Race and the politics of close elections ☆

CrossMark

Tom S. Vogl

Princeton University, United States

A B S T R A C T

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.

© 2013 Elsevier B.V. All rights reserved.

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 starker 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.

[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.
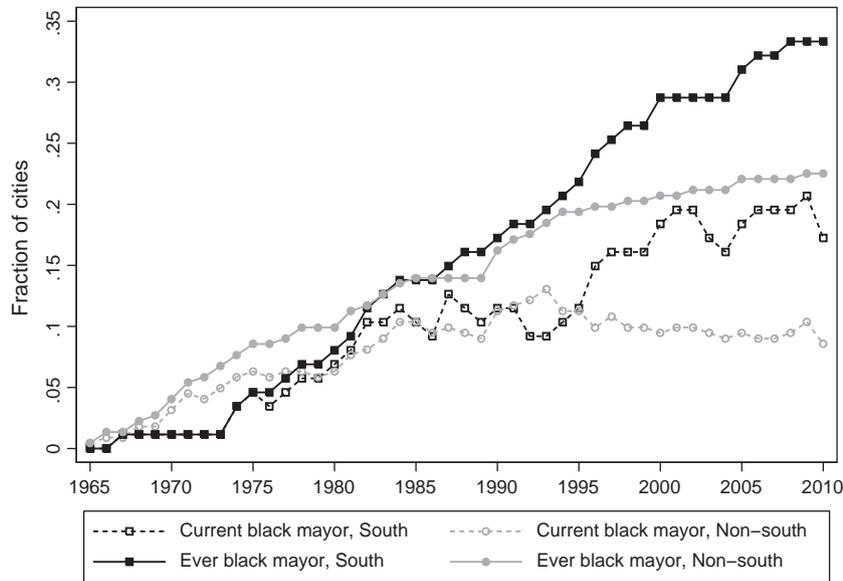
Fig. 1. Fraction of Cities with Black Mayors, 1965–2010. Notes: Data on black mayors were compiled from the *National Roster of Black Elected Officials* (JCPES various years). The sample includes all cities in the continental United States with 1960 population greater than 50,000.

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,

---

[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).

2009; Gerber and Hopkins, 2011). Most relevant in this respect is Hopkins and McCabe's (2011) recent analysis of the effects of black mayors on city outcomes. Applying RD methods to a smaller dataset than my own, Hopkins and McCabe find modest evidence that black mayors increase the black share of the police force and no evidence of other effects. But in the presence of endogeous campaign intensity near the victory threshold, one should be cautious in interpreting their estimates. In fact, consistent with the results here, Hopkins and McCabe estimate in an appendix that close black victories are more likely to take place in the South than are close black losses ($p = 0.06$).

More specifically, the paper reveals that a close election advantage does not always befall the candidate with greater political clout or economic resources. Black candidates in the South were *dis*advantaged in many respects, yet they won a disproportionate share of close elections, perhaps because the legacy of black political exclusion gave rise to an electorate highly responsive to mobilization efforts. In electoral contexts with well-defined groups of citizens who share preferences over candidates, voter mobilization may be a key margin for political competition. In this sense, the paper contributes to a growing literature that draws attention to the electoral strategy of increasing turnout among supporters, rather than converting members of the opposition.[4] Non-randomness in competitive elections may threaten the validity of RD designs based on vote shares, but it is of considerable social scientific interest in its own right. Most substantively, the results point to the distinct politics that arise after the incorporation of groups previously excluded from public life. In their theory of minority political incorporation, Browning et al. (1984) posit that mobilization and coalition formation are requisite to political incorporation. The asymmetries documented in this paper suggest that a one-time mobilizing push is indeed a key factor in producing lasting minority political success.

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.[5] 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, including 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 patterns, I focus on the reporting of candidates' races by the newsmedia and advocacy organizations. The candidate race data come from a variety of sources, primarily the *National Roster of Black Elected Officials*, newspaper archives, and government and political websites. In many

[4] On electoral competition among groups with common preferences, see Uhlaner (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 never encountered an error. I only use election returns that are properly cited on the website.

Table 1
Summary statistics, various samples.

	All cities	1960 % Black ≥ 4	Elections sample	Interracial elections sample
	(1)	(2)	(3)	(4)
City characteristics in 1960				
% Black	11.5	17.7	19.2	21.4
Population ('000)	203.4	271.7	386.5	445.8
Median family income ('000)	6.1	5.8	5.8	5.8
Mayor–council gov't	0.42	0.40	0.48	0.51
Council–manager gov't	0.47	0.47	0.40	0.37
South	0.28	0.42	0.42	0.40
Election variables, 1965–2010				
# Elections			10.55	10.66
# Interracial elections			2.61	3.39
# Black candidates			4.06	5.28
Ever had black winner			0.54	0.70
Ever had black runner-up			0.71	0.92
Number of cities	310	194	113	87

Notes: Each entry is the mean of the specified variable. The baseline sample includes all cities in the continental U.S. with populations greater than 50,000 in 1960. The elections sample includes cities with populations greater than 50,000 and black population shares of at least 4% in 1960, for which elections data were available. The interracial elections sample restricts further to cities with data available on at least one interracial election. The elections sample includes 1196 elections; the interracial elections sample includes 299 elections. Median family income refers to income in 1959.

cases, photographs of the candidates were available, but photographs were rarely the sole information source on race.

This data collection effort resulted in a dataset 1226 elections with vote counts for both candidates, of which 1196 had racial identification of both candidates. These 1196 elections include 463 black candidates and 1929 non-black candidates. Because some of the black candidates faced other black candidates, just 299 of the elections were interracial. Of these 299, 100 election returns derive from the Ferreira and Gyourko dataset, with the remaining 199 from my own data collection.

The coding of candidate race is in all cases original, which—though a contribution—raises the concern of endogenous sample selection. If the data collection process described above is more likely to identify black winners than black losers, then sample selection could bias the results. However, I failed to identify a candidate's race in only 2.5% of the elections with vote counts on both candidates (2% in the South, 2.75% outside the South), so endogenous sample selection is unlikely to affect the results. For added security against disproportionately selecting elections in which the black candidate wins, I exclude cities that have fewer than three elections with vote counts on both candidates. These cities–Beaumont, TX, East Orange, NJ, and Grand Rapids, MI–have a combined total of four elections, all of them interracial. The results are not sensitive to their exclusion.

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 elections 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

[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 presidential 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 competetive.

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

$$outcome_{ct} = \alpha \cdot interracial_{ct} + \tau_t + \mu_c + u_{ct} \qquad (1)$$

where $outcome_{ct}$ is either the turnout rate or the margin of victory (measured in levels or logs), and $interracial_{ct}$ is an indicator for an interracial election. In the specification, c indexes city, and t indexes year, so that τ_t and μ_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.

Table 2
The effect of black-vs.-white matchups on turnout and closeness.

	Dep. var. in levels		Dep. var. in logs	
	Turnout	Vote margin of victory	Turnout	Vote margin of victory
	(1)	(2)	(3)	(4)
	0.021	−0.038	0.084	−0.25
	[0.007]**	[0.022]†	[0.015]**	[0.12]*
# of elections	1180	1180	1180	1180
# of cities	113	113	113	113
Mean of dependent variable	0.27	0.30	−1.43	−1.66
South	0.028	−0.057	0.117	−0.31
	[0.010]**	[0.034]†	[0.049]*	[0.14]*
# of elections	484	484	484	484
# of cities	47	47	47	47
Mean of dependent variable	0.22	0.32	−1.65	−1.57
Non-South	0.017	−0.025	0.074	−0.20
	[0.008]*	[0.034]	[0.030]**	[0.17]
# of elections	696	696	696	696
# of cities	66	66	66	66
Mean of dependent variable	0.30	0.29	−1.29	−1.73
T-stat for South/Non-South diff	0.86	0.67	0.74	0.50

Notes: OLS estimates. Parentheses contain standard errors clustered at the city level. Each cell reports the coefficient on the interracial election indicator from a separate regression. The dependent variable in column (1) is the total votes received by the top-two candidates divided by the voting-age city population (interpolated between census years). The dependent variable in column (2) is the difference in votes between the top-two candidates divided by their sum. The dependent variables in columns (3) and (4) are the logarithms of the dependent variables in columns (1) and (2), respectively.
† $p < 0.1$.
* $p < 0.05$.
** $p < 0.01$.

4.1. Methods

I use two regression discontinuity techniques, both based on local linear estimation. Throughout, the running variable is the relative margin of victory between the top-two candidates when one candidate is black and the other non-black. I define the black vote margin as the black candidate's votes minus the white candidate's votes, divided by their sum. For analyses of contemporaneous turnout and future election outcomes, I use a standard local linear regression discontinuity estimator. To estimate discontinuities in the density of the running variable, I use the method developed by McCrary(2008), which involves estimating a finely-gridded histogram and then using local linear regression to smooth the histogram, allowing for a discontinuity at the victory threshold.[9] McCrary's original estimand is the discontinuity in the logarithm of the density function, but to allow for consistent estimation when the density approaches zero, I focus on estimated discontinuities in the level of the density.

Both estimation techniques can be summarized, for city c in election year t, as:

$$y_{ct} = \beta \cdot 1[m_{ct} > 0] + f(m_{ct}) + v_{ct} \qquad (2)$$

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 β 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

---

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.[10] In a two-candidate election, this bandwidth allows the victor 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 so 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.[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.[12] To mitigate small-sample bias in inference, I test hypotheses using critical values from a *t*-distribution with degrees of freedom set to the number of clusters minus two (Cameron et al., 2008).[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

Table 3
Discontinuities in the density of the black vote margin of victory.

	(1) Levels	(2) Logs
South	2.37	2.15
	[0.92]*	[1.01]*
# of elections within bandwidth	46	46
# of cities within bandwidth	19	19
Non-South	0.55	0.28
	[0.83]	[0.43]
# of elections within bandwidth	68	68
# of cities within bandwidth	37	37
T-statistic for South/non-South difference	1.47	1.70

Notes: Estimates of the discontinuity in the level and log of the density function, based on McCrary's (2008) local linear density estimation procedure, which uses a triangular kernel. The bandwidth is 0.14. Parentheses contain robust standard errors.
† *p* < 0.1.
* *p* < 0.05.
** *p* < 0.01.

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 *ex ante* or *ex post* manipulation of the black vote share.

4.3. Discontinuities in turnout

Patterns in voter turnout can shed some light on whether *ex ante* or *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 *ex post* actions primarily manipulate the distribution of a given number of votes. On the other hand, if *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

---

[10] I use the triangle and uniform kernels, respectively, for the local linear density smoother and the local linear regression smoother. McCrary (2008) derives asymptotics for the density estimator with the triangle kernel, which is optimal for boundary estimation. Lee and Lemieux (2010) recommend the uniform kernel for the local linear estimator due to its transparency. The optimal bandwidth calculations are for the correct kernels.

[11] In similar settings, Lee (2008) and Ferreira and Gyourko (2009) also cluster standard errors at the jurisdiction-decade level. One could argue that jurisdiction-level clustering is more attractive, but the standard errors for the models in this paper are extremely similar under the two clustering schemes. The jurisdiction-decade clustered standard errors have the advantage of using fewer degrees of freedom.

[12] To get a sense of whether serial correlation within cities biases the unclustered analytic standard errors, I block-bootstrapped the density discontinuity estimator and found that the resulting standard errors were smaller than the analytic standard errors. However, I have not verified the small-sample properties of the bootstrapped density discontinuity estimator, so I do not report the results here.

[13] The standard errors in the local linear regression results are similar when adjusted by bias-reduced linearization (BRL) to improve small sample performance (Bell and McCaffrey, 2002). But in some specifications, the BRL procedure is not possible because a key matrix is not full rank, a well-known problem with this method.
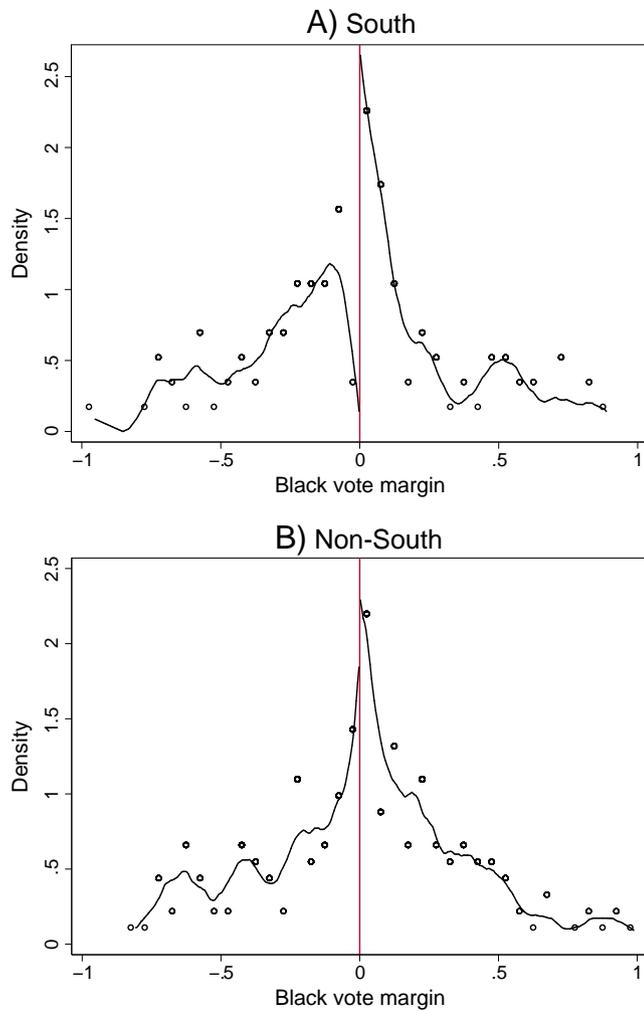
A) South

B) Non-South

Fig. 2. Discontinuities in the Black Vote Margin Density. Notes: The sample includes all interracial elections during 1965–2000 in cities with 1960 populations that were at least 50,000 and 4% black. The smooth curves are local linear density estimators based on McCrary (2008), with a bandwidth of 0.1; open circles represent a histogram with a bin width of 0.05. The black vote margin is difference between the black candidate's and the white candidate's votes, divided by their sum.

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.

Table 4
Discontinuities in past, current, and future turnout.

	Turnout, $t - 1$	Turnout, t	Turnout, $t + 1$
	(1)	(2)	(3)
South			
No covariates	0.080	0.214	0.307
	[0.088]	[0.145]	[0.170]†
Controls for turnout, $t - 1$	–	0.142	0.248
		[0.070]*	[0.115]*
Controls for all covariates	–	0.230	0.261
		[0.096]*	[0.132]†
# of Elections within bandwidth	29	29	29
# of Cities within bandwidth	14	14	14
Non-South			
No covariates	−0.025	−0.004	−0.015
	[0.046]	[0.046]	[0.049]
Controls for turnout, $t - 1$	–	−0.003	−0.013
		[0.034]	[0.039]
Controls for all covariates	–	−0.008	−0.015
		[0.032]	[0.038]
# of Elections within bandwidth	54	54	54
# of Cities within bandwidth	31	31	31
T-stats for South/non-South diffs			
No covariates	1.06	1.43	1.82
Controls for turnout, $t - 1$	–	1.86	2.15
Controls for all covariates	–	2.35	2.00

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. Parentheses contain standard errors clustered at the city–decade level. The dependent variable is the turnout rate, or the total votes received by the top-two candidates divided by the voting-age city population (interpolated between census years). Time $t - 1$ refers to the last election, time t to the current 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, as well as lagged, current, and future turnout. Significance tests are based on a t-distribution with degrees of freedom set to the number of clusters minus two.

† $p < 0.1$.
* $p < 0.05$.
** $p < 0.01$.

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 contemporaneous 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

---

[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).
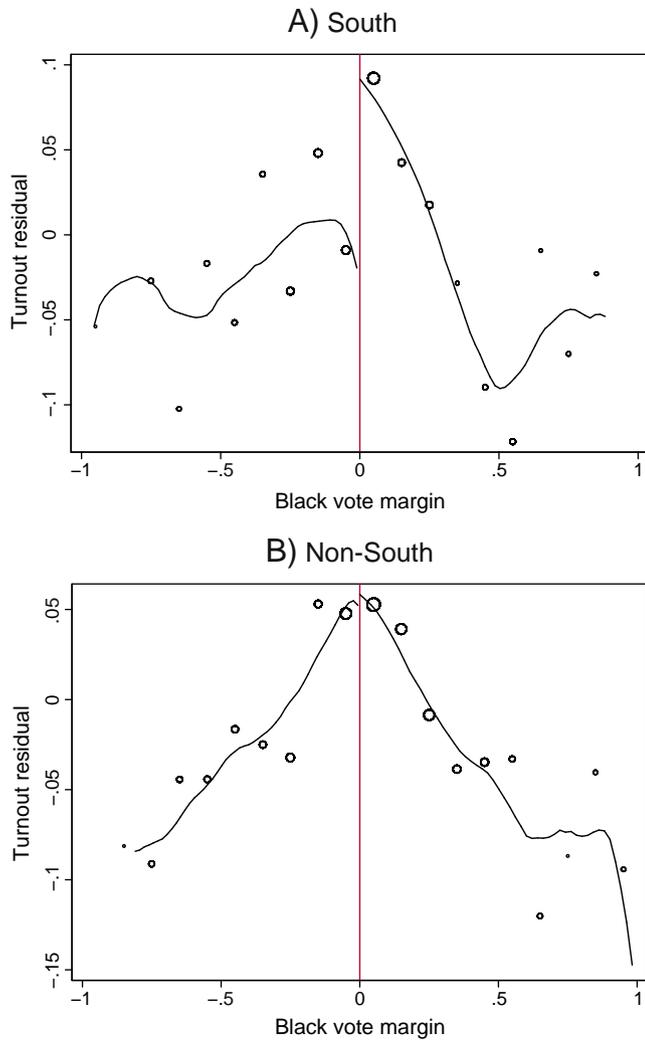
Fig. 3. Discontinuities in Current Turnout. Notes: The sample includes all interracial elections with turnout data for the last, current, and next elections. The dependent variable is the residual from a regression of current turnout on lagged turnout. The smooth curves are local linear regressions with a bandwidth of 0.1. Open circles are local averages over 0.1-wide bins, with the size of the circle scaled to reflect the number of observations.

decades following 1950 saw a revolution in voting rights. Fig. 5, highlights the magnitude of this extension of the franchise. In the top panel, which presents data on Southern black registration from the Voter Education Project, the number of registered African–Americans in the former Confederate states rose from roughly 150,000 (3% of the voting-age population) in 1940 to nearly six million (64%) by 1990. Abetted by voter registration drives and a series of progressive Supreme Court decisions, the black voter registration rate rose gradually to one quarter by 1960. It then more than doubled over the next decade, as the Voting Rights Act of 1965 took hold, and registrars redoubled their efforts(Timpone, 1995). These efforts have continued, punctuated by registration drives accompanying major political campaigns. For instance, the surge in registration associated with African–American Jesse Jackson's 1984 run for president is readily apparent in Fig. 5, Panel A. As in Jackson's case, the prospects of black mayoral candidates in the South hinged upon mobilizing this large group of new eligible voters. Official registration data by race are not available for comparison in the North, but the bottom panel of Fig. 5 uses data from the American National Elections Study to plot the ratio of the black voter registration rate to the white voter registration rate, inside and outside the South.[18]

---

[18] Panels 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.

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 succesfully 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 θ_i, drawn from a continuous (group-specific) distribution. θ_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 $\lambda_b\theta_b - \lambda_w\theta_w$, where λ_i is the population share of group i. Candidates have access to a group-specific mobilization technology Δ_i, which increases the group i turnout rate by $\Delta_i(c_i,\theta_i)$ at cost $c_i \geq 0$. Δ_i increases with spending c_i (at a decreasing rate) and decreases with baseline turnout θ_i, reflecting the impossibility of raising turnout over 1. Therefore, $\Delta_i(0,\theta_i) = 0$ for all θ_i, $\Delta_i(c_i,\theta_i) < (0, 1 - \theta_i)$ 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 ε, 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 α from a term in office. Note that no candidate will invest more than α in voter mobilization; higher investment always results in negative payoffs. Group i's *mobilization capacity* is therefore $M_i = \Delta_i\left(\varepsilon\lfloor\frac{\alpha}{\varepsilon}\rfloor, \theta_i\right)$, where $\lfloor x \rfloor$ 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 $M_b > \frac{\lambda_w}{\lambda_b}M_w$, 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, $\lambda_b\theta_b - \lambda_w\theta_w$. 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.

Table 5
Discontinuities in the probability of past and future black victory.

	Black victory, $t - 1$	Black victory, $t + 1$
	(1)	(2)
South		
No covariates	−0.46	0.97
	[0.31]	[0.21]**
Controls for black victory, $t - 1$	–	1.05
		[0.26]**
Controls for all covariates	–	1.16
		[0.37]**
# of Elections within bandwidth	45	45
# of Cities within bandwidth	19	19
Non-South		
No covariates	0.13	0.03
	[0.19]	[0.21]
Controls for black victory, $t - 1$	–	0.08
		[0.19]
Controls for all covariates	–	0.01
		[0.19]
# of elections within bandwidth	65	65
# of cities within bandwidth	36	36
T-stats for South/non-South diffs		
No covariates	1.62	3.17
Controls for turnout, $t - 1$	–	3.01
Controls for all covariates	–	2.76

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.

[†] $p < 0.1$.
[*] $p < 0.05$.
[**] $p < 0.01$.

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

When the two competing groups can mobilize equal numbers of voters to the polls ($\lambda_w M_w = \lambda_b M_b$), 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 ε–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

---

[19] Turnout increases discretely between the closest observed loss and victory if $E[2\lambda_w \theta - \lambda_w \theta_w | \lambda_b \theta_b - \lambda_w \theta_w \in (\lambda_w M_w - \lambda_b M_b, 0]] > E[\lambda_b \theta_b + \lambda_w \theta_w | \lambda_b \theta_b - \lambda_w \theta_w = \lambda_w M_w - \lambda_b M_b]$. 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).
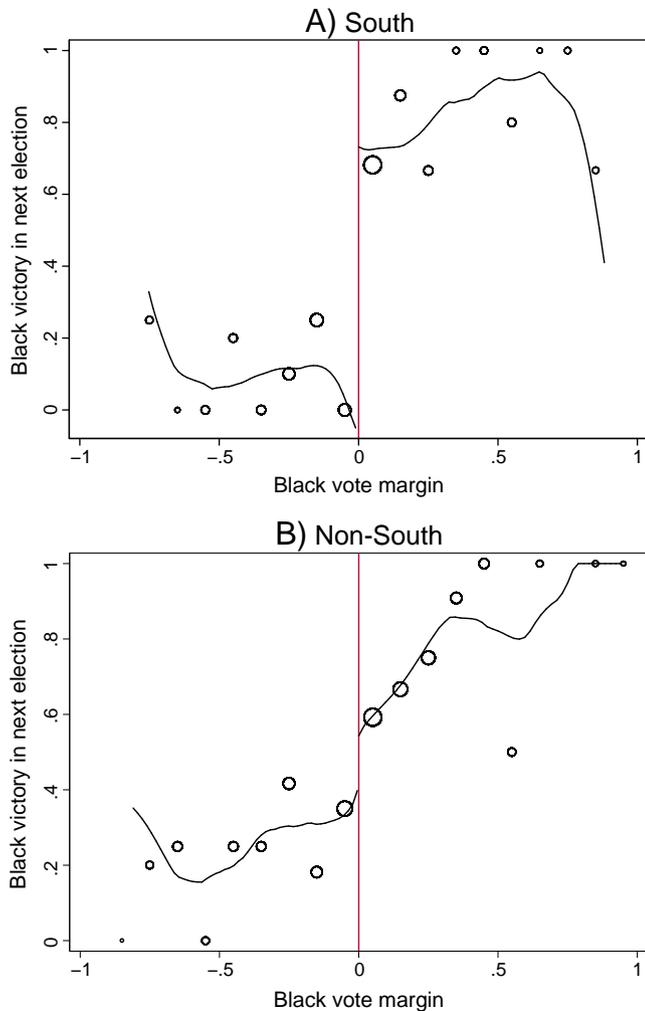
Fig. 4. Discontinuities in Black Mayoral Prospects. Notes: The sample includes all interracial elections during 1965–2000 in cities with 1960 populations that were at least 50,000 and 4% black. In each panel, the smooth curve is a local linear regression with a bandwidth of 0.1. The open circles are local averages over 0.1-wide bins, with the size of the circle scaled to reflect the number of observations.

reran and missed a plurality by a margin of just 2%. The election went to a runoff, which featured some efforts, ultimately inadequate, to increase black turnout. White voters turned out at high rates, discomforted by the prospect of black power, and Higgs lost by 6%. A local newspaper reported: "the comparatively low turnout of black voters can be explained by the failure of [African–American] U.S. Rep. Harold Ford … to crank up his election-day machinery on Higgs' behalf" (Balentine, 1979).

Meanwhile, Birmingham's 1979 election dealt black candidate Richard Arrington, Jr., a better hand. Arrington took a commanding lead in the primary election, but the ensuing runoff was extremely close. As in Memphis, white and black turnout soared, the latter impelled in large part by the intense efforts of the city's black leadership. Arrington did reach out to the city's white voters, roughly 15% of whom voted for him, but he obtained all but universal support from black voters. Black turnout surpassed white, and Arrington won the runoff by a margin of 2%.

Following the pivotal elections of 1979, Birmingham quickly transitioned to an exclusively black mayoral politics, whereas Memphis's black political establishment suffered from infighting and lack of direction for over a decade, eroding the black public's enthusiasm for its candidates. Arrington could use his position as Birmingham's mayor to consolidate support and continue impelling eligible black voters to the polls. Memphis, in contrast, had no such leader. As Fig. 6, Panel B, shows, voter turnout remained high in Birmingham after the 1979 surge, while Memphis's turnout waned.

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' 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 *dis*advantaged 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.[22] 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

---

[22] 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.

Table 6
Political party discontinuities in white-vs.-white elections.

	Density, t (level)	Turnout, t	Democratic victory, $t + 1$
	(1)	(2)	(3)
All cities			
South	0.43	0.083	0.06
	[0.64]	[0.052]	[0.29]
# of elections within bandwidth	41	41	41
# of cities within bandwidth	24	24	24
Non-South	0.14	0.020	0.32
	[0.61]	[0.031]	[0.17]†
# of elections within bandwidth	103	103	103
# of cities within bandwidth	42	42	42
T-stat for South/non-South difference	0.33	1.04	0.77
Cities with interracial elections			
South	−0.51	0.111	−0.02
	[0.67]	[0.060]†	[0.27]
# of elections within bandwidth	25	25	25
# of cities within bandwidth	17	17	17
Non-South	0.26	−0.011	0.32
	[0.75]	[0.034]	[0.19]†
# of elections within bandwidth	73	73	73
# of cities within bandwidth	32	32	32
T-stat for South/non-South difference	0.77	1.77	0.91

Notes: Results represent the discontinuous change in the dependent variable when the Democratic 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 refers to the current election, and time $t + 1$ to the next election. The sample includes all elections between a white Democrat and a white Republican in the overall elections dataset. Significance tests are based on a t-distribution with degrees of freedom set to the number of clusters minus two.

† $p < 0.1$.
* $p < 0.05$.
** $p < 0.01$.

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. E*x 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).[23] 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

---

[23] See the references listed in footnote 23.

A) Black Voter Registration Rates in the South, Voter Education Project Data
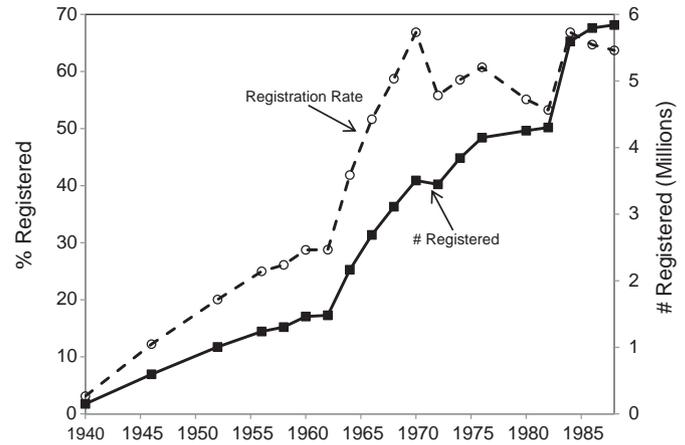
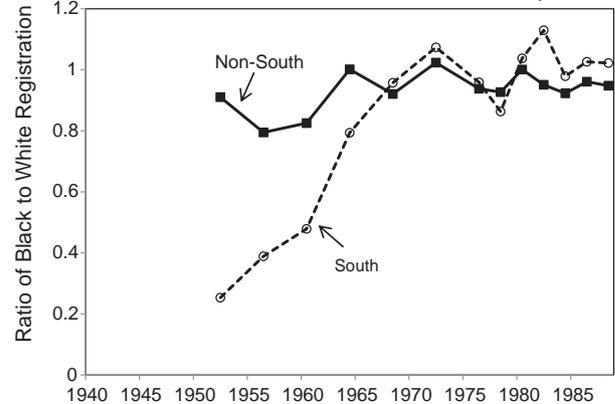**B) Black-White Voter Registration Ratios by Region, American National Elections Study**

Fig. 5. The Rise of Black Voter Registration, 1940–1988. Notes: Panel A plots black registration rates in the former Confederate states, from Jaynes and Williams (1989) based on actual registration data from the Voter Education Project. Panel B plots the ratio of black registration to white registration, based on self-reported registration in the American National Elections Study.

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 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

A) Black Margin of Victory

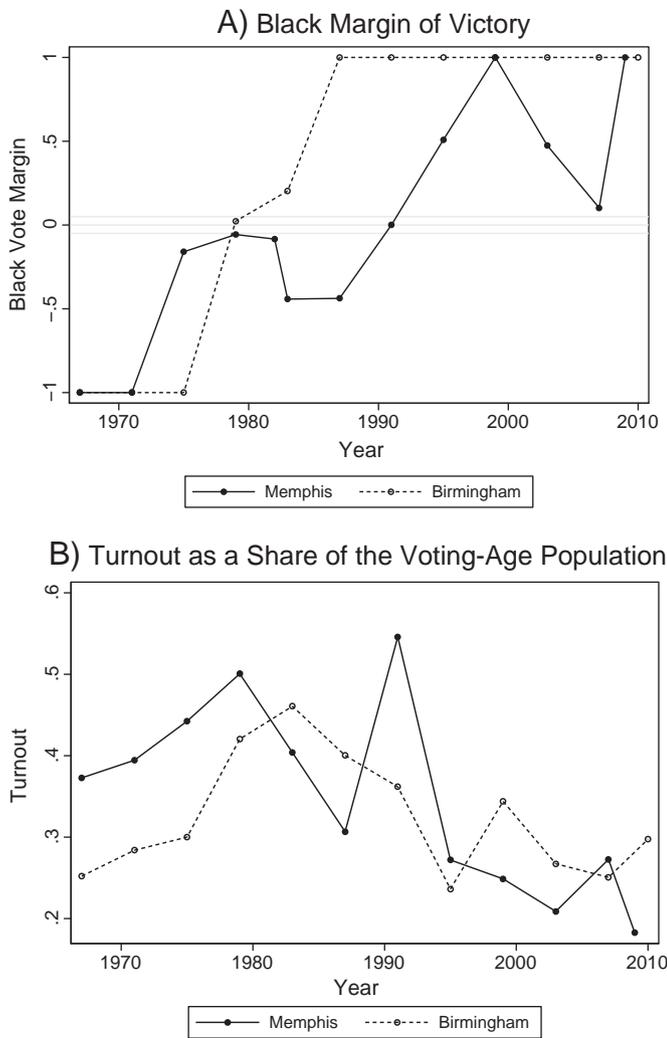## B) Turnout as a Share of the Voting-Age Population

Fig. 6. Electoral histories of two Southern cities.

invalidate them as a rule.[24] 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.

References

Aiken, Michael, Alford, Robert, 1998. Governmental units analysis data [computer file]. Inter-university Consortium for Political and Social Research, Ann Arbor, MI.
Arrington, Richard J., 2008. There's hope for the world: the memoir of Birmingham, Alabama's first African American mayor. University of Alabama Press, Tuscaloosa, AL.

Balentine, Jim, 1979. Turnout, white share give chandler victory. Memphis Press-Scimiter, p. 1, 14 (16 November).
Bayer, Patrick, Ferreira, Fernando, McMillan, Robert, 2007. A unified framework for measuring preferences for schools and neighborhoods. J. Polit. Econ. 115 (4), 588–638.
Bell, Robert M., McCaffrey, Daniel F., 2002. Bias reduction in standard errors for linear regression with multistage samples. Survey Methodol. 28 (2), 169–179.
Biles, Roger, 1992. Black mayors: a historical assessment. J. Negro Hist. 77 (3), 109–125.
Bobo, Lawrence, Gilliam, Franklin D., 1990. Race, sociopolitical participation, and black empowerment. Am. Polit. Sci. Rev. 84 (2), 377–393.
Browning, Rufus P., Marshall, Dale R., Tabb, David H., 1984. Protest is not enough: the struggle of blacks and hispanics for equality in urban politics. University of California Press, Berkeley.
Browning, Rufus P., Marshall, Dale R., Tabb, David H. (Eds.), 1990. Racial Politics in American Cities. Longman, New York.
Bubb, Ryan and Alex Kaufman. 2009. "Securitization and Moral Hazard: Evidence from a Lender Cutoff Rule." Mimeo, Harvard University.
Cameron, A.C., Gelbach, Jonah B., Miller, Douglas L., 2008. Bootstrap-based improvements for inference with clustered errors. Rev. Econ. Stat. 90 (3), 414–427.
Campbell, David, Feagin, Joe R., 1984. Black electoral victories in the South. Phylon 45 (4), 331–345.
Casey, Ron, 1979. The election of Birmingham's black mayor. South. Changes 2 (3), 11–14.
Caughey, Devin M., Sekhon, Jasjeet S., 2011. Elections and the regression discontinuity design: lessons from close U.S. house races, 1942–2008. Polit. Anal. 19, 385–408.
Cheng, Ming-Yen, Fan, Jianqing, Marron, James S., 1997. On automatic boundary corrections. Ann. Stat. 25 (4), 1691–1708.
Colburn, David R., 2001. Running for office: African–American mayors from 1967 to 1996. In: Colburn, David R., Adler, Jeffrey S. (Eds.), African American Mayors: Race, Politics, and the American City. University of Illinois Press, Urbana, IL, pp. 23–56.
Cox, Gary W., 2009. Swing voters, core voters, and distributive politics. In: Shapiro, Ian, Stokes, Susan C., Jean Wood, Elisabeth, Kirshner, Alexander S. (Eds.), Political Representation. Cambridge University Press, Cambridge, pp. 342–355.
Cox, Gary W., Munger, Michael C., 1989. Closeness, expenditures, and turnout in the 1982 U.S. House elections. Am. Polit. Sci. Rev. 83 (1), 217–231.
Dahl, Robert, 1970. After the revolution: authority in a good society. Yale University Press, New Haven.
Dekel, Eddie, Jackson, Matthew O., Wolinski, Asher, 2008. Vote buying: general elections. J. Polit. Econ. 116 (2), 351–380.
Eggers, Andrew, Olle Folke, Anthony Fowler, Jens Hainmueller, and Andrew B. Hall. 2013. "On the Validity of the Regression Discontinuity Design for Estimating Electoral Effects: New Evidence from Over 40,000 Close Races." Mimeo, London School of Economics.
Ferreira, Fernando, Gyourko, Joseph, 2009. Do political parties matter? evidence from U.S. cities. Q. J. Econ. 124 (1), 399–422.
Gans-Morse, Jordan, Sebastian Mazzuca, and Simeon Nichter. 2009. "Who Gets Bought? Vote Buying, Turnout Buying, and Other Strategies". Weatherhead Center Working Paper 2009–0006.
Gerber, Elisabeth R., Hopkins, Daniel J., 2011. When mayors matter: estimating the impact of mayoral partisanship on city policy. Am. J. Polit. Sci. 55 (2), 326–339.
Glaeser, Edward L., Shleifer, Andrei, 2002. The Curley effect: the economics of shaping the electorate. J. Law Econ. Org. 21 (1), 1–19.
Grimmer, Justin, Eitan Hersh, Brian D. Feinstein, and Daniel Carpenter. 2011. "Are Close Elections Random?" Mimeo, Stanford University.
Hajnal, Zoltan L., 2001. White residents, black incumbents, and a declining racial divide. Am. Polit. Sci. Rev. 95 (3), 603–617.
Hajnal, Zoltan L., 2006. Changing white attitudes toward black political leadership. Cambridge University Press, New York.
Hopkins, Daniel J., and Katherine T. McCabe. 2011. "After It's Too Late: Estimating the Policy Impacts of Black Mayors Using Regression Discontinuity Design." Mimeo, Georgetown University.
Imbens, Guido W., Kalyanaraman, Karthik, 2012. Optimal bandwidth choice for the regression discontinuity estimator. Rev. Econ. Stud. 79 (3), 933–959.
Jaynes, Gerald D., Williams, Robin M. 1989. A Common destiny: blacks and American society. National Academy Press, Washington, DC.
Joint Center for Political and Economic Studies, 2000. National roster of black elected officials. Various years Joint Center for Political and Economic Studies Press, Washington, DC.
Kousser, J.M., 1974. The shaping of Southern politics: suffrage restriction and the establishment of the one-party South, 1880–910. Yale University Press, New Haven, CT.
Lee, David S., 2008. Randomized experiments from non-random selection in U.S. House elections. J. Econom. 142, 675–697.
Lee, David S., Lemieux, Thomas, 2010. Regression discontinuity designs in economics. J. Econ. Lit. 48 (2), 281–355.
Leighly, Jan E., 2001. Strength in Numbers? The political mobilization of racial and ethnic minorities. Princeton University Press, Princeton, NJ.
Lublin, David, Tate, Katherine, 1995. Racial group competition in urban elections. In: Peterson, Paul E. (Ed.), Classifying by Race. Princeton University Press, Princeton, NJ, pp. 245–261.
McCrary, Justin, 2008. Manipulation of the running variable in the regression discontinuity design: a density test. J. Econom. 142 (2), 698–714.
Morton, Rebecca, 1991. Groups in rational turnout models. Am. J. Polit. Sci. 35 (3), 758–776.
Murray, Richard, Vedlitz, Arnold, 1977. Race, socioeconomic status, and voting participation in large Southern cities. J. Polit. 39 (4), 1064–1072.
Nelson, William E., Meranto, Philip J., 1977. Electing black mayors: political action in the black community. Ohio State University Press, Columbus, OH.
Pohlmann, Marcus D., Kirby, Michael P., 1996. Racial politics at the crossroads: Memphis Elects. University of Tennessee Press, Knoxville, Dr. W.W. Herenton.

---

[24] 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.

Rosenstone, Steven J., Hansen, John M., 1993. Mobilization, participation, and democracy in America. Macmillan, New York.

Shachar, Ron, Nalebuff, Barry, 1999. Follow the leader: theory and evidence on political participation. Am. Econ. Rev. 89, 525–547.

Snyder, Jason. 2005. "Detecting Manipulation in U.S. House Elections". Mimeo, Haas School of Business, UC Berkeley.

Snyder, James M., Olle Folke, and Shigeo Hirano. 2011. "A Simple Explanation for Bias at the 50-0 Threshold in RDD Studies Based on Close Elections." Mimeo, Harvard University.

Timpone, Richard J., 1995. Mass mobilization or government intervention? the growth of black registration in the South. J. Polit. 57 (2), 425–442.

U.S. Census Bureau. Various years. "County and City Data Book [United States]". Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Uhlaner, Carole J., 1989. Rational turnout: the neglected role of groups. Am. J. Polit. Sci. 33, 390–422.

Urquiola, Miguel, Verhoogen, Eric A., 2009. Class size and sorting in market equilibrium: theory and evidence. Am. Econ. Rev. 99 (1), 179–215.

Verba, Sidney, Nie, Norman H., 1972. Participation in America: political democracy and social equality. University of Chicago Press, Chicago.

Verba, Sidney, Nie, Norman H., Kim, Jae-on, 1978. Participation and political equality: a seven-nation comparison. University of Chicago Press, Chicago.

Washington, Ebonya, 2006. How black candidates increase voter turnout. Q. J. Econ. 121 (3), 973–998.

Wright, Sharon D., 1999. Race, power, and political emergence in Memphis. Taylor & Francis, New York.