candidates calculated with receipts decreases by nearly half in safe districts and by 40% in competitive districts. The disparity between vote share and fundraising measures is driven largely by financial long shots who outperform their receipt share at the ballot box. The quality of competition in these best-case scenarios is increasingly relevant as more elections are decided at the primary stage.

The article makes several contributions to the study of elections and representation. It provides the first analysis of the quality of competition through the lens of fundraising. The soaring cost of elections matters for who runs, who wins, and how legislators spend their time in office (i.e., Bonica 2020; Carnes 2018; Fourinaies 2021; Hall 2019; Kaslovsky 2022; Kirkland 2021; Powell 2012). Grappling more directly with resource disparities is important because of the outsized role that fundraising plays in running for office and gaining attention on the campaign trail. Although vote share measures of competition have long been the gold standard, the findings raise new questions about their limitations within both the US and other democracies, particularly when there are numerous small parties or unknown candidates in the race. Alternative measures of viability will necessarily vary by context, but future research should give more attention to how vote share measures influence our view of competition across democratic governments.

In addition, the framework allows us to draw distinctions between dimensions of competition. The fundraising arena is undergoing enormous and rapid change. The historic amount of money in elections has been spurred by both legal and technological developments (Magleby 2019; Magleby, Goodliffe, and Olsen 2018). The rise in online fundraising has decreased the barriers to giving money, and small donors play an increasingly central role in the funding of campaigns (Alvarez, Katz, and Kim 2020; Kim 2022). The ease of donating coupled with the engagement of energized partisans can lead to unlikely influxes in resources. For instance, a handful of recent House and Senate challengers running against high-profile incumbents raised huge sums in unfavorable districts and lost by large margins

<sup>4</sup> Scholars have examined the relationship between money and election outcomes since the FEC began collecting data in the 1970s. Most agree that challenger spending is positively associated with House and Senate outcomes (but see Levitt 1994), though the marginal returns to incumbents have been a contested subject of debate (Gerber 1998; Green and Krasno 1988; 1990; Jacobson 1980, 1990; Krasno and Green 1988). Money has also been incorporated into measures of quality (Bond, Covington, and Fleisher 1985; Ragsdale and Cook 1987), but the core difficulty of using expenditures to measure quality is that it mixes ability with the expected outcome. More recently, Bonica (2017; 2020) argues that previous studies showing minimal returns of fundraising reflect a focus on general elections, and he uncovers a substantial effect of early money in primaries.

<sup>5</sup> Whereas 42% of House members were elected from safe districts in the 1980s, this figure rose to 68% in the 2010s. Among winners in open seats, 50% and 63% came from safe districts in the 1980s and 2010s, respectively. However, I also examine fundraising and vote share measures of competition in general elections, and competition looks better with vote share measures than with fundraising measures in general elections as well. A discussion of general elections is provided in the Appendix.

(Skelley 2021).<sup>6</sup> Although donors for the most part bet on the candidates who win, the framework allows us to distinguish preelection viability from electoral performance and study where donor behavior and election outcomes deviate from expectations.

Finally, the article raises new questions about how we define and study political candidacies. The availability of new data has resulted in a surge in attention to the factors that shape candidate emergence and success. Most samples start with the ballot, but scholars increasingly draw on candidate and committee data from the Federal Election Commission or focus on those who raise money. Most of the time, it is simply not clear how candidacies are measured because there has been a dearth of attention to this topic (Fowler 1993; Thomsen 2017). Those who campaign for office but drop out before the election complicate our definitions even more. Yet these distinctions matter for the makeup of candidate pools, particularly with respect to income, education, and occupation. They also matter for victory rates if our samples include or exclude candidates who are more or less viable. This article measures candidates and competition with money, but the question of what counts as either has theoretical, empirical, and normative implications and warrants additional scholarly discussion.

## MEASURING ELECTORAL COMPETITION

Scholars have long relied on vote totals to examine competition. A series of influential articles in the 1970s studied the “vanishing marginals” and the rise in incumbent vote share that unfolded over the late twentieth century.<sup>7</sup> The steady decline in competitive general elections has amplified the importance of primaries and sparked new interest in the quality of primary competition. Hirano and Snyder (2019) provide the most comprehensive study of primaries to date. They use four measures of competition: the percentage of primaries that were contested, the percentage of primaries where the winner received less than 57.5% of the total votes, the number of candidates in the race, and the votes cast for all losing candidates as a percentage of the total votes (Hirano and Snyder 2019, 39). They find that, across primaries from 1900 to 2016, the level of competition is highest in open-seat races and in

constituencies with a partisan advantage. The authors have a positive view of primaries, and they conclude that primaries contribute to the electoral system by allowing candidates to compete in constituencies that would otherwise lack competition.

As noted above, fundraising is an appropriate alternative to votes in large part because of its association with election outcomes. Indeed, money is perhaps the single most valuable resource for candidates who want to win. Top fundraisers win the primary 92% of the time; if we exclude unopposed candidates, they win 81% of the time.<sup>8</sup> Fundraising is at least as good a predictor of outcomes as previous political experience, the most commonly used measure of candidate quality (i.e., Hirano and Snyder 2019; Jacobson 1989). Fifty-two percent of experienced nonincumbents won the primary, compared with 85% of nonincumbents who raised the most money; among opposed nonincumbents, these figures are 42% and 69%, respectively. Here we are not interested in the effect of money on outcomes, but the association between the two adds validity to fundraising measures of competition.

Yet money and votes also differ in small but systematic ways that bear on our understanding of competition. Figure 1 shows binned scatter plots of the relationship between primary receipt share and vote share for more than 30,000 U.S. House candidates from 1980 to 2020. The left graph includes all candidates, and the right graph excludes unopposed candidates. Candidates who raise less than 10% of receipts still receive 15% of the vote, on average.<sup>9</sup> Indeed, the relationship between money and votes is weakest for those who are most likely to lose.<sup>10</sup> The correlation between receipt share and vote share among those who raise less than 10% of receipts is 0.11, compared with 0.77 for opposed candidates who raise more than 10%.<sup>11</sup> Moreover,

<sup>6</sup> Candidates run for office for many reasons. Underdogs who show an impressive ability to fundraise but lose can put a race on the map, increase attention to various issues, and reap professional rewards in the future. Previous work has examined what motivates long-shot candidates to run (i.e., Banks and Kiewiet 1989; Boatright 2004; Canon 1993; Fishel 1973; Fowler and McClure 1989; Huckshorn and Spencer 1971; Kazee 1994; Maisel 1982), but that question is beyond the scope of this article.

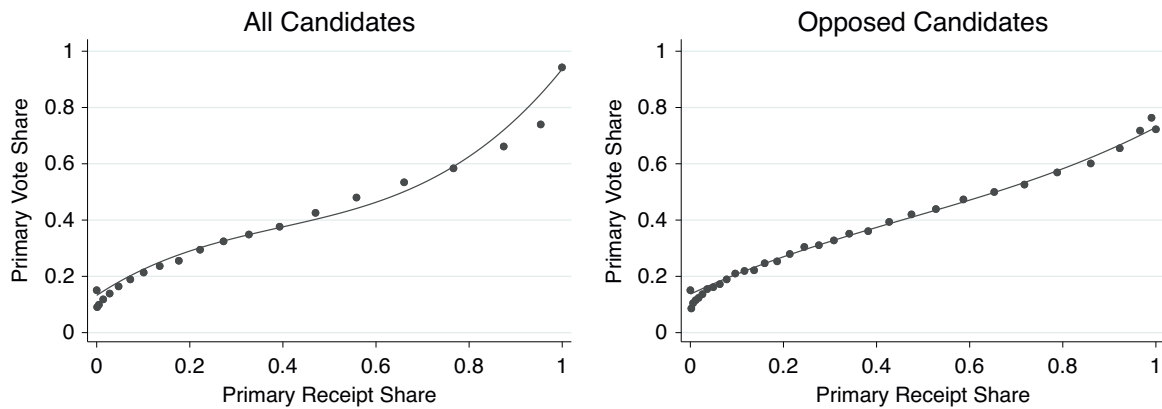
<sup>7</sup> There is a large body of research on the decline in close general elections and the increase in the incumbency advantage (i.e., Abramowitz 1991; Abramowitz, Alexander, and Gunning 2006; Alford and Hibbing 1981; Ansolabehere, Brady, and Fiorina 1992; Cox and Katz 1996; Erikson 1971; 1972; Ferejohn 1977; Fiorina 1977; Gelman and King 1990; Jacobson 1987; Mayhew 1974; Tuft 1973; see Jacobson 2015 for a recent update).

<sup>8</sup> The victory rates of opposed incumbents and nonincumbents who raise the most are 98% and 69%, respectively. The rare incumbents who lose raise an average of 52% of preprimary receipts, compared with opposed winning incumbents who raise an average of 90%. This sizable difference between winning and losing incumbents suggests that fundraising patterns are a good reflection of incumbent vulnerability as well.

<sup>9</sup> Similarly, at the race level, the difference between the top two fundraisers is larger than that between the top two vote-getters. In opposed races, the average difference between the top two fundraisers is 66 points, compared with 36 points between the top two vote-getters; in the full sample, the average difference between the top two fundraisers and vote-getters is 85 points and 72 points, respectively.

<sup>10</sup> Only 5% of candidates who raised less than 10% of preprimary receipts won the primary. In advantaged-party open seats, this figure is lower, at 3%. Of the 461 total primary winners who won with less than 10% of receipts, 346, or 75%, won in challenger-party primaries; only 6 of the 346 won in the general election. It is appropriate to describe those who raise less than 10% of receipts as long shots.

<sup>11</sup> Vote totals also understate the advantage of fundraisers at the top. Opposed candidates who raise more than 90% of receipts receive an average of 72% of the vote, and the correlation is 0.12. Yet 74% of candidates who raise more than 90% of receipts are unopposed. When unopposed candidates are included, the average vote share is 93%. Most of the difference between measures of competition is driven by long-shot candidates because the vote share and fundraising values are the same in unopposed races.

**FIGURE 1. Relationship between Primary Receipt Share and Vote Share**

Note: The left graph shows a binned scatter plot of the relationship between primary receipt share and vote share for U.S. House candidates from 1980 to 2020. The right graph excludes unopposed candidates. The lower correlation between receipt share and vote share among long-shot candidates provides motivation for why vote share and fundraising measures of competition are likely to differ.

long-shot candidates who raise little or no money make up a significant share of primary contenders: 45% of nonincumbents raise less than 10% of primary receipts, and nearly 25% of nonincumbents did not file a fundraising report with the Federal Election Commission, indicating that they raised less than \$5,000.<sup>12</sup>

Because long shots receive more votes than they do money, vote share measures are likely to produce a more optimistic view of competition than fundraising measures. What is more, vote share measures will be more likely to differ from fundraising measures in open-seat races, or the best-case scenarios of competition. Hirano and Snyder (2019) show that open seats attract the most candidates, but more amateurs run in these contexts as well (Canon 1993). In advantaged-party open-seat races, the average number of candidates who raise less than 10% of receipts is 2.5, compared with 0.5 in all other primaries, and the share of candidates raising less than 10% of receipts is 39% and 16%, respectively. The top two candidates are more evenly matched than in other primaries, but the average difference between the top two vote-getters in contested advantaged-party open seats is 20 points, compared with 29 points for the top two fundraisers.<sup>13</sup> The implication that vote share measures are most

likely to diverge from fundraising measures in open seats is important because much of the optimism around primaries is driven by these races in particular (Hirano and Snyder 2019).

I construct new measures of competition with pre-primary fundraising totals to examine how they differ from vote share measures. First, I create a binary measure of whether the race was competitive that considers the fundraising advantage of those at the top: whether the top fundraiser raised less than 57.5% of all preprimary receipts as well as whether the top fundraiser's share of receipts is within 20 percentage points of the second highest fundraiser.<sup>14</sup> I use both measures because, unlike in general elections with two candidates, a 55 or 60 percent threshold in primary elections does not necessarily indicate a narrow fundraising or victory margin because money and votes can be divided among more than two candidates.<sup>15</sup> The 20-point margin measure further distinguishes between

<sup>12</sup> Unlike traditional scatter plots, binned scatter plots are not a visualization of the entire dataset (Cattaneo et al. 2019). A traditional scatter plot obscures the relationship between money and votes due to the size of the dataset, but Figure 1 does not effectively convey the distribution of candidates at the low and high ends of fundraising. The distribution matters for our expectations of where vote share and fundraising measures are likely to differ. Histograms of primary receipt share are provided in Figure A3.

<sup>13</sup> The top two vote-getters received an average of 47% and 27% of the vote, and the top two fundraisers raised an average of 54% and 25% of receipts. The disparity between the top two vote-getters and the top two fundraisers is smaller in open seats than it is in challenger-party and incumbent-contested races, but both fundraising and vote share measures are well above the thresholds of competitiveness in the vast majority of challenger-party and incumbent-contested races.

<sup>14</sup> The 57.5% threshold is from Hirano and Snyder (2019) and follows previous work on general election competition. Ninety-five percent of candidates who raise at least 57.5% of receipts won the primary. Ninety-one percent of candidates whose receipt share is more than 20 percentage points lower than the top fundraiser's share lost the primary; of the 9% whose receipt share is more than 20 points lower than the top fundraiser's share but won, three-fourths lost in the general election. I also examined a measure of whether the winner raised less than 57.5% of receipts and whether the winner's fundraising margin is within 20 points of the top-raising loser. The results are the same, but I use pre-election data here for the fundraising measures. In addition, I use Herfindahl measures of competition calculated with vote and receipt shares, and the results are the same (see Figure A9).

<sup>15</sup> The average difference between the top two vote-getters when the top vote-getter won with less than 57.5% of the primary vote is 12 points, ranging from 0.01 to 44 points. Twenty-one percent of the top vote-getters who won with less than 57.5% of the primary vote won by more than 20 points. Even in opposed open-seat primaries in safe districts, the average difference between the top two vote-getters when the top vote-getter won with less than 57.5% of the primary vote is 12 points, ranging from 0.03 to 41 points.

primaries where the top two candidates are more evenly matched and those where they are not.

Second, I create a weighted measure of the number of candidates in the race based on preprimary receipts. I follow Laakso and Taagepera's (1979) measure of the effective number of parties, where each party is weighted by being squared.<sup>16</sup> The advantage of using the effective number of parties is that it differentiates significant parties from less significant ones. I build on this approach to generate a fundraising-based measure of the effective number of candidates:

$$N_c = \frac{\left(\sum_{i=1}^n f_{irt}\right)^2}{\sum_{i=1}^n f_{irt}^2}, \quad (1)$$

where  $f_{irt}$  is the amount of money raised by candidate  $i$  in race  $r$  at time  $t$ . In races where receipts are evenly distributed among candidates, the effective number of candidates is the same as the number of candidates on the ballot. In races where one candidate raises the bulk of receipts, the effective number of candidates is slightly larger than one. Because weighted values are almost always lower than unweighted values, our concern is where they differ the most.

These measures provide a summary view of competition prior to the election. Because competition evolves during the cycle, we could also examine the relative strength of candidates at any snapshot before the election. Contexts change, too, if the incumbent decides to retire or if district lines are redrawn. Competition measures based on early money will only include candidates who have entered at that point and are less complete views than measures based on later fundraising. In addition, because seed money increases later fundraising success (Biersack, Herrnsen, and Wilcox 1993; Krasno, Green, and Cowden 1994), early money measures will not capture any momentum that follows. We would thus expect fundraising measures later in the cycle to more closely map onto (or differ less from) vote totals than those earlier in the cycle (see also Gelman and King 1993). Here we are interested in overall levels of competition, but the measures with early money conform to this expectation (see Figure A8).

Although fundraising measures offer a number of advantages, they have their own limitations. First, the time frame is unable to match the historical breadth of

studies that draw on votes.<sup>17</sup> Second, the measures are contingent on an association between money and outcomes. The connection is overwhelmingly apparent in the US, but if money is unrelated to viability or mandated to be equitable, other measures would be more useful. The measures have serious normative implications as well. The emphasis on money has negative consequences for who runs as well as who wins, and it leads to unorthodox conclusions about representation that are not based on levels of constituent support (Canes-Wrone and Miller 2022; Gimpel, Lee, and Pearson-Merkowitz 2008). However, it is important to note that these concerns are rooted in the state of American elections rather than the measure itself. More generally, fundraising measures provide a new opportunity to study the quality of competition through the lens that receives the most attention in political campaigns today: the ability to raise money.

## DATA AND METHOD

As noted above, I focus on primaries in light of their growing relevance for the selection of officeholders. The analyses follow the same structure as those in Hirano and Snyder (2019). Competition is measured at the race level, and primaries are divided into several types based on seat type and partisan leaning. I draw on a dataset of more than 33,000 U.S. House candidates who filed fundraising reports with the Federal Election Commission (FEC) and/or were on the primary ballot from 1980 to 2020. I collected the full sample of on-ballot primary candidates from the America Votes series and the FEC website. Those who were not on the ballot but raised money are from the FEC database and Bonica's (2014) Database on Ideology, Money in Politics, and Elections (DIME).<sup>18</sup> The dataset here includes the FEC candidate identifier, the FEC committee identifier (when available), and the DIME identifier for each candidate to facilitate merges across datasets. All of the fundraising data are from FEC reports.<sup>19</sup>

There are significant challenges associated with collecting preprimary fundraising data and thus measuring competition based on preprimary receipts. The first hurdle was merging the candidates with FEC data, which was made possible with the identifiers noted

<sup>16</sup> Scholars of comparative politics have given significant attention to what counts as a political party (i.e., Cox 1997; Laakso and Taagepera 1979; Lijphart 1994; Molinar 1991; Taagepera and Shugart 1993) and to measuring competition across electoral systems (i.e., Blais and Lago 2009; Cox, Fiva, and Smith 2020; Folke 2014; Grofman and Selb 2011). Yet this line of research similarly draws on vote or seat shares, whereas I use preelection resource disparities. One recent exception is a measure of effective spending in UK elections by Fourinaies (2021).

<sup>17</sup> The 1974 amendments to the Federal Election Campaign Act (FECA) established the Federal Election Commission (FEC), which administers the reporting system for campaign finance disclosures. For a brief history of federal campaign finance laws, see <https://transition.fec.gov/info/appfour.htm>.

<sup>18</sup> Dropouts are included if they raised money in the same election cycle they registered with the FEC, and they comprise 6% of the sample. Incumbents who raised money but retired are excluded from the dataset.

<sup>19</sup> The dataset also includes overall fundraising totals from the DIME data, which allows for additional checks on preprimary values. Virtually all of those in the DIME dataset who raise no money did not file preprimary reports, which increases our confidence in the zero values of preprimary receipts in these cases.

above.<sup>20</sup> The other challenge is related to FEC reporting requirements. The FEC has collected quarterly and preprimary reports since 1980, but the document did not ask candidates to provide the total amount raised in the preprimary period (election cycle to date) until 2002. Thus, from 2002 on, I use the total preprimary amount reported by the candidate. From 1980 to 2000, I use the sum of the amount reported in each quarterly period before the primary and the amount in the preprimary report, which covers the first day of the current quarterly period through the twentieth day before the election.<sup>21</sup> I validated these measures with the post-2002 preprimary totals provided by the candidates. The preprimary totals that I generated with quarterly and preprimary reports are correlated with the preprimary totals reported by the candidates at 0.99, so I am confident in the validity of these totals for the pre-2002 period.

The unit of analysis is the party primary by district and year from 1980 to 2020. Only Democratic and Republican candidates are considered here.<sup>22</sup> There are approximately 16,600 primaries, though the number decreases to 16,300 with the fundraising measures due to missing observations on preprimary receipts in about 2% of races. The analyses focus on two main

<sup>20</sup> Of the 33,100 candidates in the dataset, 25,100 have nonzero values of preprimary receipts and of total receipts. Another 6,200 have zero values of preprimary receipts and of total receipts. The preprimary receipts are correlated with total receipts at 0.90; for primary losers (who thus did not continue to raise money after the primary), this increases to 0.96. There are approximately 1,800 candidates with nonzero values of total receipts but zero values of preprimary receipts. Of these 1,800 candidates, 700 were unopposed primary winners; these races are coded as uncompetitive with one candidate in the race. The preprimary figures were further validated by summing all of the reports filed by the candidate in a cycle and matching these totals to their overall totals. This ensures that the zero values in the preprimary stage are zero values rather than an error. In the analyses below, 354 of the 16,635 primaries have missing values on the fundraising measures because no candidate in the primary reported raising money. In other analyses, I followed Jacobson (1990) and imputed \$5,000 for all candidates who did not file fundraising reports. The findings are the same because \$5,000 is still very low, but this assumption is more of a stretch for primary candidates who do not file reports.

<sup>21</sup> In the 1980s and 1990s, candidates sometimes filed midyear reports instead of quarterly reports; I use midyear reports when quarterly reports are not available. Candidates who did not file a preprimary report or any quarterly report before the primary and were not unopposed primary winners are coded as raising no money.

<sup>22</sup> Like Hirano and Snyder (2019, 39), primaries in which no candidate ran for the nomination are counted as uncontested, with zero candidates on the ballot and zero effective candidates. Unlike them, I include cases in which a nomination was made by convention and count these as uncontested; however, they note that the patterns are similar when conventions are excluded or counted as uncontested. The 13 cases in which the general election winner or future general election winner (i.e., Bernie Sanders in 1988) is an Independent are also excluded. It is unclear how Hirano and Snyder (2019) code blanket primaries; here they are considered by party in order to account for district partisanship. Because vote totals are tabulated at the primary level in blanket primaries, the total number of candidates is calculated at the primary level as well, so the average number of candidates is higher. The results are the same if blanket primaries are excluded.

factors that are widely known to affect primary competition: seat type and district partisanship. Like Hirano and Snyder (2019), partisan balance is coded as disadvantaged if the party received less than 42.5% of the district vote share in the current or previous presidential election, balanced if the party received between 42.5% and 57.5%, and advantaged if the party received more than 57.5%.<sup>23</sup> I use their classification of primary types: (a) advantaged-party open-seat primaries, (b) advantaged-party incumbent-contested primaries, (c) parties-balanced open-seat primaries, (d) parties-balanced challenger-party primaries, (e) parties-balanced incumbent-contested primaries, (f) disadvantaged-party open-seat primaries, and (g) disadvantaged-party challenger-party primaries.<sup>24</sup>

The first set of dependent variables includes four binary indicators of whether the primary is competitive. The vote share measures are whether the top vote-getter received less than 57.5% of the vote and whether their victory margin is within 20 percentage points of the second highest vote-getter. The fundraising measures are whether the top fundraiser raised less than 57.5% of preprimary receipts and whether their fundraising margin is within 20 percentage points of the second highest fundraiser. The second set of dependent variables includes three measures of the number of candidates in the race: the total number of candidates on the ballot, the effective number of candidates based on vote shares, and the effective number of candidates based on receipts.<sup>25</sup> I also calculate the difference between the respective vote share and fundraising measures to examine where the two measures differ most. Descriptive statistics of the competitive primary variables are provided in Table A1, and distributions of the number of candidates variables are provided in Figures A1 and A2.<sup>26</sup>

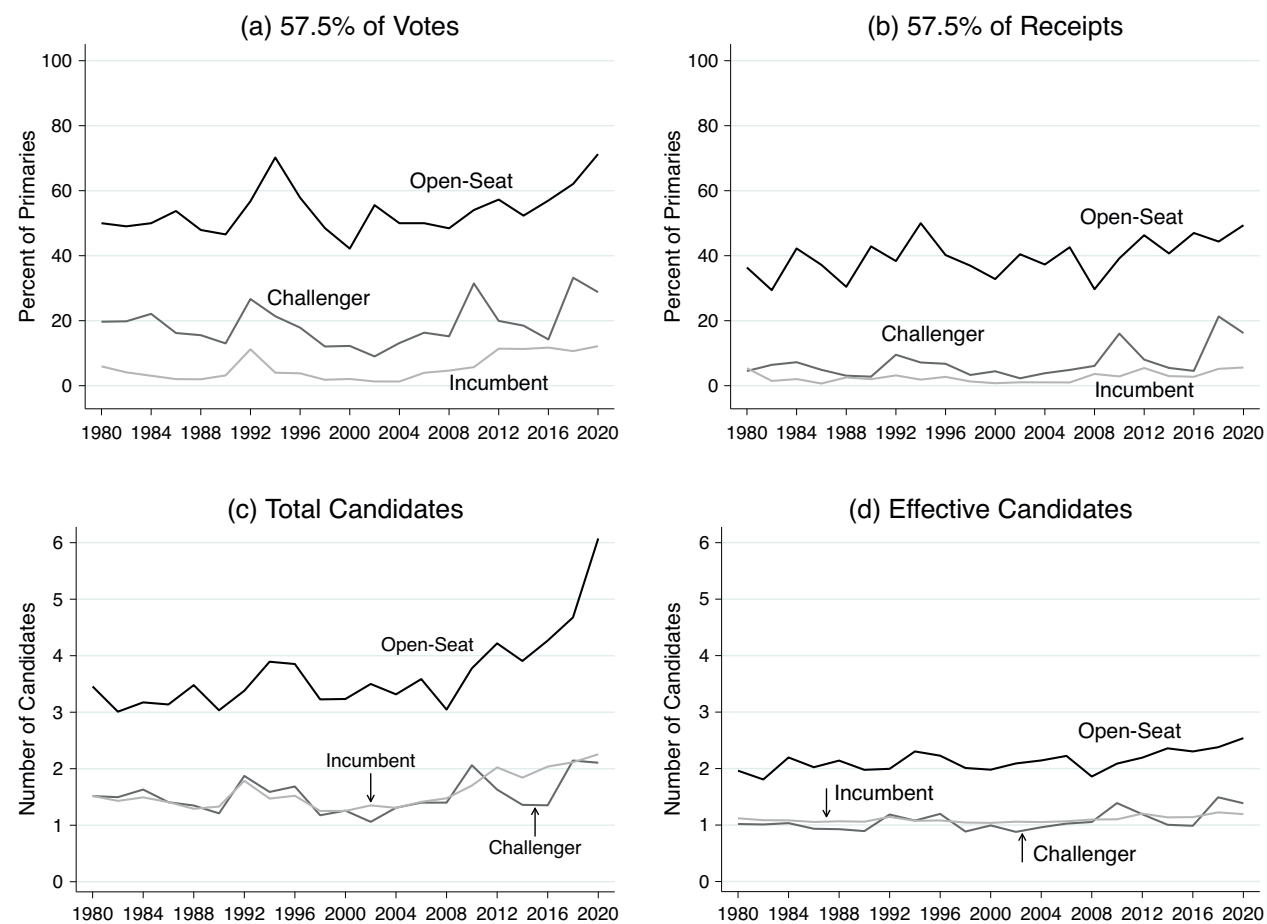
<sup>23</sup> I use Jacobson's presidential vote share data to measure district partisanship.

<sup>24</sup> Like Hirano and Snyder (2019, 39), I exclude advantaged-party challenger-party primaries and disadvantaged-party incumbent-contested primaries. The full sample of 18,270–2 primaries in 435 districts over 21 cycles—diminishes by 1,647 as a result; 26 primaries with Independent general election winners are excluded; 2 primaries in South Dakota's 2nd district in 1980 are excluded because the district was abolished in 1982; and an additional 40 duplicate primaries when districts were redrawn or a special election was held (i.e., Texas in 1996 and 2006; Ohio in 1992, 2006, and 2010) are included. The number of observations in the vote share models is 16,635.

<sup>25</sup> The effective number of candidates based on receipts is correlated with the total number of candidates and the effective number of candidates based on votes at 0.76 and 0.82, respectively.

<sup>26</sup> There is a slight distinction between earlier research on the relationship between spending and general election vote shares and more recent work on the relationship between fundraising and primary vote shares. Fundraising totals are used far more frequently to convey viability than are disbursement totals, so I focus on fundraising. I also created measures of competition with preprimary disbursements, and the results are the same (see Table A3, Table A4, and Figure A7). Preprimary disbursements are correlated with preprimary receipts at 0.93, so the similarity is unsurprising. In addition, I constructed measures of competition by contribution type—those from individuals, PACs, and limited to itemized receipts—in light of Reynolds and Hall's (2019) finding that House incumbents receive more from

**FIGURE 2. Measures of Primary Competition over Time and By Seat Type**



Note: The top graphs show the percentage of primaries where the top vote-getter received less than 57.5% of total votes and where the top fundraiser raised less than 57.5% of total receipts. The bottom graphs show the number of candidates on the ballot and the effective number of candidates calculated with preprimary receipts.

Each model includes a binary variable for open-seat and challenger-party primaries, with incumbent-contested primaries as the baseline. To measure partisan leaning, I include indicators for parties-balanced and advantaged-party primaries, with disadvantaged-party primaries as the baseline. I interact seat type and party balance to examine how competition varies across primary types. Although entirely self-funded candidates are rare, many candidates loan money to their campaigns. In additional analyses, I exclude candidate loans from the preprimary totals, and the results are the same (see Tables A5, A6, and A7). I follow Hirano and Snyder’s (2019) focus on seat type and district partisanship due to the overwhelming influence of these variables on primary competition, but all of the models include district and year fixed effects to account for time-invariant attributes of the district and election-specific trends.

**DESCRIPTIVE TRENDS OVER TIME**

Before turning to the results, I plot the vote share and fundraising measures over time. The top graphs in Figure 2 show the percentage of primaries where the top vote-getter received less than 57.5% of the vote and where the top fundraiser raised less than 57.5% of receipts. The bottom graphs show the total number of candidates on the ballot and the effective number of candidates with receipts.<sup>27</sup> The data are broken down by incumbent-contested, challenger-party, and open-seat races. Two main patterns emerge. First, the fundraising measures reveal lower levels of competition across primary types. In open seats, 55% of races are competitive with the vote share measure, compared with 40% with the fundraising measure. In challenger-party primaries, 19% of races are competitive with the vote share measure, versus 7% with the

PACs than do challengers and open-seat candidates, and the patterns are the same.

<sup>27</sup> The total number of candidates is slightly lower than that in Hirano and Snyder (2019, 181) because disadvantaged-party primaries are excluded from their figures.

fundraising measure. Very few incumbent-contested primaries are competitive, but the share is lower with the fundraising measure (6% vs. 3%).<sup>28</sup> On average, the total number of candidates is 1.6 in incumbent-contested primaries, 1.5 in challenger-party primaries, and 3.7 in open seats. By comparison, the effective number in each is 1.1, 1.1, and 2.1, respectively.

Second, differences between the number of candidate measures are more pronounced in recent election cycles, particularly in open-seat primaries. The total number of candidates in open seats has risen sharply since 2008. From 1980 to 2006, the average total number of candidates in incumbent-contested, challenger-party, and open-seat primaries is 1.4, 1.4, and 3.4, respectively. These figures increase to 1.9, 1.7, and 4.3, respectively, during the period from 2008 to 2020. Whereas the total number of candidates doubled from 2008 to 2020 in open-seat races, the increase in the effective number of candidates is not nearly as stark (37% increase). Similarly, in incumbent-contested races, the total number of candidates increased by 53% from 2008 to 2020, but the effective number of candidates increased by 9%. The change in the effective number of candidates is much more muted than the change in the total number of candidates.

Although the highs and lows track similarly, the largest single-year differences between measures correspond to years in which top fundraisers fared worse. The worst year for top fundraisers was in 1992, when 15% of top fundraisers lost (compared with the average of 8%), and their loss rates were above average in 1994, 2010, 2018, and 2020. These years are widely considered to be wave elections or atypical with respect to victory patterns. For example, women were favored in primaries in 1992 and 2018, and outsiders fared better in 2018 as well (Dittmar 2020; Porter and Treul 2018; Scott et al. 2019; Thomsen 2021). To be sure, top fundraisers are far more likely to win across this period, but atypical elections are useful contrasts because the outcomes differed from the norm or from expectations. More generally, the trends provide initial support for the expectation that competition looks better with vote share measures than with measures based on resource disparities. The next section incorporates district partisanship to further explore variation across race types.

## RESULTS

Table 1 presents the results for whether the primary is competitive with the vote share and fundraising

<sup>28</sup> Of the 7,765 incumbent-contested primaries, 444 and 207 are competitive with the 57.5% vote share and fundraising measures, respectively. Of the 7,164 challenger-party primaries, 1,338 and 479 are competitive with the vote share and fundraising measures, respectively. Of the 1,706 open-seat primaries, 938 and 676 are competitive with the vote share and fundraising measures, respectively. In the full sample of 16,635 primaries, 2,720 are competitive with the vote share measures, compared with 1,362 with the fundraising measures (or 16% and 8% of primaries, respectively). The number of primaries that are competitive is low with the vote share measures, but it is significantly lower with the fundraising measures.

measures, and Table 2 presents the results with the number of candidate measures.<sup>29</sup> We can see in Table 1 that, consistent with Hirano and Snyder's (2019) findings, advantaged-party open-seat primaries are the most competitive across all four measures. The lower levels of competition in incumbent-contested primaries and in disadvantaged-party constituencies (the baseline categories) is unsurprising. Yet the size of the coefficients varies significantly with the vote share and fundraising measures, and the difference is largest in open-seat primaries. The magnitude of the difference is discussed in more detail below. Another notable pattern is that, even between the vote share measures (Models 1 and 3), the likelihood that a primary is competitive is lower with the 20-point vote margin measure than with the 57.5% vote share measure because unlike in general elections, winning with less than 57.5% of the vote does not necessarily indicate a narrow 20-point margin.

The same patterns emerge in Table 2. Across measures, the number of candidates increases in open-seat primaries in advantaged-party and parties-balanced constituencies. The weighted measures calculated with votes as well as receipts (Models 2 and 3) indicate that the unweighted measure of the number of candidates on the ballot includes a large number who fail to attract support from voters as well as donors. The coefficients are much smaller with the effective number of candidates measure based on votes (Model 2), and the effective number of candidates based on preprimary receipts is lower yet (Model 3). As in Table 1, the magnitude of the difference across the number of candidate measures varies dramatically by primary type, with the largest disparity emerging in open seats.

In addition, I calculated the difference between the fundraising and vote share measures to examine where they differ most (i.e., whether the race is competitive with the 57.5% vote share and 20-point vote margin measure minus whether the race is competitive with the respective fundraising measure; the total and effective number of candidates with votes minus the effective number of candidates with receipts). The full models are provided in Table A2. Predicted values are plotted by seat type in Figure 3.<sup>30</sup>

<sup>29</sup> I also ran the analyses without dropouts, and the results are the same. Dropout candidates are included because the measure of competition is rooted in resource disparities, and candidates can amass resources without appearing on the ballot. The models without dropouts are provided in Tables A8, A9, and A10. In other analyses, I accounted for party and group activity in the race. I use Hassell's (2021) data to control for the number of party-connected donors and FEC data to control for party coordinated expenditures and independent expenditures before the primary (Tables A11 and A12). The insignificant relationships are unsurprising. As Hassell shows, factors like seat type and district partisanship influence party engagement.

<sup>30</sup> The graphs follow the format in Hirano and Snyder (2019; see Figure A4). The main comparisons are with the top right (percentage of competitive races) and bottom left (number of candidates) graphs. Their two other measures—whether the race was contested and the total vote percentage to losing candidates—are not incorporated here. The measure of whether there is any candidate in the race is an exceedingly low standard. The measure of the total vote



**TABLE 1. Likelihood of Competitive Primary with Votes and Receipts**

	(1) Competitive, 57.5% votes	(2) Competitive, 57.5% receipts	(3) Competitive, 20-pt vote margin	(4) Competitive, 20-pt receipt margin
Open seat	0.37** (0.02)	0.24** (0.02)	0.32** (0.02)	0.19** (0.02)
Challenger party	0.16** (0.01)	0.07** (0.01)	0.15** (0.01)	0.06** (0.01)
Parties-balanced	0.05** (0.01)	0.05** (0.01)	0.04** (0.01)	0.03** (0.01)
Advantaged-party	0.04** (0.01)	0.04** (0.01)	0.03** (0.01)	0.03** (0.01)
Open seat × Parties-balanced	0.12** (0.03)	0.13** (0.03)	0.10** (0.03)	0.11** (0.03)
Open seat × Advantaged-party	0.28** (0.03)	0.31** (0.03)	0.21** (0.03)	0.24** (0.03)
Constant	0.00 (0.05)	-0.01 (0.03)	0.00 (0.05)	0.01 (0.04)
Number of observations	16,635	16,281	16,635	16,281
R <sup>2</sup>	0.24	0.23	0.19	0.18

*Note:* Results are from ordinary least squares (OLS) regressions from 1980 to 2020. Robust standard errors are in parentheses. The dependent variable in Models 1 and 2 is whether the top vote-getter received less than 57.5% of total votes and whether the top fundraiser raised less than 57.5% of total receipts, respectively. The dependent variable in Models 3 and 4 is whether the top vote-getter's victory margin is within 20 points of the second highest vote-getter and whether the top fundraiser's fundraising margin is within 20 points of the second highest fundraiser, respectively. The baseline categories are incumbent-contested primaries and disadvantaged-party constituencies. The models include district and year fixed effects. \* $p < 0.05$ , \*\* $p < 0.01$

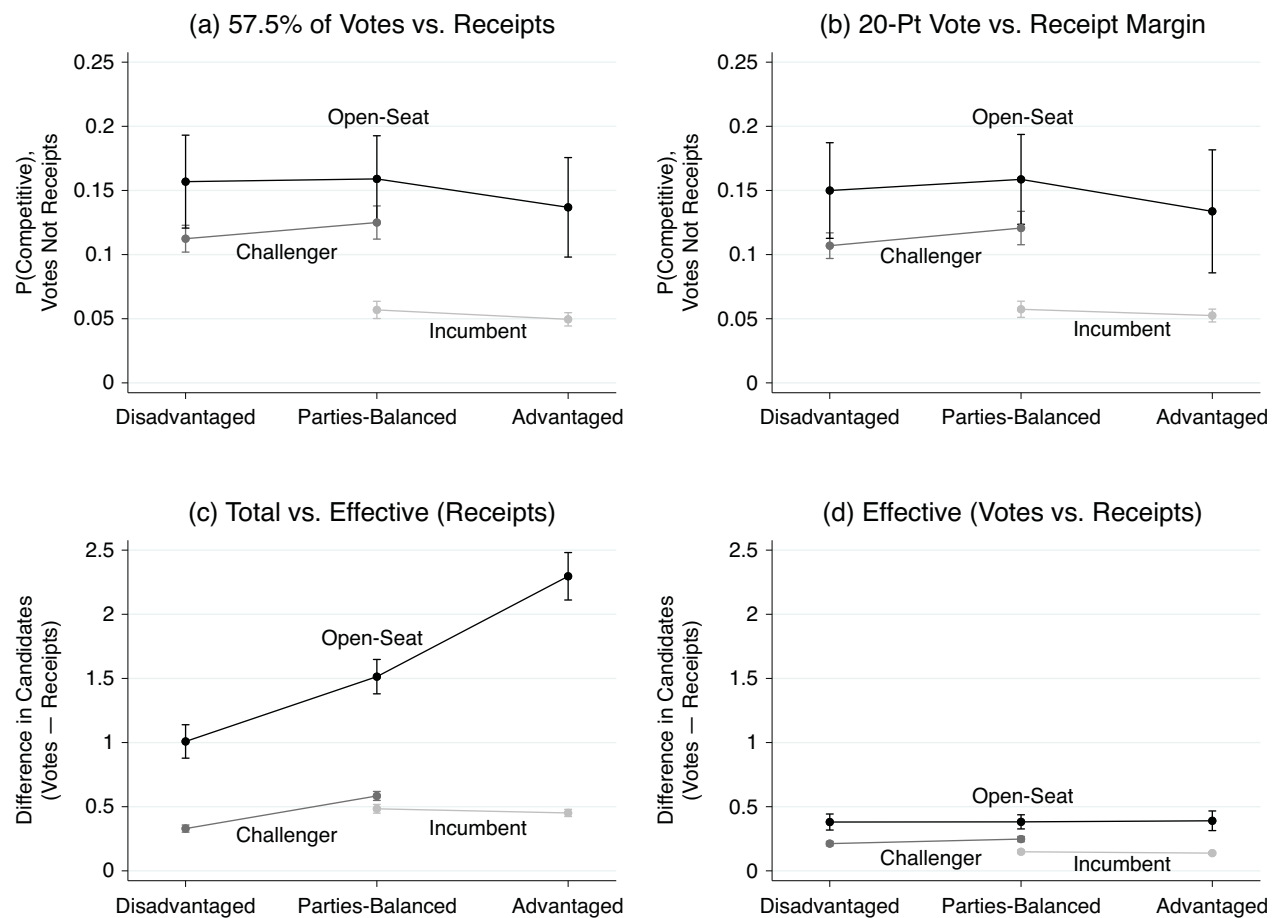
**TABLE 2. Expected Number of Candidates with Votes and Receipts**

	(1) Total number of candidates, ballot	(2) Effective number of candidates, votes	(3) Effective number of candidates, receipts
Open seat	1.46** (0.10)	0.96** (0.06)	0.70** (0.05)
Challenger party	0.22** (0.03)	0.22** (0.02)	0.11** (0.01)
Parties-balanced	0.43** (0.03)	0.22** (0.02)	0.20** (0.02)
Advantaged-party	0.41** (0.04)	0.21** (0.02)	0.21** (0.02)
Open seat × Parties-balanced	0.60** (0.13)	0.30** (0.07)	0.32** (0.06)
Open seat × Advantaged-party	1.93** (0.15)	0.83** (0.08)	0.84** (0.07)
Constant	0.70** (0.17)	0.77** (0.11)	0.72** (0.08)
Number of observations	16,635	16,635	16,281
R <sup>2</sup>	0.37	0.34	0.33

*Note:* Results are from OLS regressions from 1980 to 2020. Robust standard errors are in parentheses. The dependent variable in Model 1 is the total number of candidates on the ballot, and the dependent variable in Models 2 and 3 is the effective number of candidates based on votes and receipts, respectively. The baseline categories are incumbent-contested primaries and disadvantaged-party constituencies. The models include district and year fixed effects. \* $p < 0.05$ , \*\* $p < 0.01$ .

percentage to losing candidates also reveals higher levels of competition than does a similar measure based on fundraising, but I focus on the top candidate's advantage and the number of competitors. The number of candidates in open seats is slightly lower in their graphs, which is likely due to differences in the periods of study. Their data extend from 1950 to 2016, whereas the data here are from 1980 to

2020 when the number of candidates in open-seat primaries is higher (Hirano and Snyder 2019, 183). However, the patterns are clearly similar. I focus on the expected difference between the measures, but the predicted values in Tables 1 and 2 are plotted in Figures A5 and A6, respectively.

**FIGURE 3. Difference between Vote Share and Fundraising Measures of Competition, by Race Type**

Note: Predicted values are calculated from the models in Table A2. The top graphs show the probability the primary is competitive with the vote share measure but not the fundraising measure (for the 57.5% and 20-point margin measures, respectively). The bottom graphs show the difference between the total and effective number of candidates (based on receipts) and the difference between the effective number of candidates based on votes and receipts, respectively. Across measures, primaries are more competitive with vote share measures than with fundraising measures.

The top graphs show the predicted probability that the primary is competitive with the vote share measure but not the fundraising measure. The bottom graphs show the expected difference between the number of candidates with the vote share and fundraising measures; positive (negative) values correspond to an increase (decrease) in the number of candidates with the vote share measures.

All four graphs indicate that competition looks better with vote share measures, but the disparity is smallest in incumbent-contested races and largest in open seats. In advantaged-party open-seat primaries, the probability that a primary is competitive with the vote share measure but not the fundraising measure increases by 14 percentage points with the 57.5% vote share measure and by 13 points with the 20-point vote margin measure, as shown in graphs (a) and (b), respectively. In parties-balanced open seats, the probability increases by 16 percentage points with both the 57.5% vote share measure and the 20-point vote

margin measure.<sup>31</sup> If unopposed primaries are excluded, the probability that an open-seat race is competitive increases by 25 percentage points with both the 57.5% vote share and the 20-point vote-margin measures.

The number of candidates results also reveal sizable differences between measures. The disparity between the total and effective number of candidates based on receipts reaches a height of 2.3 candidates in advantaged-party open-seat primaries (from 4.9 total to 2.6 effective candidates) and 1.5 candidates in parties-balanced open-seat primaries (from 3.6 total to 2.1 effective candidates), as shown in graph (c). In other words,

<sup>31</sup> Of the 481 advantaged-party open-seat primaries in the dataset, 339 are competitive with the 57.5% vote share measure, compared with 277 with the 57.5% fundraising measure. Of the 744 parties-balanced open seats, 413 are competitive with the 57.5% vote share measure, versus 296 with the 57.5% fundraising measure.

the number of candidates decreases by nearly *half* in advantaged-party open seats and by 40% in parties-balanced open seats with the fundraising measure. Unweighted measures are often higher than weighted measures, but the difference between the effective number of candidate measures based on votes and receipts is largest in open-seat primaries as well, as shown in graph (d). The magnitude is smaller at 0.4 candidates, but it is substantively meaningful as the average effective number of candidates based on votes and receipts is 2.5 and 2.1 in open seats, respectively.

These two measures of competition—the top vote-getter's or top fundraiser's advantage and the number of candidates—do not have quite the same implications for democracy. Races where resources are heavily skewed are more clearly worrisome. By comparison, additional candidates do not necessarily improve competition, but there is a strong association between the *effective* number of candidates and electoral margins. In safe open-seat primaries, the average vote margin between the top two vote-getters in primaries with fewer than 2.6 effective candidates is 39 points, versus 12 points in primaries with more. In opposed incumbent-contested races, the average victory margin in primaries with fewer than the mean of 1.3 effective candidates is 60 points, versus 30 points in primaries with more. Incumbents rarely lose, but the percentage of incumbents who win drops from 99.5% in opposed primaries with fewer than 1.3 effective candidates to 91.8% in primaries with more. In primaries with at least two effective candidates, incumbent victory rates decrease to 86.2%. In short, these measures are collectively tapping into viability and vulnerability.

## HOW LONG-SHOT CANDIDATES INFLUENCE OUR MEASURES

We may be tempted to interpret the findings above as good news because candidates can outperform a fundraising disadvantage at the ballot box. Yet the main reason why vote share measures are expected to overstate the degree of competition is because of the entry of long-shot candidates. This section examines whether the disparity between measures widens as the number of candidates with limited resources and a minimal chance of winning increases. The analyses are structured the same as above and include seat type and partisan balance. Here the main independent variable is the number of candidates in the primary who raise less than 10% of preprimary receipts.<sup>32</sup> I use indicator variables for the number of long-shot candidates in the race, with zero candidates raising less than 10% of receipts as the baseline. More than 95% of primaries have fewer than five long shots, so primaries with five

or more candidates raising less than 10% of receipts are combined into one category. The results are presented in Table 3.

The coefficient on open seat is still positive and significant in Models 1 and 2, but the magnitude is smaller. Moreover, the coefficients on the number of long-shot candidates are much larger than that on open seat. For the most part, the difference between the vote share and fundraising measures increases with each additional long-shot candidate, although the size of the increase varies across models. In the number of candidate models, open seat is not even significant once the number of long shots is taken into account. Much of what is driving the relationship between open-seat primaries and the disparity between vote share and fundraising measures is the number of long-shot candidates in the race. In fact, if we add the coefficients on open-seat primaries, competition even looks *better* with the fundraising measures in Model 4 when there are zero long shots in the race (as the values are negative).

Figure 4 shows the expected difference between measures by the number of long-shot candidates for advantaged-party open seats. The negative value in graph (d) when there are zero long shots illustrates the point above, but the majority of open-seat races have at least one. On average, there are 2.5 candidates who raise less than 10% of receipts in advantaged-party open seats. In races with at least three long shots, the likelihood a primary is competitive increases by 25 percentage points with the 57.5% vote share measure and by 15 to 20 points with the 20-point margin measure. Similarly, the disparity between the total and effective number of candidates increases by about one candidate with each additional long shot. Even the disparity between the two effective candidate measures (graph [d]), both of which are weighted, is approximately one candidate in races with four or more long shots. The degree to which our measures differ thus depends on the number of candidates who raise little or no money, but vote share measures most often result in a better view of competition than do measures based on resources.

Although the above analyses are at the race level, we can also look at the amount raised per primary vote to examine how much cheaper votes are for long shots. Vote prices differ dramatically by candidate type, with opposed winners raising a median of \$10 per primary vote and long shots raising a median of \$0. Seat type has a significant impact as well, and more competitive races come with a steeper price tag: the median amount raised by open-seat candidates is \$11 per vote, and this increases to \$14 for candidates in advantaged-party open seats. In open-seat primaries, non-long shots raise a median of \$19 per vote, compared with \$3 for long-shot candidates. In advantaged-party open seats, these values are \$25 and \$6, respectively. Incumbents raise a median of \$14 per vote, compared with \$0 for long shots in incumbent-contested races. (These comparisons are limited to those in contested elections because vote totals are not available for all unopposed candidates.) Additional analyses in Table A13 demonstrate that

<sup>32</sup> More specifically, we are interested in the number of long-shot candidates whose vote share is higher than their receipt share. Ninety-six percent of long shots outperform their receipt share, so I use this simpler measure of the number of candidates who raise less than 10% of receipts. Similarly, the total number of long shots and the total number of long shots who outperform their receipt share are correlated at 0.98.

**TABLE 3. Relationship between Long Shots and Difference between Measures**

	(1) Difference in competitive (57.5%)	(2) Difference in competitive (20-pt margin)	(3) Difference in candidates (total-effective)	(4) Difference in effective (votes-receipts)
One long-shot candidate	1.70** (0.09)	1.33** (0.08)	0.97** (0.01)	0.50** (0.01)
Two long shots	2.64** (0.11)	1.61** (0.12)	1.91** (0.01)	0.77** (0.02)
Three long shots	3.00** (0.14)	1.60** (0.17)	2.82** (0.02)	1.04** (0.04)
Four long shots	3.19** (0.20)	1.53** (0.30)	3.79** (0.04)	1.23** (0.06)
Five or more long shots	2.98** (0.21)	1.96** (0.24)	6.05** (0.14)	1.54** (0.09)
Open seat	0.60** (0.20)	0.83** (0.19)	0.00 (0.03)	0.00 (0.03)
Challenger party	0.84** (0.09)	0.79** (0.08)	-0.02** (0.01)	0.06** (0.01)
Parties-balanced	-0.16 (0.10)	-0.02 (0.09)	0.01 (0.01)	-0.05** (0.01)
Advantaged-party	-0.31** (0.11)	-0.12 (0.10)	0.01 (0.01)	-0.06** (0.01)
Open seat × Parties-balanced	-0.22 (0.24)	-0.16 (0.23)	0.06 (0.04)	-0.09** (0.04)
Open seat × Advantaged-party	-0.64** (0.27)	-0.47 (0.28)	0.02 (0.05)	-0.29** (0.04)
Constant			0.01 (0.05)	0.04 (0.04)
Cut point 1	-4.31** (0.45)	-3.34** (0.38)		
Cut point 2	3.51** (0.44)	3.56** (0.39)		
Number of observations	16,281	16,281	16,281	16,281
Pseudo $R^2$	0.20	0.12		
$R^2$			0.90	0.51

Note: The results in Models 1 and 2 are from ordinal logistic regressions, and the results in Models 3 and 4 are from OLS regressions (1980–2020). The dependent variable in Models 1 and 2 is the difference between whether the primary is competitive with the 57.5% vote share and fundraising measures and the difference between whether the primary is competitive with the 20-point victory and fundraising margin measures, respectively. The dependent variable in Models 3 and 4 is the difference between the total and effective number of candidates (based on receipts) and the difference between the effective number of candidates based on votes and receipts, respectively. The baseline categories are incumbent-contested primaries, disadvantaged-party constituencies, and primaries with zero long-shot candidates. The models include district and year fixed effects. \* $p < 0.05$ , \*\* $p < 0.01$ .

long-shot candidates raise much less money per vote (\$18 less, on average) than non-long shots.

In sum, our interest is not in why so many long-shot candidates run but rather how measures based on resources change our view of competition. However, it is clear that the exponential increase in the amount of money needed to win has not deterred candidates from entering the fray, even those who have little chance of success.<sup>33</sup> It may be that long-shot candidates have a higher, though still very slim, chance of winning in open seats than they do in races with an incumbent (Canon 1993). Candidates may also miscalculate their ability to

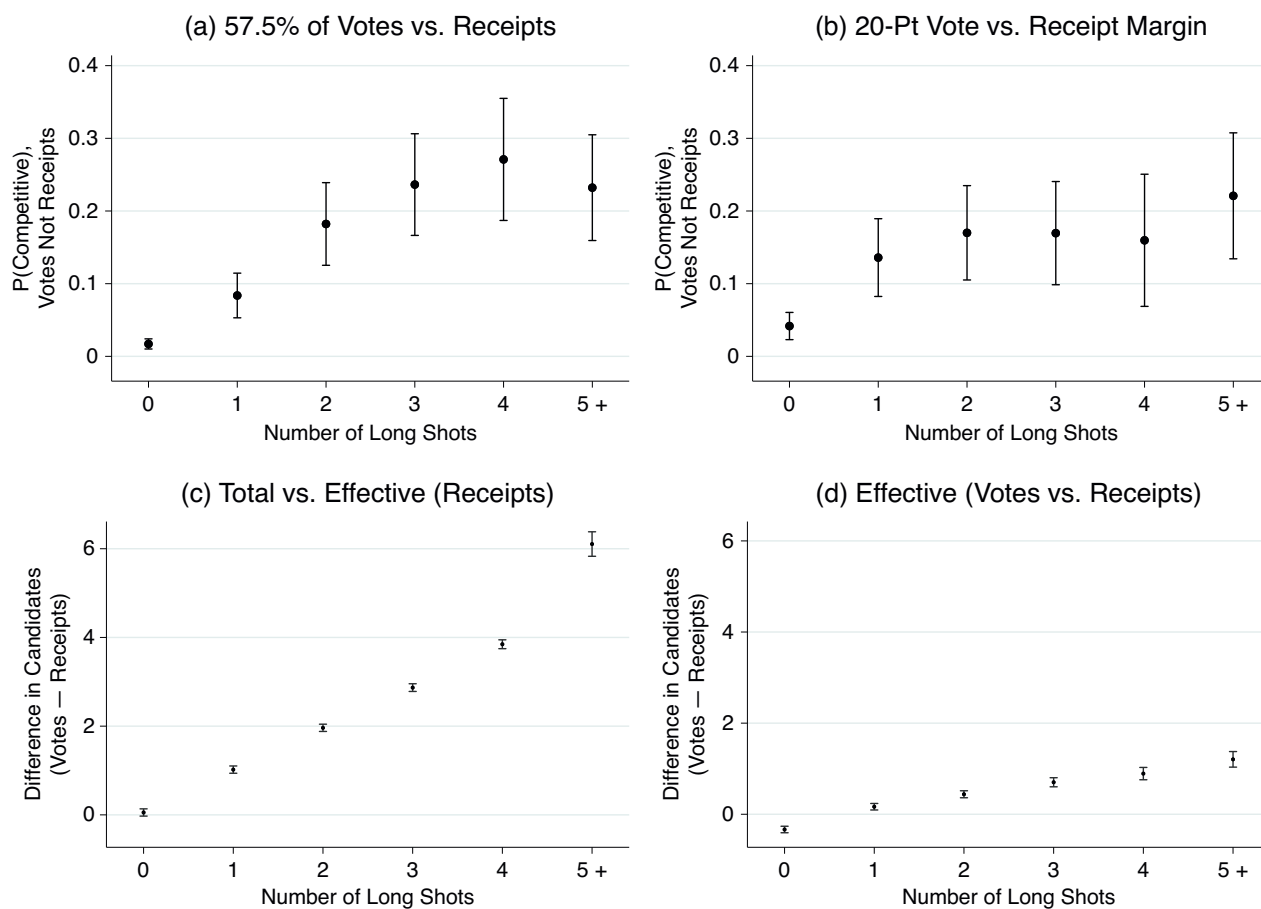
gain traction and expect to raise more money than they do. The broader media environment might play a role as well. Arceneaux et al. (2020) find that the density of Fox News in congressional districts altered the perceptions of high-quality potential Republican candidates and increased their likelihood of running for Congress. Media markets may be associated with the entry of inexperienced candidates as well. Regardless of the motivations of long shots, they are unlikely to be formidable in the current context.

## GENERAL ELECTIONS

Although our main focus is on primary elections, we might wonder whether similar patterns emerge in general elections as well. A more detailed overview is

<sup>33</sup> However, several studies illustrate that the high price tag of running for Congress deters some potential candidates more than others (Bonica 2020; Carnes 2018; Hall 2019).

**FIGURE 4. Difference between Measures, by Number of Long Shots**



Note: Predicted values are calculated from the models in Table 3. The top graphs show the probability the primary is competitive with the vote share measure but not the fundraising measure (for the 57.5% and 20-point margin measures, respectively). The bottom graphs show the difference between the total and effective number of candidates (based on receipts) and the difference between the effective number of candidates based on votes and receipts, respectively. The disparity between vote share and fundraising measures is driven largely by long-shot candidates.

provided in the Appendix.<sup>34</sup> The relationship between general election receipts and votes echoes that in the primary, with long shots who raise less than 10% of general election receipts receiving 29% of the vote, on average (see Figure A10). Indeed, the floor for long-shot candidates is even higher in general elections due to the significant influence of partisanship on voting behavior.<sup>35</sup> The ceiling for those who are almost certain to win is similarly lower than their receipt share, as

candidates who raise more than 80% of receipts receive 76% of the vote, on average. I construct the same analyses as above to examine the difference in competition between vote share and fundraising measures in general elections. I use the 57.5% threshold for votes and receipts in four types of general elections: incumbent-contested and open-seat races in competitive and uncompetitive districts.

The results are provided in Table A14, and predicted values of the difference between measures are shown in Figure A11. Across races, the quality of competition is higher with vote share measures than with fundraising measures. For the competition variables, the difference between measures is again largest in open seats. The predicted probability that a race is competitive with the vote share measure but not the fundraising measure increases by 32 percentage points in open-seat races in competitive districts. In these best-case scenarios, the number of competitive races declines from 248 with the vote share measure to 108 with the fundraising measure. However, in contrast to the primary

<sup>34</sup> I also provide a brief discussion of overall levels of primary and general election competition and address whether primaries are effective substitutes for the decline in general election competition (see Figure A12).

<sup>35</sup> Long shots in general elections also matter in different ways for the competition variables because there are only two candidates. In particular, they are likely to increase the difference between the number of candidate measures, but general elections with long shots are unlikely to be competitive with either the vote share or fundraising measure. Here our main interest is in overall differences between the two measures.

results, the difference between the number of candidate measures is smallest in open seats because both candidates are more viable than in uncompetitive districts (a difference of 0.26 candidates in competitive open seats). Primaries differ from general elections in substantial ways, but the results suggest that competition is better with vote share measures than with fundraising measures in both.

## CONCLUSION

To be sure, it is difficult to say what truly counts as electoral competition. One goal of this article is to generate a new conversation about how our conclusions about the quality of competition are tied to and influenced by the measures we use. Fundraising is a valuable metric and a useful alternative to votes because it matters for whether candidates can access the goods and services associated with victories and whether they are perceived as viable contenders. A small minority of candidates overcome the odds and prevail without raising as much money, but the ability to fundraise is seen as an advantage by the vast majority of candidates and officeholders who win. And although financial long shots do outperform their receipt shares at the ballot box, they overwhelmingly lose and usually by large margins. Future work should examine how candidates perceive the difficulty of obtaining votes versus receipts. The results suggest that it is easier to garner a negligible amount of votes than it is to raise a negligible amount of receipts, perhaps because voters use different criteria than donors when deciding who to support.

The main finding is that when competition is viewed through the lens of fundraising, it looks significantly worse than vote share measures suggest. The likelihood that primaries are competitive decreases across race types, with the largest difference emerging in open seats. The notion that several viable candidates are vigorously competing for voter support is not borne out when competition is measured with fundraising patterns. In open seats—the best-case scenarios of competition—the effective number of primary candidates decreases by nearly half in advantaged-party districts and by 40% in competitive districts. Moreover, comparisons with the same vote and receipt margin thresholds and with weighted vote and receipt shares similarly reveal lower levels of competition with the fundraising measures. Much of the disparity between vote share and fundraising measures is driven by candidates who have little chance of winning.

Primaries have attracted more attention in recent years due to the decline in competitive general elections and the notion that the heart of competition has shifted to the primary stage. The findings in open seats are thus particularly troublesome due to the role these primaries play in ensuring that elected officials face high-quality competition before they are selected initially. Although some have also uncovered negative consequences of close elections, democratic governments are premised on electoral contestation. It may

be difficult to agree on how competitive our elections should be or how many elections ought to be close, but the sheer volume of work in this area reflects a broader assumption that, at some point either prior to or during an officeholder's tenure, there is a clear normative benefit of close elections. The lower levels of competition across the fundraising measures is concerning because of the fundamental role that competition plays in American democracy.

Fundraising is likely to remain central to candidate viability in the years to come. Calls for campaign finance reform have gained momentum as the amount of money in elections continues to soar. Reformers face a difficult task of balancing various democratic priorities with the potential implications for legislative institutions. As Pildes (2021) notes in a recent *New York Times* editorial, “Campaign-finance efforts are now rightly focused on ‘leveling up’ campaign dollars—by providing public funds to candidates—rather than trying to ‘level down’ by imposing caps on election spending.” At the heart of efforts to increase access to campaign dollars is the concern that fundraising hurdles hinder those with fewer resources from seeking office or mounting a competitive campaign. At the same time, Pildes (2021) argues that we must focus not only on the values of participation or equality but also on the overall effects of reforms on political extremism and moderation. The growing influence of small donors may induce more extreme candidates to run and help them to win, and the rise in safe seats further increases the stakes of fundraising in primary elections for the selection of officeholders.

Beyond the study of competition, fundraising measures open up new opportunities to examine questions that would be difficult or impossible to look at with vote totals. For one, because money is a good indicator of success, preelection fundraising metrics can be used to study primary outcomes where the party cue plays a limited role (i.e., Bonica 2017; 2020). We can leverage quarterly reports to analyze how resource disparities shape dropout decisions and incorporate demographic variables to see which candidates have a fundraising advantage in the preprimary stage. Second, because campaign receipts can be aggregated in several ways, money can shed light on differences among elected officials across contexts (Powell 2012; Weschle 2022). In the US, lawmaker influence is unlikely to be associated with vote shares, but fundraising has been linked to the distribution of party goods (i.e., Heberlig, Hetherington, and Larson 2006; Kistner 2022; Powell and Grimmer 2016). As long as money matters in American politics, fundraising measures of viability and strength allow us to explore a variety of questions about elections and representation.

## SUPPLEMENTARY MATERIALS

To view supplementary material for this article, please visit <http://doi.org/10.1017/S0003055422000764>.

## DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are available at the American Political Science Review Dataverse: <https://doi.org/10.7910/DVN/RTGDFW>.

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## CONFLICT OF INTEREST

The author declares no ethical issues or conflicts of interest in this research.

## ETHICAL STANDARDS

The author affirms this research did not involve human subjects.

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