

Information and Perceptions of Electability in Primary Elections

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Version: April 15, 2024

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Abstract

When citizens vote in primary elections, they have good reason to consider each candidate's *electability*—the chances of winning the general election if they become their party's nominee. Although electability perceptions are potentially a critical determinant of who wins, little is known about how voters form such perceptions. Using a pre-registered experiment conducted against the backdrop of competitive senatorial and gubernatorial elections in 2022, the researchers examine three candidate attributes that plausibly shape voters' perceptions of electability: ideological moderation, experience in elected office, and campaign fundraising success. They find that Republican and Democratic primary voters develop and apply electability perceptions in different ways: Where Democratic primary voters interpret ideological moderation as a sign of electability, Republican voters' perceptions draw more heavily on information about candidate fundraising. These results provide important insights into how primary voters evaluate candidates and illustrate one source of asymmetric polarization.

Because general elections in the U.S. are often uncompetitive, primary elections play a crucial role in determining who wins elected office. Even when the general election is competitive, primary elections—and the decisions that voters make when they participate in them—shape who will acquire the reins of power. As such, primaries appear to contribute to polarization (Burden 2001, 2004; Kujala 2020; Nielson and Visalvanich 2017; cf. Woon 2018) and they influence how politicians behave in office (e.g., Anderson, Butler, and Harbridge-Yong 2020, 2022; Brady, Han, and Pope 2007; Fraga 2016; Leighley and Nagler 2014; Nielson and Visalvanich 2017).

Voters' decision processes for primary elections are surely much different than those they apply to general elections. Not only is the heuristic that dominates general election voting—candidates' party identification—unavailable; primary voters also have to consider the two-stage process of a candidate needing to win both the primary and general election. In the primary, a voter could undermine her own policy goals by supporting a candidate who, though like-minded, is likely to lose to the opposing party in the general election. So voters' perceptions about candidate *electability*—their judgments about which candidates can win the general election—might be important predictors of voting behavior and determinants of primary election outcomes. But despite the possible importance of electability perceptions, social scientists know little about how primary voters assess the electability of candidates, in part because primary voters are rarely surveyed as they are making decisions in upcoming primary elections.

Examining electability perceptions also has the potential to improve understanding of the broader political system. For instance, if electability considerations redound to the benefit of experienced or ideologically moderate candidates, it would likely improve legislative output and prospects for bipartisan compromise (e.g., Miquel and Snyder Jr. 2006). But if fundraising drives voters' perceptions of electability, it could lead to elected officials whose demographics differ from the

polity they represent, particularly benefiting wealthy candidates who self-fund their campaigns (Carnes 2020).

We examine three candidate attributes that plausibly shape voters' perceptions of candidate electability: ideological moderation, experience in elected office, and campaign fundraising advantages. Each of these attributes is referenced in research on electoral success (e.g. Hall and Thompson 2018; Jacobson and Carson 2019), though it remains unclear whether they operate *via* their influence on perceived electability. We assess the effects of moderation, office-holding experience, and campaign fundraising with a pre-registered experiment conducted in advance of competitive, open-seat senatorial and gubernatorial primary elections held in 2022. Using random assignment, we inform (or do not inform) respondents about candidates' genuine attributes on one (or none) of these dimensions. We also measure respondents' perceptions about each of these candidate attributes. As such, we can identify observational relationships (the relationship between what respondents perceive about the candidates and their perceptions of electability), intent-to-treat effects (the effect of information, given what respondents believed before our survey), and treatment-on-treated effects (the effect of information on respondents who learned from the treatment). Because voters might be inclined to exaggerate the electability of their preferred candidates—a form of expressive responding or “cheerleading” (see Peterson and Iyengar 2021 for a discussion)—we measure electability by incentivizing accurate responding.

We find, first, that voters distinguish between candidates based on electability; they perceive some candidates to be more electable than others and these perceptions are not merely a rationalization of voting preferences. Second, we find evidence that the sources of electability perceptions differ by party. Republican primary voters' perceptions of electability are substantially grounded in information about money: their pre-existing information about candidate fundraising is

highly predictive of electability perceptions, and experimentally informing respondents about candidate fundraising success moves electability perceptions further. In contrast, Democratic primary voters' perceptions of electability are shaped by information about ideological moderation. The parties' differential use of moderation as a valuable signal of electability points to one factor that may contribute to asymmetric polarization between the parties (Hacker and Pierson 2015). The importance of fundraising in perceptions of electability, even if not used equally by the two parties, illustrates one route by which primary elections may privilege candidates who are independently wealthy (Carnes 2020) or who can raise funds from donors, who tend to be ideologically extreme (Kujala 2020). Third, although our information treatments affect electability perceptions, we do not uncover statistically significant downstream effects on primary voters' vote choices. As such, one possible interpretation of our research is that real political consequences stemming from electability are marginal. However, as we discuss in the concluding section, the context of our study makes it a hard test for uncovering electoral effects, pointing to directions for future research.

Electability in Primary Elections. In primary elections, electability refers to a candidate's chances of winning a general election if they become their party's nominee. Electability should not be confused with "viability"—a candidate's chances to receive their party's nomination (Abramowitz 1989; Doherty, Dowling, and Miller 2022). Electability is closely tied to arguments about strategic voting: to the extent voters care about electing an ideological "kindred spirit," and place value on electing a co-partisan, their vote choices are likely influenced by perceptions about how primary contenders will fare in the general election (Anderson et al. 2023; Burden and Jones 2009; Cherry and Kroll 2003; Rickershauser and Aldrich 2007; Simas 2017; Stone and Abramowitz 1983). These voters have reason to use the information they have about primary voters relative to each other to assess their electability.

Assessing a candidate's electability is a difficult task. Voters are routinely pressed for time and their comprehension of strategic elements in politics is notoriously tenuous (Conover and Feldman 1989; McDermott 1997). They likely turn to various information shortcuts (Popkin 1991) to help them assess electability. Drawing on insights from theories of spatial voting as well as historical data on congressional elections, we hypothesize that three components of how candidates stand relative to one another might be associated with perceptions of greater electability: ideological moderation, campaign fundraising advantage, and office-holding experience.¹ While there are other factors that primary voters might draw on to assess electability, we focus on these three because they are central in the literature, because they are within the candidates' control (i.e., they can seek to raise more funds, move up the ranks to higher office, or take more moderate positions), and because voters' (potential) use of these signals has implications for representation and governance.²

Once the primary elections were over, we sought to confirm that the kind of information our study highlights was regularly available to voters. To do so, we examined coverage of candidates in the top-two by circulation state newspapers with online accessibility in the three months leading up to 19 competitive statewide primary elections in 2022. For each of the 543 articles we identified about these primary races, research assistants coded whether information about candidate ideology, fundraising, or political experience represented the single main point of the article, a minor point (of which there could be multiple), or was not mentioned at all.³ All three topics are regularly reported. Overall, 23% of the articles cover fundraising as a major or minor point, 47% cover ideology as a major or minor point, and 68% cover office-holding experience as a major or minor point. In short, the treatments we use represent information to which voters are frequently exposed during primary elections.

How Do Candidate Attributes Influence Perceived Electability? Researchers know surprisingly little

about how voters develop expectations about the electability of candidates. These electability perceptions likely have a long-term component derived from voter experience observing the outcomes of prior elections. This long-term component might not be affected much by immediate candidate traits. But the literatures on spatial voting, voter behavior, and congressional elections offer some indications of how candidate moderation, fundraising, and experience in elected office may affect voter perceptions of electability at the timescale of an election cycle. While we did not pre-register hypotheses about how the perceptions of electability may differ by party, we also offer exploratory evidence regarding differences in how voters in the Democratic and Republican Party primaries use information.

First, primary voters might consider relatively more moderate candidates to be more electable than ideological extremists because candidates tend to do worse in the general election when they adopt more extreme positions (Burden 2004; Canes-Wrone, Brady, and Cogan 2002; Hall 2015). Extremist candidates may be less likely to win in the general election both because they are unappealing to moderate voters (Fowler et al. 2023) and because they may activate the other party's base to turn out to defeat them (Hall and Thompson 2018). This pattern is broadly consistent with theories of spatial voting, given the common assumption that the median voter in a general election is an ideological moderate.

H1: Ideology Information – Information about a candidate being more moderate than his/her opponents will increase perceived electability, while information about being more extreme will decrease perceived electability.

While H1 was our pre-registered expectation, we acknowledge some reasons for doubt about the influence of ideology. Primary voters tend to be strong partisans and ideological extremists (Kamarck and Podkul 2018), which might lead them to weigh ideological considerations heavily (Burden 2004) and discount concerns that an ideologically extreme candidate runs a greater risk of a

general election defeat. Primary voters might also believe that more ideologically extreme candidates are more electable because they can mobilize co-partisans to turn out (Butler 2009; Nielson and Visalvanich 2017). Moreover, many voters emphasize partisan identities without thinking about ideology in spatial terms (Achen and Bartels 2016; Kinder and Kalmoe 2017). Thus, it is possible that primary voters do not consider ideology at all, instead relying on other factors such as party consistency in positions (Henderson et al. 2022) or the race and gender of the candidate (Bateson 2020).

Second, primary voters might use information about candidate fundraising relative to other candidates in the race. Successful fundraising may provide signals about the candidate's ability to compete in the general election (Gerber 1998; Green and Krasno 1988, 1990; Jacobson 1990) and has been used as an indicator of candidate quality (Bond, Covington, and Fleisher 1985). Early fundraising, in particular, may provide an indicator to primary voters about the viability of a candidate (Feigenbaum and Shelton 2013). Those who fail to raise funds early are more likely to drop out of the race (Bonica 2017) and the candidate who raises more money tends to win (Center for Responsive Politics 2020). Importantly, fundraising is an easily available heuristic, as political journalists regularly cover it (La Raja 2007).

H2: Fundraising Information – Information about a candidate raising more money than his/her opponents will increase perceived electability, while information about raising less money will decrease perceived electability.

Third, office-holding experience has long been viewed as a positive attribute, at least in general elections (Jacobson and Carson 2019). Prior experience, particularly in elective office at higher levels, is associated with getting a greater share of the vote (Lublin 1994) and political scientists often use prior office experience as an important indicator of candidate quality (Bond, Covington, and Fleisher 1985; Green and Krasno 1988; Jacobson and Kernell 1983; Squire 1989).

H3: Experience Information – Information about a candidate having held prior elected office will increase perceived electability, while information about not holding a political office will decrease perceived electability.

On the other hand, many candidates in recent years have had great success in primaries and general elections by pitching themselves as political newcomers or outsiders (Kelly and Loepp 2022; Porter and Steelman 2023; Porter and Treul 2020), raising the possibility that voters do not value prior office experience as an indicator of electability.

In addition to examining what affects voters' perceptions of electability, we test whether those same factors affect vote intentions. There is some evidence that voters prefer candidates who are more likely to win in the general election (e.g., Rickershauser and Aldrich 2007) and that voters are willing to prioritize electability over ideological considerations (Simas 2017). Thus, if the informational treatments impact perceptions of electability they may also affect primary voters' stated vote intention.

H4: Electability and Strategic Voting – Factors that increase perceptions of a candidate's electability should also make respondents more likely to vote for that candidate.⁴

At the same time, H4 is not foreordained. A wealth of political psychology research suggests that simply *liking* or *disliking* a candidate is the preeminent mental consideration affecting vote choice. Voters are adept at rationalizing reasons to vote for candidates they like (Lodge and Taber 2013). Such rationalization might dramatically dampen the effect of electability perceptions.

Voters' use of ideology, fundraising advantage, and prior elected office to assess electability would have important implications for governance and representation. For instance, moderate candidates or those with prior experience may approach governing differently than more ideologically extreme legislators. Moderate legislators are more likely to engage in bipartisanship and compromise (Harbridge 2015; Harbridge-Yong, Volden, and Wiseman 2023). Likewise, experience

cultivates the relationships and issue expertise that help legislators get things done (e.g., Hall 1998; Mann and Ornstein 2006; Rauch 2015) and prior experience in a state legislature can boost legislative effectiveness in Congress and reduce gridlock (Volden and Wiseman 2014). Finally, when candidates need to focus on fundraising to succeed, it empowers donors, who themselves are often ideologically extreme and unrepresentative (Kujala 2020), as well as rich candidates who can self-fund (Carnes 2020). To the extent that positive news about candidate fundraising contributes to electability perceptions, it would increase the stakes associated with campaign finance reports, as well as news about the success of candidate- and party-affiliated super PACs.

Studying Voters in States with Competitive Statewide Elections. Because electability has been the subject of so little empirical research, we employ a survey experiment in a context where strategic voting based on electability is likely to be observed: eight contested statewide primary elections that, as of April 2022, were widely expected to have competitive general elections and had candidates who differed on at least some of our hypothesized predictors of electability perceptions.⁵ These are the Democratic and Republican senatorial primary elections in Ohio and Pennsylvania; the Republican senatorial primary in North Carolina; the Democratic senatorial primary in Wisconsin;⁶ and the Republican gubernatorial primaries in Ohio,⁷ Pennsylvania, and Wisconsin.

Participants in each state were recruited by Qualtrics and needed to be at least 18 years old, be U.S. citizens, and live in the state where the primary election was occurring.⁸ We screened respondents based on their intention to vote in the primary election and implemented survey quotas to oversample likely primary election voters (see SI, page 12 for survey demographics). Qualtrics removed respondents from the study if they were “speeders”—defined as those who completed the survey in less than half of the median completion time in the soft launch—or if they provided

incoherent or nonsensical answers to an open-ended attention check question.⁹ For our main analysis, we omit respondents who indicated they would not vote in the primary.¹⁰ Where we include both the senatorial and gubernatorial races in our experiment, respondents were randomly assigned to be asked about only one of those races. For the experiment and subsequent evaluations, we include candidates receiving 5% or more support in the most recent polls before the survey was fielded, omitting non-viable candidates.

Design of the Survey Experiment. The key items of the survey were presented to respondents in the following order:

- (1) A randomized informational treatment (ideology, fundraising, office-holding experience, or no information) about the candidates in the primary election.
- (2) An incentivized measure of electability perceptions for each candidate.
- (3) A measure of likelihood of voting for each candidate.
- (4) A measure of knowledge of the candidate characteristics in our experiment: relative ideology, campaign fundraising, and office-holding experience.

Information Treatments. After answering questions about their primary election participation, vote intentions, and demographics, respondents received one of four information treatments. They were presented with information about the relative moderation of the candidates in the race under consideration (the Ideology condition); information about the relative amount of campaign funds raised by the candidates (the Fundraising condition); information about the candidates' office-holding experience (the Experience condition); or no additional information about the candidates (the Control condition). The Control condition included the following text:

In the upcoming primary, [NAMES OF CANDIDATES] are competing to be the nominee for the [Democratic/Republican] Party in this fall's general election for [governor / the Senate]. As fellow [Democrats/Republicans] there are many similarities between the candidates. However, there are also significant differences.

How much have you been hearing about the differences between these candidates?

A lot

A little

Not very much

Each of the three treatment conditions added an additional sentence with factual information about the candidates and their relative standing on a particular dimension at the end of the first paragraph:

Ideology Treatment – “For example, [NAME 1 [and NAME2]] is/are more moderate than NAME3 [and NAME4].”

Fundraising Treatment: “For example, [NAME1 [and NAME2]] has[ve] raised much more money than [NAME3 or NAME4].”

Experience Treatment: “For example, [NAME1 [and NAME2]] has[ve] held elected office; [NAME3 and NAME4] has not.

The experiment avoided deception by always presenting accurate information. If candidates did not differ appreciably on a particular dimension (ideology, fundraising, or experience), we omitted this treatment condition from the survey experiment randomization for that race. In each race, the treatment conditions used were randomized with equal probability. Our design and analysis plan for the experiment were pre-registered before analysis of the data and we note where our analyses go beyond the pre-registration plan.

The treatments focused on the relative position of candidates for a given characteristic. For instance, a respondent would be told that a candidate or set of candidates raised more money than others, but not how much. With respect to ideology, we report relative moderation and avoid terms such as liberal, progressive, conservative, and MAGA because doing so would suggest absolute positions of ideology, thus making the treatments less comparable across states.¹¹ In addition to making it easier to compare the effect of treatment across races, presenting information in relative terms is relevant to the voting decision, in which citizens make comparative judgments regarding the candidates. See Table SI1, page 10, for how we rated the relative moderation, relative fundraising, and office-holding experience of the candidates.

Electability Perceptions. In order to assess perceptions of electability, we asked respondents about the likelihood the party would win in the general election if each candidate won the primary. Specifically, we asked:

What is the probability that the [Democrats/Republicans] will win the November general election [State] Senate race if [Candidate] is the [Democratic/Republican] nominee?

Respondents used sliders—one for each candidate in the race—to indicate their electability assessment. The sliders moved in 10-point increments from zero to 100 and the order the candidates appeared was randomized on the same screen for comparison.

Expressive responding makes measuring electability difficult. Voters might allow their affect toward a particular candidate to spill over into related judgments about them (Lodge and Taber 2013). Or they might be inclined to exaggerate the electability of the candidates they like to project an air of strength and confidence (Kurzban and Aktipis 2007). Thus, measuring electability requires an approach that incentivizes respondents to report their objective beliefs accurately (see Schotter and Trevino 2014 for a review).

We adopt the incentive-compatible payoff scheme known as the Quadratic Scoring Rule (QSR; Holt & Smith 2016) to get respondents to report their beliefs accurately.¹² The incentives in our study were entries in a raffle wherein respondents might earn a \$100 donation to support scholarships at a university of the respondent's choice.¹³ As the payoff table (see SI Figure SI1) clarifies, it only makes sense to indicate 100% confidence in an outcome if a person really is 100% confident in that outcome, because higher levels of confidence come with an increasing penalty for being wrong. We asked respondents to select a university of their choice to receive donations if they win the raffle. Then respondents saw the description of the primary election and their assigned treatment information. Finally, we presented them with the following information intended to

induce accuracy, followed by the questions about perceived electability:

Next, we will ask you to make guesses about the November Senate election result. Your guesses can improve the chances that the university you chose earlier, [University], will win one or more of the ten \$100 donations.

We would like to know how likely you think it is that the [Democratic/Republican] Party will win the November general election Senate race in [State] depending on who the [Democratic/Republican] nominee is. Please use the sliders below to indicate this.

A key thing to understand is that the university you chose is more likely to win a donation when your predictions are more accurate. You can read our procedure for translating predictions into chances to win a donation here.^[14] But the main point is: try to make your predictions as accurate as possible to best help [University]. For instance, you should only enter a probability of 100% if there is no possible way that the [Democratic/Republican] Party would lose with a particular nominee. You should enter a probability of 50% if you think it is equally likely that the Republican and Democratic parties will win.

Voter Preferences and Knowledge of Candidate Characteristics. After asking about electability, we measured vote intention and knowledge about the candidates. The post-treatment vote intention measure allows us to assess the linkage between perceptions of electability and strategic voting. To measure vote intention, we asked: “If you were voting in the senatorial/gubernatorial primary election today, how likely would you be to vote for each candidate listed below?” with four response options: not at all likely, not very likely, somewhat likely, and certain to.¹⁵ We reminded respondents that because the candidates are running against each other, they should not choose “certain to” more than once.

Following the treatment condition, electability measures, and vote intention questions, we asked all respondents about their knowledge of the candidates on the three dimensions manipulated in the experiment: ideology, money raised, and office-holding experience. The knowledge questions serve as both a manipulation check and a way to assess baseline knowledge of the candidates in the control condition. In each case, we asked them about the relative standing of the candidates in a way

that matches the informational treatment conditions. The questions took the following form, piping in information about the number of candidates:

“Do you happen to recall which [#] of these candidates for [Governor/Senate] held elected office? If you do, please check all that apply.”

“Do you happen to recall which [#] of these candidates for [Governor/Senate] raised more money than the others? If you do, please check all that apply.”

“Do you happen to recall which [#] of these candidates for [Governor/Senate] more moderate than the others? If you do, please check all that apply.”

Voters’ Perceptions of Electability. We find that primary election voters discriminate among candidates based on perceived electability. Respondents’ ratings of the electability of candidates,¹⁶ for which we use only respondents who were assigned to the control condition to avoid confounds with the informational treatments in the experiment, vary substantially. For each respondent, we calculate the difference in electability scores between the candidate they rated most and least electable. When such a difference score is near zero, it implies that the respondent sees all candidates as similarly likely to win the general election, if nominated. Large differences imply that the respondent sees at least one candidate as much more electable than another. As the histogram in Figure 1 shows, only 12% of respondents perceived all the candidates they evaluated as equally electable. Most respondents perceive some candidates to be more electable than others, with the median respondent reporting one candidate to be 30 percentage points more likely to win the general election than some other candidate.

Electability ratings vary across races as well as across candidates. Figure 2 reports the mean electability and associated 90% confidence intervals for each candidate we examined. For instance, Democratic primary voters in Pennsylvania view John Fetterman as more electable than Connor Lamb, who is viewed as more electable than Malcolm Kenyatta. Republican primary voters in Ohio view Mike DeWine as more electable than Jim Renacci, who is viewed as more electable than Joe

Blystone.

Figure 1: Within-Respondent Variation in Perceived Electability

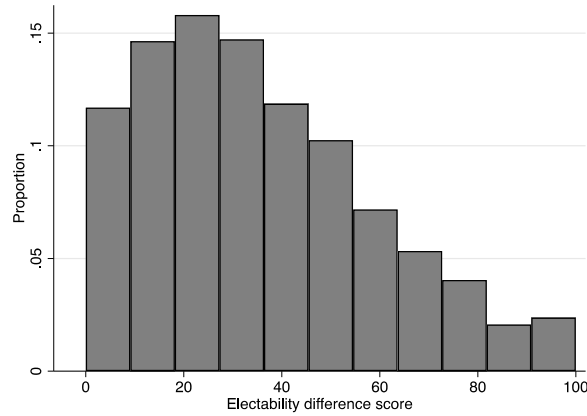
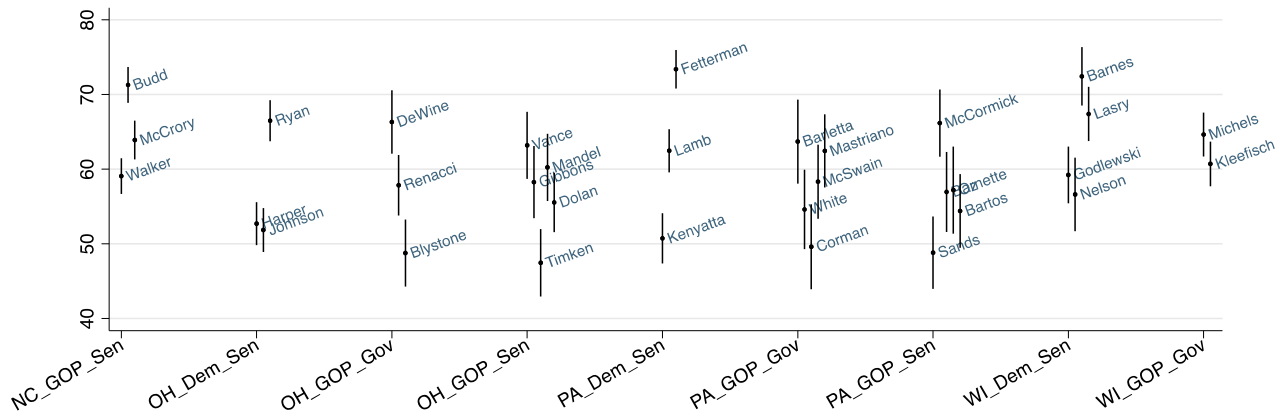


Figure 2: Mean Electability of Candidates by State and Office



Note: Whiskers are 90% confidence intervals.

Observational Perceptions of Candidate Traits and Electability. Recall that we are interested in examining 1) the extent to which these electability ratings are associated the beliefs respondents hold about candidates before starting our survey—*existing* trait perceptions (observational), 2) the extent to which electability perceptions change when respondents are given new information—*being told* about candidate traits (experimental intent-to-treat), and 3) the extent to which electability perceptions change when respondents gain information that they didn't know

before—*learning* about traits (experimental treatment-on-the-treated).

We examine the role of existing perceptions with observational data from respondents who were randomly assigned to our study’s control condition using a linear regression of the form:

$$\text{Electability}_{i,k} = \beta_0 + \beta_1 \text{Perceived Fundraising}_{i,k} + \beta_2 \text{Perceived Experience}_{i,k} + \beta_3 \text{Perceived Moderation}_{i,k} + \mathbf{v}_r + \varepsilon_{i,k}$$

where i indexes respondents, k indexes candidates, \mathbf{v}_r represents fixed effects by race, and standard errors are clustered by respondent. We segment this analysis of the predictors of electability by respondent partisanship (pure independents, independents who lean toward a party, weak partisans, and strong partisans).

Table 1 shows that each of the candidate traits is associated with expectations about electability. Fundraising is particularly strongly correlated; a candidate who is thought to have raised more money than her opponents is rated 10 percentage points more likely to win in the general election. In column 1, in which all respondents are pooled together, the coefficient on fundraising is nearly double the coefficient on experience and three times the size of the coefficient on moderation. Further, the coefficient for perceived fundraising is statistically significant at $p < 0.05$ in most of the subsamples.

Existing knowledge of a candidate’s prior experience in elected office is also associated with perceptions of greater electability, on average and across subsets other than pure independents. These experience coefficients are smaller than those for candidates with a fundraising advantage. Existing perceptions of moderation are also, on average, associated with electability, but the relationship is driven by independents. Perceived ideological moderation is strongly correlated with electability perceptions among pure independents, with candidates who are perceived as moderate rated 18 percentage points more likely to win in the general election. There is no such relationship (at $p < 0.05$) between ideology and electability among partisans (leaning, weak, or strong). Thus, we

see a hint that, while independents correctly perceive that moderation is valuable in the context of a general election (Hall 2015), partisans – who make up the bulk of voters in most primary elections – are largely oblivious to this pattern. In elections where larger numbers of independents participate, such as presidential primaries, ideological moderation may be important for candidates to highlight if they are striving to be viewed as electable.

Table 1: Observational Predictors of Candidate Electability

| | (1) All Respondents | (2) Pure Independent | (3) Independent leaners | (4) Weak Partisans | (5) Strong Partisans |
|-----------------------|---------------------------|----------------------------|-------------------------------|--------------------------|----------------------------|
| Perceived Moderation | 3.18** (1.12) | 18.53** (3.58) | 4.50 (3.02) | 2.65 (2.21) | 2.61* (1.57) |
| Perceived Fundraising | 9.57** (1.08) | 9.85** (4.39) | 5.02* (2.74) | 9.40** (2.15) | 9.76** (1.46) |
| Perceived Experience | 5.14** (0.99) | 1.86 (3.76) | 5.90** (2.49) | 4.63** (1.90) | 5.33** (1.39) |
| Observations | 3,518 | 167 | 388 | 888 | 1,931 |
| Number of Respondents | 1,020 | 48 | 111 | 248 | 572 |
| R ² | 0.06 | 0.21 | 0.05 | 0.08 | 0.06 |

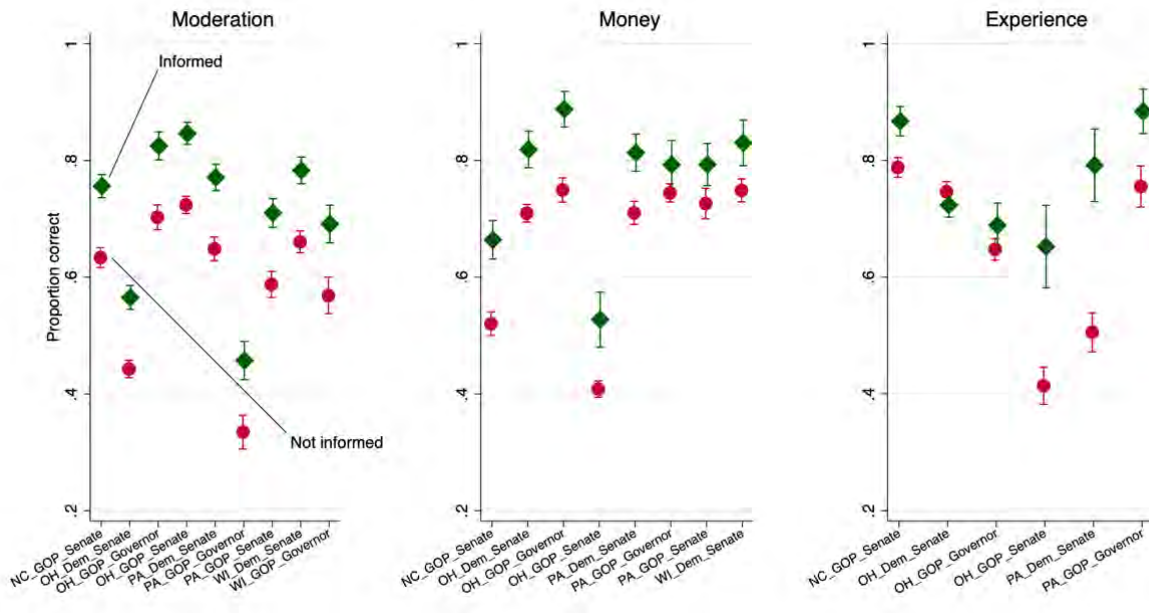
Note: Models are OLS regressions with clustered standard errors (clustered on the respondent) in parentheses. The analysis is limited to voters assigned to the experiment’s control condition. Models include fixed effects for race. ** $p < 0.05$, * $p < 0.1$

Learning about Candidate Traits and Electability. While the analysis in Table 1 reveals perceived characteristics of candidates that are associated with electability perceptions, it is subject to endogeneity concerns. For example, highly skilled candidates might be more effective at boosting voters’ perceptions of both their fundraising abilities and their electability. Our experiment allows us to test whether there is a causal relationship.

Manipulation Check: The Treatments Informed Voters. We begin with a manipulation check to assess whether providing respondents with information about candidate attributes increases voter knowledge. We estimate OLS regressions in which correct knowledge about a candidate’s attribute is a function of the informational treatments, with standard errors clustered by respondent. Figure 3

summarizes the results by showing predicted values for each race and each attribute, depending on whether the respondent was randomly informed about an attribute (green diamonds) or not (red circles). The information treatments had a statistically significant effect on respondents' knowledge in nearly every race. These effects vary in magnitude, but they center on a 10-12 percentage point increase, depending on the outcome. We suspect there are two reasons that these effects are not even larger. First, as the figure shows, substantial proportions of respondents answered the questions correctly even without being provided information by our survey—likely the result of competitive races in which the candidates received ample media coverage. Second, the treatment effects might, in some cases be running into ceiling effects: it might be difficult to improve correct answer much beyond the 0.8 mark, due to routine difficulties associated with survey inattention. We regard the result in Figure 3 as promising evidence that participants indeed learned from the information we showed them.¹⁷

Figure 3: Manipulation Check



Note: Points represent the predicted proportion of respondents who answered candidate attribute knowledge questions correctly, depending on whether the respondent was randomly assigned to be informed about a particular trait (green diamonds) or not (red circles). Whiskers represent 90% confidence intervals.

Being Given Information Affects Perceptions of Electability. Next, we test the extent to which electability perceptions change when respondents are given new information—*being told* about candidate traits (experimental intent-to-treat). Since the information respondents could be provided in the experiment was constrained by candidates’ true attributes, our preferred specifications include controls for candidates’ underlying attributes, e.g., an indicator variable that takes a value of one for candidates who held previous office and therefore could have had this information provided to survey respondents.¹⁸ The standard approach of estimating treatment effects by regressing electability ratings on indicator variables for treatments does not take into account the correlation induced between the treatment indicators and the candidates’ true underlying attributes by avoidance of deception about real candidates. For instance, in the Ohio Democratic Senate primary, where we asked questions about three candidates, Tim Ryan was the only candidate who held previous elected office. As such, among Ohio Democrats in our sample, the correlation between being told that a candidate has elected experience and that candidate being Tim Ryan is 0.44. Among these respondents, the coefficient generated by the standard approach would reflect *both* the effect of providing information to the respondents (our quantity of interest) *and* other attributes that are distinctive to Tim Ryan. Our preferred results isolate the effect of providing information. To be told that one candidate has raised more money than others *is* to be told that a different candidate has raised less money than others. For this reason, the effects of providing information are best characterized by calculating net differences as both the “more” and “less” forms of each treatment dimension are simultaneously applied. We also include a fixed effect for each race to account for the fact that one party or the other likely had a baseline advantage in each race. For example, although the North Carolina Senate race was deemed competitive, the Republican Party was favored to win—and the Republican Ted Budd (rated most electable by our respondents among the primary

candidates) did win. We cluster standard errors by respondent.

Using this approach, Table 2 shows that fundraising affects perceptions of electability in the overall sample. However, within-party results show that there are different dynamics in the two parties' primary elections. In the Republican primaries, information about fundraising advantage and office-holding are associated with changing perceptions of electability, with differences between more and less fundraising and office-holding experience versus none ($p < 0.05$).¹⁹ By contrast, in the Democratic primary, there is suggestive evidence that being told a candidate is more moderate versus less moderate affects perceptions of electability ($p = 0.052$), while the differences between the coefficients for both the fundraising and office-holding experience treatments are not significant.

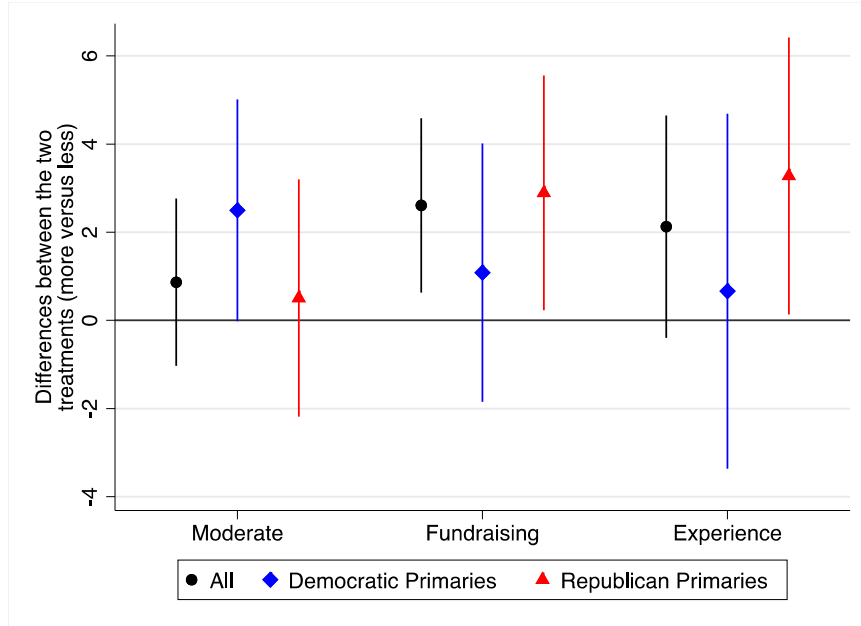
Table 2: Treatment Effects on Electability

| DV = Electability Rating | (1) All | (2) Democratic Primaries | (3) Republican Primaries |
|--|-------------------------------|--------------------------------|--------------------------------|
| <i>Information Provided to Respondent (R.)</i> | | | |
| R. told candidate is more moderate | 0.10 (0.95) | 0.47 ^c (1.42) | 0.23 (1.28) |
| R. told candidate is less moderate | -0.76 (0.85) | -2.02 ^c (1.35) | -0.28 (1.10) |
| R. told candidate raised more money | 1.21 ^a (0.90) | -1.82 (1.42) | 2.63 ^{**b} (1.14) |
| R. told candidate raised less money | -1.40 ^a (0.94) | -2.90 ^{**} (1.34) | -0.26 ^b (1.31) |
| R. told candidate has experience | -0.10 ^d (1.09) | -0.75 (1.66) | 0.27 ^c (1.41) |
| R. told candidate does not have experience | -2.22 ^{*d} (1.18) | -1.41 (1.89) | -3.01 ^{**c} (1.51) |
| <i>Actual Candidate Characteristics</i> | | | |
| Candidate is more moderate | -1.85 ^{**} (0.51) | 1.45 ^{**} (0.64) | -2.12 ^{**} (0.83) |
| Candidate has raised more money | 6.41 ^{**} (0.54) | 11.47 ^{**} (0.79) | 3.85 ^{**} (0.81) |
| Candidate has experience | 5.73 ^{**} (0.64) | 4.75 ^{**} (0.97) | 4.31 ^{**} (0.87) |
| Observations | 13,298 | 5,001 | 8,297 |
| Number of Respondents | 3,959 | 1,577 | 2,382 |
| R ² | 0.04 | 0.08 | 0.04 |

Note: Models are OLS regressions with race fixed effects and clustered standard errors in parentheses. ** $p < 0.05$, * $p < 0.10$. ^{a,b,c} indicate we reject the null hypothesis that the two indicated coefficients are equal at the 0.05 level. ^{d,e} indicate we reject the null hypothesis that the two indicated coefficients are equal at the 0.10 level.

Figure 4 illustrates the differences between the two arms of each treatment and the partisan differences between the primary electorates from Table 2 graphically, reporting the differences between being provided information that a candidate is more and less moderate, that a candidate has raised more and less money, and that a candidate has experience and does not, along with associated confidence intervals. For example, the first reported point estimate (providing information about relative moderation, among all respondents) is 0.86, the difference in Table 2 between the effect of telling a respondent that a candidate is more moderate (0.10) and telling the respondent that a candidate is less moderate (-0.76). As Figure 4 shows, Democrats respond most strongly to information about candidate moderation, while Republicans respond more strongly to information about fundraising and prior office experience. These results suggest that respondents are differentially responsive to information about candidates depending on their party. Candidates who want to increase voters' perceptions of their electability may need to emphasize different elements of their biographies and campaigns – a difficult task in a homogenous media environment yet one that may be facilitated by differential consumption of media and campaign targeting.

Figure 4: Net Effects of Information on Perceived Electability



Note: Whiskers represent 95% confidence intervals.

Information Affects Perceptions of Electability (Treatment-on-Treated). Table 2 potentially underestimates the importance of the information provided in the experiment because the treatment can impact voters’ perceptions only if it provides *new* information (Bartels 1988). Many of the people who received the treatment were likely already knowledgeable about the candidates because these were competitive statewide races that received media attention and because primary voters are likely to be more informed than others (Sides et al. 2020). Indeed, the manipulation check in Figure 3 shows that information treatments only increased the accuracy of about 10% of respondents in several races. In high-salience statewide primaries, most voters in the control condition already knew this information (see Table SI3, page 13). As a result, the treatment effects reported above are conservative, in the sense that they characterize the effect of providing information, averaging across 1) individuals learning that information in the moment and 2) individuals who already knew the information (and therefore could not be influenced by it). Put differently, the estimates in Table 2 characterize intent-to-treat (ITT) effects, which are likely to be smaller than treatment-on-treated

(TOT) effects.

Table 3: Complier Treatment Effects on Electability

| DV = Electability Rating | (1) All | (2) Democratic Primaries | (3) Republican Primaries |
|---|------------------|--------------------------------|--------------------------------|
| <i>Perceptions of Candidate</i> | | | |
| Learn the candidate is more moderate | 0.98 (3.69) | 9.46* (5.05) | -1.63 (5.14) |
| Learn the candidate has raised more money | 5.15* (2.99) | -2.57 (3.81) | 8.91** (4.30) |
| Learn the candidate has experience | 1.87 (4.92) | 4.89 (5.38) | -1.78 (8.00) |
| <i>Candidate Characteristics</i> | | | |
| Candidate is more moderate | -1.57* (0.84) | 0.82 (0.85) | -1.25 (2.06) |
| Candidate has raised more money | 5.45** (1.06) | 11.79** (1.46) | 2.61** (1.12) |
| Candidate has experience | 6.01** (1.80) | 2.83 (2.29) | 6.13** (2.49) |
| Observations | 12,472 | 5,001 | 7,471 |
| Number of Respondents | 3,546 | 1,577 | 1,969 |
| R ² | 0.07 | 0.09 | 0.04 |

Note: Results are coefficient estimates from the second stage of a two-stage least squares model in which respondents' perceptions of candidates' ideology, fundraising, and experience are treated as endogenous variables. Fixed effects by race are included but omitted for simplicity. Clustered standard errors in parentheses. ** $p < 0.05$, * $p < 0.10$

Because our circumstances so closely parallel those that arise in experiments with one-sided noncompliance (Gerber and Green 2012, ch. 5), we can use a standard estimation approach to recover TOT effects. Following our pre-registration plan, we conceptualize the study as an “encouragement design” wherein treatment indicators serve as instruments for the voters’ knowledge about candidates (the new treatment variable), with perceived electability as the ultimate dependent variable. In this setup, respondents who knew a piece of information about a particular candidate before being provided this information are “always takers,” and respondents who learned the information because of our study are “compliers.” We estimate models via two-stage least squares, again controlling for the candidate’s actual characteristics and fixed effects for the election

race, and report the results in Table 3. It bears emphasizing that the estimates are neither superior nor inferior to those reported in Table 2. They represent a different quantity of interest: the effect of *learning* a piece of information, as contrasted with the average effect of *being told*.

Table 3 again shows that there are differences in how voters in Republican and Democratic primary elections form opinions about candidate electability. Republican primary voters are influenced by finding out how much money the candidate has raised ($p < 0.05$). Learning that a candidate has raised more money increases Republican voters' perception that the candidate is electable by an average of 8.9 points on the 100-point scale. The other pieces of information have no discernable impact on how Republican primary voters view candidate electability. By contrast, learning that a candidate is more moderate than the other candidates increases Democratic voters' perceptions of that candidate's electability by 9.5 points on the 100-point scale ($p = 0.061$).

Electability and the Vote. We now examine whether the information treatments also affect vote choice. After the experiment and the electability measures in the survey, we asked respondents how likely they would be to vote for each candidate. Two features of this design make this a hard test of the effect of the informational treatments on vote intentions. First, our surveys were fielded close enough to the elections that many voters had likely made up their minds about their vote choice, making any information provided unlikely to affect their stated intentions. Second, approximately 60% of respondents are already correctly informed about the candidate characteristics in the treatments (Figure 2)—and those who learned new information via our study might be low-knowledge voters least adept at applying this knowledge to their vote choices.

Table 4: Informational Treatments on Vote Choice

| | (1) All | (2) Democratic Primaries | (3) Republican Primaries |
|---|-------------------|--------------------------------|--------------------------------|
| <i>Informational Treatments</i> | | | |
| Told candidate is more moderate | 0.02 (0.04) | -0.03 (0.05) | 0.06 (0.05) |
| Told candidate is less moderate | -0.02 (0.03) | -0.02 (0.05) | -0.03 (0.04) |
| Told candidate raised more money | 0.04 (0.04) | 0.02 (0.07) | 0.05 (0.05) |
| Told candidate raised less money | -0.02 (0.03) | -0.03 (0.05) | -0.03 (0.05) |
| Told candidate has experience | 0.01 (0.04) | -0.08 (0.07) | 0.07 (0.05) |
| Told candidate does not have experience | -0.02 (0.04) | -0.00 (0.07) | -0.04 (0.06) |
| <i>Candidate Characteristics</i> | | | |
| Candidate is more moderate | -0.10** (0.03) | 0.04 (0.03) | -0.12** (0.04) |
| Candidate has raised more funds | 0.32** (0.03) | 0.50** (0.04) | 0.21** (0.04) |
| Candidate has experience | 0.28** (0.03) | 0.27** (0.05) | 0.21** (0.04) |
| Cut Point 1 | -0.90** (0.03) | -0.84** (0.05) | -0.96** (0.04) |
| Cut Point 2 | -0.12** (0.03) | -0.03 (0.05) | -0.18** (0.04) |
| Cut Point 3 | 1.00** (0.03) | 1.15** (0.05) | 0.90** (0.04) |
| Observations | 13,333 | 5,000 | 8,333 |
| Number of Respondents | 3,956 | 1,573 | 2,383 |

Note: Models are ordered probit regressions with fixed effects for races and clustered standard errors in parentheses. ** $p < 0.05$, * $p < 0.10$. ^a indicates we reject the null hypothesis that the two indicated coefficients are equal at the 0.10 level.

Nonetheless, Table 4 presents the impact of the informational treatments on vote intention rather than perceptions of electability. Because the vote intention question uses a four-point scale, we estimate an ordered probit model. Otherwise, the model is like that used in Table 2, including controls for candidate characteristics, fixed effects for races, and standard errors clustered on the

respondent.²⁰

The treatment effects of information provision on vote choice are small and not statistically significant. Being told that a candidate is better at fundraising improves perceptions of electability among Republican primary voters but does not impact vote intention. Similarly, being told that a candidate is more moderate improves perceptions of electability among Democratic primary voters, but it does not impact vote intention. Voters generally do not appear to use information about candidate characteristics to inform their vote choices despite differentiating candidates on electability and using some pieces of information to assess electability.

Conclusion. Academic researchers and journalists frequently suggest that electability is or should be an important factor shaping voting behavior in primary elections. Despite the potential importance of electability considerations, few studies focus directly on how voters incorporate electability considerations into their vote choices. Those electability studies that do exist generally either adopt an observational approach, examining whether various candidate attributes are positively associated with electability perceptions (Stone et al. 1992), or adopt an experimental approach that randomly assigns electability considerations to fictitious candidates (Hassell and Visalvanich 2024). Our study attempts to take the best parts of each approach: we achieve causal identification by randomly assigning what information our respondents learn, but we preserve naturalism by focusing on real candidate and only providing accurate information. Additionally, we employ an incentivized measure of electability that discourages “cheerleading” for a favored candidate.

A striking feature of our results is the extent to which Republican and Democratic primary voters respond differently to similar information. Learning that a candidate is moderate increases Democrats’ belief that the candidate would prevail in the general election, but has no discernable

effect among Republicans. On the other hand, learning that a candidate is a successful fundraiser increases Republicans' electability perceptions, but does not affect Democrats. While this study does not explain why Republicans' and Democrats' perceptions of electability are influenced by different factors, the results point to three explorations for future work.

First, the media consumed by Republican and Democrats might be discussing primary elections in different ways. Differences in coverage by partisan media sources could change voters' beliefs about how elections work. Perhaps Democrats believe that elections are about persuasion, which would lead them to believe that moderate candidates are more electable; and maybe Republicans believe elections are about encouraging voter turnout among their supporters, which would lead them to believe that the candidates with more financial resources are more electable.

Second, this could be driven by voters' own recent experiences. During the 2020 presidential nomination process, Biden sold himself as the most electable candidate because he was more moderate and able to work across the aisle. Trump has emphasized his own personal wealth and the money he has raised as part of his narrative. Perhaps the voters from both parties have taken in this information from how candidates have discussed elections.

Third, it might be that the Democratic and Republican parties have developed contrasting strategies to form winning coalitions. As Grossman and Hopkins (2016) discuss at length, the Democratic coalition embodies a far more diverse assemblage of interests than the Republican coalition. The nature of the Democratic coalition might make Democratic primary voters more attuned to the electoral value of moderation to the degree it implies inclusion and diffuse benefits. The Republican Party, in contrast, is more homogeneous and driven by ideological purity. This tendency might socialize Republican voters to take candidate ideology as more or less given and place greater value on fundraising as a signal of candidate strength. Future work should be done to

explore why partisan differences exist.

Our experiments focused on states that, during the 2022 election cycle, were expected to have *both* competitive primary and competitive general elections. We focused on this subset of states, first, to characterize the factors that influence electability perceptions where they should matter the most: in places where there is more than one plausible nominee and where the outcome of the general election might hinge on who is nominated. And second, we expected the realism inherent in this approach to generate more credible effect estimates. See Brutger et al. (2020) and McDonald (2020) on the tendency of similar effect estimates to become inflated when researchers instead rely on hypothetical scenarios. Still, it bears notice that our choice of focus is important context for the findings we report. Our research unfolded in races that were subject to higher levels of attention from parties, political action committees, and the media. Additionally, our surveys were fielded in the weeks immediately leading up to the election. Both these features lead us to expect many respondents' vote choices to be highly crystallized, such that the marginal effect of one additional piece of information would matter less (see Krupnikov 2011, 2014). As a result, the magnitude of the effects we identify may be a lower bound relative to what they would be in lower information primary elections or when the information is provided earlier in a campaign.

The factors shaping perceptions of electability have implications for professionalism in office, party polarization, and the effects of campaign financing. Primary voters who view ideological moderation as valuable for electability in the general election might eventually reduce the recent polarization of elected officials. We see that Democratic primary voters use moderation as a signal of electability while Republican primary voters do not. This suggests that electability concerns among Democrats may be more likely to rein in ideological extremism while electability concerns among Republicans may have little bearing on ideological extremism and polarization.

Primary voters who interpret more fundraising to indicate electability in the general election might further skew politics toward the interests of donors. Our results suggest that Republican primary voters are more likely to use this signal than Democratic primary voters. Over time, changes in campaign finance rules have reduced the power of parties to provide financial backing, while increasing the power of political action committees, wealthy donors, and wealthy candidates who can self-fund their campaigns. In reviewing news coverage of the races to prepare the informational treatments for this study, we found that news stories often did not differentiate between self-funding and funding from other donors. This means that the wealthy could appear electable via self-funding that has nothing to do with their positions on issues, previous experience, or ability to mobilize others to support their campaigns with donations. Future work should explore whether the magnitude of the fundraising advantage or the source of donations matters.

Measured in terms of media attention, political drama, or dollars consumed, general elections occupy a far larger space in the public mind than the primary elections that unfold gradually over the preceding summer and spring. But the outcomes of most general elections are a foregone conclusion well before the general election. Considered in terms of their gatekeeping role, their unpredictability, or their potential to shape the character of the political system, primary elections are highly consequential. Yet they are also less well understood because their preliminary character demands that voters reconcile complex—often competing—judgments about who shares their goals, who would deliver, and who can win. We have shown that electability can be studied and should be studied because Republican and Democratic primary voters are using different criteria, which has important implications for elections and representation.

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¹ Our anonymized pre-registration document is included in our Supporting Information.

² Other factors that may be related to perceptions of electability are not tested here due to limited variation across candidates in the races studied or difficulty identifying similar treatments across races. Gender or race (see Bateson 2020), or even voice pitch (Klofstad and Anderson 2018), may be a signal of electability. However, using actual primary candidates limits our ability to randomize information about gender since it (as well as race) is often signaled by name alone. Similarly, general

election match-up polling was not available consistently in these races and major endorsements within both parties occurred too sporadically (and sometimes too close to the election) to include.

³ Because this analysis is contextual and not our main hypothesis test, we present the additional methodological details in Supporting Information, page 1.

⁴ This wording deviates from the language in the pre-analysis plan, but it reflects what was intended (see the regression model given in the pre-analysis plan).

⁵ For instance, we exclude the Ohio Democratic gubernatorial primary because the two candidates – Nan Whaley and John Cranley – did not differ appreciably in ideology, fundraising (\$1.26 million to \$1.05 million in January 2022), or prior office holding (both mayors of large cities for similar tenures).

⁶ While our survey was in the field in Wisconsin most of the Democratic Senate candidates dropped out of the race and endorsed Mandela Barnes, effectively ending the primary on July 28, 10 days before the election. Because the race ceased to be competitive, we shifted to surveying Republican primary voters. Our analyses include respondents in the Democratic primary; Tables SI6-SI8, pages 15-17, provide robustness checks dropping voters in the Democratic primary after July 28.

⁷ If DeWine won the primary election, the general election was not expected to be competitive, but if he had lost the primary, it was likely to be competitive, which is why this case is included.

⁸ Our Supporting Information document (SI5) details how our study adhered to the APSA Principles and Guidance for Human Subjects Research.

⁹ Drawing on anecdotal evidence that open-ended questions are particularly effective at filtering careless or inattentive survey responses (Kennedy et al. 2020; Ryan 2020), we asked respondents to write a sentence describing what they typically have for breakfast. On an initial run of 1,440 respondents in Ohio, 27 respondents (1.9%) failed the attention check per the vendor's criteria.

¹⁰ We ask the following question at the beginning of the survey: “Do you intend to vote in [STATE]’s upcoming primary election, to be held on [DATE], or have you already voted early or absentee?” We identify people as primary voters if they respond: “I have already voted in the upcoming primary (early or absentee),” “I definitely will vote,” or “I probably will vote.”

¹¹ The ideology information treatment focuses on moderation rather than the alternative pole of “extremism” because extremism has different meanings. Within the Republican Party, the term might refer to the degree of policy conservatism or loyalty to Donald Trump (Amira 2022; Hopkins and Noel 2022). In some cases, these align (e.g., ultra-conservative House Freedom Caucus members who are 2020 election deniers) while in others they are at odds (e.g., conservative Liz Cheney (R-WY) lost her primary because of disloyalty to Trump). In identifying the more moderate candidate(s), we considered candidate stances relative to both interpretations of extremism – conservatism or progressivism and Trump loyalty. While moderation might have different meaning in different contexts, the states we examined are all perennial swing states that share a similar ideological makeup, making the meaning of moderation unlikely to be dramatically different.

¹² See Hartley and Hassett (2016) for an approach using predictions markets.

¹³ In contexts where enrolling respondents in a lottery to win money for themselves is prohibitively difficult, donations to a charity of the respondents’ choice can be an effective alternative (Butler and Kousser 2015; Butler and Pereira 2018; Rogers 2017).

¹⁴ The survey provided a link to more details, including a table showing how electability assessments would map onto drawing entries. These details are provided in the SI Figure SI1, page 8.

¹⁵ To minimize anchoring, we used a different wording for the post-treatment vote intention question than for a vote intention question asked earlier in the survey.

¹⁶ Pre-registered analyses begin in Table 2. The pre-registration included a plan (which we follow) to

limit analysis to respondents who expressed an intention to vote in their state's primary election or who indicated they had already voted. To increase consistency throughout our analyses, we apply that restriction to the analyses in this section as well.

¹⁷ In analyses that go beyond the pre-analysis plan, we only find evidence of spillover effects from the experience treatment (see Table SI5, page 14). In addition to significantly reducing the perception that the candidate held prior office, this information about experience has a small positive effect on perceived fundraising and moderation.

¹⁸ An alternative estimation approach we pre-registered would be to include a fixed effect for each candidate, absorbing all of their distinctive attributes. These results (see Tables SI9-SI11) are similar, but we prefer the approach in Table 2 for purposes of exposition, since it generates estimates of the effect of true underlying candidate attributes (e.g., having prior experience), which is not possible when all candidate attributes are absorbed within a fixed effect.

¹⁹ The greater similarity between the results for the Republican primary and the results overall are likely driven by the fact that there are more Republican primary voters in the study – 2,387 Republicans to 1,577 Democrats – reflecting the fact that our survey in North Carolina focused only on the Republican primary and our survey in Wisconsin shifted toward a Republican-focused sample after the Democratic race ceased to be competitive.

²⁰ We do not include an instrumental variables regression for vote intention (parallel to Table 3) because the exclusion restriction would be far more tenuous in this context.