



Electoral Role Models: Political Empowerment and Candidate Emergence

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Abstract

Does the election of politicians from historically underrepresented groups spur others to enter politics? Some political scientists and policymakers posit that the election of women and people of color to prominent political offices can inspire others to run for office, yet prior research has yielded mixed results. We contribute to the literature on representation by exploring the impact of role models on candidate emergence at the local level, where aspiring politicians typically begin to climb the political ladder. Using data from Brazilian elections and a set of regression discontinuity designs, we find no evidence that the election of a woman or Afro-Brazilian mayor spurs women and Afro-Brazilians to run for city council positions. Our results, which are robust to several alternative specifications, suggest that even if the election of a woman or minority politician inspires others to enter politics, barriers may impede them from running for office.

Keywords Representation · Candidate emergence · Gender · Race · Brazil

Women and racial minorities are routinely underrepresented in elected assemblies. These gender and racial gaps have important consequences for democracy. Research shows that women and minority legislators advocate for the interests of their respective groups and demonstrates that their presence has symbolic benefits (Griffin,

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2014; Wängnerud, 2009). When voters are descriptively represented, they are more likely to become interested in politics, express higher levels of efficacy, and choose to participate in the political process (Banducci et al., 2004; Barnes & Burchard, 2013; Bobo & Gilliam, 1990). To date, research on the effect of descriptive representation on participation largely focuses on turnout (Gay, 2001; Rocha et al., 2010; Tate, 2018; Wolak, 2020).¹ Some political scientists and policymakers posit that the election of women and minorities, however, may transform citizens from voters into politicians.

There are compelling reasons to believe that descriptive representation affects who runs for elected office. Ladam et al. (2018), for example, contend that prominent women lawmakers serve as role models for women considering a career in politics and encourage them to run for office. Similar arguments have been made with respect to people of color (Fraga et al., 2020). Empirical research on the impact of role models on candidate emergence, however, has yielded mixed results. Some studies indicate that role models have a significant impact on the emergence of women and minority candidates (Beeman et al., 2009; Bhavnani, 2009; Fraga & Hassell, 2018; Ladam, 2018), while others find that their effect is transitory (Gilardi, 2015) or even null (Broockman, 2014a; Castorena, 2022). One potential explanation for these mixed findings is that the impact of role models is conditional on the opportunities to run. If role models spur members of historically underrepresented groups to run for elected office, we can expect their impact will be most observable and meaningful at the local level, where elected offices are plentiful and aspiring politicians typically start to climb the political ladder.

In this paper, we investigate whether the election of politicians from historically underrepresented groups in Brazil spurs others to enter local politics. In Brazilian cities, mayors are the most prominent and powerful public officials (Funk & Philips, 2019). They are also overwhelmingly male and predominately white (Bueno & Dunning, 2017; Janusz, 2021). Building on research on the empowering effects of descriptive representatives, we expect that the election of a woman or Afro-Brazilian mayor will lead other women and Afro-Brazilians in the cities they govern to seek city council positions. Moreover, we expect the effects will be large because Brazilian city council elections use open-list proportional representation rules which discourage political parties from gatekeeping and provide political aspirants considerable opportunities to run. Our findings, however, cast doubt on the conclusion that the election of women or people of color to public office portends changes in candidate fields.

Using rich electoral data and a set of regression discontinuity designs, we find no evidence that members of historically underrepresented groups are more likely to run for elected office when they are descriptively represented. Our first analysis shows that the election of a woman mayor does not lead more women to run for city council positions in that city in subsequent elections. Similarly, our second analysis reveals that the election of an Afro-Brazilian mayor does not spur aspiring

¹ Notable exceptions include articles on the impact of candidate race and gender on campaign contributions (Grumbach & Sahn, 2020; Grumbach et al., 2020; Thomsen & Swers, 2017).

Afro-Brazilian politicians to run for seats on the city council in that city in future elections. Our results, which are robust to several alternative specifications, do not appear to be attributable to discrimination at the nomination stage by party elites. In Brazilian city council elections, party labels are fluid, party elites are incentivized to fill their respective party lists, and the number of list positions exceeds the number of political aspirants wanting to fill them.² As a result, party leaders have few incentives to turn away prospective women and Afro-Brazilian candidates. This suggests that the decision to run is shaped by factors besides the presence of a role model.

Our null findings are notable for several reasons. For one, we test the empowerment hypothesis precisely where theory indicates it will have a sizable effect and we do so using a research design and data that permits us to detect even small effects. The fact that we do not find role model effects therefore strongly suggests that role models are insufficient to spur individuals from underrepresented groups to enter politics. Second, our study is the first to estimate both gender and race empowerment effects in a single country context. As such, it connects two lines of inquiry and facilitates the direct comparison of gender and racial role model effects. Third, our local-level findings signal that gender and racial gaps in representation at higher levels are likely to persist. This is normatively and substantively important, as well as points to valuable avenues for further study. It demonstrates that the election of a woman or Afro-Brazilian does not obviate the barriers that other group members encounter.

Our research suggests that factors besides the presence of role models explain when latent candidates choose to run for office. These factors may include expectations about electoral competition, party support, and the likelihood of victory (Carroll & Sanbonmatsu, 2013; Cox, 1997; Ocampo & Ray, 2019). In the Brazilian case, resource considerations are likely to be particularly important (Wylie, 2018, 2020). Candidates in Brazilian assembly elections are incentivized to cultivate a personal vote and cannot depend on party support to underwrite their campaigns. Studies show that parties provide some candidates no financial assistance and discriminate against women and Afro-Brazilians when distributing campaign resources (Cunha Silva, 2023; Janusz & Campos, 2021; Janusz et al., 2022; Junqueira and Cunha Silva, 2023; Wylie, 2018). If a prospective woman candidate or Afro-Brazilian is inspired to run for office by a role model, they may nevertheless decline to run if they do not have the means to finance their campaign. In other words, in Brazil, where there are few barriers to becoming a candidate, resource considerations, not role models, may explain who chooses to ultimately run for public office.

Descriptive Representation and Diversity on the Ballot

Women and racial minorities are underrepresented in elected assemblies around the world. Their absence has received considerable attention from scholars. Many studies focus on why members of historically underrepresented groups are rarely

² In 2020, only 11% of parties filled their lists.

elected to public office. This is an important question with critical implications. It stands to reason that representation gaps can be ameliorated if the barriers that hinder members of marginalized groups from winning elected office are identified and addressed. One of the notable findings of election analyses is that women and racial minorities perform just as well as men and members of dominant groups when they run for elected office (Juenke, 2014; Lawless & Fox, 2005; Seltzer et al., 1997; Shah, 2014; White et al., 2022). The problem is that on election day they are oftentimes not on the ballot.

A growing body of research explores why women and, to a lesser degree, members of marginalized ethnoracial groups do not run for elected office in proportion to their population. Fox and Lawless (2004, 2005) report that part of the reason women do not run is that there is a substantial gender gap in political ambition. Evidence suggests that women learn early in life via gendered socialization processes that politics is the domain of men (Bos et al., 2022; Fox & Lawless, 2014). As a result, women are less likely than men to have considered running for office or believe themselves to be qualified (Lawless & Fox, 2010; Pruyers & Blais, 2019). Research on racial group membership and political ambition is limited but concerning. Fox and Lawless (2004, 2005) report that in the United States, women and racial minorities are significantly less likely than white men to have even considered running for office. This is not entirely surprising. In Western democracies, where white politicians have long dominated politics, racial minorities are unlikely to perceive the halls of power as open to people “like them” (Mansbridge, 1999; Pantoja & Segura, 2003; Whitby, 2007).

Encouragement can make a big difference in who considers running for elected office and who ultimately throws their hat in the ring (Broockman, 2014b). Studies indicate that not everyone, however, receives it. Women are less likely to receive encouragement and are recruited less intensely than men (Fox & Lawless, 2005, 2010; Norris & Lovenduski, 1995). Moreover, evidence shows that party leaders, who exert considerable influence over candidacy decisions, actually dissuade some women who come forward (Crowder-Meyer, 2013; Niven, 2006; Sanbonmatsu, 2006). Research on racial politics suggests that party elites are also less likely to recruit ethnoracial minorities (Dancygier et al., 2015; Sanbonmatsu, 2005). This may be because they believe that they can’t win (Gallagher & Marsh, 1988). Doherty et al. (2019) report that local party chairs in the US believe minority candidates will struggle to connect with voters. Witnessing a racial minority win, however, may alter their beliefs about what types of individuals are electable and lead them to recruit and nominate racial minorities.

Some political scientists, policymakers, and politicians posit that the election of a woman or racial minority may also affect the emergence of candidates from those groups. Women and minority politicians serve as role models for others (Campbell & Wolbrecht, 2006; Mansbridge, 1999; Wolbrecht & Campbell, 2007). Their presence may increase feelings of efficacy and inspire potential candidates to seek office (Ladam et al., 2018). It is also possible that women and minority politicians assist prospective candidates in overcoming the barriers to running. In an experiment on Canadian legislators, Dhima (2022) reports that women legislators are more likely to respond to messages from female political aspirants. Finally, role models may

provide prospective candidates with valuable information about their electoral prospects. From their presence alone, potential candidates from underrepresented groups can infer that party gatekeepers and voters are willing to support political aspirants "like them." Armed with this knowledge, members of underrepresented groups may be inclined to put themselves forward.

Although there are compelling reasons to think that the election of women and racial minorities will spur others to enter politics, research on the impact of peer role models has yielded mixed findings. Research of women's representation in India shows that when women are elected, women are more likely to run for public office in nearby districts in subsequent elections (Beaman et al., 2009; Bhavnani, 2009). An analysis of women politicians in Switzerland though suggests that their impact declines over time (Gilardi, 2015). In contrast to these findings, others report that role models have no impact on candidate emergence. In an analysis of the United States, Broockman (2014a) shows that the election of women state legislators does not lead women in geographically proximate districts to run for office. Similarly, Castorena (2022) finds that women in Mexico are not more likely to run in districts where a woman was previously elected. Despite finding that women role models do not affect patterns of emergence, neither Broockman (2014a) nor Castorena (2022) conclude that women politicians are irrelevant. Instead, they emphasize that underlying barriers may constrain who participates.

The impact of prominent role models on those lower on the political ladder has received less scholarly attention but produced consensus. Ladam et al. (2018) contend that the election of women to high-profile offices will lead women to run for less prestigious assembly positions. Consistent with their argument, they find that the election of a woman governor or US senator encourages more women to run for state legislatures. They attribute this to the symbolic importance of women politicians as opposed to their involvement in recruiting women. Maneto and Schenk also find evidence that the election of women to prominent political offices leads others to run, but demonstrate that the effects diverge by partisanship (Manento & Schenk, 2021). In another study, Fraga et al. (2020) find that when minority candidates win congressional contests, minority candidates are more likely to run for state assembly posts. Their analysis suggests that aspiring minority state legislators draw inferences about voter opposition based on the success of congressional candidates and emerge when the electoral environment appears favorable.

Nevertheless, research on inter-institutional role model effects has some notable limitations. For one, prior studies focus exclusively on the United States. As a result, it is unknown whether those findings generalize to other countries. Moreover, they focus exclusively on state legislative races. In these contests, though, timing may be more important than the motivation that role models provide or the information their victories produce. If there is not an open seat, aspiring politicians are likely to strategically wait until one becomes available (Gaddie & Bullock, 2000). This points to a third limitation, state assembly candidates are typically not political novices. In most cases, the initial decision to run for office occurs at the local level. This is especially true with respect to women and racial minorities (Lawless, 2012). In a survey of latent candidates, women and racial minorities were significantly more likely than men and whites to report that local office is the first they would seek (Fox

& Lawless, 2005). There is no shortage of local elections to observe. In the United States and abroad, most electoral contests are local (Trounstine, 2009).

Local Role Models and Candidate Emergence

Gender and racial gaps in representation exist at the local level in numerous countries. Studies indicate that one of the reasons women and minorities are not elected is because they choose not to run (Fox & Lawless, 2005; Shah, 2014). Building on evidence that the election of women and racial minorities to national-level offices can spur others to seek office, we might imagine that the effect of role models extends to the local level. Theory suggests that role models are likely to positively impact the emergence of candidates when they are relevant and their success appears attainable (Lockwood & Kunda, 1997). Local public officials, such as mayors, can satisfy both of these criteria.

Local officials from underrepresented groups are relevant because they share characteristics with potential candidates, like gender, race, and geography. When women and racial minorities see someone “like them” hold a prominent local position, it sends a clear signal that they are part of the political system (Dovi, 2002; Mansbridge, 1999; Mariani et al., 2015). Moreover, prospective candidates are likely to perceive the success of local officials as attainable because it was achieved in the community where they will compete. The election of women and minority politicians at the local level demonstrates to prospective women and minority candidates that party elites are willing to nominate them and that voters will support them.

In sum, local officials from historically underrepresented groups may serve as role models for potential candidates and precipitate changes in candidate fields.

H1a: Women are more likely to run for office in electoral districts where a woman narrowly won the previous election than districts where a woman narrowly lost.

H1b: People of color are more likely to run for office in electoral districts where a coethnic narrowly won the previous election than districts where a coethnic narrowly lost.

Not all women and racial minorities may need to be inspired to run for elected office. In contrast to latent candidates without political experience, those who have run for office before can draw on their prior experience when deciding whether to run. The election of a woman or minority politician is thus likely to have the most influence on the emergence of first-time candidates (Gilardi, 2015; Ladam et al., 2018).³ This leads us to propose a second, more restrictive hypothesis:

³ In SIs A.10 and B.10, we consider the possibility that the effect of role models is larger for candidates without political experience than for those with political experience. Similar to the findings reported in the results section, our analyses indicate a null effect of role models on candidates without and with pre-

- H2a:** Women who have never run for elected office are more likely to run in electoral districts where a woman narrowly won the previous election than districts where a woman narrowly lost.
- H2b:** People of color who have never run for elected office are more likely to run in electoral districts where a coethnic narrowly won the previous election than districts where a coethnic narrowly lost.

Besides inspiring potential candidates to run for office, the election of a woman or minority politician may influence which political party those candidates are nominated by. Party elites may infer from minority victories that recruiting and nominating minority candidates is a good electoral strategy. The parties that nominated the victorious women and minority politicians are likely to have a leg up in recruiting them for three reasons. First, they can build on their prior success by deepening their existing recruitment networks. Second, the elected woman or minority politician they nominated may encourage other women and minorities to become affiliated with their party and thus expand the pool of nominees (Goyal & Sells, 2021). Finally, potential candidates from underrepresented groups might approach parties that previously supported candidates from underrepresented groups to inquire about being nominated. Political aspirants may reason that parties that nominated women and minorities in the past will do so in the future.

- H3a:** Women are more likely to be nominated by the party of a woman who narrowly won the previous election than by the party of a woman who narrowly lost.
- H3b:** People of color are more likely to be nominated by the party of a coethnic who narrowly won the previous election than by the party of a coethnic who narrowly lost.

To test these hypotheses, we use data from local elections in Brazil. Brazil's diverse population, its overwhelmingly male and predominately white political elite, and its large number of electoral districts make it an excellent case to study the impact of role models on the emergence of women candidates and candidates of color.

Footnote 3 (continued)

vious political experience. Additionally, we do not find the estimated effects of role models on the emergence of candidates from these groups are different.

Political Opportunities in Brazil

Brazil is the ideal case to test our empowerment hypotheses. Despite recent gains, women and African descendants remain underrepresented in the country's elected assemblies. Neither possesses representation in proportion to their population sizes (Johnson, 2015; Wylie, 2018). At the local level, where their descriptive representation is greatest, women held just 16 percent of seats on Brazilian city councils in 2020, despite representing 51.1 percent of the population. Similarly, Afro-Brazilians held 44.7 percent of those seats, despite representing 56.1 percent of the population (PNAD, 2021). Gender and racial disparities in executive offices are even larger (Janusz, 2021). In 2020, women were elected to mayoral office in just 12 percent of municipalities and Afro-Brazilians were elected in 32 percent. In 59 percent of Brazilian municipalities, the elected mayor was a white man.

The fact that most mayors in Brazil are white men is politically important. In Brazil's federal system, the mayor is the most powerful politician in the city in which they hold office (Samuels, 1998). Mayors have considerable budgetary authority and shape the priorities of local governments (Funk & Philips, 2019). In addition to influencing policy, their presence may also have symbolic consequences. When women and Afro-Brazilians repeatedly see the highest office in their municipality held by white men, they may infer that politics is not for people "like them."

In Brazil, competition for the mayoral office is often fierce. Between 2000 and 2020, 47 percent of mayoral elections had at least three candidates (Cunow et al., 2023). Mayoral candidates, who are elected according to majoritarian rules every four years, spend substantial sums of money to cultivate voter support and distinguish themselves from their competitors (Avis et al., 2022). Oftentimes, the entire candidate field is composed of white men (Janusz, 2021). As a result, when women and Afro-Brazilian candidates are elected to mayoral office, voters in the municipality are likely to be aware.

Theory suggests that when a politician with whom voters can identify is elected, their interest and perceptions of politics may evolve and they may be inspired to run for office themselves. Nevertheless, the availability of role models may not affect patterns of candidate emergence if party elites engage in electoral gatekeeping. Evidence suggests that party elites in Brazil influence who runs for mayoral office, but do not engage in gatekeeping with respect to assembly elections.⁴ The use of open-list proportional representation rules, in which the municipality is the single at-large district, combined with high-district magnitudes (the number of seats varies from 7 to 55) incentivize party leaders to nominate as many candidates as legally permitted.⁵ As a result, if the election of a woman or Afro-Brazilian mayor increases a voter's desire to run for city council, we have no reason to expect that party gatekeepers

⁴ In SI D, we show that a majority of candidates running for city council in Brazil are non-competitive. This is particularly true for women and Afro-Brazilian candidates. This suggests that parties adopt a permissive approach when creating the party list.

⁵ In most cases, parties and pre-electoral coalitions can nominate up to 1.5 candidates for every seat.

would keep them off the ballot.⁶ Latent candidates choose whether or not to run, and decide which party they want to nominate them.⁷

Study 1: Women's Entry

To test whether the election of a woman mayor affects women's entry in the subsequent down-ballot races, we use data from three sets of municipal elections — 2012, 2016, and 2020. In these elections, at least 30 percent of the city council candidates that political parties nominated were required to be women.⁸ We determine which candidates are women and which are men using information collected by electoral authorities. In each election, Brazil's Electoral Court (*Tribunal Superior Eleitoral*) has required candidates to indicate their gender as part of the registration process. In total, our data include information about 3,480 mixed-gender mayoral disputes. Women were the eventual winner in 1,476 of these.⁹

Using this data, we employ a sharp regression discontinuity (RD) design to estimate the causal effect of a woman mayor on the nomination of other women candidates. To do so, we use the difference in vote share between the woman mayoral candidate and the male mayoral candidate in 2012, 2016, and 2020 as our running variable. The treated group consists of municipalities where a woman was elected mayor, and the control group includes municipalities where a woman mayoral candidate was defeated. We use three dependent variables to test our hypotheses, the number of women candidates competing in each city council election, the ratio of women candidates to the number of city council positions available, and the percentage of women candidates in each election.

The main assumption in the RD design is that the treatment allocation occurs *as if* random. In our case, we assume municipalities where women mayoral candidates narrowly won are comparable to municipalities where women mayoral candidates narrowly lost. If the treated and control municipalities systematically differ at this threshold, we cannot estimate the causal effect of electing a woman mayor on the emergence of other candidates. We test for imbalance in Supplemental Information (SI) A.2, and find no difference between the treated and control municipalities concerning their percentage of women, racial composition, percentage of urban population, percentage of population with a college degree, GDP per capita (log), and

⁶ Although parties are unlikely to prevent women (Afro-Brazilians) from running due to electoral incentives, their control over resources and the expectation that party leaders will not contribute financially to the campaigns of women (Afro-Brazilian) candidates may nevertheless discourage women (Afro-Brazilians) from running.

⁷ Brazilian law bars independent candidacies.

⁸ Before 2009, quota rules stipulated that at least 30 percent of the spots should be reserved for women, but parties exploited the fact that the law used the term *reserve*. Parties reserved spots but did not nominate women to fill them. A 2009 reform removed this loophole.

⁹ We are unaware of voluntary candidate quotas during the period we examine. According to IDEIA (2023), the Workers' Party (PT) has voluntary quotas for its party directors, delegations, and specific functions of secretaries. These quotas, however, are not applied to the party list during electoral contests.

population. The same SI reports results from balance tests for mayors' and runners-ups' characteristics. We also do not detect evidence of sorting at the threshold (Cattaneo et al., 2019).

We estimate our RD models using local polynomial methods with a triangular kernel and a mean squared error optimal bandwidth. As demonstrated by Calonico et al. (2014), this method tends to produce large bandwidths, which may affect the validity of the inferences. We follow Calonico and co-authors' advice and present bias-corrected estimates and robust confidence intervals to account for this issue.¹⁰

Study 1: Results

Our main results are depicted in Fig. 1. Contrary to the theoretical expectations regarding the positive influence of role models on women candidates (H1a), we do not observe a statistically significant positive effect of electing a woman mayor on the participation of women candidates in city council elections. Figure 1 shows null findings for the ratio of women candidates per seat and the percentage of women candidates, while indicating statistically significant negative results for the raw number of women candidates. Specifically, panel a indicates an estimate equal to -5.307 , which represents 20.3% of the average and 19.9% of the standard deviation of the dependent variable ($\hat{\mu} = 26.076$ and $sd = 26.668$).

Although Fig. 1 reveals that municipalities where a woman narrowly won the mayoral race do not witness an increase in women candidates competing for city council, it is worth exploring whether the impact of a role model might be more pronounced for individuals with no prior electoral experience. To examine this possibility, we identify first-time candidates via their *Título de Eleitor*, a unique number assigned by electoral authorities to each Brazilian, social security number (*Cadastro de Pessoas Físicas*), and first name. We rely on each of these items because, even though no two individuals should share the same *Título de Eleitor* and social security number, there are duplicates in the electoral data published by Brazil's Electoral Court. These duplicates are likely the product of typos by candidates and parties during the candidacy registration process. Using these three items, we create a variable that indicates whether the candidate participated in any election since 1998, the first election for which complete information about candidates is available. Candidates who do not appear in electoral records for previous municipal, state, or federal elections are designated first-time candidates.

Figure 2 displays results that align with those presented for the unrestricted sample, demonstrating that the impact of a woman mayor on the emergence of women city council candidates remains either null or negative. Similar to our main findings, the estimated effects on the ratio of women candidates per seat and on the percentage of women candidates are not statistically significant, while the effect on the raw number of women city council candidates is negative. Panel a reveals a negative

¹⁰ Our approach is similar to Broockman (2014a), in which he finds that the election of a woman in US state legislative elections does not affect the chances of other women to run and win office.

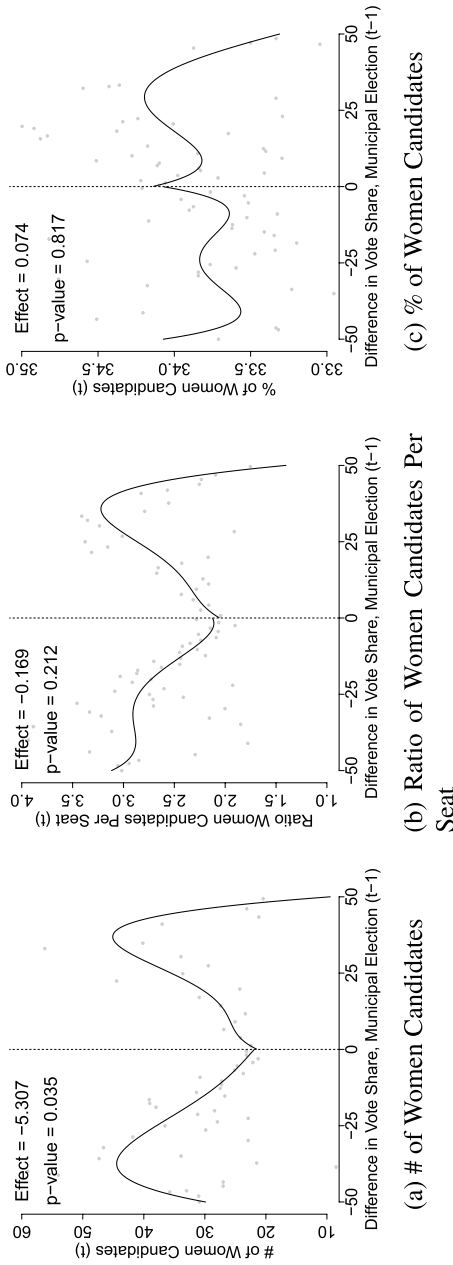


Fig. 1 Emergence of Women City Council Candidates in Brazil's 2012–2020 Elections. *Note:* The figure shows the RD effect of electing a woman mayor in the previous election (e.g., 2008) on the emergence of women city council candidates in the subsequent election (e.g., 2012). In each panel, control municipalities, that is, those in which a woman was not elected as the mayor in the previous election, are on the left-hand side of the dotted line, and treated municipalities are on the right-hand side. P-values are calculated using bias-corrected robust standard errors. Optimal bandwidth used to estimate the RD effects ($h = 5.065$ in panel a, $h = 7.443$ in panel b, and $h = 7.860$ in panel c). Dots represent evenly spaced bins (Mimicking Variance)

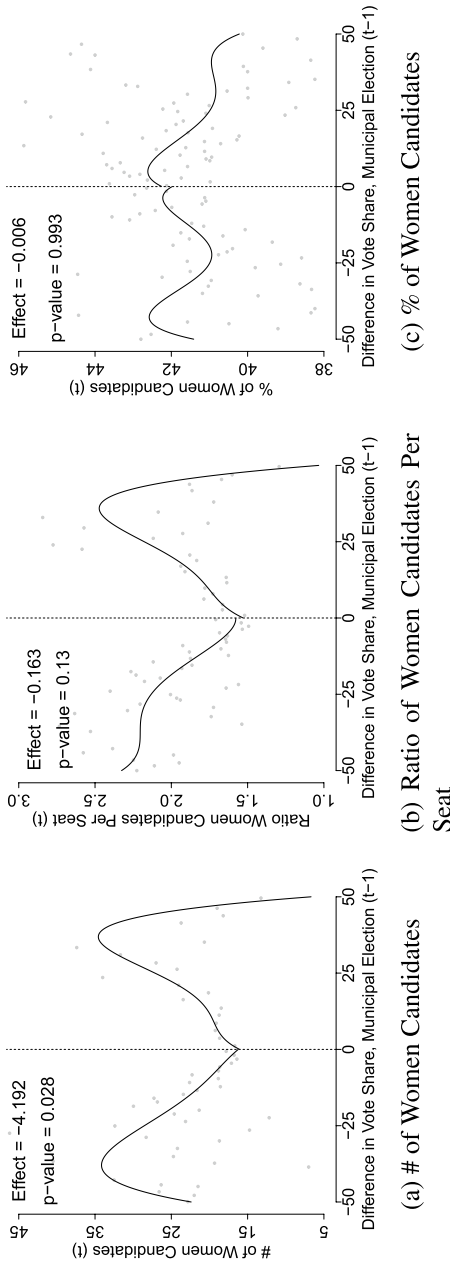


Fig. 2 Emergence of Women City Council Candidates Without Political Experience in Brazil's 2012–2020 Elections. *Note:* Fig. 2 shows the RD effect of electing a woman mayor on the emergence of women city council candidates without political experience in the following municipal elections. In each panel, control municipalities are on the left-hand side of the dotted line, and treated municipalities are on the right-hand side. *p*-values are calculated using bias-corrected robust standard errors. Optimal bandwidth used to estimate the RD effects ($h = 4.921$ in panel a, $h = 6.820$ in panel b, and $h = 11.406$ in panel c). Dots represent evenly spaced bins (Mimicking Variance)

estimate equal to -4.192 , representing 21.3% of the average and 20.2% of the standard deviation of the dependent variable ($\hat{\mu} = 19.67$ and $sd = 20.726$).

While we do not observe an increase in women candidates for city council following the election of a woman mayor, the presence of a woman mayor may lead women contemplating a political career to think that the mayor's party is more likely than other parties to endorse women candidates. After all, the mayor's party should be the first to acknowledge the viability of women as candidates (H3a). To evaluate this possibility, we create a new set of dependent variables that measures the number, ratio, and percent of women candidates from the *mayor's* party. We opt to focus on the mayor's party, excluding its coalition parties, for a few reasons. First, starting in the 2020 election, pre-electoral coalitions (PECs) were not permitted (Tribunal Superior Eleitoral, 2020).¹¹ Our approach, therefore, guarantees homogeneity within our test. Second, even though PECs were extremely common in local elections and more than 82% of mayoral candidates were part of a PEC between 2008 and 2016 (Cunha Silva, 2022), electoral rules allowed parties to split the coalition in the majoritarian race (mayoral election in our case) into smaller PECs for the local council election (Borges, 2019). Finally, individuals who wish to run for office must be affiliated with a party six months prior to the election. PECs, however, were only decided three months before election day during party conventions (Tribunal Superior Eleitoral, 2023).¹² As a result, it is unlikely that political aspirants would be able to anticipate the alliances that will emerge correctly.

We present the results of our party analysis in Fig. 3. Once again, our findings are inconsistent with expectations. We find no evidence that the election of a woman mayor increases the number of women city council candidates nominated by her party. None of the estimated coefficients are statistically significant.

The findings from this section collectively indicate that electing a woman mayor does not boost the number of women running for the city council in the subsequent election. In the Supplemental Information file, we present additional evidence consistent with the results presented in this section. Specifically, we show that even after accounting for municipal and individual covariates, including the mayor's characteristics such as race, occupation, and political variables (SI A.4), we consistently find null or negative effects. These null estimates, or occasionally negative estimates, remain robust across various bandwidths and polynomial selections (SI A.5 and A.6). Additionally, in SI A.7, we demonstrate that our sample size is sufficiently large to detect effect sizes equivalent to half of the standard deviation of each dependent variable. This suggests that our null results are not attributable to tests with insufficient statistical power.

One plausible explanation for our null findings is that Brazilian women had a national role model, President Dilma Rousseff. Dilma Rousseff was sworn in as the

¹¹ For more information, see <https://www.tse.jus.br/comunicacao/noticias/2020/Outubro/mudancas-nas-eleicoes-2020-fim-das-coligacoes-para-os-pleitos-proporcionais> [in Portuguese]. Accessed on December 12, 2023.

¹² For more information, see <https://www.tse.jus.br/eleicoes/calendario-eleitoral/calendario-eleitoral> [in Portuguese]. Accessed on December 12, 2023.

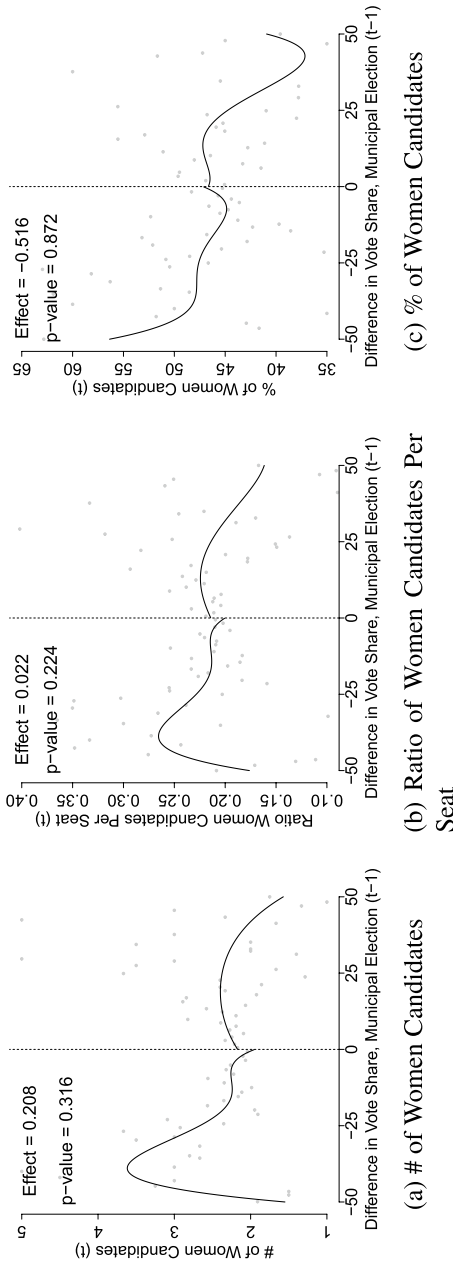


Fig. 3 Emergence of Women City Council Candidates Without Political Experience from the Mayor’s Party in Brazil’s 2012–2020 Elections. *Note:* Fig. 3 shows the RD effect of electing a woman mayor on the emergence of women city council candidates without political experience from the mayor’s party in the following municipal elections. In each panel, control municipalities are on the left-hand side of the dotted line, and treated municipalities are on the right-hand side. *p*-values are calculated using bias-corrected robust standard errors. Optimal bandwidth used to estimate the RD effects ($h = 9,207$ in panel a, $h = 10,333$ in panel b, and $h = 9,750$ in panel c). Dots represent evenly spaced bins (Mimicking Variance)

first female president of Brazil in 2011 and won reelection in 2014. In 2016, before the completion of her second term, she was impeached and removed from office. It is plausible that Rousseff's electoral success diminished the importance of women mayors. Moreover, her removal may have dampened enthusiasm among latent women candidates. To investigate these possibilities, we draw on data from elections before she became president. In SI Section A.9, we show the results are similar when we analyze elections before her presidency, during it, and after (2000–2020). They persist when we examine only the period preceding her presidency (2000–2008) or analyze any specific election during that time frame. This is further evidence that the election of a woman mayor does not lead more women to run for city council positions in subsequent years.¹³

Study 2: Afro-Brazilian's Entry

Since 2014, Brazil's Electoral Authority has required politicians to racially classify themselves when they register to run for public office. In 2016 and 2020, when aspiring mayors and city councilors registered to compete, they could self-classify as black (*preta*), brown (*parda*), white (*branca*), Asian (*amarela*), and Indigenous (*indígena*). Although the Electoral Authority classification has five ethno-racial categories, the division between whites and Afro-Brazilians, an umbrella label under which black and brown Brazilians are typically grouped, is most pronounced and politically salient (Mitchell, 2018). Therefore, studies on racial politics in Brazil primarily employ a dichotomous, white/Afro-Brazilian analytical framework. In this paper, we follow this convention. We group black and brown candidates into the Afro-Brazilian category as well as exclude Asians and Indigenous candidates from our analysis.

To estimate regression discontinuity models, we identify all municipalities where the winner and runner-up mayoral candidates in 2016 were from different racial groups. In total, 1,584 municipalities (28.7%) had mixed-race mayoral disputes.¹⁴ Afro-Brazilian candidates were victorious in 778 of these contests. To establish whether their electoral success spurred Afro-Brazilian individuals to run for city council, we analyze three outcomes of interest: the number of Afro-Brazilian

¹³ In SI A.11, we investigate the possibility that role models shape candidate emergence beyond the municipality where they win office. Extant research on this topic has yielded mixed findings. Broockman (2014a) reports that in the US the election of a woman does not lead women in nearby districts to run for office, but Gilardi (2015) finds that in Switzerland the election of women does increase political participation in neighboring municipalities, albeit temporarily. Our analysis yields no evidence of spatial effects, with the direct effects being significant yet substantively small. Recognizing the challenges of effectively controlling for crucial potential confounders in observational studies, these results should be accepted cautiously.

¹⁴ In 2016, an Asian or an Indigenous candidate was among the top-2 mayoral candidates in only 1.23% of municipalities. We excluded Barro Alto (GO) and Cariús (CE), municipalities with mixed-race elections, from the analysis. We removed the former because the runner-up was disqualified before the election, and the latter, because both candidates received the same number of votes. In such cases, the older candidate is deemed the winner. See the racial composition of the 2016 mayoral elections in Table B.1.

candidates competing in 2020, the ratio of Afro-Brazilian candidates per seat, and the percentage of Afro-Brazilian candidates.

We employ the same research design used in Study 1. In brief, we run RD models in which the running variable is the difference in vote share between the winning mayoral candidate and the runner-up. Again, we use the local polynomial methods with a triangular kernel and MSE optimal bandwidth. We present bias-corrected estimates and robust confidence intervals to increase the validity of our inferences.¹⁵

Study 2: Results

Figure 4 shows our main results. In contrast to theoretical expectations (H2a), we do not find that the election of an Afro-Brazilian mayor has a positive and statistically significant effect on Afro-Brazilians running in city council elections. In all three panels of Fig. 4, the estimated effect is statistically insignificant. Moreover, contrary to expectations, the estimated effect of an Afro-Brazilian mayor winning office is even negative in panel c.

The results in Fig. 4 suggest that municipalities in which an Afro-Brazilian candidate wins mayoral office by a small margin do not experience an increase in the raw number of Afro-Brazilian candidates, the ratio of candidates per seat, or the share of Afro-Brazilian candidates in the ballot. As presented in our discussion about the role model effect on women, one may argue that the presence of an Afro-Brazilian mayor may be more important for individuals who have never run for office (H2b). Figure 5 reports the results for models used to test this argument.

The RD effects reported in Fig. 5 are similar to our main results. Once more, the presence of an Afro-Brazilian mayor does not seem to affect the emergence of Afro-Brazilian candidates for city council, even among individuals who have never competed for office. Again, we rely on the candidate's *Título de Eleitor*, social security number (*Cadastro de Pessoas Físicas*), and first name to identify candidates who have never run for office since 1998. As with our main results, the estimated effects for the raw number of Afro-Brazilian candidates and the ratio of Afro-Brazilian candidates per seat are positive but not statistically significant. The estimated effect on the percentage of Afro-Brazilian candidates is also insignificant but negative.

Finally, Afro-Brazilians interested in running for city council may be inclined to seek nomination by the party that the previously elected Afro-Brazilian mayor belongs to. As argued in relation to women, it is reasonable to expect that parties may update their views on the viability of minority candidates after a successful minority candidacy (H3b). We assess this possibility in Fig. 6, where we use the number, ratio, and percentage of Afro-Brazilians (without political experience) nominated *only* by the mayoral party as our dependent variables.^{16,17} Consistent with our previous results, we do not find that the election of an Afro-Brazilian mayor

¹⁵ We present assumption tests in SI B.2.

¹⁶ As noted previously, pre-electoral coalitions were not allowed in the 2020 election.

¹⁷ Our sample is smaller in this analysis because 41% of the mayoral parties did not nominate candidates for the city council.

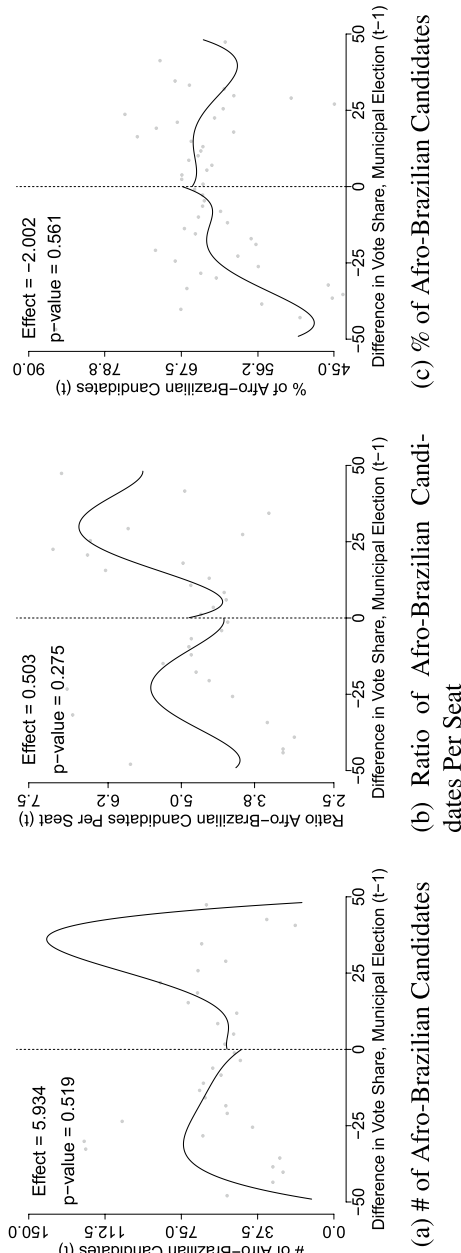


Fig. 4 Emergence of Afro-Brazilian City Council Candidates in Brazil's 2020 Elections. *Note:* Fig. 4 shows the RD effect of electing an Afro-Brazilian mayor in 2016 on the emergence of Afro-Brazilian city council candidates in 2020. In each panel, control municipalities are on the left-hand side of the dotted line, and treated municipalities are on the right-hand side. *p*-values are calculated using bias-corrected robust standard errors. Optimal bandwidth used to estimate the RD effects ($h = 6.969$ in panel a, $h = 9.928$ in panel b, and $h = 7.987$ in panel c). Dots represent evenly spaced bins (Mimicking Variance)

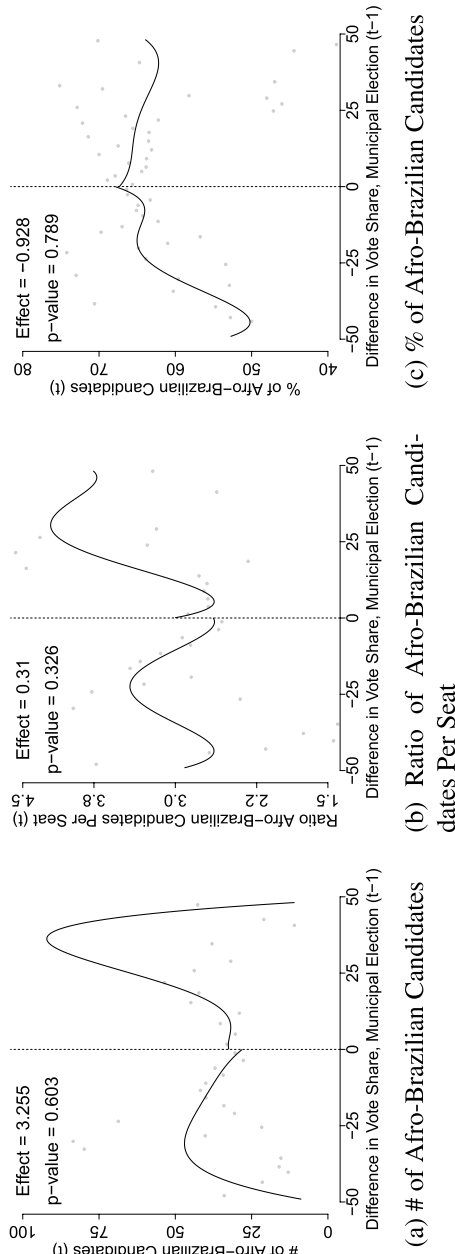


Fig. 5 Emergence of Afro-Brazilian City Council Candidates Without Political Experience in Brazil's 2020 Elections. *Note:* Fig. 5 shows the RD effect of electing an Afro-Brazilian mayor in 2016 on the emergence of Afro-Brazilian city council candidates without political experience in 2020. In each panel, control municipalities are on the left-hand side of the dotted line, and treated municipalities are on the right-hand side. *p*-values are calculated using bias-corrected robust standard errors. Optimal bandwidth used to estimate the RD effects ($h = 7.075$ in panel a, $h = 10.047$ in panel b, and $h = 7.989$ in panel c). Dots represent evenly spaced bins (Mimicking Variance)

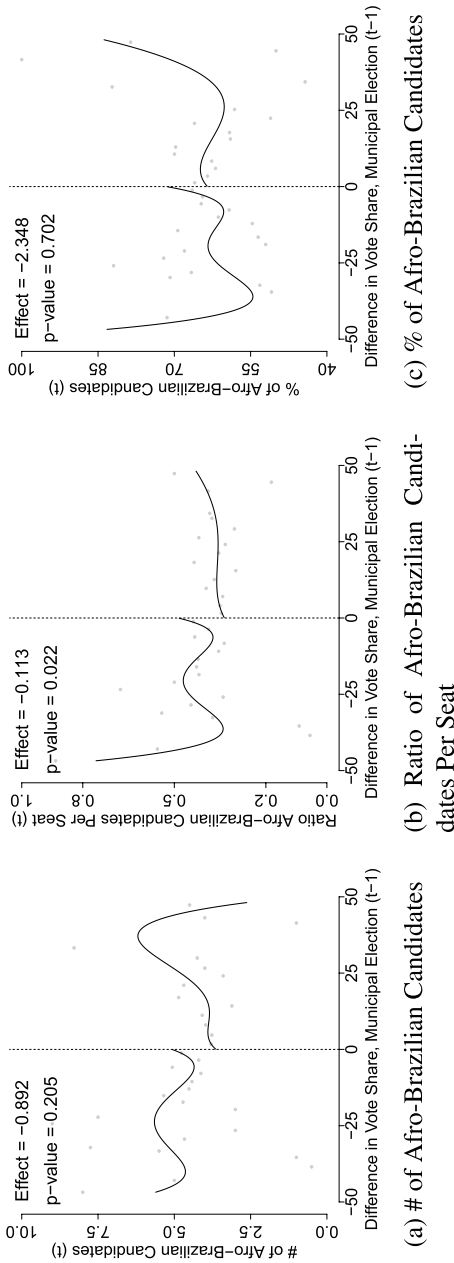


Fig. 6 Emergence of Afro-Brazilian City Council Candidates Without Political Experience from the Mayor’s Party in Brazil’s 2020 Elections. *Note:* Fig. 6 shows the RD effect of electing an Afro-Brazilian mayor in 2016 on the emergence of Afro-Brazilian city council candidates without political experience from the mayor’s party in 2020. In each panel, control municipalities are on the left-hand side of the dotted line, and treated municipalities are on the right-hand side. *p*-values are calculated using bias-corrected robust standard errors. Optimal bandwidth used to estimate the RD effects ($h = 8.109$ in panel a, $h = 9.786$ in panel b, and $h = 10.501$ in panel c). Dots represent evenly spaced bins (Mimicking Variance)

leads that mayor's party to nominate more Afro-Brazilian candidates. In all three cases, the estimated coefficient is negative. Unlike our previous two sets of results, we detect a statistically significant result for the ratio of Afro-Brazilians running for city council nominated by the mayoral party. Specifically, the ratio of Afro-Brazilian candidates per seat decreases by -0.113 . This effect represents 29.7% of the average and 44.6% of the standard deviation of the dependent variable ($\hat{\mu} = 0.380$ and $sd = 0.253$).

Together, our findings in this section indicate that the victory of an Afro-Brazilian mayoral candidate does not lead to growth in Afro-Brazilian individuals running for the city council in the next election. In fact, the few statistically significant results suggest the opposite. In the Supplemental Information file, we present additional analyses in line with the results from this section. The findings are still null or negative after including control variables in the models, such as the percentage of the Afro-Brazilian population and other socio-economic covariates, and the mayors' and runner-ups' characteristics, such as gender, occupation, and political variables (SI B.4). The estimates are null (or, in a few cases, negative) when we use a large bandwidth, which suggests that our findings are not an artifact of the chosen bandwidth (see SI B.5) and when we limit our analysis to municipalities where Afro-Brazilians are more than 50% of the population (see SI B.6). Further, there is no evidence that the polynomial order affects the results (see SI B.7). Additionally, in SI B.8, we also demonstrate that our sample is large enough to detect effect sizes equal to half of the standard deviation of each dependent variable. Lastly, in SI B.9, we analyze the effect of a *pardo* (brown) mayor on the emergence of *pardo* (brown) candidates and of a *preto* (black) mayor on the emergence of *preto* (black) candidates. These models indicate a null effect of *pardo* (brown) or *preto* (black) on the emergence of candidates from their demographic groups. We only detect one statistically significant effect. The election of a *preto* (black) mayor seems to have a negative effect on the percentage of *preto* (black) candidates. However, due to the small sample size (only 93 elections had a *preto* (black) and a white candidate at the top two), this result should be accepted with caution.^{18,19}

¹⁸ One may wonder whether intersectionality plays a role in these elections. We analyze this possibility in SI C. Specifically, we evaluate whether the election of an Afro-Brazilian woman, white woman, Afro-Brazilian man, and white man positively affects the emergence of candidates from the same socio-demographic group. We find a null effect in all 36 tests. Nevertheless, due to the small sample sizes in these tests, we call for caution when interpreting them. We invite researchers to re-examine the impact of intersectional identities when more data become available.

¹⁹ Additionally, in SI B.11 we explore the possibility that the election of an Afro-Brazilian mayor impacts patterns of candidate emergence in neighboring municipalities. Our findings reveal that Afro-Brazilian mayors have a statistically significant, though substantively small effect, on the emergence of first-time Afro-Brazilian city council candidates in neighboring municipalities. Due to the difficulty of controlling for potential confounders in observational studies, these results should be accepted cautiously.

Discussion

In many democracies, representational gaps emerge before any votes are cast. Women, racial minorities, and, in the Brazilian case, members of a marginalized majority racial group are not always on the ballot. Building on prior research, which suggests that women and racial minorities serve as role models for others interested in political careers, we investigate how the election of a woman or minority politician affects candidate emergence in Brazil. In contrast to theoretical expectations, we find no evidence that the election of a woman mayor leads other women to run for city council positions in subsequent elections. We also do not find that the election of an Afro-Brazilian mayor spurs more Afro-Brazilian aspirants to run. Our results, which are robust to several alternative specifications and precise enough to identify even small effects, cast doubt that one woman's electoral success or the election of a racial minority paves the way for members of marginalized groups to run for elected office.

Our null findings are unlikely to be attributable to ceiling effects. Role models are presumed to be especially important when they are rare. In contrast to the United States where women and racial minorities regularly hold prominent public offices, women and Afro-Brazilians are still establishing themselves in the political arena. Most municipalities have never had a woman or Afro-Brazilian mayor.²⁰ As a result, Brazil is a case where we should expect to find role models "matter" for candidate emergence. Our findings demonstrate that they do not. Our null results suggest that the decision to run is contingent on something besides having a role model and the opportunity to stand for office.

We posit that campaign resources are one reason why women and Afro-Brazilians are not more likely to emerge when they see a role model win office. In Brazil's candidate-centric city council elections, political parties do not provide campaign support to each of the candidates they nominate. In fact, many candidates receive no support at all. Considering that resources are critical to cultivate a personal vote, prospective candidates who are inspired to run for office but do not expect to receive party support may elect not to participate. Women and Afro-Brazilian candidates have reason to believe they will be overlooked. Extant research shows that parties routinely discriminate against them when distributing resources (Cunha Silva, 2023; Janusz & Campos, 2021; Janusz et al., 2022; Janusz & Sells, 2022; Wylie, 2018). In theory, women and Afro-Brazilians could find other sources of support. Nevertheless, due to gender and racial wealth disparities, women and Afro-Brazilians are less likely than men and whites to have the means to self-finance (Agência Brasil, 2021; Osorio, 2021). Moreover, they are unlikely to have access to well-heeled donor networks and receive less financial support (Bueno & Dunning, 2017; Sacchet, 2018;

²⁰ Between 1996 and 2020, 62.8% of Brazilian municipalities never elected a woman as mayor. Throughout this period, men emerged as winners in most elections (at least 4 out of 7 municipal elections) in 98.4% of the municipalities. Data from the 2016 and 2020 elections, the two contests in which mayoral candidates were required to racially identify themselves, indicate 57.6% of municipalities have not elected an Afro-Brazilian candidate to mayoral office and 93.7% have not elected an Afro-Brazilian woman as the mayor.

Wylie, 2020). As a result, only the most hopeful women and Afro-Brazilians can be expected to run.

Our null results point to the need for more research on why individuals choose to enter politics or remain on the sidelines. Research by Lawless and Fox (2005, 2010) and Lawless (2012) demonstrate the utility of studying the political pipeline before candidates formally enter it. Their research, and that of others provides insight about political ambition in the United States, especially with regard to gender, but relatively little is known about political ambition in a comparative context. It is plausible that there are cross-national differences as well as differences across groups. While our study points to the need to assess gender and racial differences in political ambition, wealth and age group differences are also likely to exist. Collecting the requisite data to make cross-sectional, much less cross-national group comparisons is likely to be challenging. However, this type of work is extremely valuable (Gulzar, 2021). Who becomes a candidate has the potential to impact the quality of democracy in numerous ways.

Evidence that the election of women and Afro-Brazilian mayors does not lead to more diverse candidate fields suggests that electoral reforms may be warranted. The gender and politics literature shows that the introduction of gender quotas, even in elections with open-list proportional representation rules, can improve opportunities for women (Jones, 2009; Jankowski & Marcinkiewicz, 2019). Nonetheless, gender quotas only address one of the impediments that women face, insufficient opportunities. To diversify candidate fields, it is necessary to address all of the barriers that members of historically underrepresented groups encounter.

While our analysis focuses on patterns of candidate emergence at the local level, our findings should concern those interested in representation at the state and national levels. Women and racial minorities typically run for local office before seeking to climb the political career level. Increasing the number of women and minorities that run at the local level thus is critical to diversifying candidate fields at the national level (Brown et al., 2022).

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11109-024-09959-1>.

Data availability The data and script files needed to replicate the published results are accessible in the Harvard Dataverse at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/HZ0JZT>.

Declarations

Conflict of interest The authors did not receive support from any organization for the submitted work. They have no conflict of interest to declare that are relevant to the content of this article. This research did not involve human subjects therefore IRB approval was not sought. The data and script files needed to replicate the published results are accessible in the Harvard Dataverse at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/HZ0JZT>.

References

Agência Brasil. (2021, Mar). Estudo revela tamanho da desigualdade de gênero no mercado de trabalho.

- Avis, E., Ferraz, C., Finan, F., & Varjão, C. (2022). Money and politics: The effects of campaign spending limits on political entry and competition. *American Economic Journal: Applied Economics*, *14*(4), 167–99.
- Banducci, S. A., Donovan, T., & Karp, J. A. (2004). Minority representation, empowerment, and participation. *The Journal of Politics*, *66*(2), 534–556.
- Barnes, T. D., & Burchard, S. M. (2013). “Engendering” politics: The impact of descriptive representation on women’s political engagement in sub-Saharan Africa. *Comparative Political Studies*, *46*(7), 767–790.
- Beaman, L., Chattopadhyay, R., Duflo, E., Pande, R., & Topalova, P. (2009). Powerful women: Does exposure reduce bias? *The Quarterly Journal of Economics*, *124*(4), 1497–1540.
- Bhavnani, R. R. (2009). Do electoral quotas work after they are withdrawn? Evidence from a natural experiment in India. *American Political Science Review*, *103*, 23–35.
- Bobo, L., & Gilliam, F. D. (1990). Race, sociopolitical participation, and black empowerment. *American Political Science Review*, *84*(2), 377–393.
- Borges, A. (2019). Razões da fragmentação: Coligações e estratégias partidárias na presença de eleições majoritárias e proporcionais simultâneas. *Dados*, *62*, 3.
- Bos, A. L., Greenlee, J. S., Holman, M. R., Oxley, Z. M., & Lay, J. C. (2022). This one’s for the boys: How gendered political socialization limits girls’ political ambition and interest. *American Political Science Review*, *116*(2), 484–501.
- Broockman, D. E. (2014). Do female politicians empower women to vote or run for office? A regression discontinuity approach. *Electoral Studies*, *34*, 190–204.
- Broockman, D. E. (2014). Mobilizing candidates: Political actors strategically shape the candidate pool with personal appeals. *Journal of Experimental Political Science*, *1*(2), 104–119.
- Brown, R., Mansour, H., & O’Connell, S. D. (2022). Does local female political representation empower women to run for higher office? Evidence from state and national legislatures in India. *The World Bank Economic Review*, *36*(1), 198–218.
- Bueno, N. S., & Dunning, T. (2017). Race, resources, and representation evidence from Brazilian politicians. *World Politics*, *69*, 327.
- Calonic, S., Cattaneo, M. D., & Titiunik, R. (2014). Robust nonparametric confidence intervals for regression-discontinuity designs. *Econometrica*, *82*(6), 2295–2326.
- Campbell, D. E., & Wolbrecht, C. (2006). See Jane run: Women politicians as role models for adolescents. *The Journal of Politics*, *68*(2), 233–247.
- Carroll, S. J., & Sanbonmatsu, K. (2013). *More women can run: Gender and pathways to the state legislatures*. Oxford University Press.
- Castorena, O. (2022). Female officeholders and women’s political engagement: The role of parties. *Political Behavior*, *1*, 1–23.
- Cattaneo, M. D., Jansson, M., & Ma, X. (2019). Simple local polynomial density estimators. *Journal of the American Statistical Association*, *1*, 1–7.
- Cox, G. W. (1997). *Making votes count: Strategic coordination in the world’s electoral systems*. Cambridge University Press.
- Crowder-Meyer, M. (2013). Gendered recruitment without trying: How local party recruiters affect women’s representation. *Politics & Gender*, *9*(4), 390–413.
- Cunha Silva, P. (2022). Campaign resources and pre-electoral coalitions. *Party Politics*, *28*(1), 105–114.
- Cunha Silva, P. (2023). The effect of the ballot in an unranked ballot system. *Party Politics*, *29*(1), 153–163.
- Cunow, S., Desposato, S., Janusz, A., & Sells, C. (2023). Too much of a good thing? Longer ballots reduce voter participation. *Journal of Elections, Public Opinion and Parties*, *1*, 1–18.
- Dancygier, R. M., Lindgren, K.-O., Oskarsson, S., & Vernby, K. (2015). Why are immigrants underrepresented in politics? Evidence from Sweden. *American Political Science Review*, *109*(4), 703–724.
- Dhima, K. (2022). Do elites discriminate against female political aspirants? Evidence from a field experiment. *Politics & Gender*, *18*(1), 126–157.
- Doherty, D., Dowling, C. M., & Miller, M. G. (2019). Do local party chairs think women and minority candidates can win? Evidence from a conjoint experiment. *The Journal of Politics*, *81*(4), 1282–1297.
- Dovi, S. (2002). Preferable descriptive representatives: Will just any woman, black, or Latino do? *American Political Science Review*, *96*(4), 729–743.
- Fox, R. L., & Lawless, J. L. (2004). Entering the arena? Gender and the decision to run for office. *American Journal of Political Science*, *48*(2), 264–280.

- Fox, R. L., & Lawless, J. L. (2005). To run or not to run for office: Explaining nascent political ambition. *American Journal of Political Science*, 49(3), 642–659.
- Fox, R. L., & Lawless, J. L. (2010). If only they'd ask: Gender, recruitment, and political ambition. *The Journal of Politics*, 72(2), 310–326.
- Fox, R. L., & Lawless, J. L. (2014). Uncovering the origins of the gender gap in political ambition. *American Political Science Review*, 108(3), 499–519.
- Fraga, B., & Hassell, H. (2018). Are minority and women candidates penalized by party politics? Race, gender, and access to party support. *Political Research Quarterly*, 1065912920913326.
- Fraga, B. L., Gonzalez Juenke, E., & Shah, P. (2020). One run leads to another: Minority incumbents and the emergence of lower ticket minority candidates. *The Journal of Politics*, 82(2), 771–775.
- Funk, K. D., & Philips, A. Q. (2019). Representative budgeting: Women mayors and the composition of spending in local governments. *Political Research Quarterly*, 72(1), 19–33.
- Gaddie, R. K., & Bullock, C. S. (2000). *Elections to open seats in the US House: Where the action is*. Rowman & Littlefield.
- Gallagher, M., & Marsh, M. (1988). *Candidate selection in comparative perspective: The secret garden of politics*. Volume 18. SAGE Publications Limited.
- Gay, C. (2001). The effect of black congressional representation on political participation. *American Political Science Review*, 95(3), 589–602.
- Gilardi, F. (2015). The temporary importance of role models for women's political representation. *American Journal of Political Science*, 59(4), 957–970.
- Goyal, T., & Sells, C. (2021). Women and party-building: Evidence from municipal governments in Brazil. Available at SSRN 3886385.
- Griffin, J. D. (2014). When and why minority legislators matter. *Annual Review of Political Science*, 17, 327–336.
- Grumbach, J. M., & Sahn, A. (2020). Race and representation in campaign finance. *American Political Science Review*, 114(1), 206–221.
- Grumbach, J. M., Sahn, A., & Staszak, S. (2020). Gender, race, and intersectionality in campaign finance. *Political Behavior*, 2, 1–22.
- Gulzar, S. (2021). Who enters politics and why? *Annual Review of Political Science*, 24, 253–275.
- IDEA. (2023). Gender quotas database.
- Jankowski, M., & Marcinkiewicz, K. (2019). Ineffective and counterproductive? The impact of gender quotas in open-list proportional representation systems. *Politics & Gender*, 15(1), 1–33.
- Janusz, A. (2021). Race and resources in Brazilian mayoral elections. *Political Research Quarterly*, 10659129211032279.
- Janusz, A., Barreiro, S.-N., & Cintron, E. (2022). Political parties and campaign resource allocation: Gender gaps in Brazilian elections. *Party Politics*, 28(5), 854–864.
- Janusz, A., & Campos, L. A. (2021). Candidate advertisements and Afro-Brazilian political marginalization. *Latin American Research Review*, 56(4), 761–778.
- Janusz, A., & Sells, C. (2022). Race and campaign resources: Candidate identification numbers in Brazil. *Journal of Politics in Latin America*, 14(2), 211–223.
- Johnson, O. A. (2015). Blacks in national politics. In *Race, politics, and education in Brazil*, pp. 17–58. Springer.
- Jones, M. P. (2009). Gender quotas, electoral laws, and the election of women: Evidence from the Latin American vanguard. *Comparative Political Studies*, 42(1), 56–81.
- Juenke, E. G. (2014). Ignorance is bias: The effect of Latino losers on models of Latino representation. *American Journal of Political Science*, 58(3), 593–603.
- Junqueira, A., & Cunha, Silva P. (2023). Strengthening the party, weakening the women: Unforeseen consequences of institutional change. *Journal of Politics*, 86, 7.
- Ladam, C., Harden, J. J., & Windett, J. H. (2018). Prominent role models: High-profile female politicians and the emergence of women as candidates for public office. *American Journal of Political Science*, 62(2), 369–381.
- Lawless, J. L. (2012). *Becoming a candidate: Political ambition and the decision to run for office*. Cambridge University Press.
- Lawless, J. L., & Fox, R. L. (2005). *It takes a candidate: Why women don't run for office*. Cambridge University Press.
- Lawless, J. L., & Fox, R. L. (2010). *It still takes a candidate: Why women don't run for office*. Cambridge University Press.

- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology*, 73(1), 91.
- Manento, C., & Schenk, M. (2021). Role models or partisan models? The effect of prominent women officeholders. *State Politics & Policy Quarterly*, 21(3), 221–242.
- Mansbridge, J. (1999). Should blacks represent blacks and women represent women? A contingent "yes". *The Journal of politics*, 61(3), 628–657.
- Mariani, M., Marshall, B. W., & Mathews-Schultz, A. L. (2015). See Hillary Clinton, Nancy Pelosi, and Sarah Palin run? Party, ideology, and the influence of female role models on young women. *Political Research Quarterly*, 68(4), 716–731.
- Mitchell, G. L. (2018). *The politics of blackness: Racial identity and political behavior in contemporary Brazil*. Cambridge University Press.
- Niven, D. (2006). Throwing your hat out of the ring: Negative recruitment and the gender imbalance in state legislative candidacy. *Politics & Gender*, 2(4), 473–489.
- Norris, P., & Lovenduski, J. (1995). *Political recruitment: Gender, race and class in the British Parliament*. Cambridge University Press.
- Ocampo, A. X., & Ray, J. (2019). Many are called but few are chosen: The emergence of Latino congressional candidates. *Politics, groups, and identities*.
- Orosio, R. G. (2021). *A desigualdade racial no brasil nas três últimas décadas*. Texto para Discussão: Technical report.
- Pantoja, A. D., & Segura, G. M. (2003). Does ethnicity matter? Descriptive representation in legislatures and political alienation among Latinos. *Social Science Quarterly*, 84(2), 441–460.
- PNAD, I. (2021). *Pesquisa nacional por amostra de domicílios contínua*. IBGE.
- Pruysers, S., & Blais, J. (2019). Narcissistic women and cash-strapped men: Who can be encouraged to consider running for political office, and who should do the encouraging? *Political Research Quarterly*, 72(1), 229–242.
- Rocha, R. R., Tolbert, C. J., Bowen, D. C., & Clark, C. J. (2010). Race and turnout: Does descriptive representation in state legislatures increase minority voting? *Political Research Quarterly*, 63(4), 890–907.
- Sacchet, T. (2018). Why gender quotas don't work in Brazil? The role of the electoral system and political finance. *Colombia International*, 95, 25–54.
- Samuels, D. J. (1998). *Careerism and its consequences: Federalism, elections, and policymaking in Brazil*. University of California.
- Sanbonmatsu, K. (2005). State elections: Where do women run? where do women win? In *Gender and elections: Shaping the future of American Politics*, pp. 189–214. Cambridge University Press.
- Sanbonmatsu, K. (2006). Do parties know that "women win"? party leader beliefs about women's electoral chances. *Politics & Gender*, 2(4), 431–450.
- Seltzer, R. A., Newman, J., & Leighton, M. (1997). Sex as a political variable: Women as candidates and voters in US elections. Lynne Rienner Publishers.
- Shah, P. (2014). It takes a black candidate: A supply-side theory of minority representation. *Political Research Quarterly*, 67(2), 266–279.
- Tate, K. (2018). *Black faces in the mirror: African Americans and their representatives in the US Congress*. Princeton University Press.
- Thomsen, D. M., & Swers, M. L. (2017). Which women can run? Gender, partisanship, and candidate donor networks. *Political Research Quarterly*, 70(2), 449–463.
- Tribunal Superior Eleitoral. (2020). Calendário eleitoral.
- Tribunal Superior Eleitoral (2023). Calendário eleitoral.
- Trounstine, J. (2009). All politics is local: The reemergence of the study of city politics. *Perspectives on Politics*, 7(3), 611–618.
- Wängnerud, L. (2009). Women in parliaments: Descriptive and substantive representation. *Annual Review of Political Science*, 12, 51–69.
- Whitby, K. J. (2007). The effect of black descriptive representation on black electoral turnout in the 2004 elections. *Social Science Quarterly*, 88(4), 1010–1023.
- White, A., Shah, P., Juenke, E. G., & Fraga, B. L. (2022). Evaluating the minority candidate penalty with a regression discontinuity approach. Technical report, Working paper. <https://arwhite.mit.edu/sites/default/files/images>
- Wolak, J. (2020). Descriptive representation and the political engagement of women. *Politics & Gender*, 16(2), 339–362.

- Wolbrecht, C., & Campbell, D. E. (2007). Leading by example: Female members of parliament as political role models. *American Journal of Political Science*, 51(4), 921–939.
- Wylie, K. (2020). Taking bread off the table: race, gender, resources and political ambition in Brazil. *European Journal of Politics and Gender*, 3(1), 121–142.
- Wylie, K. N. (2018). *Party institutionalization and women's representation in Democratic Brazil*. Cambridge University Press.

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