Race and the politics of close elections☆

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Abstract
Elections between black and white candidates tend to involve close margins and high turnout. Using a novel dataset of municipal vote returns during the rise of black mayors in U.S. cities, this paper establishes new facts about turnout and competition in close interracial elections. In the South, but not the North, close black victories were more likely than close black losses, involved higher turnout than close black losses, and were more likely than close black losses to be followed by subsequent black victories. These results are consistent with a model in which the historical exclusion of Southern blacks from politics made them disproportionately sensitive to mobilization efforts by political elites, leading to a black candidate advantage in close elections.

1. Introduction
Following the Civil Rights Movement, African–American leaders vaulted into political office across the United States as never before. The number of black elected officials in local, state, and federal government rose more than six-fold from 1970 to 2000 (JCPES, 2000). Perhaps nowhere was this trend stark than in American cities, where mayors’ offices, long under white rule, entered an era of black electoral dominance. Fig. 1 exhibits the rise of black mayors in cities with 1960 populations greater than 50,000. As of 1960, no U.S. city had ever experienced a black mayor, but of the 100 most populous cities in that year, 46 would elect African–Americans by the year 2010. Interracial elections during this transition were heated, typically involving high turnout and close margins. This paper studies the properties of close interracial contests to shed light on the electoral politics facilitating the rise of black mayors.

The focus on close elections follows a recent trend in the political economy literature, in part motivated by an interest in implementing regression discontinuity (RD) designs and assessing their validity (Eggers et al., 2013). But just as important, economists and political scientists increasingly view close elections as laboratories that can illuminate broader electoral forces. Democratic principles stipulate that no candidate has a systematic advantage in close elections (Dahl, 1970). If candidates of a certain type exhibit such an advantage, then one can infer a role for differential resources in the determination of close election outcomes. For instance, differential resources appear to play a role in close U.S. congressional elections, where winners tend to be incumbent, better-connected, and better-financed (Snyder, 2005; Caughey and Sekhon, 2011; Grimmer et al., 2011). This finding is consistent with theories in which politically or economically advantaged candidates have disproportionate control over the outcomes of close elections, through either legal or illegal means.

But the close-election advantage need not befall the candidate with a connection to conventional sources of power. In the context under study in this paper, although white mayoral candidates enjoyed greater financial resources and power, black candidates had their own asset: a large unregistered, unincorporated electorate. This hitherto untapped group of eligible voters makes interracial elections a particularly interesting context to study the distribution of votes in close elections. A detailed analysis of the close-election advantage can shed light on arguments regarding the roles of financing, voter suppression, and voter mobilization during the rise of black mayors.

Nowhere is this truer than in the South, where African–Americans were excluded from political life for much of the previous century.1 Until the mid-twentieth century, poll taxes, literacy tests, and white supremacist organizations kept African–Americans from the ballot box.

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1 Throughout the paper, I use the terms “Non-South” and “North” interchangeably. I use the U.S. Census Bureau’s definition of the South. The main results of the paper also hold for alternative regional definitions.
Following the extension of the franchise during the Civil Rights Era, efforts to increase black voter registration and turnout were crucial to black electoral success in the South (Campbell and Feagin, 1984; Rosenstone and Hansen, 1993). Many whites were already accustomed to voting, whereas the South had a large, untapped pool of potential black voters. Voter mobilization also took place in the North, but black turnout did not depend as heavily on it. The low cost of raising black turnout in the South had much potential to systematically swing the outcomes of close elections. Because white voters voted for white candidates and black voters voted for black candidates, a citizen’s (observable) turnout decision strongly predicted her (unobservable) ballot choice inside the voting booth. This observability made voting verifiable and thus made “manipulation” of the black vote share through strategic mobilization efforts more feasible.

Thus, the close-election advantage was ambiguous during the rise of the nation’s black mayors. On the one hand, white candidates had more financial resources and more ties to traditional sources of power, especially in the South. On the other, black candidates may have faced lower mobilization costs, again especially in the South. In this paper, I study non-randomness in the outcomes of competitive interracial elections using a new dataset consisting of the name, race, party affiliation, and vote return of each of the top-two candidates in over 1,000 U.S. mayoral elections. No existing data source contains this information for the sample frame of interest, which includes all elections during 1965–2010 in cities with a 1960 population of at least 50,000 and a 1960 black population share of at least 4%. As a result, I compiled the data from a variety of historical sources.

I use these data to document several facts about interracial elections. As motivation, I first show that high turnout and closeness are important features of racial politics; in a specification with city and year fixed effects, a black candidate raises the number of votes cast and reduces the vote margin of victory.2 After establishing these facts, I continue with the main empirical exercise, which estimates discontinuities in the density of the black vote margin of victory as well as several other outcomes. The results indicate that in the South, black candidates were disproportionately likely to win close elections. These close black victories involved higher voter turnout than the closest observed black losses, and they were over 70 percentage points more likely to be followed by black victory in subsequent elections. Non-Southern cities exhibited none of these patterns. The results for the South are themselves statistically significant, while most but not all of the North–South differences are significant. These regional differences do not appear to be driven by regional differences in party politics. Data from neither region show evidence of sorting in close mayoral elections between a white Democrat and a white Republican. Furthermore, if either region has a political party incumbency advantage in white-vs.-white contests, it is the North, not the South.

At face value, the results present a puzzle because the historical record reveals little evidence of fraud or post-election lawsuits that systematically favored black candidates. But in the discussion of the results, I outline a simple game of electoral competition that is consistent with the results. In the game, citizens always prefer their own race candidate but vary in their propensities to vote. Both white and black political campaigns can mobilize voters to increase turnout, but they have access to different voter mobilization technologies. If black campaigns have a larger capacity to mobilize voters, then black candidates will win a disproportionate share of close elections, and—under the most likely class of distributional assumptions—close black victories will involve higher turnout than the closest black losses. This game also suggests several mechanisms through which mobilization asymmetries may increase the persistence of black victories, whereby a single victory precedes an era of black representation. Not all of these mechanisms involve the effects of incumbency; some persistence arises simply because candidates who push past a voter mobilization threshold to win have superior time-invariant characteristics. Thus, the mechanisms can explain why regression discontinuity estimates of the racial incumbency advantage are largest in elections that exhibit the strongest evidence of sorting around the victory threshold. Importantly, the game depends not on the level of electoral participation by a racial group but rather on its sensitivity to the actions of political elites.

The paper adds to the literature on how threshold rules can induce endogenous sorting among agents.3 As a consequence, the results serve as a caveat to the many RD analyses of elections that use reasonably large bandwidths or rough global polynomial approximations of the conditional expectation function (e.g., Lee, 2008; Ferreira and Gyourko, Urquiola and Verhoogen (2009).

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2 As discussed below, the turnout response to black candidates has been documented by Washington (2006) for U.S. congressional elections and by Lublin and Tate (1995) for a smaller sample of mayoral elections.

3 For non-political applications, see Bayer et al. (2007), Bubb and Kaufman (2009), and Urquiola and Verhoogen (2009).
porters, rather than converting members of the opposition.4 Non-
attention to the electoral strategy of increasing turnout among sup-
dates, voter mobilization may be a key margin for political competition.

In electoral contexts perhaps because the legacy of black political exclusion gave rise to an
electorate highly responsive to mobilization efforts. In electoral contexts
2. Interracial elections dataset

To study elections between black and white mayoral candidates, I
collected data on the name, race, party affiliation, and vote return of
each of the top-two candidates in urban mayoral elections between
1965 and 2010. The sample universe includes all elections during this
period in cities with 1960 populations that were at least 50,000 and 4
percent black. A considerable portion of the data on candidate names,
party affiliations, and votes (but not race) comes from Ferreira and
Gyourko (2009), who mailed a survey to the election office of every
U.S. city with a population greater than 25,000 that directly elects its
mayor. However, their survey had some notable non-respondents, in-
cluding Chicago, Cleveland, New Orleans, and Washington, DC, all of
which have had prominent interracial mayoral elections. Apart from
the non-respondents, many other cities returned incomplete election
histories in their survey responses. Therefore, I supplement Ferreira
and Gyourko’s survey data with additional election returns from a
wide array of sources, including newspaper archives, elections bureaus,
and websites.6

After collecting the basic election returns, I sought to identify each
candidate’s race. Because this research concerns itself with voting pat-
terns, I focus on the reporting of candidates’ races by the newsmedia
and advocacy organizations. The candidate race data come from a vari-
ety of sources, primarily the National Roster of Black Elected Officials,
newspaper archives, and government and political websites. In many
cases, photographs of the candidates were available, but photographs
were rarely the sole information source on race.

Table 1 presents summary statistics for the 87 cities with elections in
the interracial elections sample (column [4]) and compares them with
summary statistics for several larger samples. Column (1) includes all
cities with 1960 population greater than 50,000; column (2) restricts to
cities above the minimum black population share for inclusion in the
elections sample; column (3) considers all cities with vote count and
candidate race data (including cities without interracial elections). Cities in
the samples tend to have larger populations than those in the
sample frame, a result that is likely linked to the greater online availability
of elections information for larger cities. Additionally, compared to the
sample frame, both the overall elections sample and the interracial elections
sample have greater mean black population shares and larger fractions
with mayor–council government.7 Cities in the interracial elections

4 On electoral competition among groups with common preferences, see Uhlauer
(1989); Morton (1991); Shachar and Nalebuff (1999); Cox (2009); and Gans-Morse
et al. (2009).
5 The top-two candidates need not be a Democrat and a Republican. Many municipal
elections are non-partisan.
6 The main online source was OurCampaigns.com, which allows users to post election
results for a many jurisdictions. Most posts provide detailed newspaper or election bureau
 citations. I verified a random subset of the citations by checking the sources cited and nev-
er encountered an error. I only use election returns that are properly cited on the website.
7 Data on city demographic and economic characteristics are from the City Data Books
(U.S. Census Bureau). Data on municipal institutions and county voting in the 1960 pres-
idential election (not reported in Table 1 but used as a covariate in later tables) are from
the Governmental Units Analysis Dataset (Aiken and Alford, 1998).
sample averaged three interracial elections and five black candidates during 1965–2010. 70% experienced a black mayor by the year 2010, and 92% experienced a failed black candidacy.

3. Turnout and closeness in interracial elections

To motivate the main empirical exercise, which focuses on close interracial elections, this section aims to set out basic facts about how the presence of opposite race candidates affects turnout and closeness in mayoral elections. An existing literature in economics and political science suggests that turnout soars during interracial elections. Washington (2006) estimates that both white and black turnout increase by 2–3 percentage points in Congressional elections with black candidates; Lublin and Tate (1995) find similar evidence in a small sample of mayoral elections. The rise in turnout may result from an increase in voter interest when candidates differ in race, and this increased interest may in turn make elections more competitive.

Table 2 uses a difference-in-difference specification to examine how voter turnout and the margin of victory change during black-vs.-white matchups:

\[
\text{outcome}_{ct} = \alpha \cdot \text{inter racial}_{ct} + \tau_t + \mu_c + u_{ct},
\]

where \( \text{outcome}_{ct} \) is either the turnout rate or the margin of victory (measured in levels or logs), and \( \text{inter racial}_{ct} \) is an indicator for an interracial election. In the specification, \( c \) indexes city, and \( t \) indexes year, so that \( \tau_t \) and \( \mu_c \) are year and city fixed effects, respectively. Standard errors are clustered at the city level. The turnout rate is defined as the sum of the top-two candidates’ vote receipts divided by the city’s voting-age population (linearly interpolated between census years). The margin of victory is defined as the absolute value of the difference of the top-two candidates vote receipts, divided by their sum.

Turnout and closeness increase in interracial elections. In both the North and the South, black-vs.-white matchups raise turnout by roughly 2 percentage points (column [1]), representing an 8 percent change (column [3]). The point estimates are larger in the South, but the regional difference is not statistically significant. An examination of voter turnout by race would be interesting, but data by race are not available.\(^8\)

Table 2 also shows that the margin of victory decreases by 3.8 points (column [2]) during black-vs.-white matchups, representing a 25 percent change (column [4]). Again, the magnitude of the effect is larger in the South, but the regional difference is insignificant. Regardless of this imprecisely estimated regional difference, at a broad level, the results suggest that interracial elections draw more voters and lead to closer margins than one would predict without information on the racial identities of the candidates.

4. Discontinuities in interracial elections

Interracial elections tend to be close, high-turnout affairs, but the relative performance of black and white candidates in these contests remains unstudied. This section assesses the extent of non-randomness in the outcomes of close interracial elections by analyzing how several variables change discontinuously at the vote threshold for black victory. I first focus on discontinuities in contemporaneous election outcomes, which violate standard assumptions for RD designs based on vote shares. I then estimate discontinuities in future outcomes, as is commonplace in RD analyses, and consider the relation of these ex post discontinuities to the ex ante discontinuities in the first part of the section.

\(\text{y}_{ct} = \beta 1[m_{ct} > 0] + f(m_{ct}) + \nu_{ct}\)

where \( m_{ct} \) is the black vote margin and \( f(\cdot) \) is a flexible function of the black vote margin (approximated using local linear regression). The variable \( y_{ct} \) is either an outcome (current turnout, future turnout, the probability of future black victory) or the density of the running variable. The coefficient \( \beta \) represents the discontinuous change in the conditional expectation of \( y_{ct} \) when the black vote margin crosses zero.

A primary issue in implementing local linear methods is the appropriate choice of bandwidth. McCrary’s (2008) bandwidth selection procedure for density discontinuity estimation and Imbens and McCrary’s (2008) local linear density estimator for RD settings is an application of methods developed by Cheng et al. (1997).

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\(^8\) In congressional elections, Washington (2006) finds that black candidates raise black and white turnout by similar proportions, which advantages the white candidate because of whites have a larger population share.
Kalyanaraman’s (2012) bandwidth selection procedure for regression discontinuity estimation suggest bandwidths in the range 0.14–0.22. For consistency, I use a single bandwidth of 0.15 for all my main results.\textsuperscript{10} In a two-candidate election, this bandwidth allows the voter to receive up to 57.5% of the vote. This range may seem large for the application, but it is necessary for the analyses of turnout and the persistence of black victory because the Southern sample has few close black losses. Online Appendix Section A2 (and associated Fig. A1) assesses the robustness of the results to alternative bandwidths, finding that the results below are reasonably robust to bandwidth perturbations.

For the local linear regression analyses, standard errors are clustered at the city-decade level.\textsuperscript{11} The density discontinuity standard errors are not clustered because analytic formulas for clustered standard errors do not exist; unreported bootstrap results suggest that the standard errors are not biased downward.\textsuperscript{12} To mitigate small-sample bias in inference, I test hypotheses using critical values from a r-distribution with degrees of freedom set to the number of clusters minus two (Cameron et al., 2008).\textsuperscript{13} I present specifications with and without pre-election covariates, including the lagged dependent variable. Other than the lagged dependent variable, the pre-election covariates are log population, log median household income, the shares of the population that are black, under 18, or over 65, and the vote share for Kennedy in the 1960 presidential election. Online Appendix Figs. A2 and A3 display regression discontinuity plots for these baseline variables in the South and Non-South, respectively.

I supplement the numerical estimates with graphical analyses to allow the reader to assess the behavior of the conditional expectation function beyond the immediate vicinity of the victory threshold. For these analyses, I use the Epanechnikov kernel and a bandwidth of 0.1 to enhance visual smoothness while allowing for greater flexibility in the regression function estimator. The bandwidth in the graphs is smaller than that in the reported regression results, so the estimates in the graphs have higher variances. To ease visual interpretation, I plot the estimated regression function and a scatter plot of local means, without the associated confidence interval. For statistical inference, readers should consult the standard errors in the tables.

### 4.2. Discontinuities in the vote margin density

Table 3 estimates discontinuities in both the level and the logarithm of the density function. The levels specification is preferred because it behaves better over intervals with zero density, but I include the log specification for comparison with the existing literature. Both estimators show statistically significant density discontinuities in the South. The absolute magnitude is 2.4 (column [1]), representing two-fold increase (column [2]). In comparison, both estimators give small and statistically insignificant discontinuities outside the South. Simply put, narrow black losses were extremely rare in the South but not the North. The regional difference in the point estimates is only marginally significant—at the 15 percent level for the levels estimate and at the 10 percent level for the logs estimate. Nonetheless, the size and significance of the Southern estimates indicate a noteworthy phenomenon in the South.

To visualize these discontinuities, Fig. 2 displays nonparametric density estimates of the black vote margin, allowing for a discontinuity at zero. As Table 3 implies, the Southern data exhibit a stark drop in the density just below zero, in contrast to the steep increase in the density as the vote margin approaches zero from above. The Northern data, while still showing a moderate increase in the density at zero, are nowhere near as stark.

A discontinuity in the black vote margin of victory is surprising in a democratic setting with a secret ballot. The fact that it favors African–Americans in the South makes the discontinuity even more unexpected, given the historical disempowerment of Southern blacks. In light of the moderately large bandwidth, the observed sorting around the black victory threshold in the South could be the result of either \textit{ex ante} or \textit{ex post} manipulation of the black vote share.

### 4.3. Discontinuities in turnout

Patterns in voter turnout can shed some light on whether \textit{ex ante} or \textit{ex post} actions lead to the sorting of black and white candidates in close elections. If the density discontinuity is due to recounts or lawsuits, then the voter turnout rate should not differ substantially between close black victories and close black losses; these \textit{ex post} actions primarily manipulate the distribution of a given number of votes. On the other hand, if \textit{ex ante} black voter mobilization efforts play a role in the density discontinuity, then voter turnout will likely be higher in close black victories than in close black losses. Specific forms of electoral fraud— for example, ballot stuffing and caging (voter suppression)—may also lead to a discontinuity in turnout. But given the South’s history of institutionalized discrimination against African–Americans, one would expect these tactics to favor white candidates rather than black. In that case, white candidates would win a disproportionate share of close elections, and close black losses would involve higher turnout than close black victories.

Table 4 reports discontinuities in voter turnout. In light of the regional differences in the vote margin density, the table reports results separately for the South and Non-South. Additionally, to give a sense of the dynamics of voter turnout before, during, and after a close election, the table reports discontinuities in past, current, and future turnout. Under standard RD assumptions, past and current voter turnout should be continuous at the black victory threshold. For comparability, the table focuses on a balanced panel (i.e., observations with turnout data...
for the previous, current, and next elections), but the results are similar for alternative samples. For each region, the top line reports discontinuities estimated exactly as in Eq. (1). For current and future turnout, the second line controls for the lagged turnout rate, and the third line adds a vector of pre-election control variables (listed in the notes to the table).

The results from the South show evidence of a discontinuity in contemporaneous turnout (column [2]), such that turnout is higher in close black victories than in close black losses. Without controlling for any covariates, the discontinuity is 21 percentage points, but the standard error is large, leading to a t-statistic of 1.5. With the addition of lagged turnout and other covariates, the standard error shrinks, and the discontinuity becomes statistically significant at conventional levels. Because the result is robust to controlling for the lag, the discontinuity in contemporaneous turnout is not attributable to fixed differences in turnout across cities. Furthermore, turnout remains discontinuously higher in next election; following a close black victory, turnout is 25–31 percentage points higher than following a close black loss. In the South, close black victories are associated with persistent surges in turnout. In the Northern data, no discontinuities are evident for past, current, or future voter turnout. The North–South differences for current and future turnout discontinuities are statistically significant, at least in specifications controlling for lagged turnout or other covariates.

Fig. 3 shows the discontinuity in contemporaneous turnout graphically. The figure shows locally smoothed regressions as well as local means for vote margin bins of width 0.1. The local means are plotted as circles, with the size of the circle proportional to the number of observations in the bin. Because the voter turnout data are noisy, and because turnout rates are persistent (with a serial correlation of 0.7), the figure uses residuals from a regression of current turnout on lagged turnout. As such, the figure corresponds to the “Controls for turnout, $t − 1$” estimates in column (2) of Table 4. Consistent with those results, the figure shows a positive discontinuity in the South but not the North. One other noteworthy pattern in Fig. 3 is the correlation between (ex post) closeness and turnout, both inside and outside the South. A body of research in economics and political science (e.g., Cox and Munger, 1989; Shachar and Nalebuff, 1999) has documented this relationship in a wide range of electoral settings.

4.4. Discontinuities in the probability of black victory

The persistence of the turnout discontinuity in the South suggests that black prospects in future elections may rise following a pivotal victory. This result would have key implications for estimation of the incumbency advantage using RD methods. Lee (2008) and Ferreira and Gyourko (2009), among others, use an RD design based on vote shares to estimate the political party incumbency advantage in the U.S. house and in U.S. cities, respectively. In principle, one could use a similar approach to estimate the racial incumbency advantage in the current dataset, but the sorting of black and white candidates around the victory threshold threatens a causal interpretation. A discontinuity in the probability of a future black victory would indicate that close black victories are persistent, but not necessarily that they cause a black advantage in future elections.

Table 5 estimates this discontinuity for the South and the Non-South. The setup follows that of Table 4, with estimates for lagged black victory in column (1) and for future black victory in column (2). (The discontinuity in the probability of current black victory is 1 by construction.) Whether or not the regression controls for lagged black victory and other pre-election covariates, the Southern discontinuity in future black victory is statistically significant and close to 1. At the same time, the discontinuity in the probability of lagged black victory in the South is insignificantly negative. This result suggests a substantial change in a city’s politics around the time of a close black victory. The extent to which this represents the causal effect of an African–American ascending to the mayor’s office is unclear.

Data from outside the South reveal no large discontinuities in the probability of past or future black victory. As in previous tables, column (1) shows zero sorting on pre-election outcomes. And in column (2), the estimated discontinuities in the likelihood of future black victory are positive but small: all less than 0.1 and smaller than their standard errors. The North–South differences in future discontinuities are highly statistically significant.

Fig. 4 shows this result visually. Panel A indicates that black electoral success is strongly persistent in Southern cities. After a black loss by a margin of 10% or less, a city has zero probability of electing a black mayor in the next election; after a black victory by a margin of 10% or less, the probability of electing a black mayor in the next election rises to well over 60%.14 This is not true outside the South (Panel B), where the data show only a minor jump in the future prospects of black candidates.

14 The discontinuity implied by Panel A of Fig. 4 is smaller than the quantities reported in Table 5, presumably because the local linear regression with a uniform kernel estimates a steeper negative slope over the interval from $−0.15$ to 0. Even so, the graph provides clear evidence of a discontinuity.
4.5. Are the discontinuities driven by race or party?

The preceding results suggest regional differences in racial politics, but they also allow another explanation. More than three-quarters of black candidates were Democrats, so perhaps the results reflect regional differences in party politics. To assess this alternative explanation, Table 6 examines elections between white Democrats and white Republicans, now using the Democratic vote margin of victory as the running variable. It is not clear whether the analysis sample should include all such elections or only those in cities that have ever had an interracial election, so the table includes results for both samples.

If party politics account for the main results, then one would expect to find large discontinuities in the vote margin density, turnout, and the probability of future democratic victory in the South but not the North. Table 6's results, which are similar for all cities and for cities that have ever had interracial elections, are at odds with these predictions. The Southern data do show a moderate jump in contemporary voter turnout, approaching statistical significance (column [2]), but the region's discontinuities in the density of the Democratic vote margin and the probability of future Democratic victory are small and insignificant. Therefore, the South exhibits no political party incumbency advantage. In contrast, the non-South shows a political party incumbency advantage (of 30 percentage points) but no discontinuities in density or turnout. Taken together, the results in Table 6 are sufficiently distinct to suggest that the main results are driven by race, not party.

Apart from the possibility of confounding party and race, another ambiguity arises in the results over whether region is a proxy for demographic composition. Southern cities in the sample have larger black population shares than Non-Southern cities. As a result, the North–South differences may be driven by political differences between cities with large and small black populations, rather than by a regional effect per se. Due to sample size constraints, subsample analyses of cities with large black population shares yield extremely imprecise results, so I do not report them here. However, results for cities with black population shares of at least 40 percent in the last population census are qualitatively similar to the main paper’s findings, with large, positive discontinuities in the vote margin density, turnout, and black election prospects in the South but not the North.15

5. Discussion

The analyses in Section 4 lay out several stark facts. In the South, close black victories were more likely than close black losses, involved higher turnout than close black losses, and were more likely than close black losses to be followed by high-turnout elections and black victories. Data from cities outside the South display none of these patterns.

Because black candidates won a disproportionate number of close elections in the South, black political mobilization is likely to feature prominently in any relevant model. If coordinated political action by whites were important, then white candidates would win most close elections. In this regard, two features of the electoral environment are key: the fixed nature of voters’ preferences over candidates and the observability of the turnout decision. These features made voter organization by political elites more feasible. Elites could verify citizens’ turnout decisions and could predict their voting decisions once inside the voting booth. In categorizing the strategies of electoral competition, Cox (2009) defines persuasion, which seeks to influence voters’ preferences over candidates; mobilization, which seeks to affect whether citizens vote; and coordination, which sets the number and identities of candidates. Persuasion has received the most attention in models of electoral competition, but it was not the most important strategy in black mayoral campaigns.

Rather, historians and political scientists contend that voter mobilization by black political elites played an important role in black mayoral victories, as in other realms of racial politics. Voter registration and canvassing efforts were an integral part of successful black campaigns. So too were calls to a collective black consciousness. In a well-known book, Verba et al. (1978) argue: “It does not require any explicit group-based process of mobilization for upper-status citizens to take a disproportionate role in political life... Lower-status groups, in contrast, need a group-based process of political mobilization if they are to catch up to upper-status groups in terms of political activity” (p. 14). Supporting this point of view, Verba and Nie (1972) Murray and Vedlitz (1977), Rosenstone and Hansen (1993), and Leighly (2001) describe the remarkable black political mobilization that took place in the United States during and after the Civil Rights Movement.16 In a potential challenge to the role of black mobilization in explaining my results, Rosenstone and Hansen note that black mobilization and turnout began to dissipate in presidential elections starting in the 1970s, after the Civil Rights Movement. However, they argue that this decline was in part due to the shifting focus of black political elites to local elections and primaries with black candidates. Their historical analysis is entirely consistent with black voter mobilization in mayoral elections.17

Although these efforts took place to some degree in Northern cities, they were especially important and intense in the South. The two

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15 An examination of majority black cities was not possible because sample sizes became too small. In the subsamples with greater than 40% black population shares, Northern and Southern cities had similar average black population shares: 52 and 54%, respectively.

16 Also see Nelson and Meranto’s (1977) case studies of political mobilization by black mayoral candidates in three Midwestern cities.

17 In fact, although whites are substantially more likely than blacks to participate in presidential elections, the same proportions of whites and blacks reported “always” participating in local elections (Leighly, 2001, using data from the 1996 Current Population Survey).
In the twenty years starting in 1952, the black reported registration rate in the South rose from one quarter of the white registration rate to parity. Blacks in the Non-South also saw a slight relative increase in reported voter registration, but this was nowhere near the magnitude of the racial convergence in the South.

Based on this regional difference in the importance of voter mobilization, Section 5.1 demonstrates how a simple game of electoral competition with voter mobilization can explain the paper’s main findings. Section 5.2 then summarizes alternative explanations for the sorting of Southern candidates in close interracial elections, arguing that none of these alternatives fit the data as successfully as the mobilization game.

5.1. A voter mobilization game

In the game, the environment consists of two competing groups, \( i \in \{b, w\} \), each of which fields one candidate. Citizens always prefer their own-group candidate but vary in their propensities to vote. Each candidate is endowed with a quality \( \theta_i \), drawn from a continuous (group-specific) distribution. \( \theta_i \) is the fraction of group \( i \) citizens that turn out to vote for the candidate in the absence of mobilization efforts. The baseline margin of support for black candidates is therefore \( \lambda_w \theta_b - \lambda_b \theta_w \), where \( \lambda_i \) is the population share of group \( i \). Candidates have access to a group-specific mobilization technology \( \Delta_i \), which increases the group \( i \) turnout rate by \( \Delta_i(c(\theta_i)) \) at cost \( c_i \geq 0 \). \( \Delta_i \) increases with spending \( c_i \) (at a decreasing rate) and decreases with baseline turnout \( \theta_i \), reflecting the impossibility of raising turnout over 1. Therefore, \( \Delta_i(0, \theta_i) = 0 \) for all \( \theta_i \), \( \Delta_i(c(\theta_i)) < (0,1-\theta_i) \) for all \( c_i > 0 \). In practice, local elections have low enough turnout that the upper bound on turnout is not empirically relevant. In the interracial elections dataset, median turnout is 0.27, the 90th percentile is 0.45, and the maximum is 0.7. Nevertheless, I include baseline turnout in the mobilization technology for completeness.

In the lead-up to the election, candidates alternate in (irreversibly) increasing \( c_i \) in multiples of \( \epsilon \), the smallest unit of money, until neither wishes to make further changes. Both the sequential bidding process and the discreteness of expenditures follow the vote-buying model of Dekel et al. (2008). The discreteness is necessary for the existence of an equilibrium, while the sequential formulation guarantees that players use pure strategies. When no candidate wishes to make further changes, the election takes place, and the winner receives benefit \( \alpha \) from a term in office. Note that no candidate will invest more than \( \alpha \) in voter mobilization; higher investment always results in negative payoffs. Group \( i \)’s mobilization capacity is therefore \( M_i = \Delta_i(\epsilon \frac{\theta_i}{C_i}, \theta_i) \), where \( x \) is the largest integer that is weakly smaller than \( x \).

The subgame perfect equilibrium to this game depends on the difference between \( M_w \) and \( M_b \). If \( M_b > \frac{\alpha}{\epsilon} M_w \), then black candidates hold an absolute mobilization advantage. This condition is consistent with the idea that the historical exclusion of African-Americans from the political process makes them considerably more sensitive to mobilization efforts than whites (Verba and Nie, 1972; Nelson and Meranto, 1977; Verba et al., 1978). The equilibrium under this condition is determined by the baseline black margin of support, \( \lambda_w \theta_b - \lambda_b \theta_w \). If this margin is less than \( \lambda_w M_w - \lambda_b M_b \), neither candidate invests in mobilization, and the white candidate wins. The white candidate holds the baseline advantage and can always outmobilize the black candidate while still receiving positive payoffs. At every stage of bidding, the white candidate’s strategy is to mobilize just enough voters as is necessary to win, and so the black candidate finds it optimal not to invest in mobilization at all. The equilibrium strategies are analogous when the baseline margin of support for the black candidate is greater than zero; the black candidate holds the baseline advantage and can always outmobilize the white candidate while still receiving positive payoffs. When the baseline margin is between \( \lambda_w M_w - \lambda_b M_b \) and zero, the white candidate holds the baseline turnout advantage but cannot outmobilize her opponent. The black candidate invests to raise her group’s turnout by just enough to win, and no further bidding occurs.

### Notes

1. Panel A and B of Fig. 6 are not directly comparable because the ANES definition of the U.S. South includes more than the former Confederate states.
discrete increase in voter turnout when the black vote margin crosses Munger, 1989; Shachar and Nalebuff, 1999), mobilization leads to a line closeness of an election, as is widely thought to be true (Cox and black victories involve mobilized electorates, whereas the closest black hold an absolute mobilization advantage. First, as backwards induction, neither side will mount a costly mobilization outmobilize her opponent while still expecting positive net payoffs. By candidate holds the baseline turnout advantage, she can always tage (Table 5 Discontinuities in the probability of past and future black victory.

<table>
<thead>
<tr>
<th></th>
<th>Black victory, t − 1</th>
<th>Black victory, t + 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>South</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No covariates</td>
<td>−0.46</td>
<td>0.07</td>
</tr>
<tr>
<td>Controls for black victory, t − 1</td>
<td>[0.31]***</td>
<td>[0.21]**</td>
</tr>
<tr>
<td>Controls for all covariates</td>
<td>−</td>
<td>1.05</td>
</tr>
<tr>
<td></td>
<td>−</td>
<td>1.16</td>
</tr>
<tr>
<td></td>
<td>0.37**</td>
<td></td>
</tr>
<tr>
<td># of Elections within bandwidth</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td># of Cities within bandwidth</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Non-South</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No covariates</td>
<td>0.13</td>
<td>0.03</td>
</tr>
<tr>
<td>Controls for black victory, t − 1</td>
<td>[0.19]</td>
<td>[0.21] **</td>
</tr>
<tr>
<td>Controls for all covariates</td>
<td>−</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>−</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>0.19</td>
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<td># of elections within bandwidth</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td># of cities within bandwidth</td>
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<td>36</td>
</tr>
<tr>
<td>T-stats for South/non-South diffs</td>
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<td>3.17</td>
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<tr>
<td>No covariates</td>
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<td>3.01</td>
</tr>
<tr>
<td>Controls for turnout, t − 1</td>
<td>−</td>
<td>2.76</td>
</tr>
</tbody>
</table>

Notes: Results represent the discontinuous change in the dependent variable when the black vote margin of victory crosses zero. Each entry corresponds to a separate local linear regression with a uniform kernel and a bandwidth of 0.14. See Fig. 5 for bandwidth sensitivity checks. Parentheses contain standard errors clustered at the city-decade level. Time t − 1 refers to the last election, and time t + 1 to the next election. The covariates include log population, percent black, percent under age 18, percent age 65 or older, and log median family income in the last census; the share of the county vote going to Kennedy in 1960; and indicators for the decade of the election. To be included in the sample, observations needed to have data on all covariates, lagged black victory, and future black victory. Significance tests are based on a t-distribution with degrees of freedom set to the number of clusters minus two. 1 p < 0.1. 2 p < 0.05. 3 p < 0.01.

The subgame perfect equilibria for $M_b \leq M_w$ are straightforward extensions of this base-line case. A white absolute mobilization advantage ($M_b < M_w$) has the exact opposite predictions of a black advantage. If the baseline margin of black support is greater than $\lambda_b M_w − \lambda_w M_b$, the black candidate wins; otherwise, the white candidate wins.

When the two competing groups can mobilize equal numbers of voters to the polls ($\lambda_b M_b = \lambda_w M_w$), the game simplifies. Whenever a candidate holds the baseline turnout advantage, she can always outmobilize her opponent while still expecting positive net payoffs. By backwards induction, neither side will mount a costly mobilization campaign. Note that this framework focuses on specific costly mobilization activities such as registration campaigns, so the equilibrium behavior does not rule out campaigning altogether.

This simple static game has two main predictions if black candidates hold an absolute mobilization advantage. First, as $e$—the smallest amount of money—goes to zero, the density of the ex post black vote margin exhibits a positive discontinuity at zero. Second, the closest black victories involve mobilized electorates, whereas the closest black losses do not. If baseline turnout is positively correlated with the baseline closeness of an election, as is widely thought to be true (Cox and Munger, 1989; Shachar and Nalebuff, 1999), mobilization leads to a discrete increase in voter turnout when the black vote margin crosses zero.19 The game’s lack of uncertainty is vital to these predictions. In the presence of bounded uncertainty over the baseline margin of black support, the discontinuity predictions would no longer be as sharp, but the partitioning of the state space would be similar, as would the overall implications for relatively close black victories and losses. Given the necessarily large bandwidths in the empirical work, the assumption of certainty provides a useful, parsimonious approximation with testable implications. In simulations of a similar game of party competition with uncertainty, Grimmer et al. (2011) find sorting even in RD analyses with vote margin bandwidths of less than 5%.

The one-period setup precludes analysis of dynamic phenomena, but the data suggest that sorting may contribute to the persistence of close black victories. To gain insights into dynamics, one could easily include multiple elections, with candidates maximizing the discounted sum of expected benefits. In such a model, each election pits the incumbent mayor against a new opponent from the other group. The winner then goes on to experience a random popularity shock while in office, and the sequence repeats. This alternative setup leads to similar equilibrium behavior but also sheds light on the dynamic effects of mobilization asymmetries.

Three potential mechanisms are especially natural for describing black mayoral persistence in this setting. The first arises mechanically because candidate types sort around the victory threshold. Because black candidates with baseline margins of support over a range of negative values still win, black incumbents who barely won in the last election will be shielded from small to moderate negative popularity shocks.20 A second reason is the persistence of increases in voter registration (a stock). A third, due to Bobo and Gilliam (1990), is that a black leader’s victory raises African–Americans’ sense of political efficacy, leading to greater black political participation. Thus emerges a self-reinforcing, virtuous cycle, with victory leading to greater participation, which in turn enhances the chance of future victory. Given the unfamiliarity of Southern blacks to the process of voting, this hypothesis is especially well suited for describing racial politics in the South. The historical exclusion of African–Americans from the voting process in the South lies at the heart of all three theories. The persistence of close black victories may also result from white learning about the quality of black executives (Hajnal, 2001, 2006) or white flight (Glaeser and Shleifer, 2002), although these explanations are less related to the mobilization of black voters.

### 5.2. Case study: Birmingham and Memphis

Although the voter mobilization game offers some additional predictions, data limitations prevent further examination of the game’s predictions. Data on turnout by race are not available for most cities, and the small sample size makes a study of within-region heterogeneity impossible. To provide additional evidence in favor of the game, this section presents a brief case study of the experiences of two Southern cities, Birmingham and Memphis, in electing black mayors.21 These cities help illustrate the role of mobilization in Southern mayoral politics, and their geographic proximity and similar racial compositions allow meaningful comparisons. Fig. 6 reports results from decisive mayoral elections in the two cities between 1967 and 1999. Panel A plots the black vote margin of victory, set to 1 and −1, respectively, if the top-two candidates were both black or both white. The figure includes horizontal lines at 0.05, 0, and −0.05 to help readers assess each election’s closeness and ultimate outcome. Panel B graphs voter turnout as a proportion of the voting-age population.

Both Birmingham and Memphis began the 1970s without ever having had a major black candidate in a mayoral contest. In 1975, African–American Otis Higgs made a bid for the Memphis mayoralty that never stood a chance at victory, falling short by 16%. Four years later, Higgs

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19 Turnout increases discretely between the closest observed loss and victory if $E[\lambda_b M_b M_w + \lambda_w M_w M_b | \lambda_b M_b M_w - \lambda_w M_w M_b = 0] > E[\lambda_b M_w + \lambda_w M_b M_b | \lambda_b M_b M_w - \lambda_w M_w M_b = 0]$. This condition holds if baseline turnout is positively correlated with baseline closeness or if black turnout varies against fixed white turnout.

20 This is akin to a theory of machine politics, in which black victory establishes a black political machine.

21 The political history of Memphis draws heavily on Pohlmann and Kirby (1996) and Wright (1999); that of Birmingham draws on Casey (1979) and Arrington (2008).
This situation changed in 1991, when coordination and mobilization became top priorities for Memphis’s black political elite. To tone down infighting, black leaders organized the African–American People’s Convention, which selected W.W. Herenton as the consensus candidate for mayor. Herenton’s campaign then endeavored like no Memphis campaign before it to raise black registration and turnout. In a high-turnout election sharply divided on racial lines, Herenton received 95% of the black vote and 4% of the white vote, just enough to win by less than 1%. A surge in black turnout played a key role. Based on precinct-level returns, Wright (1999) estimates that in Otis Higgs’s unsuccessful 1979 run, black and white turnout stood at 42 and 58%, respectively. In 1991, both racial groups had turnout rates in the mid-60s. Following Herenton’s 1991 victory, Memphis municipal politics followed a path similar to Birmingham’s; subsequent black candidates won elections handily.

These histories highlight the importance of mobilization asymmetries in the election of black mayors in the South. White turnout surged in interracial elections with or without intense canvassing. On the other hand, black turnout in the South responded well to organized campaigns, which included registration drives, get-out-the-vote campaigns, and carpools to the polls, among other initiatives. Following a breakthrough black victory, the cost of mobilization decreased to allow an era of black electoral dominance.

5.3. Alternative explanations

Compared to other potential mechanisms, the mobilization game provides a compelling explanation for the results. The fact that candidates from a disadvantaged group held an advantage in close elections is evidence against alternative explanations.

This fact implies, for example, that electoral fraud is unlikely to account for the results; most theories of electoral fraud predict cheating by those who hold power. The history of the pre-Civil Rights South is rife with examples of electoral fraud at the expense of African-Americans, rather than in their favor (Kousser, 1974). A careful inspection of the data, news archives, and historical literature reveals no evidence of pro-black ballot manipulation; if fraud did occur, it would have likely continued to benefit whites. Indeed, Nelson and Meranto (1977) describe several instances in which black campaigns had to fight off white attempts at voter fraud in Northern cities like Cleveland, Gary, and East St. Louis. Most close elections in the South preceded local black political ascendance, so white political elites still controlled electoral institutions; of Southern elections decided by margins of less than 5%, three-quarters occurred before the city had experienced a black mayor. In spite of this barrier, black candidates still won a disproportionate share of close elections, and their close victories involved high turnout. If ballot stuffing took place, then white candidates would have probably won most close elections, and their victories would have been associated with an increase in votes. These patterns would have also arisen if ex ante strategic actions by white candidates were behind the sorting of candidates in close elections.

In a separate explanation for sorting in close elections, Caughey and Sekhon (2011) suggest that one candidate may have more experience in acquiring and interpreting information about voting intentions and real-time voting patterns on election day. Because close interracial elections tended to precede the consolidation of black political power in Southern cities, black candidates did not have an experience advantage. Even so, strong black community organization may have provided black candidates with precise turnout predictions, which may have indeed played a role in their close-election advantage. This form of informational

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See, e.g., Biles (1992), Browning et al. (1990), Colburn (2001), and Hajnal (2006). Additionally, the news sources listed in the Data Appendix showed no evidence of systematic fraud.
advantage can be seen as part of the mobilization advantage in the game of Section 5.1.

The preceding alternative explanations are either ex ante and legal or ex post and illegal. Ex post legal actions could also conceivably play a role. But the historical record does not suggest that black candidates were more likely than white candidates to request recounts (or mount lawsuits). Nor does it suggest that recounts (or lawsuits) systematically reversed election outcomes in favor of black candidates. Ex ante strategic behavior is therefore more likely to be responsible for the observed non-randomness in close election outcomes.

On a more technical note, Snyder et al. (2011) argue that the appearance of non-randomness can arise in close elections just because of the shape of the true vote margin density function. In the current context, if the black vote margin density were continuous and unimodal with its peak to the right of zero, then black candidates would win more than 50% of close elections. However, a close inspection of Fig. 2 refutes this explanation. The density is steeply downward-sloping below zero and steeply upward-sloping above. This pattern is inconsistent with the reasoning of Snyder et al.

6. Conclusions

Close interracial elections played a key role in the emergence of a black elite in municipal politics. This paper documents several unexpected properties of these contests, which have implications both for our understanding of racial politics and for the reliability of regression discontinuity designs based on vote shares. In the South, where African–Americans were new to political participation, close black victories were substantially more likely than close black losses, they involved higher turnout than close black losses, and they were more likely to be followed by subsequent black victories. None of these patterns were evident outside the South, where African–Americans, though historically persecuted, had access to the ballot and participated in political life at moderate levels. The Southern results are broadly consistent with a model of mobilization politics in which white candidates and black candidates have differing capacities to mobilize voters.

These findings provide insights into electoral politics and RD designs. On the one hand, they suggest an important role for turnout manipulation—here called “mobilization”—when the observable characteristics of voters strongly predict their choices once inside the voting booth. They also point to a distinct politics that arises when a group previously excluded from public life gains new rights; this distinct politics reverses the close election advantage that usually befalls candidates otherwise excluded from public life gains new rights; this distinct politics reverses the close election advantage that usually befalls candidates with greater economic resources and strong connections with political institutions (Snyder, 2005; Caughey and Sekhon, 2011; Grimmer et al., 2011).

On the other hand, the findings call attention to the possibility of endogenous sorting around the victory threshold in elections, especially if sample size limitations necessitate the use of large bandwidths for non-parametric RD estimation or the use of global polynomial approximations of the conditional expectation function. While the results present a challenge to RD designs based on vote shares, they by no means...
invalidate them as a rule. Rather, they send a basic message that detailed knowledge of the electoral context is an essential ingredient to careful analyses of election RD designs. Tests for discontinuities in the density of the running variable and other baseline covariates shed some light on the validity of the RD design, but the details of electoral competition provide a basis for theory, which motivates these tests and allows the researcher to judge whether their results make sense. This implication is not novel, but the results here serve as a useful reminder on the combined value of validity tests and institutional knowledge in the analysis of natural experiments.

Appendix A. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.jpubeco.2013.11.004.

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In fact, in an analysis of 40,000 elections across many countries, Eggers et al. (2013) find that the close-election advantage of the incumbent is unique to the U.S. House of Representatives.
U.S. Census Bureau. Various years. “County and City Data Book [United States]”. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.