

# No More Wilder Effect, Never a Whitman Effect: When and Why Polls Mislead about Black and Female Candidates

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*The 2008 election renewed interest in the Wilder or Bradley effect, the gap between the share of survey respondents expressing support for a candidate and the candidate's vote share. Using new data from 180 gubernatorial and Senate elections from 1989 to 2006, this paper presents the first large-sample test of the Wilder effect. It demonstrates a significant Wilder effect only through the early 1990s, when Wilder himself was Governor of Virginia. Evidence from the 2008 presidential election reinforces this claim. Although the same mechanisms could affect female candidates, this paper finds no such effect at any point in time. It also shows how polls' overestimation of front-runners' support can exaggerate estimates of the Wilder effect. Together, these results accord with theories emphasizing how short-term changes in the political context influence the role of race in statewide elections. The Wilder effect is the product of racial attitudes in specific political contexts, not a more general response to underrepresented groups.*

From the vantagepoint of 1989, the existence of a “Wilder effect” or “Bradley effect”—a gap between how black candidates polled and how they performed—was hard to dispute. That year, Virginia gubernatorial candidate Douglas Wilder enjoyed a 15 percentage point lead two weeks before the election (Melton and Morin 1989), and yet won by only 6,700 votes. On the same day, New York's David Dinkins won the Mayoralty by 2 percentage points after polls showed him leading by as many as 18 percentage points (Keeter and Samaranayake 2007). After Tom Bradley's surprising loss in the 1982 California Governor's race, observers knew how to interpret these gaps: as evidence of subtle biases against black candidates that voters were not willing to voice in polls but that were operative in the voting booth. In the words of the campaign manager for Bradley's opponent, “[i]f people are going to vote that way, they certainly are not going to announce it for a survey taker” (Reeves 1997, 15).

Discussions of the Wilder effect<sup>1</sup> have been most common among journalists, but the effect is closely related to ongoing political science debates about the

influence of racial attitudes on voters' decisions. Measuring the Wilder effect over time will help us understand the roots, stability, and potency of one subtle form of antiblack electoral behavior. If there is a detectable Wilder effect, is it a durable phenomenon or one that appears only under certain political conditions? This paper will also consider—seemingly for the first time—whether such gaps between polling and performance affect female candidates. When Christine Whitman won the Governorship of New Jersey, her first public comments attacked polls that had *underestimated* her support (Jackson, 1993). That prompts a question: are Wilder effects a specific response to black candidates or a common response to candidates from underrepresented groups? These questions take on special importance in 2008, a year which witnessed the most serious black and female contenders for a major-party Presidential nomination in U.S. history. But these questions have broader relevance as well, as they have implications for the accuracy of telephone surveys as well as the legitimacy of electoral outcomes. Discrepancies between polls and election outcomes can foster doubt about

<sup>1</sup>This paper refers to the “Wilder effect” because Wilder's election is the earliest studied here, but considers the “Bradley effect” an exact synonym.

the legitimacy of the outcome, as happened in Ohio in the 2004 presidential election (e.g., Democratic National Committee 2005).

A handful of high-profile elections with African-American contenders have dominated thinking about the Wilder effect, including those involving Wilder (1989), Bradley (1982), and Dinkins (1989, 1993) (Bishop and Fisher 1991; Keeter and Samaranayake 2007; Traugott and Price 1991). But given that polls are imprecise and administered prior to the end of the campaign, one could appeal to idiosyncratic explanations in any given case. Since political scientists appear not to have studied similar effects in large samples of elections or for other underrepresented groups, we know little about the polling-performance gap and its typical properties. Perhaps wide swings in the final weeks of an election cycle are common, and the handful of well-known examples of the Wilder effect are counterbalanced by less visible cases where black candidates gained substantially on their polling numbers. Polls overstate support for leading candidates (Erikson and Wlezien 2007; Wlezien and Erikson 2002), making it possible that subsequent outcomes will exhibit patterns similar to regression to the mean. One could imagine as well that supporters of one candidate might be systematically more likely to respond to a survey. Or perhaps the gap between polling and performance genuinely represents a subtle anti-black bias.

To assess these competing explanations, using a broad set of observations is crucial. This paper compiles polling and election data for all black and female candidates for Governor or U.S. Senator from 1989 to 2006, as well a random sample of white males for comparison. These 339 observations from 180 elections show that *there was indeed a Wilder effect, but one that was specific to a particular group and political context*. African Americans running for office before 1996 performed on average 2.7 percentage points worse than their polling numbers would indicate. Yet this effect subsequently disappeared. Although precision is limited because there were only 47 polls from 18 elections with black candidates in this period, these findings accord with theories of racial politics emphasizing the information environment. As racialized rhetoric about welfare and crime receded from national prominence in the mid-1990s, so did the gap between polling and performance. Eighty-seven observations from the 2008 presidential primaries and 188 from the 2008 general election reinforce this conclusion. Even over short periods of time, the influence of race on electoral politics can shift markedly. Moreover, when it was influential, the

Wilder effect was specific to black candidates. To borrow the name of the former New Jersey Governor, we observe a Wilder effect but never a Whitman effect.

The first section defines the Wilder effect and outlines potential explanations for it. That section also contends that estimating the Wilder effect can help assess theoretical arguments about how racial attitudes shape voting behavior. Matching the aggregated nature of the data, it emphasizes hypotheses about when polls err rather than those about the individual-level processes producing the errors. The second section discusses data selection and compilation before estimating the Wilder effect for black and female candidates. The Wilder effect has not been scrutinized thoroughly in the recent past, so this section familiarizes readers with these types of data. The tests presented here reaffirm that polls typically overstate support for front-runners. Irrespective of their race, when candidates have high levels of initial support, we should expect their performance to decline come election time. This can lead naive estimates of the Wilder effect to overstate its magnitude. A final test shows no Wilder effect in the 2008 primaries or the general election.

## Theory

The Wilder effect is commonly defined as the difference between the share of the electorate voicing support for a black candidate in a survey and the share casting ballots for that candidate. In certain elections, it has been as large as 16 percentage points (Keeter and Samaranayake 2007). A variety of factors could produce such a gap. One is last-minute campaign events, which might change the electorate's preferences after the final surveys. Or supporters of one candidate might be more likely to complete surveys, as exit pollsters saw in 2004 (Edison Media Research and Mitofsky International 2005). Another is unexpected voter turnout or biased survey sampling, either of which could lead the electorate and the surveyed population to diverge. As Hajnal (2007, 43) has demonstrated, turnout is often high when black challengers compete with white candidates. Still, the most common interpretation of the gap focuses on the interplay of racial bias and social desirability (e.g., Keeter and Samaranayake 2007; Reeves 1997). During a survey, respondents may be less likely to indicate voting intentions that are socially stigmatized, such as their unwillingness to support

a black candidate (Berinsky, 1999, 2004; Krysan, 1998; Reeves, 1997). Put differently, the Wilder effect is a subset of the mode effects commonly discussed by survey researchers: the answers people give depend on how they are asked (e.g., Aquilino 1994; Fowler, Roman, and Di 1998; Traugott and Price 1991) and by whom they are asked (e.g., Bishop and Fisher 1991; Finkel, Guterbock, and Borg 1991). Different modes impose different social pressures.

This paper defines the Wilder effect narrowly, excluding turnout effects and campaign effects. To the extent possible, it focuses on the gap stemming from respondents' unwillingness to give socially undesirable answers in phone surveys immediately prior to the election. Traugott and Price (1991) provide survey-based evidence for this effect, demonstrating that whites in the 1989 Virginia election were more likely to report voting for Wilder when asked in face-to-face exit polls. Here, the goal is instead to quantify these effects for as many separate preelection polls as possible and to test hypotheses about variation in the Wilder effect.

To be sure, there are many ways that stereotypes about a group could influence voters. The Wilder effect might not even be operative given the number of respondents who freely admit their prejudices to researchers (Citrin, Green, and Sears 1990) or who vote irrespective of the candidate's race (Highton 2004). But the Wilder effect is of particular interest because it influences election outcomes in unanticipated ways and because it fits closely with theories of egalitarian norms and symbolic racism. According to these arguments, voicing explicitly racist views has become socially unacceptable since the 1950s (Kinder and Sears 1981; Mendelberg 2001; Sears et al. 2000; Sears, Henry, and Kosterman 2000). Racism's influence has taken on subtle forms, as whites use traditional, race-neutral values to justify discriminatory actions (Frey and Gaertner 1986) and express anti-black attitudes (Sears, Henry, and Kosterman 2000). Here again, we see voters expressing themselves differently as social pressures change. The Wilder effect is one observable implication of theories of subtle or symbolic racism.

Not all studies agree with the idea of symbolic racism or its conflation of racial attitudes and conservative political ideology (e.g., Sniderman and Carmines, 1997; Sniderman, Crosby, and Howell, 2000). Still, research on both sides of the debate has drawn primarily on cross-sectional survey data and survey experiments, leaving us unsure of how subtle forms of bias vary over time. As a measure that is comparable across elections, the Wilder effect is potentially

valuable in understanding to the strength and persistence of symbolic or subtle racism. Is there really a Wilder effect? If so, has the Wilder effect varied with time? These are at once questions about surveys' accuracy and about symbolic racism.

Older whites are more likely to hold negative views of blacks (Schuman et al. 1997), so the generational hypothesis holds that Wilder effects will decline gradually as younger cohorts replace older cohorts. Another hypothesis holds that racist responses are more common when white voters lack positive information about black candidates and allow stereotypes and uncertainty to fill the void (Hajnal 2007). Thus the strength of the Wilder effect might hinge on the information environment and might decline when the black candidate is a familiar incumbent or when other available information diminishes whites' fears. Other scholarship has also pointed to the role of the information environment, albeit in a different way, demonstrating how racialized campaigns prime antiblack attitudes (e.g., Citrin, Green, and Sears 1990; Huber and Lapinski 2006; Mendelberg 2001; Reeves 1997; Valentino 1999; White 2007). A focus on racially charged issues can increase the importance of racial considerations in voting as surely as a focus on incumbency or performance can decrease their importance. To the extent that racial considerations disproportionately influence evaluations of black candidates, the information environment could be a critical moderator of the Wilder effect.

During a racially charged campaign, a candidate's race will be foremost in voters' minds. According to this racialization hypothesis, we expect abrupt changes in the Wilder effect as the information environment shifts. The focus in this paper is on the *national* information environment, as it has observable implications for many elections, although campaigns certainly can racialize local and statewide streams of information as well. In the period under study, the prominence of racialized issues such as crime and welfare declined markedly at the national level in the late 1990s and early 2000s (Jones and Baumgartner 2005). In 1995, 12% of Americans cited welfare as the nation's most important problem, a figure that was just 5% by 2001 and 4% in 2004 (Baumgartner et al. 2006). In 1994, 29% of Americans cited crime as the nation's most important problem, a figure that dropped to 9% by 2004. Both of these issues are closely connected to racial attitudes (e.g., Gilens 1999; Hurwitz and Peffley 1997; Mendelberg 2001; Valentino 1999), yielding a prediction: for black candidates, the Wilder effect should have declined during this period. In the early 1990s, white

voters would have been primed by national politics to connect blacks and black candidates to issues such as crime and welfare. By the turn of the twenty-first century, those associations were less salient nationally.

### Alternative Explanations and Groups

There are other explanations for why we might observe a Wilder effect. In every four-year period, the United States elects more than 100 Senators and Governors. Assuming that the media pay particular attention to promising candidates from underrepresented groups (e.g. Reeves, 1997), candidates come to public attention precisely because of high poll numbers. Yet in part, this selection process also means that candidates who come to public attention are more likely to be outperforming expectations—and are primed for a decline. Put differently, one might explain the observed instances of the Wilder effect as examples of *regression to the mean*. Alternately, to the extent that polls measure name recognition rather than likely voting behavior, they may systematically overstate the vote share of the better-known candidate, even if they are unbiased estimators of candidates' expected vote share on average. This is not classical regression to the mean, but a substantive process that produces a similar result. Both processes lead to the expectation that candidates with polls that are especially high or low should expect election outcomes that are less extreme. Douglas Wilder might have seen his numbers decline because he was ahead, not because he was black.

The possibility of front-runner decline makes it valuable to examine nonblack candidates, as there is nothing specific to black candidates in this hypothesis. Also, by examining other groups subject to systematic biases, we can better understand whether the Wilder effect is specific to African Americans or general to underrepresented groups. Clearly, female candidates face gender-based stereotypes and biases that respondents do not always admit to (Jamieson 1995; Koch 2002; Sanbonmatsu 2002; Sapiro 1981; Streb et al. 2008). As with black candidates, these biases are thought to be more pronounced in low-information environments or when certain frames are salient in the news media (Alexander and Andersen 1993; Jamieson 1995; Kahn 1996), providing the potential for variation across states and years. Yet issues surrounding female candidates do not appear to provoke concerns about social desirability (e.g., Sanbonmatsu 2002, 23,31) to the same extent as issues surrounding black candidates (Mendelberg

2001), allowing us to observe if stereotypes in the absence of strong norms can still produce a Wilder-type effect.

In the United States, female elected officials are more commonly found in legislative as opposed to executive positions, perhaps because those roles accord with gender-based stereotypes about the issues on which candidates are most effective (Alexander and Andersen 1993; Huddy and Terkildsen 1993; Kahn 1994; Rosenwasser et al. 1987). Research also shows that gender may interact with partisan stereotypes, as females are typically associated with liberal political positions (Koch 2002). Given that, analyses of gender should differentiate between women seeking legislative posts and those seeking executive posts. They should also be attentive to whether there is a polling-performance gap only for members of one political party or any one point in time. We now turn to the data.

### Data and Methods

To test whether the Wilder effect holds in large samples, whether it varies over time, and whether it affects female candidates, we need data on polls and general election outcomes for races involving black and female candidates. We also need data on potential confounding factors, including the office being sought, the candidate's party, the poll's date and sample size, whether the candidate was an incumbent, whether the opponent was an incumbent, the state's average partisanship, the level of voter turnout, the change in voter turnout, and the state's percent black. Election returns and incumbency information were obtained from the online "Atlas of Presidential Elections" and the Clerk of the U.S. House of Representatives.<sup>2</sup> Demographic information came from the U.S. census.<sup>3</sup> Turnout data came from Michael McDonald's United States Election Project.<sup>4</sup> The analysis here is restricted to Senate and gubernatorial races from 1989 to 2006 due to the limited data availability for other offices and earlier years. To avoid the complexities of multicandidate races, the analysis includes only candidates nominated by major parties.

<sup>2</sup>Available at: <http://uselectionatlas.org> and <http://clerk.house.gov/> respectively.

<sup>3</sup>Available online at: <http://www.census.gov>

<sup>4</sup>Available online at: [http://elections.gmu.edu/voter\\_turnout.htm](http://elections.gmu.edu/voter_turnout.htm).

We restrict the analysis to polls conducted by outside firms, excluding candidates' internal polling and polling done by political parties. There is no centralized compilation of this kind of polling data, so we compiled archived newspaper articles. Specifically, we searched national papers or the relevant state's papers using LexisNexis for the candidate's last name and the words "poll," "margin," or "survey." For each candidate in a given year, the analysis included the three most recent polls where multiple polls were available, although three or more separate polls were found in only 29% of cases. To be included, all polls had to be completed within one month of election day to limit fluctuations in support induced by campaign events or public inattention.<sup>5</sup> In a handful of cases, the poll's completion date was not available, and was set to the date of the article's publication. 93% of these polls describe their universe as likely voters, so this information is not formally analyzed.<sup>6</sup>

The analysis excludes the handful of campaigns where an African American or woman ran against someone from the same group. In such circumstances, the average gap between polling and performance is by definition zero.<sup>7</sup> For the targeted candidates, we found at least one preelection poll for 86%. The vast majority of missing cases were token challengers with few resources, and only two were black.<sup>8</sup> In total, we found 208 polls for 119 elections contested by female candidates, 47 polls for 18 elections with black candidates, and 84 polls for 43 randomly sampled elections with no female or black candidates. A full list of the black candidates is in the online appendix. The polling metric is the share of respondents supporting a major-party candidate who support the candidate in question. We constructed

<sup>5</sup>In the case of Louisiana run-off elections and a 1993 special election in Texas, the date was set to 30 days prior to the election.

<sup>6</sup>The polls were conducted by more than 140 different polling or news organizations, so it is impossible to estimate whether a particular polling firm is more or less accurate for black and female candidates. For more on estimating house effects, see Beck, Jackman, and Rosenthal (2006).

<sup>7</sup>Among others, this criterion removes Barack Obama's 2004 Illinois Senate race against Alan Keyes because both are black and Susan Collins' 2002 Senate race against Chellie Pingree because both are women. The analysis also removes uncompetitive races where one candidate receives more than 75% of support in the preelection survey.

<sup>8</sup>One African American without available polling data was Troy Brown Sr., who took 32% of the vote in a 2000 race against Mississippi incumbent Senator Trent Lott. The other was 1990 South Carolina gubernatorial candidate Theo Mitchell, who won 28% of the vote.

the election outcome metric in the same way, ignoring third parties. Respondents who tell pollsters they are undecided and then disproportionately vote against the minority candidate (e.g. Berinsky, 1999) will increase the polling-performance gap.

Tables 1 provides descriptive statistics for key variables.<sup>9</sup> Turnout measures the share of the voting-eligible population who voted in that election (McDonald and Popkin 2002), and the change in turnout is as compared to the election four years prior. Biracial elections do increase turnout as compared to the previous election by an average of 3 percentage points. These descriptive statistics also provide the first hints that the Wilder effect is small in size. The average gap between a black candidate's share in a poll and her subsequent share of the vote is just 1 percentage point. For female candidates, the figure is  $-0.4$  of a percentage point. Most of the female and black observations are for Democratic candidates, and the data set for black candidates has very few observations of incumbents (3 of 48, all from Carol Mosley-Braun's 1998 bid for reelection).

## Results

How to explain the absence of the Wilder effect in these data when elections in the late 1980s made its existence so indisputable? Figure 1, which plots the polling-performance gap by year alongside loess smoothing lines, provides a preliminary answer. In the first several years, all of the observed gaps are positive, meaning that black candidates consistently polled better than they performed. The Wilder effect was at work. Yet in 1994, we see black candidates such as Washington's Ron Sims performing worse than their polls for the first time. And as of the late 1990s, the Wilder effect disappears entirely. Even Tennessee's 2006 Democratic nominee for Senate, Harold Ford Jr., experienced no Wilder effect after a negative television advertisement targeting him cued anxieties about interracial sex.<sup>10</sup> Just prior to the election, a *USA Today* survey put Ford's support at

<sup>9</sup>The "State Share Democratic" refers to the share of the national two-party vote received by the Democratic Presidential candidate in the most recent election above or below the national Democratic vote share. This measure of statewide partisanship removes national swings in the popular vote. For instance, the mean of 0.02 among black candidates indicates that they were running in states that were on average 2 percentage points more Democratic than the United States as a whole.

<sup>10</sup>Specifically, a white actress in the late-October advertisement exclaims "I met Harold at the Playboy party" and then closes the advertisement by winking and saying, "Harold, call me."

**TABLE 1** Key variables for female candidates (n = 208), black candidates (n = 47), and a random sample of white male candidates (n = 84). Each candidate can provide up to three observations.

	Females		Blacks		White Males	
	Mean	SD	Mean	SD	Mean	SD
Poll	0.49	0.11	0.45	0.10	0.50	0.12
Outcome	0.49	0.08	0.44	0.08	0.50	0.10
Gap	-0.00	0.05	0.01	0.04	0.00	0.05
Female	1.00	0.00	0.12	0.33	0.00	0.00
Year	1998	5.2	1998	6.1	1999	4.7
Democrat	0.72	0.45	0.73	0.45	0.50	0.50
Governor	0.46	0.50	0.42	0.50	0.32	0.47
Is Incumbent	0.22	0.42	0.06	0.24	0.52	0.50
Against Incumbent	0.33	0.47	0.44	0.50	0.36	0.48
In South	0.13	0.34	0.38	0.49	0.20	0.40
Pct. Black in State	0.10	0.08	0.17	0.08	0.10	0.08
State Share Dem	0.01	0.06	0.02	0.07	-0.02	0.08
$\Delta$ Turnout	0.02	0.05	0.03	0.05	0.02	0.05
Turnout	0.51	0.10	0.45	0.07	0.50	0.10
Days Until Election	11.5	7.8	10.4	6.9	14.6	9.4
Poll's Sample Size	715	325	739	203	667	229

48.4 percentage points, 0.2 percentage points lower than he would perform on election day. This weighs against hypotheses emphasizing the local information environment exclusively. In addition, the speed of the Wilder effect's decline is evidence against the generational hypothesis. For female candidates, Figure 1 shows no consistent gap between polling and performance at any point in time.<sup>11</sup> The fact that the period effect is specific to blacks suggests that we are not simply observing improvements in survey methods.

We now interrogate the key finding—a Wilder effect for black candidates until the mid-1990s—more systematically. As the year when welfare reformed passed, 1996 marked a decline in the salience of racialized national rhetoric. It also represented a turning point for the Wilder effect. Before 1996, the median gap for black candidates was 2.7 percentage points, while for subsequent years it was -0.2 percentage points. Even for this relatively small sample, the p-value on the t-test that these two distributions have the same mean is 0.01.<sup>12</sup> That rejects the

possibility that the differences across years stem from chance alone. To overcome concerns about these results being driven by outliers, an additional test randomly removed four of the elections from the data on black candidates at each iteration and then estimated the difference between the two periods. The Wilder effect was larger in the pre-1996 period in 99.9% of such simulations. The difference was statistically significant using a one-sided test in 89% of the simulations. For black candidates, the early 1990s saw a pronounced Wilder effect—but one that has declined since. Parallel analyses confirm that female and white male candidates see no such change over time, and that their polling-performance gap is consistently near zero or even negative. Indeed, female Senate candidates outperform their poll numbers by an average of 1.2 percentage points.<sup>13</sup>

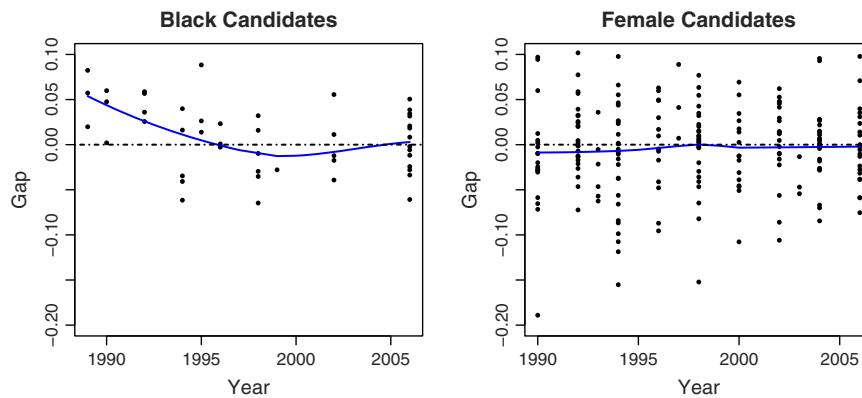
These patterns are in line with the idea that the national information environment influences the strength of the Wilder effect. Still, several threats to validity remain, including the small number of observations and omitted variable bias. One can easily imagine that the 18 observations of black candidates prior to 1996 differed in some important respect from the 29 subsequent observations, perhaps because the earlier candidates were more likely to be Democrats or running in more heavily black states

<sup>11</sup>This holds for female candidates seeking both legislative and executive positions. In fact, the point estimate for female Senate candidates is usually negative, indicating that they slightly *outperform* polls.

<sup>12</sup>Even removing all but the most recent survey for each of the 18 elections, the p-value from this t-test remains 0.02. Thus the results are not an artifact of including polls too far out from the election or from clustering multiple observations within an election.

<sup>13</sup>A t-test confirms that this figure is different from zero at  $p = 0.01$ .

FIGURE 1 These figures depict the distribution of the polling-performance gap by year, and also providing loess smoothing lines.



(Greenwald 2008). Also, we should not expect the Wilder effect to be constant for candidates with very different levels of baseline support. There are multiple reasons for this. Since candidates cannot lose support they never had, the Wilder effect might be an increasing function of a black candidate’s initial level of support. Alternately, regression to the mean or similar processes might be at work. Finally, the results above treat polling outcomes as fixed, ignoring sampling variability.

To address these issues, we began with a basic statistical model where the polling-performance gap  $Y_i$  for each observation  $i$  is a linear function of the number of days until the election, the candidate’s level of preelection support, an indicator variable denoting whether the election was prior to 1996, an indicator for Democrats, and a normally distributed error term. Conditioning on the number of the days until the election ensures that these results are not driven by the polls furthest from election day, and thus by campaign events. We include preelection polling to account for the possibility that the Wilder effect varies with the candidate’s initial support—and discuss this below.

Utilizing polling results as an independent variable introduces another challenge. The polls measure the distribution of public opinion with sampling-induced variability. We thus calculated the sampling variance of each poll given its result  $\hat{p}_i$  and sample size  $n_i$ :

$$\frac{\hat{p}_i(1 - \hat{p}_i)}{n_i - 1},$$

as outlined by Rice (1995, 198). For each observation, we then drew five simulations of the polling result  $\tilde{p}_i$  from a normal distribution with mean  $\hat{p}_i$  and the

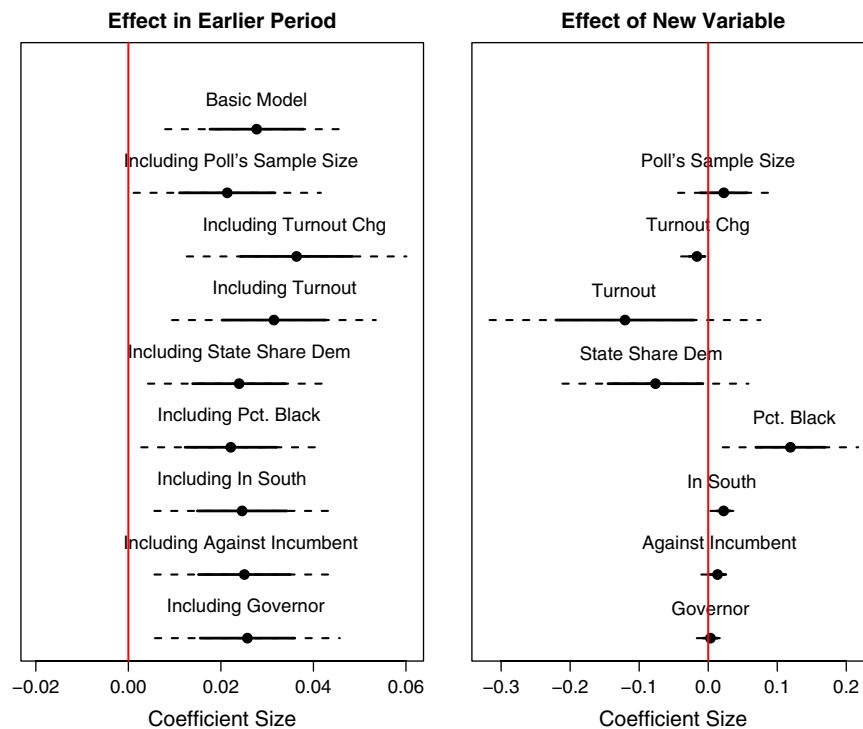
poll-specific variance. Following procedures for multiple imputation (King et al. 2001; Schafer 1997), we estimated each model for the five resulting data sets. This procedure models sampling variability explicitly. At the same time, group-clustered standard errors account for the dependence of the observations within each election (Wooldridge 2003).<sup>14</sup>

To check the robustness of the central finding, we added one variable at a time to the basic model and then extracted the coefficients for the time period effect and the new variable. This allows us to observe the influence of each new variable in models that are not overly saturated (see Achen 2005). Figure 2 presents the results. Each dot represents the estimated coefficient, with the interval within one standard error given by a solid line and the 95% confidence interval given by a dashed line. Coefficients on the left represent the increased Wilder effect in the early 1990s when accounting for new variable whose coefficient is presented on the right. For example, the line at the bottom of the left graph indicates that when conditioning on whether the candidate is running for Governor, black candidates running before 1996 saw a polling-performance gap 2.6 percentage points larger than black candidates running in subsequent years. The corresponding line on the right indicates that the effect of running for Governor is 0.3 percentage points in the same model, with a standard error of 1.1 percent points.

Figure 2 shows that the key finding is robust to a range of potentially omitted variables. Across several specifications, elections with black candidates before 1996 always generated a polling-performance gap

<sup>14</sup>There are only one to three observations per election, and results from multilevel models are not reported because they did not always converge.

**FIGURE 2** The figure at left shows the coefficient for the pre-1996 period effect for ten separate OLS models. It demonstrates the robustness of the finding that elections before 1996 had a larger Wilder effect. At right, we see the coefficient and uncertainty for the newly included variable in each model.



at least 2.1 percentage points larger than elections after. This period effect is not significantly smaller when accounting for the sample size of the poll, whether the election saw increased turnout, whether the election saw high turnout, whether the state leans Democratic, the state's percent black, whether the opponent was an incumbent, or the position sought. Importantly, voter turnout itself is not a strong predictor of the polling-performance gap. Nor are southern states predictive of a larger gap. Also, including the change in voter turnout from four years prior increases the estimated period effect, to 3.6 percentage points. Together, these findings weigh decisively against the claim that the earlier polls were inaccurate due to unexpectedly high turnout in black-white elections.<sup>15</sup> States with a higher share of African Americans tend to see larger polling-performance gaps, a finding that differs from what Greenwald (2008) and this paper observe in the 2008 Democratic primaries. Still, the central conclusion

proves quite robust.<sup>16</sup> Black candidates running in the early 1990s could expect a marked decline from their polling numbers to their actual performance.

## Overstating Front-Runner Support

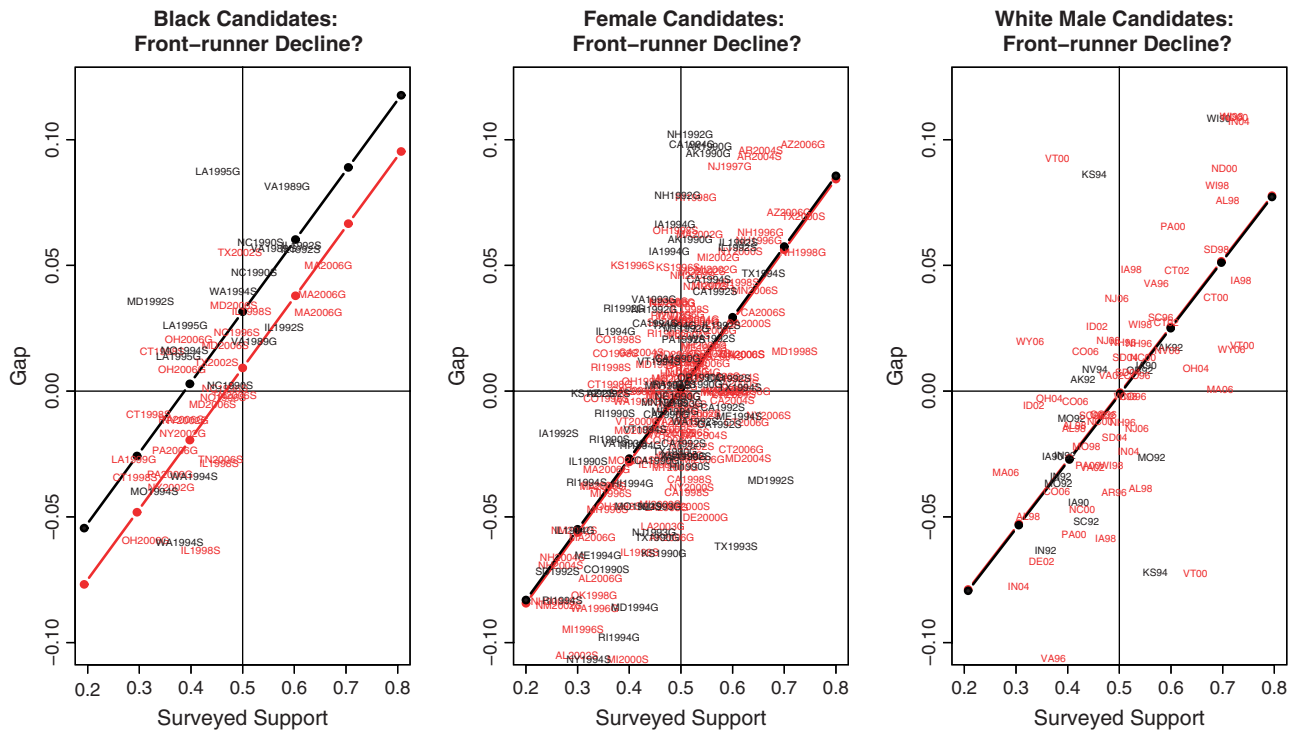
Exploratory analyses uncovered an aspect of these data that proves critical in isolating the Wilder effect. The main candidates who suffered from the Wilder effect were all front-runners, including Bradley, Dinkins, and Wilder. If front-runners commonly experience a decline from their surveys to their performance at the ballot box, the racial aspect of the Wilder effect might be overstated. There is initial evidence of exactly that. Female candidates who were behind in the polls performed an average of 2.5 percentage points better on election day. For white males, the figure is 2.1 percentage points. Even for

<sup>15</sup>Comparable voter turnout figures are not available for the seven observations that occurred in off-year elections, including those in Louisiana in 1995 and 1999. Sample size information was missing for 10 polls. For these variables, missing data were multiply imputed.

<sup>16</sup>The pattern of results remains when we remove the candidate's party and the number of the days until the election from the model, another demonstration that the basic finding is highly robust. It is also substantively unchanged when using listwise deletion instead of multiple imputation.



FIGURE 3 These figures show that for black (at left), female (center), and white male candidates (right), the polling-performance gap is strongly related to the candidate’s initial level of support. The two lines in each figure represent the predicted gap from an OLS model for 1989–1995 and 1996–2006, but only in the black case are the two periods distinguishable.



nonblack candidates, the polling-performance gap depends on a candidate’s initial level of support.

The correlation between white male candidates’ polled level of support and the polling-performance gap is an impressively strong 0.63. The number for female candidates is identical. Very few white candidates with low poll numbers see their vote share decline, and very few candidates with high poll numbers see their vote share increase. The center graph of Figure 3 depicts the results graphically for females. It depicts all of the observed polling-performance gaps. Drawing on a linear model, it also shows the polling-performance gap as a function of the candidate’s support in the survey for both 1990–95 and 1996–2006. The lines for the two periods are indistinguishable, reflecting the utter absence of a period effect among female candidates. At right, we see exactly the same relationship for white males, again with no discernible period effect. The pattern of growing gaps as initial support increases holds in both periods for both groups. The left side of Figure 3 shows the pattern for black candidates, with a very similar slope. There, too, the size of the Wilder effect hinges on a candidate’s initial level of support. Yet

the gap between the two lines illustrates the difference between the polling-performance gap before 1996 and after, reinforcing that the gap for black candidates was much wider prior to 1996.

What might cause such patterns? Earlier, we suggested that the Wilder effect might grow with a black candidate’s initial level of support. But if that were the case, the polling-performance gap should be nearly zero for a candidate with little support. Yet here it is decidedly negative for such candidates. Another possibility is classical regression to the mean, defined as “the phenomenon that a variable that is extreme on its first measurement will tend to be closer to the center of the distribution for a later measurement” (Davis 1976, 493). For classical regression to the mean to operate, the two measurements must be of random variables with the same mean and some nonzero variability. Under these conditions, if one observes a selected sample—for instance, including all those who score above average—we should expect scores to decline on average in the second measurement. Since polls have random variability induced by sampling, this is a plausible mechanism. However, simulations show that this

is not the main source of front-runners' observed decline.<sup>17</sup>

Alternately, the pattern may have a substantive rather than statistical explanation. When faced with an unknown candidate, people in surveys may be more likely to voice support for a familiar front-runner and might not anticipate the influence of partisan cues in the voting booth. For our purposes, it is less important to explain this phenomenon than to account for it in estimating the Wilder effect. We do not want to attribute to antiblack bias what is actually an artifact of survey measurement. To estimate the expected decline for a front-runner, we again modeled the polling-performance gap as a linear function of the candidate's preelection support and other key covariates. We use the initial model specification above and add the state's percent black given its predictive power in Figure 2. We can then use the model to predict the polling-performance gap for a given level of initial support. Consider Wilder's 1989 race for Governor of Virginia. The naive polling-performance gap in that election was 8.2 percentage points. Decomposing that effect, we know from the model that we should attribute 2.3 percentage points to the period effect of running in the late 1980s, when Willie Horton was a recent memory and racialized rhetoric around crime and welfare was salient.

To calculate how much of Wilder's election-day decline was due to his status as a front-runner, the analysis used the linear model to predict the polling-performance gap at Wilder's observed level of support (58%) and also at 50%, indicating two candidates who are exactly tied. By definition, there is no front-runner effect for a two-candidate race with each polling at 50%. We set other variables to their medians. For a black candidate polling at 58%, the model predicts a polling-performance gap of 3.2 percentage points excluding the period effect. By contrast, had the same candidate been polling at 50%, the drop-off on election day would have been just 0.9 percentage points, a figure not significantly different than zero. Thus we can reasonably attribute 2.3 percentage points of the polling-performance gap to the

standard front-runner decline.<sup>18</sup> There was certainly a Wilder effect in Virginia in 1989, but in all likelihood, there was also the usual decline in front-runner performance.

## Additional Tests: 2008

The 2008 Democratic presidential primaries renewed speculation about the Wilder effect, so as an additional test, we applied the same decision rules as above to collect up to three polls for each of the 33 U.S. states that held contested Democratic primaries.<sup>19</sup> Doing so yields 87 observations of polled and actual support for Senators Barack Obama and Hillary Clinton, with other candidates excluded. The mean polling-performance gap was 1.4 percentage points for Senator Clinton and the reverse for Senator Obama. This estimated mean is not at all sensitive to particular polls or states: if we remove the observations for five randomly chosen states at a time, we still observe that Senator Obama's election day performance was *better than his polling on average in every one of the 10,000 simulations*.

Probing the results further, we see that the polling-performance gap was not evenly distributed across states. Figure 1A in the online appendix presents the polling-performance gap on the y-axis as a function of each state's percent black in 2005, along with a loess smoothing line. Positive numbers represent a Wilder effect in Senator Obama's direction, while negative numbers represent a Whitman effect in Senator Clinton's direction. For the majority of states with small black populations, the polls were correct on average, even including outliers such as the New Hampshire polls. But in several heavily black states in the South, the polls systematically *understated* Senator Obama's support. *A Wilder effect that operates among white voters would produce exactly the opposite pattern of findings*. This is yet more evidence that the Wilder effect, strong in the early 1990s, is strong no longer.<sup>20</sup> In light of the paper's findings on

<sup>17</sup>Specifically, assume an unbiased poll that differs from the actual election outcome only due to sampling variability. Using the sample sizes for female candidates to generate random deviations around the election outcomes, we find that candidates performing above 50% in the simulated poll will regress 0.5 of a percentage point on average. This simulation isolates the fraction of the regression that is due to sampling variation. Since in actuality women performing above 50% in polls see an average decline of 1.9 percentage points, sampling variability accounts for roughly 25% of the observed front-runner decline. For the smaller white male sample, the comparable figure is 12%.

<sup>18</sup>Reestimating the same predictions for female candidates generates exactly the same correction of 2.3 percentage points, indicating that this level of front-runner decline is not specific to black candidates. For white males, the figure is 2.1 percentage points.

<sup>19</sup>Florida and Michigan were not sites of active campaigning, and Obama did not appear on the ballot in the latter, so both are excluded.

<sup>20</sup>In assessing this finding, one should also see Greenwald (2008), which provides similar evidence of heterogeneity across states.

female candidates, the appropriate conclusion is not that Senator Clinton suffered from a Whitman effect, but that turnout, survey sampling, or campaign effects explain the gap we observe.

This research was conducted prior to the 2008 general election. But with the election now past, we can subject the argument to one final out-of-sample test. Specifically, we can follow the same procedures to estimate whether there was a Wilder effect in the 2008 general election. Using [www.pollster.com](http://www.pollster.com), this research compiled up to the five most recent, nonpartisan telephone surveys conducted within one month of the election. This leads to a sample of 188 polls from 50 states as well as the District of Columbia. The estimated polling-performance gap for Senator Obama was 0.0004, or a minuscule four hundredths of a percentage point. Figure 2A in the online appendix plots the outcomes by the polling results and shows just how accurate the state-level polls were. The loess smoothing line is virtually indistinguishable from the 45-degree line, indicating that the polls provided unbiased estimates of voter support across the country. This is yet more evidence that the Wilder effect is political history.

## Conclusion

The Wilder effect occupies an unusual position in our thinking about American elections, as it is often invoked (e.g., Elder 2007; Lanning 2005) but rarely scrutinized. By analyzing Senate and Gubernatorial elections between 1989 and 2006, this paper has provided the first large-sample test of the Wilder effect.<sup>21</sup> In the early 1990s, there was a pronounced gap between polling and performance for black candidates of 3.2 percentage points under the model. But in the mid-1990s, that upward bias in telephone surveys became insignificant, falling by 2.3 percentage points. And it was nonexistent in the 2008 primaries and general election.

These patterns are further reinforced by drawing on black candidates outside the sample: Tom Bradley's 1982 election, Harold Washington's 1983 election, and David Dinkins' 1989 election were all plagued by the same effect, adding yet more evidence that there was an effect in the past. At a time when scholars are increasingly concerned about the validity of phone surveys, these results provide some reassurance. We

have also seen that the polling-performance gap is closely related to a candidate's level of preelection support, meaning that we should not naively attribute the entire observed gap in a given election to racial bias. Douglas Wilder, David Dinkins, Harold Washington, and Tom Bradley were all front-runners, and so all could have expected a small decline in their election day performance even without any race-specific effect.

Our ability to isolate the mechanisms underpinning these results or to analyze individual-level processes is limited by the aggregated nature of the data. Future work on the microlevel mechanisms of the Wilder effect might compare outcomes to exit polls, since there are fewer sources of bias when measuring reported vote choice just moments after the vote itself. Still, as Traugott and Price (1991) note, the exit polls available for the elections discussed here have been reweighted to match the actual election outcomes, making it impossible to use publicly available exit polls to identify biases unless within-precinct error is reported. Also, given the high levels of within-precinct error reported in the 2004 Presidential election exit polls (Edison Media Research and Mitofsky International 2005), we should worry about confusing a Wilder effect with selection mechanisms that operate even when no black candidates are running. Another important extension is to continue testing whether Latino and Asian-American candidates face a polling-performance gap as their numbers grow; a recent analysis found just 10 Latino candidates and six Asian-American candidates for Senate or Governor from 1982 to 2006 (Stout and Kline 2008).<sup>22</sup> From what we have seen here, the Wilder effect is a particular product of egalitarian norms, antiblack biases, and a specific period in political history, but testing additional groups will lend added certainty to those conclusions. In future work, it might also prove useful to look for such effects in racialized campaigns without black candidates, such as the 1991 Louisiana Governor's race.

From the available data, we cannot say definitively why the Wilder effect for black candidates disappeared. One might hypothesize that these findings are driven less by national trends and more by the candidates' leadership styles or by the role of race in specific campaigns. Certainly, a productive future step would be to measure the extent to which each campaign was racialized. Even so, the results here

<sup>21</sup>For other analyses released before the 2008 election, see Stout and Kline (2008) and Stromberg (2008); both reach the conclusion of a Wilder/Bradley effect that persists into the present.

<sup>22</sup>One might also collect data on Congressional races to extend the data set (Stromberg 2008), although non-partisan polling in such races is less standard. Also, most black candidates run in heavily black districts, making Wilder effects unlikely (Reeves 1997).

suggest that such a measure will not explain the robust period effect. The candidates most closely associated with the Wilder effect—including Wilder, Bradley, and Dinkins—all deemphasized race and focused on mobilizing white support (Hajnal, 2007). The Wilder effect was present in the early 1990s, in the north as well as the south, and in campaigns that were heavily racialized as well as those that were not. Tom Bradley ran in 1982 as a candidate who happened to be black, and yet suffered from a polling-performance gap. The same could be said of Alan Keyes' 1992 run for Senate: it was not thought to be racialized, and yet produced a Wilder effect. On the other hand, Harold Ford Jr. faced an advertisement cuing anxieties about interracial sex in 2006, and still saw no Wilder effect. In the same year, Deval Patrick faced negative advertisements about violence against women and rape, advertisements which were widely denounced as racist. Yet his polling-performance gap was exactly the size we would expect for any candidate with 65% support in pre-election polls. Tellingly, Harvey Gantt suffered from a Wilder effect in his 1990 Senate bid against Jesse Helms, but not in the 1996 rematch, even though the two candidates were the same. The Wilder effect declined to insignificance swiftly at about the time that welfare reform silenced one critical, racialized issue, and as crime's national salience was declining. And even when particular campaigns invoked racialized appeals after that, the effect did not reappear. This lends credence to the claim that the salience of racialized issues nationally facilitates Wilder effects locally. It also opens up the possibility that the Wilder effect could return if race again infuses prominent topics in national politics.

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