

ARTICLE

# Democratizing the Party: The Effects of Primary Election Reforms in Ghana

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## Abstract

The recent expansion of the primary electorate by one of Ghana's major parties offers a rare opportunity to assess the effects of franchise extensions in contemporary new democracies. Using an original dataset on candidate entry and nominations, this article shows that expanding the primary electorate opened paths to office for politicians from social groups that were previously excluded, such as women and ethnic groups outside the party's core national coalition. The authors propose that democratizing candidate selection has two consequences in patronage-oriented political systems: vote buying will become a less effective strategy and the electorate will become more diverse. These changes, in turn, affect the types of politicians who seek and win legislative nominations. This suggests that a simple shift in who votes in intraparty primaries can be a key institutional mechanism for improving the descriptive representation of women and other under-represented groups.

**Keywords:** candidate selection; franchise extension; Africa; political parties; ethnicity; gender; primary elections

The social identities of elected politicians – such as their gender and ethnicity – affect who in society is favored with state resources and whose preferences are represented in government (Chattopadhyay and Duflo 2004; Pande 2003). But politicians with particular social identities can only be elected if they appear as candidates on the ballot. The choice sets presented to voters are determined by the candidate selection institutions adopted by political parties. In new democracies, parties increasingly use primary elections to select their nominees for legislative office (Field and Siavelis 2008), which may have important consequences for the representation of different identity groups. Primaries increase the number and types of voters who decide which politicians will reach the general election. Characteristics of the primary electorate may affect politicians' decisions about whether to even compete for a party's nomination.

We investigate how expanding the size and demographic diversity of the primary electorate affects the types of candidates who choose to compete in primaries and the characteristics of the nominees who appear on the general election ballot. We focus on the short-run effects of a reform to the legislative primary electorate in the National Democratic Congress (NDC), one of Ghana's two major political parties. Previously, the NDC primary electorate in each parliamentary constituency comprised roughly 200 to 800 local party branch executives. Leading up to the 2016 elections, however, the NDC opened primary voting to all rank-and-file members, expanding the primary electorate by an order of magnitude to roughly 2,000–10,000 voters per constituency. This increased the proportion of primary voters who are women or identify with groups outside the party's core ethnic base.

This reform allows us to assess the effects of expanding the primary electorate on candidate entry and selection because the New Patriotic Party (NPP), Ghana's other major party, provides

an unusually good set of primaries for comparison. The two parties have similarly sized, stable bases and have alternated in power. Crucially, they also have very similar organizational structures (Riedl 2014), including similar gender gaps and ethnic disparities in local leadership and the same primary rules before 2016. Moreover, before the 2012 elections the NPP considered the same electorate expansion as the NDC for the same reasons and may still adopt it. While the stability and organizational parallels between these parties are unusual, they allow us to make a tight comparison of the primary processes of two very similar parties in similar constituencies in the same electoral environment. Such a comparison would not be possible in other new democracies with more inchoate party systems or a dominant party.

More broadly, this case offers a rare window into the effects of franchise extensions on descriptive representation in the developing world, in terms of both gender and ethnicity. Because democratization is typically a bundle of reforms and universal suffrage was frequently established at independence, past attempts to study the effects of franchise extensions on the social identities of candidates in these settings have struggled to disentangle their effects from other contemporaneous changes (Josefsson 2014). The effects of franchise extensions within primary elections can be more clearly isolated from those of other factors in our case.

We estimate the average effects of expanding the NDC's electorate on its pool of aspirants and the characteristics of its nominees (average treatment effect on the treated). The NDC and NPP are not exactly the same, and our setting does not provide a 'natural' experiment. Instead, our analysis attempts to generate reasonable counterfactuals to NDC parliamentary primaries by creating matched sets with weighted NPP primaries. We apply optimal full matching (Rosenbaum 1991; Rosenbaum 2010) to an original dataset of biographical information on all aspirants seeking nominations in these two major parties in 2016, as well as a similar dataset for Ghana's 2012 elections.

We find that expanding the electorate changed the gender, ethnicity and political experience profiles of the pool of aspiring candidates and eventual nominees. It increased the average number of female aspirants and the probability that the nominee is a woman. In addition, more aspirants from ethnic groups outside the NDC's core coalition sought and won nominations. Neither change came at the expense of the party's incumbent Members of Parliament (MPs), however, as they became more likely to be renominated. Instead, the electorate expansion reduced the probability of nominating wealthy political newcomers – outsiders who were previously able to buy their way to nominations, sometimes even over long-serving incumbents.

We propose that these effects resulted from two shifts. First, expanding the electorate reduced the feasibility of direct vote buying (Lizzeri and Persico 2004), the dominant mode of campaigning in small-electorate primaries. Secondly, having more women and ethnic groups outside the party's core base in the electorate increased the expected success of aspirants from these groups.

After the reform, prospective female aspirants with ambitions to seek office, but without the financial resources and connections to the male-dominated patronage networks needed to buy votes, could expect to be more successful. They may also have expected to perform better in an electorate with more female voters. Aspirants from ethnic groups outside the party's core coalition could expect similar changes to their viability in primaries with more co-ethnic voters. These shifts also reduced the viability of wealthy political outsiders who lacked clear appeal among the broader party membership by limiting their ability to buy nominations. However, incumbent MPs often had the resources and reputations of constituency service needed to win primaries with any size of electorate.

We do not analyze the reform's effects on who is eventually elected to Parliament. It is difficult to construct a reasonable counterfactual of who would have won the general election in 2016 had the NDC kept its previous primary system and potentially selected different nominees, but still competed against the same 2016 NPP nominees.<sup>1</sup> Descriptively, however, the 2016 general

<sup>1</sup>Comparisons with NPP candidates selected through small-electorate primaries are not appropriate, as the two parties are competitors and the observed performance of NPP nominees is not independent of the NDC's candidates. Any within-constituency comparison of NDC candidates' performance between 2012 and 2016 is significantly confounded by the overall

election results appear to be consistent with the NDC's reform opening a path to office for a new group of politicians. The NDC had the same number of female MPs (fourteen) in 2016 as in 2012, even though it won forty-two fewer seats overall (106 vs. 148) – a 40 per cent increase in the female share of the party's caucus in Parliament. Moreover, eight of the fourteen women elected in 2016 were new MPs who had not been nominated in 2012 under the smaller electorate.

This article makes several contributions. First, we extend the literature on how electoral and party institutions, including parties' internal rules, affect women's descriptive representation (Bjarnegård and Zetterberg 2019; Norris and Lovenduski 1995; Wangnerud 2009). Our finding that opening up primary voting aids female candidacy contrasts with qualitative evidence that the democratization of candidate selection reduces women's access to nominations (Hinojosa 2012).<sup>2</sup> It also overcomes methodological challenges in other studies of the effects of franchise extensions on the election of women that are less able to isolate changes to the electorate from other contemporaneous political reforms (Josefsson 2014).

We show that expanding the primary electorate can improve women's incorporation even in the short run, without changes to deeper constraints such as women's latent ambition (Fox and Lawless 2014) or party elites' gendered recruitment efforts (Sanbonmatsu 2002). Our findings also suggest that democratizing candidate selection may be an especially useful tool to improve women's representation in single-member district electoral systems, where the zero-sum nature of the contest is a particularly serious obstacle to women's candidacy. In these contexts, better-studied remedies like quotas and reserved seats may produce larger overall effects on women's representation than expanding the primary electorate (Duflo 2005; Krook 2009; Tripp and Kang 2008), but they are often also more difficult to implement without backlash from men (Clayton 2015).

Secondly, and more broadly, we extend the study of franchise extensions to contemporary new democracies and show that changing the social identities of the pool of politicians seeking elective office is a key channel through which these reforms can affect governance. Previous research has found that historical suffrage extensions in advanced democracies improved policy and substantive representation (Aidt and Dallah 2008; Berlinski and Dewan 2011; Lott and Kenny 1999; Morgan-Collins and Teele 2017), but it is unclear whether these effects can be attributed to changes in the identities of the politicians elected (Berlinski, Dewan and van Coppenolle 2014).

### Expanding the Electorate: An Open Empirical Question

Whether women and other politicians from marginalized social identity groups seek and win office may be affected by electoral institutions, such as voting rules (Tripp and Kang 2008) and quotas (Krook 2009), and internal party institutions, such as candidate eligibility criteria (Bjarnegård and Zetterberg 2019). However, prior studies offer little theoretical guidance on how expanding the franchise may affect who runs and wins in primaries or general elections in new democracies.<sup>3</sup> Analytical results are not available for a general formal model of candidate entry that involves simultaneous entry by an undefinable pool of potential aspirants from multiple groups. Multiple equilibria are possible even with a simple voting model and a known number of candidates and identity groups (Dickson and Scheve 2010). Different combinations of

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increase in the NPP's popularity between the elections, which occurred for reasons unrelated to the NDC's choice of candidates (Bob-Milliar and Paller 2018).

<sup>2</sup>Hinojosa (2012) draws on case studies of Mexico and Chile to argue that decentralized procedures with larger electorates result in the nomination of fewer women compared with selection by narrow sets of party elites. She contends that elites are more concerned than local party actors about women's representation, and that potential women aspirants are generally reluctant to participate in competitive primaries.

<sup>3</sup>The recent literature on primaries in new democracies mostly explores their implications for general election performance and candidate quality (Choi 2018; Carey and Polga-Hecimovich 2006; Ichino and Nathan 2012; Ichino and Nathan 2013b; Kemahlioglu, Weitz-Shapiro and Hirano 2009).

entrants can also generate different outcomes, depending on how aspirants split votes within segments of the electorate. Consistent with this ambiguity, research on historical suffrage extensions in today's advanced democracies finds mixed effects on the identities of elected politicians (Berlinski and Dewan 2011; Berlinski, Dewan and van Coppenolle 2014; Morgan-Collins and Teele 2017).

More generally, studies of primaries in advanced democracies offer little guidance because ideology, which is central to most existing models (for example, Gerber and Morton 1998; Serra 2011), is not a key feature of electoral competition in many new democracies. Primary aspirants in these settings are differentiated less by policy than by their ability to deliver patronage to small groups of primary voters (Ichino and Nathan 2012).

In new democracies, changes to the size and demographic composition of the electorate should be more likely to affect primaries through changes to these vote-buying exchanges. Increasing the size of an electorate can induce a shift away from clientelism because narrow particularistic appeals are less feasible with larger numbers of voters (Lizzeri and Persico 2004). As vote buying declines, potential aspirants who have ambition but lack the resources or access to the patronage networks needed to be effective in clientelist primaries may expect to become more viable. Moreover, where there is significant ethnic voting, changing the composition of the electorate may also improve the expected prospects of aspirants from previously under-represented ethnic groups by bringing more potential supporters into the electorate.

### Reforms to Parliamentary Primaries in Ghana

Since 1992, Ghana has held quadrennial elections for president and parliament, which has 275 members from single-member constituencies. The NDC and NPP dominate highly competitive elections and have alternated in government, with the NDC in power leading into 2016. These well-institutionalized parties have faced strong 'isomorphic competitive pressures' to mirror each other's behavior and organizations; reforms adopted by one party are often quickly matched by the other (Riedl 2014). Consequently, the NDC and NPP are unusually similar in many respects, including appeals to clientelism, the size of their ethnic bases, and their grassroots organizations and candidate selection procedures up until 2016.

The parties have very similar platforms, and policy is not a major axis of competition (Bob-Milliar 2012b; Nathan 2019; Riedl 2014). Although the parties have rank-and-file members from every group and voting is not exclusively along ethnic lines, ethnicity is a strong determinant of partisanship. The NPP's base is the Akan; the NDC's core is a collection of smaller groups, most notably the Ewe, the Ga and many northern groups. These bases are stable and similarly sized, leaving the two parties roughly evenly matched, with less subnational electoral volatility compared to more inchoate party systems (Ferree 2010).

Although the parties differ in some respects such as their elite factional politics (Bob-Milliar 2012a; Osei 2016), they have nearly identical organizations. The NDC has a committee of nine and the NPP a committee of five polling-station executives at nearly all of Ghana's approximately 29,000 polling stations. These branch executives are the core 'foot soldiers' in each party's campaign efforts and serve as clientelist brokers linking ordinary supporters to politicians and government officials (Bob-Milliar 2012b; Brierley and Nathan 2020).

The branch executives also comprised the primary electorates for each party for the 2004 through 2012 elections. These electorates were disproportionately male and composed of each party's core ethnic groups. For the NPP, the primary electorate numbered 200–800 in each constituency, with five branch leaders from each polling station. Women made up just 26 per cent of this electorate. In addition, the data in Brierley and Nathan (2020) show that the proportion of Akans among NPP polling-station-level executives is over 14 percentage points higher on average than in the estimated population of their polling stations' catchment areas. The NDC primary electorate in 2012 was similar, with four branch leaders voting per polling station; the women's

organizer was typically the only female voter even though women made up approximately 37 per cent of ordinary party members.<sup>4</sup> Ewes, Gas and Northerners are similarly over-represented in NDC branch leadership (Nathan 2019).

With electorates of just a few hundred people, the main mode of competition in parliamentary primaries has been vote buying (Ichino and Nathan 2012). Aspirants with significant personal wealth dominate. In some cases, aspirants return to their hometowns to ‘buy’ nominations despite having little history of working for their party or living in the constituency. Branch-level party leaders often view primaries as their ‘cocoa season’ – a key opportunity to extract rents. Aspirants pursue primary voters with gifts of TVs, motorbikes, school fees for their children and the like. Many aspirants openly admit in interviews to paying primary voters and report spending upwards of USD 75,000 to secure nominations.<sup>5</sup> They go to great lengths to monitor and enforce vote-buying transactions with the small number of party branch leaders voting in these elections.<sup>6</sup>

As an NPP aspirant in the 2011 primaries described his experience: ‘Everybody [the voters] was about “What’s in it for me? What have you brought for me? Politicians, after this election, they’re not going to care about us any more...this is our chance”’.<sup>7</sup> Nominations often go to the highest bidder. One NPP MP described this bluntly, lamenting the “‘money-ocracy” that has eaten into the fiber of our politics’. He argued the primaries ‘elect money into office rather than electing people based on competence’.<sup>8</sup>

In 2013, NDC leaders expanded their primary electorate for the 2016 election to include all ordinary party members in each constituency. This was an attempt to reduce the influence of vote buying and select more popular nominees. NDC leaders explicitly stated that they hoped vote buying would be less feasible with a larger electorate.<sup>9</sup> This decision was made before the outcome of the 2016 election could be anticipated with any confidence, and without knowledge of what nomination system the NPP would use.

In June 2015, the NPP held primaries for the 2016 elections under the same rules as for 2012. The NDC primaries followed months later with a significantly expanded electorate, with most primaries held between late November 2015 and early 2016. The 2015/2016 NDC primary electorate was an order of magnitude larger than the NPP’s, with 2,000–10,000 ordinary members voting on each nomination. Rather than taking place at a single venue in each constituency as in each party’s small-electorate primaries, the new NDC primaries involved voting at every polling station. The NDC assembled a new digital register of all its rank-and-file members to use as its voter roll.

This electorate expansion could have occurred in either party. In 2009, the NPP also carefully considered expanding its electorate, deciding between two proposals: marginally increasing the number of executives from each polling station that could vote or allowing all rank-and-file members to vote, similar to the reform later adopted by the NDC. The NPP’s reform advocates made nearly identical arguments to those that NDC leaders would make in 2013, claiming that increasing the electorate would ‘lead to election of people who actually ... work for the party’, would ‘ensure that the selected ... candidates ... represent the popular will’, and ‘reduce expenditure

<sup>4</sup>See Q89C, Round 5, Afrobarometer.

<sup>5</sup>Interviews with aspirants conducted over multiple electoral cycles show that small-electorate primaries in each party are dominated by vote buying (Appendix A2).

<sup>6</sup>For example, aspirants are frequently alleged to ‘camp’ voters whose support they have paid for in a hotel the night before the primary to ensure that opponents cannot outbid them at the last minute.

<sup>7</sup>Interview with NPP primary aspirant, Central Region, 2 August 2011.

<sup>8</sup>Interview with NPP primary aspirant and incumbent MP, Brong Ahafo Region, 10 November 2015.

<sup>9</sup>For example, see ‘NDC’s Expanded Electoral College Will Cure Vote-Buying – Ade Coker’, *Citi FM Online*, 17 August 2015. The size of the electorate was the only change: NDC primaries kept the same electoral system and candidate eligibility criteria as NPP primaries and past NDC primaries.

on internal party elections'.<sup>10</sup> A main goal was similarly to reduce vote buying.<sup>11</sup> But due to the concern of one of the party's aspiring presidential candidates that a larger electorate would disadvantage his campaign, the party ultimately settled on the first proposal.

### Possible Impacts of the Reform

The NDC's reform likely had two effects, which in turn may have changed the gender, ethnicity, and political experience profiles of the NDC's aspirants and eventual nominees for the 2016 election. First, because the party's rank-and-file membership is more gender balanced and ethnically diverse than its branch leadership, the new electorate had a greater proportion of women and non-core group members than before.

Secondly, as NDC leaders hoped, the electorate expansion may have changed the dominant campaign strategy in primaries. When the electorate is very small, primary aspirants can target specific voters with personalized benefits and enforce exchanges through direct monitoring. But this becomes more costly as the number of voters shifts into the many thousands; previously common forms of individual-level monitoring become logistically infeasible.<sup>12</sup> Aspirants might switch to employing intermediaries to buy votes on their behalf, but this is less efficient than the direct exchanges that are possible with very small electorates (Stokes et al. 2013).

In interviews, many aspirants anticipated that expanding the electorate would have exactly these impacts on their vote buying. Among the aspirants in our survey (Appendix A2), which was conducted prior to the NDC's primaries, expanding the electorate was by far the most common suggestion for reducing vote buying in primaries.<sup>13</sup> For example, one interviewee predicted, 'if we allow all registered members to vote, it will make it difficult for vote buying... how are you going to pay money to everybody?'<sup>14</sup> Another explained:

That problem can be reduced if we ... expand our register. It will be very difficult to buy everybody. But if you leave it to five people [per polling station], hah! You'll see at the voting grounds that they are registering people for Hajj. 'I'll take you to Mecca.' And that could change somebody right there who had been supporting you. Or 'take this key to a motor-bike'... All these things happen... But if it's an expanded album [register], I don't think that such things can be done. Nobody has that much resources to do those things.<sup>15</sup>

We expect these two changes to lead women to anticipate that they may perform better in primaries than before for two reasons. First, prospective female aspirants are likely generally disadvantaged relative to male aspirants in their access to economic opportunities needed to amass the private fortunes needed for extensive vote buying (Arriola and Johnson 2014). They may also be less embedded in male-dominated party networks, with fewer pre-existing social connections to branch executives that would facilitate the monitoring and enforcement of vote buying in small-electorate primaries. Expanding the electorate likely reduced both of these disadvantages, leading women to expect to perform better.

<sup>10</sup>Talking points circulated to national NPP leaders in 2009, obtained from a NPP National Executive Committee member, August 2011.

<sup>11</sup>For example, see Mahama Haruna, 'Should all NPP Members Elect the Party's Presidential Candidate?', *Ghana Web*, 28 March 2009.

<sup>12</sup>Even Ghana's well-institutionalized parties cannot monitor individual vote choices on a large enough scale to enforce a personalized *quid pro quo* with a substantial proportion of general election voters (Brierley and Nathan 2020).

<sup>13</sup>Over one-quarter (32 of 125) of these aspirants proposed expanding the electorate in response to the open-ended question 'What do you think could be done to reduce vote buying?'

<sup>14</sup>Interview with NPP primary aspirant and incumbent MP, Ashanti Region, 5 November 2015.

<sup>15</sup>Interview with NPP primary aspirant and incumbent MP, Northern Region, 4 November 2015.



Secondly, aspirants may expect voters to use gender as an important heuristic for shared preferences,<sup>16</sup> leading prospective women aspirants to expect to perform better in an electorate with a significantly greater proportion of women voters. Female potential aspirants may also expect that female voters will be less intrinsically biased against them than male voters, all else equal. We do not have direct evidence about these expectations in Ghana. In qualitative interviews, female politicians make clear that they expect women candidates to be held back by damaging sexist attacks from male voters, similar to what Clayton et al. (2020) observe in Malawi.<sup>17</sup> Regardless of whether female voters truly prefer female candidates, having more female voters in the electorate should encourage more female aspirants to compete as long as these aspirants *expect* to receive more support from female voters. We therefore expect the electorate expansion to increase (a) the number of female aspirants and (b) consequently, the probability that the nominee is female.

Based on a similar logic, we expect the electorate expansion to increase (c) the number of aspirants from outside the NDC's core ethnic coalition and (d) consequently, the probability that the nominee is from outside its core ethnic coalition. To the extent that aspirants have an advantage in winning support from voters with whom they share ethnic identities, aspirants from non-core ethnic groups that are under-represented in local party leadership may expect to perform better in primaries with more co-ethnic voters. Anticipating this, more potential aspirants from these groups compete for the nomination. With more aspirants from the party's non-core groups competing, the probability that one is nominated may also increase.<sup>18</sup>

We are agnostic on the reform's effects on (e) the number of aspirants from the NDC's core groups and (f) the total number of aspirants, as these would depend on possible co-ordination by potential aspirants.

However, we expect that reduced feasibility of vote buying in primaries will reduce (g) the probability that the eventual nominee will be a newcomer to politics who has the wealth for vote buying, but not the public reputation and political experience for more general campaigning. Indeed, this is what NDC leaders hoped to accomplish by expanding the electorate. But we also expect the expanded electorate to (h) not reduce the probability that the nominee will be the incumbent. Incumbents have extended opportunities in office to build a reputation for service among local party members through their control of constituency development funds and by providing personal assistance to party supporters (Lindberg 2010).<sup>19</sup> Unlike wealthy newcomers, incumbents can fall back on campaigning for re-nomination based on these reputations even if vote buying is more difficult.

## Methods

We define the treatment as allowing rank-and-file members in a constituency to vote in primaries, with the party-constituency as the unit of analysis. Our outcomes are the numbers and characteristics of aspirants and the characteristics of nominees, and our estimand is the average

<sup>16</sup>Gottlieb, Grossman and Robinson (2018) show, for example, that female voters in Africa have different policy preferences in some domains from men.

<sup>17</sup>Focus group with NPP 'women's wing' leaders, Greater Accra, 9 October 2015. For example, they describe female candidates and party activists as being denounced as 'prostitutes' by male voters for becoming involved in politics.

A meta-analysis of survey experiments also shows that female voters are significantly more supportive of female candidates than male voters, on average (Schwarz and Coppock 2020, 17–18). But most of these studies are from advanced democracies. The few studies conducted in other African countries have found contrasting results (Clayton et al. 2020; Phillips 2020).

<sup>18</sup>As we explore further below, this depends on the total number of aspirants and the degree to which they may split the votes of non-core groups.

<sup>19</sup>Assuming that incumbents' decisions to seek re-election depend on their performance in office, we expect that incumbents will *on average* have better reputations among party supporters than aspirants who have not had any similar opportunities to distribute state resources in the community.

treatment effect on the treated. We employ optimal full matching (Rosenbaum 1991; Rosenbaum 2010) to create sets of treatment (NDC) and control (NPP) primaries that are comparable on confounding and prognostic variables.

Optimal full matching creates sets of variable numbers of treated and control units that minimize the overall sum of distances between treated units and their matched control units on the propensity score. Treated units are each matched with at least one control, with each control used only once (Hansen and Klopfer 2006). This is implemented with `optmatch` v0.9-13 in R v3.6.2.<sup>20</sup> Treatment effects are estimated by regressing each outcome on the treatment indicator with effect of the treatment on the treated (ETT) weighting, in which each set is weighted in proportion to the number of treated units in the set (Hansen 2004). The units within each set are further weighted so that the weighted average of the outcomes in each set is the difference in means between the treatment and control units in the set.

We produce separate matches for each outcome variable, matching exactly on the 2012 value of each outcome (the lagged dependent variable) in each party-constituency and on a propensity score calculated from the remaining matching variables.<sup>21</sup> This means, for example, that for the analysis of the effect on the number of female aspirants, all units in a matched set of 2016 NDC and NPP primaries will have had the same number of female aspirants in 2012, when the parties had similarly-sized primary electorates. Past outcomes can be particularly informative for future outcomes since the Ghanaian party system is very stable, with negligible party switching by aspirants unlike in some other African countries. We regularly observe the same aspirants competing against each other in successive primaries.

Each outcome uses a different set of matching variables for its propensity score, but always includes four common variables from Ichino and Nathan (2012). The first is the party's vote share in the previous presidential election, which measures the attractiveness of a nomination to potential aspirants. The second is the party's vote share in the previous parliamentary election. When combined with presidential vote share, this reflects the performance of the party's past parliamentary nominee relative to the party's underlying support, measuring the previous nominee's quality, which would affect the entry decisions of potential aspirants in the next election. The third is population density, a proxy for economic development and a larger pool of potential wealthy aspirants who can buy votes. The fourth is fractionalization among the ethnic groups in the core coalition of the party. Additional matching variables specific to each outcome are described with the results.

The key non-interference assumption would be violated if aspirants sort across parties or constituencies in response to primary rules. But this is unlikely. To be eligible for a primary, aspirants in both parties had to be card-carrying party members in a constituency for four years, joining long before the electorate was changed. Since NPP primaries preceded NDC primaries, the assumption could also be violated if NDC primary voters chose a different nominee based on the outcome of the NPP's primary. But this would only make sense in the small set of very competitive constituencies where differences in the quality of candidates would affect the general election outcome. Primary voters generally lack the necessary information about both aspirants and other voters' preferences to successfully co-ordinate on a particular aspirant; in our extensive interviews, we did not encounter discussion of voters conditioning their choices in this way.

## Data

Official results for primaries are not collated or publicly released in Ghana. By combining information from multiple sources, however, we are able to construct a dataset of NDC and NPP aspirants for all primaries that were held by early 2016 (Ichino and Nathan 2021). Our final dataset

<sup>20</sup>We use optimal full matching because we have a small number of control units relative to treated units compared with most matching analyses (Appendix, pg. A9). The Appendix (pg. A16) also discusses an alternative differences-in-differences strategy and reports ordinary least squares regressions without matching.

<sup>21</sup>Missing data for pre-2012 primaries limit us from matching on trends in lagged outcomes (Appendix pg. A8).



includes 1,532 parliamentary aspirants across 272 constituencies for the NDC and 271 constituencies for the NPP, each out of 275. We define an aspirant as any candidate who publicly stated that he or she would seek a nomination. This includes some who announced that they would do so, but subsequently dropped out of the primary or were disqualified.<sup>22</sup> We drop some constituencies where we do not feel confident that we have identified all the aspirants, leaving us with 1,494 aspirants across 219 constituencies for the NDC and 252 constituencies for the NPP.<sup>23</sup> Summary statistics are in the Appendix (pg. A2).

We began with official lists of aspirants on the ballot on primary day in each constituency, but lists were missing for many constituencies for both parties due to inconsistencies in record keeping and primaries delayed by legal disputes. We supplemented the official lists with media reports. From March 2015, when politicians in the NPP began announcing their candidacies, through January 2016, we saved every article mentioning primaries in either party from ten prominent news organizations listed in the Appendix (pg. A4). This yielded 1,950 articles, from which we coded names and biographical information, including professions and past government and party positions. This allowed us to identify many more aspirants not on the official lists. We used a similar procedure to compile data on the 1,285 aspirants from primaries held before the 2012 elections. To add additional biographical details, aspirant names were merged with data from the Parliament of Ghana website and official lists of government ministers dating to 2000. We also supplemented the biographical coding with an in-depth survey of 125 aspirants in the NPP primaries in November 2015. With these sources, the number of aspirants in the NDC ranges from 1 to 9 per constituency, with a median of 3 and mean of 3.5, and the number of aspirants in the NPP ranges from 1 to 8, with a median of 3 and a mean of 2.9.

We also coded each aspirant's ethnicity based on their name, which is easily connected to the main ethnic categories in Ghana. We employed a dictionary of 3,503 names of Ghanaian politicians, using the procedure outlined in the Appendix (pg. A4). We measured constituency demographic characteristics, including the ethnic composition of each parliamentary constituency, using geo-coded enumeration area-level 2010 census data.

## Results

### Gender

Figure 1 plots the average number of women aspirants and share of nominees who are female, by party, before (2012) and after (2016) the NDC's electorate expansion. It shows an overall increase in the number of NDC aspirants and a substantial rise in the share of NDC nominees who are female, but little change in the number of female NDC aspirants.

We turn to matching to adjust for potentially important underlying differences across party-constituencies. For the number of female aspirants in 2016, we match on a propensity score using the four common variables described earlier and the population share of Muslims in the constituency.<sup>24</sup> We exact match on the number of female aspirants in 2012. For whether the nominee is female, we account for a constituency's underlying receptivity to female leaders using the same matching variables as for the number of female aspirants, and again exact match on the lagged dependent variable (female nominee in 2012). For the total number of aspirants, we use only the four common variables and exact match on the total number of aspirants in 2012.

Table 1 presents the number of sets and treated units remaining after matching for each outcome. We assess balance following Hansen and Bowers (2008). We compare treatment and

<sup>22</sup>In the Appendix (pg. A9), we show the robustness of our results to removing aspirants who dropped out before the primary was held.

<sup>23</sup>We examine differences between missing and non-missing party-constituencies in the Appendix (pg. A4).

<sup>24</sup>Gender norms are generally more conservative in Muslim areas and may affect female aspirants' willingness to compete. We find that our effects on female nominees are concentrated in areas with low Muslim population shares (Appendix, pg. A10)

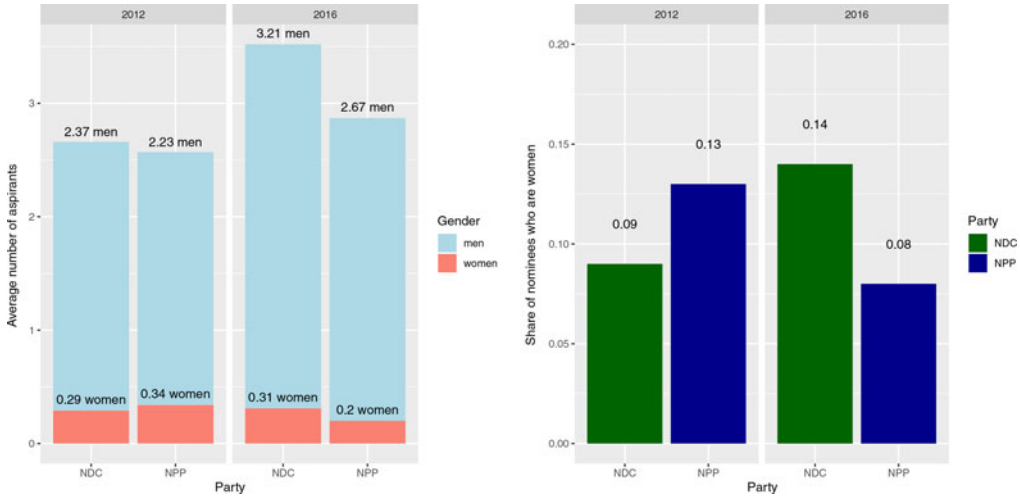


Figure 1. Women aspirants and nominees, by year and party

Table 1. Overall balance before and after optimal full matching

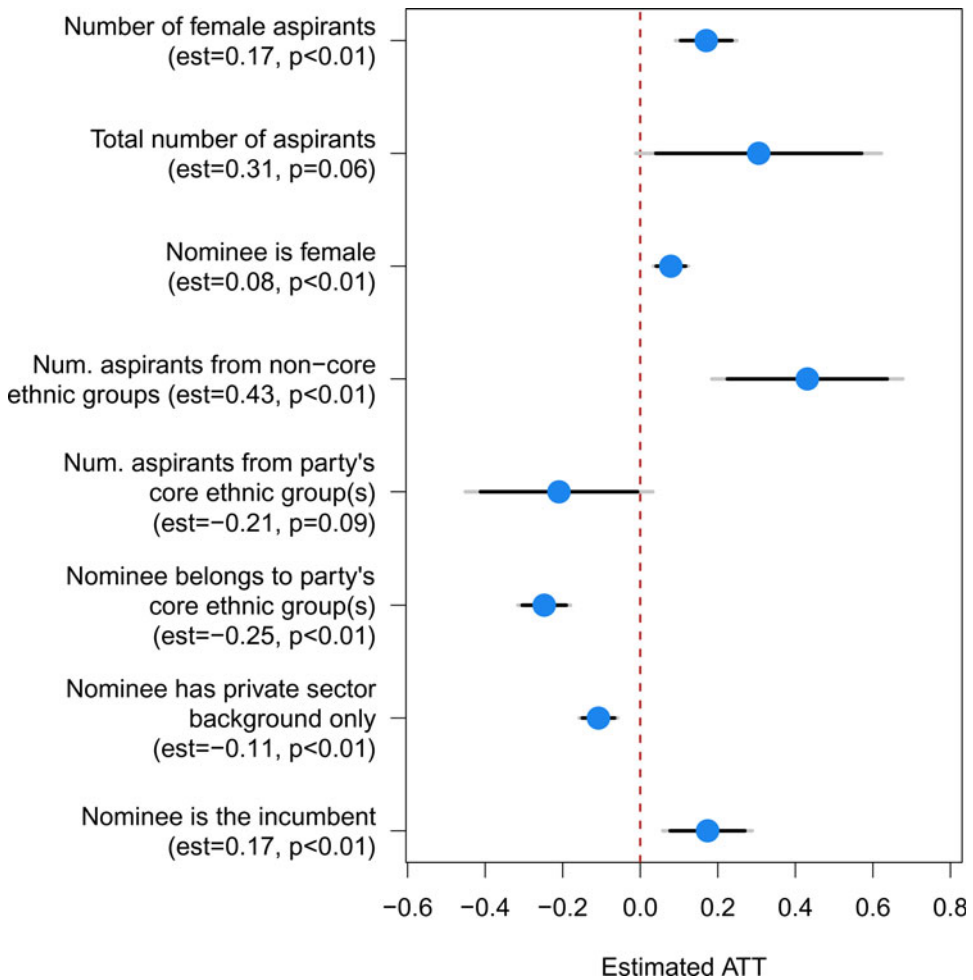
|  | Before matching |    |         |       | After matching |    |         |       | Sets |
|--|-----------------|----|---------|-------|----------------|----|---------|-------|------|
|  | $\chi^2$        | df | p-value | $n_T$ | $\chi^2$       | df | p-value | $n_T$ |      |
| Number of female aspirants                     | 92.13           | 6  | <0.01   | 170   | 1.87           | 5  | 0.87    | 168   | 87   |
| Total number of aspirants                      | 94.31           | 5  | <0.01   | 170   | 5.28           | 4  | 0.26    | 170   | 95   |
| Nominee is female                              | 92.51           | 7  | <0.01   | 170   | 0.29           | 6  | 1.00    | 170   | 97   |
| Num. aspirants from non-core ethnic groups     | 79.51           | 8  | <0.01   | 150   | 4.65           | 7  | 0.70    | 150   | 83   |
| Num. aspirants from party's core ethnic groups | 92.10           | 8  | <0.01   | 150   | 4.96           | 7  | 0.66    | 148   | 73   |
| Nominee belongs to party's core ethnic group   | 167.28          | 8  | <0.01   | 169   | 3.00           | 7  | 0.88    | 169   | 55   |
| Nominee has only private sector background     | 116.41          | 5  | <0.01   | 211   | 1.34           | 4  | 0.85    | 211   | 114  |
| Nominee is the incumbent                       | 57.78           | 6  | <0.01   | 102   | 2.67           | 5  | 0.75    | 102   | 53   |

Note: the fourth and eighth columns show the number of treated units in our sample before and after matching. The last column shows the number of sets created. The number of treated units before and after matching differs when there are no control units available that have the same value of the 2012 outcome.

control units within each set with the difference in means for each of our covariates, and assess their combination with a  $\chi^2$  test. Our matching procedure significantly improves balance (Table 1, rows 1–3).<sup>25</sup>

Effects are estimated by weighted least squares regression, with standard errors calculated as in Hansen (2004). Our results are at the top of Figure 2. We find that the NDC's reform increased the average number of female aspirants by 0.17 ( $p < 0.01$ ) and the average number of total aspirants by 0.31 ( $p = 0.06$ ). These are substantively large differences. In 2012, NDC primaries averaged 0.29 female aspirants out of 2.65 total, or only 11 per cent of all aspirants. An estimated effect of 0.17 additional female aspirants in Figure 2 is 55 per cent of the estimated average effect on the overall number of aspirants (0.31), equivalent to a 42 per cent (4.6 percentage point) increase in the overall proportion of female contestants compared to 2012. There are few historical estimates to benchmark our estimated effect, but it is comparable to those of more intensive interventions designed to increase female candidacy. For example, Bhavnani (2009) finds that

<sup>25</sup>Balance for individual covariates is in the Appendix (pg. A12).



**Figure 2.** Estimated average effects on the number of aspirants and characteristics of nominees  
*Note:* the light and dark bars indicate 95 per cent and 90 per cent confidence intervals, respectively.

reserving city council seats for women in India increased the proportion of candidates who were female in subsequent elections for those seats after reservations were withdrawn by 7.4 percentage points from a baseline of 4.4 per cent.

Furthermore, expanding the electorate led to an 8-percentage-point increase in the probability that the NDC nominee was female ( $p = 0.001$ ), a large effect compared with a baseline of 9 per cent. In the Appendix (pg. A14), we show that women’s advancements are not concentrated in constituencies where the NDC is unlikely to win.

The gender literature suggests two alternative explanations. First, learning about the NDC’s reform may have increased women’s ambition to seek office. This clearly affected women’s ambition for a specific office. But latent ambition is deeply ingrained from early socialization (Fox and Lawless 2014) and unlikely to change quickly. More importantly, in order to become eligible for the NDC primaries, potential aspirants needed to become active party members in their constituencies at least a year before the electorate expansion was announced. This leaves the pool of potential aspirants largely fixed in the short run. It is more plausible that the expansion encouraged the entry of already-ambitious women who had been developing political careers in their constituencies, but were still undecided about whether to seek this particular office this cycle.

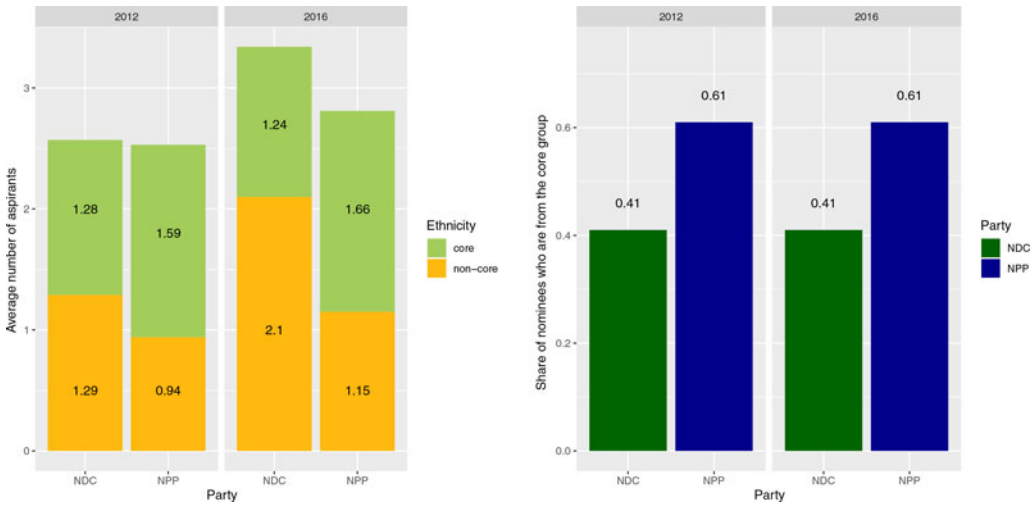


Figure 3. Aspirants' and nominees' membership in their parties' core ethnic coalition, by party and year

Secondly, personal recruitment (Sanbonmatsu 2002) by party leaders or concurrent changes to formal candidate eligibility criteria (Bjarnegård and Zetterberg 2019) may lead to changes in women's ambition in the short run (Fox and Lawless 2011; Karpowitz, Monson and Preece 2017). However, this is also unlikely to account for the results. Starting with the 2012 elections, the two parties adopted very similar efforts to recruit more women to run for parliament, including reducing registration fees by 50 per cent for female aspirants. Moreover, the NPP has been more aggressive in encouraging female aspirants, moving first to reduce fees for women and publicly discussing reserving nominations for women.

**Ethnicity**

Next, we turn to ethnicity. Figure 3 shows the average number of aspirants and share of nominees from the parties' core and non-core ethnic groups. It indicates a substantial increase in the number of NDC aspirants from outside its core base, but no overall change in the ethnic composition of its nominees.

As before, we employ optimal full matching to estimate the effects of the electorate expansion, with balance statistics in Table 1. For the number of aspirants from core and non-core ethnic groups, we exact match on the lagged dependent variable. We add the population share of the largest ethnic group in the constituency, segregation between ethnic groups associated with the NDC and the NPP, and segregation among the sub-groups within each party's national ethnic coalition to the four common matching variables for the propensity score.<sup>26</sup> Figure 2 shows that the electorate expansion increased the average number of aspirants from ethnic groups outside the party's core coalition by 0.43 (p < 0.01), while reducing the average number of core group aspirants by 0.21 (p = 0.09).

Whether the entry of new aspirants from non-core ethnic groups leads to more of these aspirants winning primaries depends on several factors, including the total number of aspirants, the ethnic demography of party members and the resources available to each aspirant. Although the

<sup>26</sup>We include the size of the largest group because the NDC's reform is less likely to have an effect on the ethnic composition of entrants in constituencies dominated by a single group. We include the segregation measures because segregation may affect primary voters' beliefs about which candidates are most likely to target them with local public goods (Ichino and Nathan 2013a), and hence whether additional aspirants from under-represented groups seek the nomination. There are diverse constituencies in both urban and rural areas (Appendix, pg. A6).

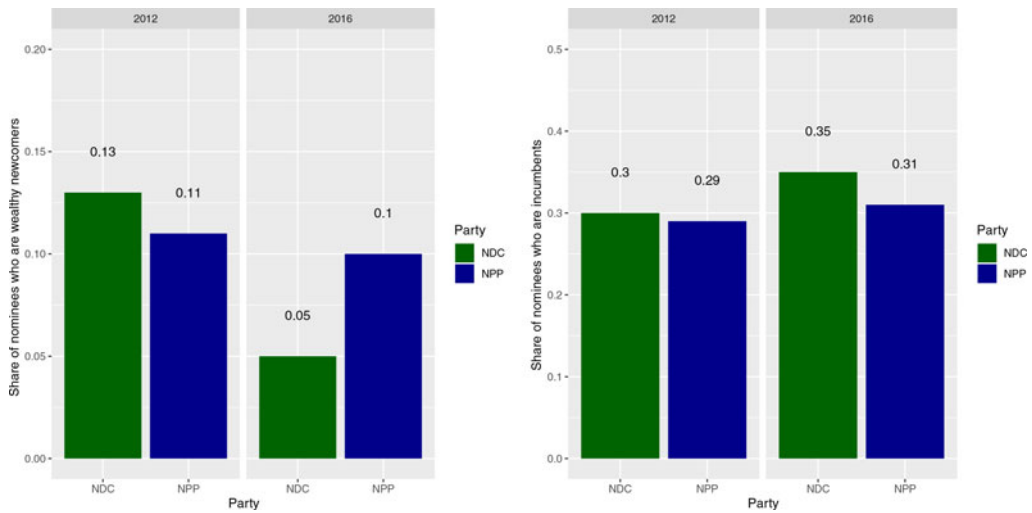


Figure 4. Political experience of nominees, by party and year

latter two are unmeasured, we proxy for these factors using the constituency-level population share of the ethnic groups in the party’s coalition, spatial segregation between core and non-core groups in the constituency, and the total number of aspirants competing in 2012.<sup>27</sup> Including these as matching variables, we find that expanding the electorate increased the probability that the NDC nominee is from an ethnic group outside of the party’s core coalition by 22 percentage points ( $p < 0.001$ ). To put this into context, this is larger than the impact of reserving seats for ethnic minority candidates in India (Bhavnani 2017).

As with gender, party recruitment is an unlikely alternative explanation for these results. Although recruitment efforts are unobserved, national leaders from both parties have made public efforts to expand their ethnic appeal; the NPP has sought in recent years to shed its label as an ‘Akan party’. If national party leaders favored aspirants from non-core ethnic groups, this is just as likely to have been done in the NPP as in the NDC, which is at odds with our results.<sup>28</sup>

Another alternative explanation is that aspirants from non-core ethnic groups may have won more often after the expansion due to greater co-ordination failures among voters from the party’s core groups, not because non-core aspirants became more viable. However, this is inconsistent with our finding that the electorate expansion appears to have *decreased* the entry of aspirants from the NDC’s core ethnic groups (see Figure 2;  $p = 0.09$ ). The core-group vote likely became more – not less – concentrated, and non-core aspirants could only have won more often if they gained support among primary voters.

### Political Experience

Finally, we examine the political experience of nominees. Figure 4 indicates a large drop in the share of NDC nominees who are wealthy newcomers and a smaller increase in the share who are incumbents. We proxy for wealth earned outside government or party positions by coding whether the nominee has a high-level private sector business background (Pinkston 2016). We

<sup>27</sup>These variables are discussed in greater detail in the Appendix (pg. A8).

<sup>28</sup>We have anecdotal evidence, for example, of NPP leaders intervening in the 2008 and 2012 primaries to help aspirants from non-core groups, including to nominate Ga aspirants over Akans in multiple constituencies in Greater Accra. Interview with NPP primary aspirant, Greater Accra Region, 26 July 2011; interview with NPP primary aspirant, Greater Accra Region, 27 July 2011.

code an aspirant as having private sector experience if there is biographical information that he or she has served in a managerial or executive position in any private business or worked in a well-compensated profession (for example, lawyer). Because experience in the private sector and a background in government or party leadership are not mutually exclusive, we code private sector background as 1 *only* if a nominee had not served as an MP or in other government or party positions. This identifies the wealthy political newcomers.<sup>29</sup>

Figure 2 shows that the NDC's electorate expansion made its nominees 11 percentage points less likely ( $p < 0.001$ ) to be someone with a private sector background, but no prior political experience. For this outcome, we use the four common matching variables and exact match on the lagged outcome variable. Table 1 again presents balance statistics.

While the NDC's expansion of the electorate reduced the success of wealthy political newcomers in primaries, as NDC leaders intended, it did not appear to harm the party's existing MPs. For our analysis of whether incumbents were renominated, we include the population share of the incumbent's ethnic group as a matching variable, since the incumbent may be stronger, regardless of electorate size, in constituencies where he or she is from a more numerous group. Restricting the analysis to party-constituencies with incumbent MPs, we find that the expansion of the electorate led to incumbent MPs being 17 percentage points *more* likely to be renominated ( $p < 0.01$ ).

### Robustness to Alternative Specifications

Our results are generally robust to alternative specifications. We address concerns about potentially poor covariate overlap by rematching using a caliper that restricts matches to party-constituencies that fall within progressively smaller ranges on the propensity score (Appendix pg. A19). We also restrict the ratio of treated to control units to 10:1 and 1:10 to limit the influence of a single control (treated) constituency that may be matched with many treated (control) units (pg. A17). Neither affects our substantive results, although our point estimates vary somewhat as data is discarded by these procedures. In addition, we show that our results do not depend on matching exactly on the lagged dependent variable (pg. A21).

We also compare our preferred optimal full matching approach to three alternative matching methods: nearest-neighbor propensity score matching, Mahalanobis distance matching and genetic matching. We show that improvements in covariate balance are greater with optimal full matching, indicating that our preferred approach should produce less biased estimates conditional on the choice of matching variables (pg. A22).

### Alternative Explanations

We proposed above that these results may result from two changes to the nature of primaries: the shift to a more diverse primary electorate – in terms of both gender and ethnicity – and a reduction in the prevalence of vote buying. While our data do not allow us to directly observe either mechanism, we are able to rule out several alternative explanations that do not operate through changes to the composition of the primary electorate or the extent of vote buying.

First, the NDC may have had more aspirants simply because nominations in the incumbent president's party are perceived to be more valuable. This is unlikely since our analysis only compares nominations with similar demand by exact matching on the number of aspirants in 2012, when the NDC was also the incumbent party and both parties used the same rules. Both parties ran the same presidential candidates in 2016 as in 2012, and the platforms and core bases of each party were unchanged. The main difference leading up to 2016 was the growing popularity of the NPP among swing voters, amid a backlash against the NDC's performance (Bob-Milliar and Paller 2018). Any increased expectations of becoming an MP as a member of the president's

<sup>29</sup>Missing data precludes us from analyzing the effects of the NDC's reform on the total number of aspirants with these backgrounds.



party should have increased the number of aspirants in the NPP relative to the NDC. But we find the opposite.

Secondly, the NDC's electorate expansion may have created a less certain electoral environment, leading aspirants from under-represented groups who did not believe they would have more support from new voters to enter to take advantage of a more open race. However, the result that more female and non-core group aspirants won primaries suggests that these new entrants did not misjudge their increased viability. Moreover, we find similar results when we exclude aspirants with lower viability, proxied by those who declared their candidacy but dropped out before the primary (Appendix, pg. A9).

Thirdly, the fact that the NPP considered, but rejected, the full expansion of its own electorate in the run-up to the 2012 election might indicate that it is a less democratic party than the NDC and explain why a larger and more diverse group of aspirants competed in and won the NDC's primaries. However, it was easier for the NDC to expand its electorate because the party is *less* democratic than the NPP and doing so did not require building consensus among multiple factions. The NPP national leadership had been riven by factional disputes, particularly between the two main aspirants for the party's presidential nomination in 2008, 2012 and 2016. One of these factions blocked an identical proposal to expand the NPP's primary electorate to all party members before 2012. The NDC's leadership is more centralized and unified around a powerful general secretary (Osei 2016), who has greater discretion to change the party rules. This greater factionalism within the NPP should bias against our finding that more aspirants competed in the NDC: interviews with NPP aspirants suggest that the party's factions sometimes put forward rival candidates in the primaries, which should increase the number of aspirants in our control group observations.

## Beyond Ghana

Expanding the primary electorate increased the number of aspirants who are female or members of under-represented ethnic groups in one of Ghana's major parties. This reform also increased the probability that the party's nominees were female or members of these ethnic groups and led to more incumbent MPs being renominated. But it decreased the probability that nominees were wealthy individuals with little political experience. Although we cannot directly test mechanisms, these results are consistent with our interpretation that expanding the electorate made vote buying a less viable strategy and changed the ethnic and gender composition of the electorate, which may have encouraged potential aspirants from groups that became better represented in the electorate to compete for nominations.

Our findings show that changes to primary rules are another institutional means – beyond quotas and reserved seats – to make candidate selection more inclusive. Although expanding the primary electorate has smaller effects than directly reserving seats, its effects are similar in magnitude to the longer-run impacts of seat reservations even after they are withdrawn (Bhavnani 2009; Bhavnani 2017). It may be easier to expand the primary electorate because it does not restrict competition by men or members of the ethnic majority who may be excluded from reserved seats. By making it more difficult for political outsiders with little reputation among general election voters to buy their way to nominations, this reform also appears to improve candidate quality. This echoes other findings that institutional shifts to improve descriptive representation among candidates can have carry-over effects on candidate competence (Besley et al. 2017).

Should we expect similar short-run effects in other settings? Primaries are increasingly common across the developing world (Field and Siavelis 2008), including in Africa (Choi 2018; Warren 2018), where parties in at least fifteen countries now elect their legislative nominees through primaries (Ichino and Nathan 2018). Political parties such as the Botswana Democratic Party have also recently expanded their primary electorates in a similar manner to the NDC (Warren 2018).

While it would not be possible to employ our empirical strategy in countries with single-party dominant or more inchoate party systems, our general theoretical answer is yes, conditional on three scope conditions that affect our proposed mechanism for how expanding the electorate affects the calculations of potential aspirants. The first condition is that primaries are real elections: the outcomes are not decided in advance through the manipulation of party elites. The second is that there are gender gaps and ethnic disparities in elite primary electorates compared to the broader party membership. The third is that both inter- and intra-party competition are patronage based and non-ideological. While the first condition may not hold where national party leaders strongly pressure primary voters to back favored aspirants (Choi 2018), the latter two conditions should apply widely, especially in Africa (Logan and Bratton 2006; Riedl 2014).

Where these conditions hold, key differences in party systems may only lead to greater effects than for Ghana. For example, in more inchoate party systems, expanding the electorate may generate higher levels of uncertainty that encourage more non-viable aspirants to compete in the primaries, adding to the effects on aspirant entry. Expanding the electorate in such settings may also increase the likelihood of co-ordination failures within a party's core ethnic groups, adding to the viability of the path to nominations for aspirants from non-core groups. Similarly, the effects on the number and characteristics of aspirants may be even larger where there is greater potential for party switching than in Ghana. If aspirants can easily switch to a political party that expands its electorate to include more female and ethnically non-aligned voters, we expect more potential aspirants from under-represented groups to do so. Future research examining how the strategies of male and non-minority aspirants change when faced with these new competitors and types of voters can also help refine our argument for new settings.

**Supplementary material.** Online appendices are available at <https://doi.org/10.1017/S0007123421000028>.

**Data availability statement.** The data, replication instructions, and the data's codebook can be found at <https://doi.org/10.7910/DVN/FYOEWG>.

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