**Who Wins When?  
Election Timing and Descriptive Representation**

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***Forthcoming American Journal of Political Science***

**Abstract:** We examine how the timing of local elections affects the success of minority candidates, who remain woefully underrepresented in public office. We build on research showing that concurrent elections narrow racial gaps in voter turnout and leverage changes in the timing of local elections in California. Our analysis shows that filling local offices in November of even years increases minority officeholding, at least for some groups. The results demonstrate how, when, and for whom election timing matters. Latinos gain most, potentially at the expense of White and, to a lesser degree, Black representation. An investigation of potential mechanisms suggests that these effects depend on group population size and the magnitude of the turnout changes. An increase in the number of co-ethnic candidates running also appears to contribute to the representational benefits of on-cycle elections. Finally, the effects are most pronounced during presidential elections, when turnout improvements are largest.

**Word Count: 9,074**

America has become much more racially diverse over time. Yet, its policymakers at all levels of government remains overwhelmingly White. Perhaps nowhere is the disparity worse than at the local level, where Whites hold roughly 90 percent of all city council seats (Hajnal, Hutchings, and Lee 2024).[[1]](#footnote-2) The fact that political decisions at every level continue to be made overwhelmingly by Whites has important democratic implications. Research has shown that minority elected officials are more likely than their White counterparts to support policies that are in line with the preferences of minority voters and to enact policies that ultimately aid their well-being (Kogan, Lavertu, and Peskowitz 2021; Schaffner, Rhodes, and La Raja 2020; Nye, Rainer, and Stratman 2015; Juenke and Preuhs 2012; Griffin and Newman 2007; Grose 2011). Moreover, experiments show that White legislators are particularly unresponsive to constituent requests from racial and ethnic minorities (Broockman 2013; Butler and Broockman 2011; Butler 2014) and appear to prioritize the preferences of White voters (Griffin and Newman, 2007; Griffin et al., 2019).

Given these representational dynamics, it should not be surprising that racial and ethnic minorities tend to support candidates from their own race (see, e.g., Arnold and Carnes 2012; Hill, Moreno, and Cue 2001; Kaufmann 2003;). However, racial and ethnic minority communities, particularly Latinos and Asian Americans, participate in politics at lower rates than Whites — voting less often and running fewer candidates (Hajnal, Hutchings, and Lee 2024; Leighley and Nagler 2013; Sahn Forthcoming). Together, lower rates of participation and racially polarized voting likely contribute to underrepresentation of people of color in elective office.

Which reforms would be most efficacious in leveling the playing field in America’s uneven democracy? Existing research has uncovered few, if any, tools that would fully address these gaps. Reforms focusing on ballot box locations, easing voter identification laws, relaxing registration deadlines, and a host of other convenience voting measures like vote by mail and early in-person voting all have potential. However, findings to date suggest that these institutional reforms likely only alter turnout by a few percentage points or less and often do not fundamentally address turnout imbalance across groups (Burden et al. 2017; Gronke 2008).

In this paper, we assess one promising and feasible reform — a change in the timing of local elections. The idea is to move from stand-alone local elections held on their own day, used in more than two-thirds of all cities around the country, to concurrent local elections held in November of even years, on the same day as national contests. Using local election returns from California and staggered difference-in-differences modeling strategies, we find that cities that consolidate their municipal elections by aligning them with national general elections elect more Latinos and fewer Whites to their city councils. These effects are largest when local elections align with presidential elections. The results are robust to alternative modeling strategies, including newer methods that address bias in designs that leverage staggered treatment timing.

Critically, gains appear to be realized only for Latinos, who achieve near-parity in representation, but not Asian Americans and Black Americans. We probe the potential causes for these differential effects across racial and ethnic minority groups and identify several mechanisms through which election timing appears to increase the number of Latinos elected to office but fail to do so for other minority groups. First, while even-year elections boost turnout across the board, the *relative* increase is especially large for Latino voters, increasing their share of the electorate. We don’t find similarly large compositional effects for Asian or Black voters.[[2]](#footnote-3) Second, we find that Latinos — but not Asian Americans or Black Americans — are more likely to run for office when local elections are held on-cycle. Together the changes in the ethnic composition of voters and candidate entry decisions appear to be crucial mechanisms that produce representational gains for Latinos as a result of changes in election timing. The absence of similar effects among other minority groups also helps explain why their co-racial candidates do not see commensurate electoral benefits.

***Election Dates and Democratic Outcomes***

Why focus on the dates of local elections? The logic behind the move to on-cycle, even-year elections is straightforward. Concurrent elections make voting in all contests — especially local contests — less costly and more convenient. When elections are *not* held on the first Tuesday in November along with national races, voters generally need to learn the date of their local election, find their polling place, and make a separate trip to the polls just to vote in local contests. If, however, local elections occur on the same day as presidential or midterm contests, casting a ballot in local contests is almost costless. Citizens already planning to vote for higher-level offices need only check off a few more boxes further down the ballot.

Research shows that this small change in timing makes a major difference in turnout. Studies that focus on election timing have found that moving to on-cycle elections can double or even triple overall turnout in local contests, even after accounting for potentially increased rolloff in down-ballot races (Marschall and Lappie 2018, Kogan et al. 2018, Anzia 2014, Holbrook and Weinschenk 2013, Berry and Gersen 2011). This suggests that moving off-cycle local elections to be held on the same day as presidential contests could increase local voter participation rates from a very low baseline (roughly 20 to 30 percent of eligible voters cast a ballot in off-cycle local elections) to much higher levels (closer to 60 percent of eligible voters participate in on-cycle local elections). Indeed, some argue that the most important change we can undertake to increase turnout is moving local elections to November of even years.

Importantly for the present study, existing research also shows that such turnout gains are not equal among all groups in the electorate. Hajnal, Kogan, and Markarian (2022) and Kogan, Lavertu, and Peskowitz (2018) both find that moving to even-year elections not only increases turnout but can also change the electorate’s composition on a variety of demographic dimensions. Both studies demonstrate that moving to even-year elections increases the share of voters from communities of color. For some groups, the increases in turnout and the resulting changes in the racial mix of voters are surprisingly large. In California, the share of voters who are Hispanic increases by almost seven percentage points when cities move local elections to be held on presidential election dates (Hajnal, Kogan, and Markarian 2022). For other minority groups, the gains were either smaller (Asian voters) or non-existent (Black voters). The increases in the share of minority voters are offset by relative declines among Whites, whose share of the electorate drops by almost ten percentage points when local elections are held concurrently with presidential races (Hajnal, Kogan, and Markarian 2022).

Gains in voter turnout may not automatically lead to gains in representation or candidate success, however. For changes in turnout to matter for a given racial and ethnic group, several additional conditions are likely necessary. First, the group in question must be large enough to exercise electoral power. Even if every voter from a given group were to vote for a co-ethnic or co-racial candidate, that group’s voting block has a chance of being pivotal only when it represents a sufficiently large share of the electorate. For groups that account for a small share of the local population, turnout gains that result from the consolidation of local elections may not be enough to change electoral outcomes. Second, in order for expanded turnout to translate into more electoral victories, voters from a given group need to choose to vote for a candidate from their own group when given the opportunity. Research has shown that racial and ethnic minorities tend to vote for candidates from their own race, but bloc voting is not guaranteed, and divisions within racial, ethnic, and pan-ethnic communities can, at times, be quite pronounced (Barreto, Villarreal, and Woods 2005). Finally, changes in descriptive representation require that minority candidates decide to run for office.

It is unclear the extent to which these conditions are satisfied in the real world, and thus unclear whether improvements in minority voter participation produced from on-cycle elections, demonstrated in prior studies, ultimately produce gains in descriptive representation. That is the question we examine in this study.

We contribute to a growing literature on the effects of election timing on a number of potentially relevant outcomes, including the degree to which incumbents win reelection, how much public workers earn, how much the public responds to local conditions, and school referenda passage rates (de Benedictis-Kessner 2017; Trounstine 2012; Dynes, Hartney, and Hayes 2021; Payson 2017; Berry and Gersen 2011; Anzia 2012; Kogan, Lavertu, Peskowitz 2018). Important work has also examined the link between timing and female candidate success (Anzia and Bernard 2022). However, none of these studies focuses directly on the representation of racial and ethnic minorities.

The absence of easily available data on the race and ethnicity of candidates for local office has made analyzing timing and minority representation difficult. Adding to the problem has been a lack of data on the timing of local elections and a research design that can credibly speak to the causal effects of timing on minority candidate success. As a result, we know of no research that speaks directly to this question. In this paper, we examine how election timing affects the racial and ethnic composition of candidates elected to local office by leveraging rare exogenous policy change in California that we describe in more detail below.

***Theory and Mechanisms***

In this section, we sketch out some of the specific mechanisms through which we might expect the timing of elections to impact the composition of candidates ultimately elected. The first potential mechanism we consider is higher overall turnout. There are reasons to suspect that greater aggregate participation could lead directly to greater electoral success for racial and ethnic minority candidates. At least in some policy arenas, non-voters tend to have different preferences — often more liberal — than voters (Leighley and Nagler 2013, but see Gant and Lyons 1993; Wolfinger and Rosenstone 1980).[[3]](#footnote-4) To the extent that voters’ general ideology affects their willingness to support candidates of color — especially among White voters — we might expect higher turnout to improve such candidates’ electoral fortunes. At least one study has found that cities with higher turnout tend to have higher levels of minority representation in local government (Hajnal and Trounstine 2005). Based on this cross-sectional association, the authors suggest that raising local voter turnout could eliminate up to a third of the underrepresentation of racial and ethnic minorities. However, while suggestive, this study offers no compelling causal evidence of the relationship and leaves open the question of whether increasing turnout by shifting election timing produces gains in descriptive representation for communities of color (and, if so, under which conditions).

The second potential mechanism, which we expect to be the most important for increasing in minority representation, is relatively higher turnout among minorities themselves, affecting the overall racial and ethnic composition of the electorate. We know that moving local elections to November of even year increases the *share* of voters from communities of color (Hajnal, Kogan, Markarian 2022; Kogan, Lavertu, Peskowitz 2018). At least under certain circumstances, such compositional changes should impact which candidates win elective office.

In a world of racially polarized voting, increases in the share of minority voters should increase support for racial and ethnic minority candidates (Barreto, Villarreal, and Woods 2005; Hill, Moreno, and Cue 2001).[[4]](#footnote-5) In many community contexts, an increase in the sizes of minority voting blocks should lead to a greater chance of success for racial and ethnic minority candidates.[[5]](#footnote-6)

A third, potentially critical mechanism is strategic candidate entry and retirement decisions (Jacobson 1989).[[6]](#footnote-7) In order for minority representation to improve in any given context, racial and ethnic minority candidates need to choose to run for office in the first place. There are reasons to suspect that strategic candidate calculations could lead to more candidates of color running when local elections are held concurrently with national contests. Anticipating that on-cycle elections will produce a more diverse electorate, minority candidates might be more likely to enter races at higher rates, or (overwhelmingly White) incumbents might choose to retire without seeking reelection. A mix of more minority challengers and fewer (often) White incumbents running after the timing of elections change could provide one channel through which we might observe increases in descriptive representation.

***Predictions: Who Wins, When, and Where?***

Given the possible mechanisms outlined above, we do not expect all groups to benefit from the move to on-cycle local elections equally and across all contexts. Logically, we expect any changes in candidate electoral success to depend, at least in part, on the magnitude of the increase in (relative) turnout. In terms of race, the biggest winners are likely to be Latinos. As noted above, Hajnal, Kogan, and Markarian (2022) find not only that Latino turnout is generally among the lowest of all racial and ethnic groups but also — and more critically — that the Latino share of the active electorate *increases most* when election timing shifts compared to other racial and ethnic groups. Specifically, they find that the Latino share of voters increases by almost 8 percentage points in cities that shift to on-cycle contests in the same California context we study. Relative turnout among Asian Americans increases as well, although the change is more modest, with Asians increasing their share of the ballots cast by two percentage points.

By contrast, we expect other racial and ethnic groups to lose representation or to see minimal impacts. White voter share drops by an average of 10 percentage points when cities shift to concurrent elections, which suggests that success among White candidates could decline. Finally, since Black turnout is relatively high across all kinds of electoral contests and the Black share of the electorate is largely unaffected by election timing, there may be no substantial gains in African American representation.

We also expect that gains will occur unevenly depending on the size of the affected demographic group. In particular, changes in relative turnout of any group will matter more when that group is likely to be pivotal, which largely depends on the group’s size, especially when voting is polarized along racial and ethnic lines. When a minority group makes up a relatively small share of the local population, increases or decreases in turnout for that group are unlikely to affect the citywide vote all that much. In such cases, the consequences of election timing should be relatively modest. However, as a group’s share of the voting-age population increases, changes in turnout for that group should be more meaningful, and the impact of election timing should be more pronounced.

The theoretical relationship between group size and the consequences of election timing should not only help us predict where turnout will matter more for a given group across different cities but also help us predict *which* group will benefit most in a given community. Since Latinos represent a much larger share of the California voting-age population (35 percent) than either Asian Americans (16 percent) or African Americans (6 percent), we expect that on-cycle election timing will matter more for Latinos than it does for either Asian Americans or African Americans.

Finally, the effects of election timing may depend on the precise election date. Prior research has found that turnout gains are greatest for local elections that coincide with presidential races (up to 30 percentage points) but are a third smaller for local elections held concurrently with midterm general elections and smaller still for local elections that are matched up with federal and state level primaries (Hajnal, Kogan, and Markarian 2022). For this reason, we anticipate that the effects of election timing on representation will be most pronounced for local contests held concurrent presidential elections.[[7]](#footnote-8)

In short, we expect that shifts in local election timing will have significant effects on minority representation, but those effects are likely to be contingent on several factors that may lead to differential gains across groups and contexts.

**Data and Research Design**

This study examines how local election timing affects racial and ethnic minority representation. Specifically, we construct a panel of California city council elections covering the years 2008 through 2020 to examine how the success of candidates from each racial and ethnic group changes as the timing of elections in that city shifts. The analysis combines data on election timing, electoral results, and estimated race for each candidate.

We can examine the consequences of timing because jurisdictions frequently change their election dates (roughly a quarter of all cities in our analysis). In our panel, cities that change their election timing almost always switch from off- to on-cycle elections. In many cases, cost savings appear to be the main motivation for the shift (Goodman 2016). Cities in California pay the entire cost of stand-alone contests but only a fraction of consolidated elections. Also, many cities switched to on-cycle elections in response to the 2015 state mandate described below. Some cities also hold runoff elections on-cycle if no candidate wins a majority during the primary. Whether the runoff is required varies over time. Finally, idiosyncratic reasons like scandal, retirement, or death sometimes result in cities holding off-cycle special elections. Although our initial analysis leverages variation in timing due to all of these factors, we show in the robustness section below that the results are the same if we isolate only changes driven by the state mandate change, which is the most plausibly exogenous.

Our main empirical strategy exploits this variation by employing two-way (city and year) fixed-effects, thus leveraging *within-city* variation in timing and electoral outcomes over time. We undertake two additional tests to address the concern that changes in election timing are not randomly assigned and could be capturing some underlying trends in cities that motivate the shift to on-cycle elections. First, we exploit a quasi-experiment in California. In 2015, the California legislature passed a law mandating on-cycle elections for jurisdictions with historically low turnout. The timing of the law’s implementation was staggered, as not all cities complied immediately. This provides the basis for a difference-in-differences model that leverages variation in *when* (not whether) individual cities were treated. Recent research has found that, in certain cases, two-way fixed-effects models do not recover unbiased estimates when treatment timing is staggered. We address this issue in the robustness section, showing that alternative estimators recover the same substantive results as our preferred specifications.

Our panel includes a list of all decisive city council elections in California between 2008 and 2020 derived from the California Elections Data Archive, limiting our sample to elections for which we have voter file turnout estimates from the firm Catalist.[[8]](#footnote-9) This sample includes 2,672 city-by-election date observations, or about 5.5 unique local election dates for each of California’s 481 cities. Our focus is local elections that take place on the same day as a presidential general election or a midterm general election since these are the two election dates that draw by far the most voters.[[9]](#footnote-10) The comparison set is all election dates that do not occur on one of these statewide election days.

We observe the surnames of every candidate running for local office in California over the last decade and a half. Using those names and the city in which they are running for office, we can estimate the race/ethnicity of all candidates for local office and can thus compare minority success rates in on- vs. off-cycle contests. Specifically, we use Bayes rule to calculate the probability that a candidate is a member of a given racial or ethnic group using Census surname data combined with information about the demographic composition in each city. Using the calculated probabilities for each candidate-group combination, we assign each candidate to the group with the highest odds of membership. This is the most widely used approach in the literature (see Imai and Khanna 2016).

Using information about city council candidates from Beach and Jones (2017), who rely on candidate pictures and a crowd-sourcing approach to identify race and ethnicity, for a subsample of our data that overlaps with theirs, we validate our coding approach in Appendix A. Our method works quite well for White, Latino, and Asian American candidates but has higher false-negative and positive rates for Black Americans. We acknowledge this limitation and note that greater measurement error may bias our results toward the null for this particular group. There is, however, little reason to expect that errors correlate with election timing and thus little reason to believe that measurement error can account for the significant results we find for other groups.

To assess the effects of election timing on minority representation, we focus primarily on the number of winning candidates from each group. For all contests, we aggregate our analysis up to the city-by-election-date level, so the focus is on the total number of candidates from each racial and ethnic group running as well as the rate at which all candidates from a given group win elections on a given date in a particular city.[[10]](#footnote-11)

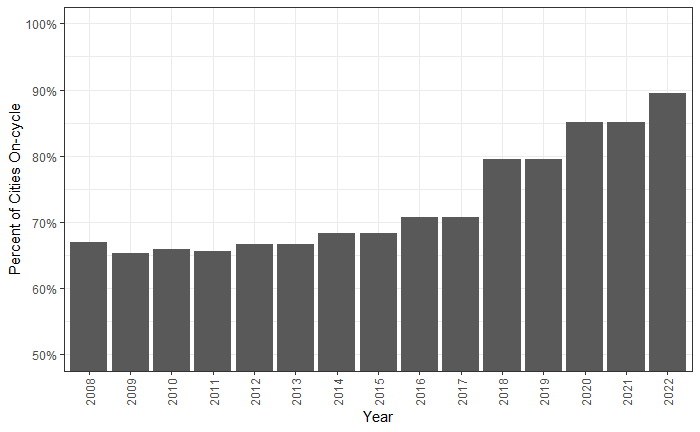
***Endogeneity in Timing Switches***

Our initial approach to examine the effects of timing on minority electoral success uses a two-way fixed-effects regression model with a panel of all decisive California city elections covering the years 2008 through 2020. Unlike cross-sectional, correlational analyses, this approach accounts for unobservable, time-invariant differences between cities that could potentially confound the relationship between election timing and election outcomes by including city fixed-effects. By exploiting the substantial variation in election timing that we see in California over our time period (roughly a quarter of all cities in our analysis hold elections on different dates during the course of our panel), we can assess how minority candidate success changes as the timing of elections in a city shifts.

The key assumption necessary to interpret our estimates causally is that the cities in our sample would have followed parallel trends over time on the key outcomes of interest. However, one may be concerned that changes to election timing are endogenous to underlying conditions that also shape local election outcomes. While we cannot fully rule out this possibility, we take various steps to deal with this potential issue. First, we include a robust set of time-variant unit-specific controls to condition parallel trends. We control for the number of city council races on the ballot, the number of open seats, the total number of candidates running, median city income, the share of city residents with a college degree, the share of city residents over the age of 65, and cities’ racial demographics.[[11]](#footnote-12) Furthermore, to account for the possibility of divergent trends leading selection into treatment, we included city-specific linear time trends as a robustness check in the main analysis to account for the unique changes and trajectories of individual cities over time.

Figure 1 below shows how the timing of elections changes over the course of the panel. We note that this figure incorporates all changes in timing beyond just those switches that were prompted by the passage of the 2015 California election timing law. In this sample, some cities may switch back and forth between on-cycle and off-cycle elections — for example, a city that begins with off-cycle elections might move to even-year elections, but then hold a special election off-cycle to fill an unexpected vacancy during the middle of a term. Yet, we see that the vast majority of switches to on-cycle elections occurred after California’s 2015 legislation mandating timing changes in most municipalities.

**Figure 1: Percent of California Cities Holding On-cycle Elections**



Finally, we replicate our analysis using an alternative difference-in-differences estimator that is robust to issues unique to staggered timing. Using this estimator, we specifically model pre-treatment trends in the dependent variable and show that cities appear to be following parallel trends in the years leading up to their election timing changes.

**Findings: Timing and Candidate Success**

Table 1 summarizes our primary findings, which show that election timing has significant effects on minority candidate success.[[12]](#footnote-13) But equally importantly, it reveals that these effects differ greatly from group to group. The table presents analysis where the outcomes of interest are the *share* of winners from each racial and ethnic group as well as the absolute *number* of winners from each group. All models include year and city fixed-effects (in addition to the full suite of time-varying controls). The second model for each dependent variable also includes city-specific linear time trends.

First, it is clear that Latino candidates are the big winners from on-cycle elections, particularly when local elections are held concurrently with presidential elections. Regardless of whether we measure success by the relative share of winners from a given racial and ethnic group or the absolute number of winners from each group, Latino candidates do significantly better when elections are moved on-cycle. The share of winners in city council races that are Latino increases by about 10 to 14 percentage points when city council elections are held concurrently with presidential elections. This means that, on average, an additional 0.3 Latino candidates win city council races.

Critically, this also means that on-cycle elections bring Latinos to near parity in representation. Prior to changes in timing, Latinos represented 19 percent of winning city council candidates while accounting for nearly 31 percent of the population across these cities (see Appendix C for more details). Thus, our analysis suggests that changing the election date to November of even years largely eliminates the underrepresentation of Latino officeholders in these cities.

We see less robust but positive effects for Latinos when elections are held concurrently with congressional midterms.[[13]](#footnote-14) Only one model suggests positive and statistically significant effects of midterm-concurrent city council elections on Latino candidates’ success.

On the other hand, the move to on-cycle elections appears to have no effect on Asian American representation. The results show that the share of winners who are Asian Americans is largely unaffected by the timing of local elections. The sign on the coefficient changes depending on whether we include linear time trends, the coefficients are substantively small, and the standard errors are large. While one model suggests that the number of winners in city council races who are Asian American is negatively affected by aligning local elections with presidential elections, this effect is not statistically significant when including linear time trends. Furthermore, robustness test using different estimation strategies for staggered treatments (used in the next section) suggest that Asian American representation is largely unaffected by election timing.

For African Americans, switching to on-cycle elections may have negative consequences, though estimates are imprecise, with none achieving statistical significance. When cities hold local elections concurrently with presidential elections, the share of winners who are Black may decrease by about 2.3 to 5.6 percentage points, though these estimates are not statistically significant. The absolute number of Black candidates elected to office may also be negatively impacted by on-cycle local elections. While the model with linear time trends suggests that 0.3 fewer Black candidates win office when cities hold local elections concurrently with presidential contests, these findings are not statistically significant. This negative effect could be because Black turnout is relatively high in off-cycle local elections compared to Latino turnout, leaving little room for further increases, and because Black Americans tend to live disproportionately in California cities where Latinos are a numerically large group, creating a zero-sum dynamic in representation.

Lastly, these models imply that on-cycle elections have a limited impact on White representation, though the estimated effects of on-cycle elections on the share of winners that are White are substantively large. The coefficients are consistently negative but not statistically significant, suggesting that on-cycle local elections may reduce the share of winners who are White by about 4.9 to 8.8 percentage points but with low precision around these estimates. Thus, these initial estimates suggest that on-cycle elections primarily benefit Latino candidates but provide limited evidence to better understand at which group’s expense these gains are realized.

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Table 1: The Effect of Election Timing on Number of Winners in City Council Races** | | | | | |  | DV: Share of Winners in City Council Races | | DV: Number of Winners in City Council Races | | | *Latinos* |  |  |  |  | | Presidential timing | 0.099\*  (0.041) | 0.140\*  (0.060) | 0.305\*\*  (0.103) | 0.310\*  (0.150) | | Midterm timing | 0.062  (0.043) | 0.116\*  (0.055) | 0.145  (0.110) | 0.135  (0.144) | | *Asian Americans* |  |  |  |  | | Presidential timing | -0.034  (0.026) | 0.002  (0.029) | -0.146\*  (0.072) | -0.090  (0.099) | | Midterm timing | -0.012  (0.032) | 0.017  (0.043) | -0.086  (0.093) | -0.020  (0.117) | | *African Americans* |  |  |  |  | | Presidential timing | -0.022  (0.024) | -0.051  (0.037) | -0.151  (0.099) | -0.283  (0.177) | | Midterm timing | -0.014  (0.045) | -0.045  (0.067) | -0.146  (0.185) | -0.305  (0.291) | | *Whites* |  |  |  |  | | Presidential timing | -0.046  (0.048) | -0.088  (0.069) | -0.016  (0.131) | 0.073  (0.191) | | Midterm timing | -0.038  (0.060) | -0.084  (0.087) | 0.082  (0.184) | 0.200  (0.251) | | Time-Varying Controls | X | X | X | X | | City FEs | X | X | X | X | | Year FEs | X | X | X | X | | City-Specific Trend |  | X |  | X | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 |

***Alternative Specifications and Robustness***

The results summarized above have several potential limitations. First, they treat changes in election timing as exogenous, ignoring the possibility that cities change their electoral rules strategically — for example, in response to growth in the size of the minority population or greater political mobilization among this population. Although we control for key confounders, including racial composition of the potential electorate, and the results are robust to including city-specific linear trends, some concerns about endogeneity remain. Second, different cities in our sample change their election timing in different years. As a series of recent papers in economics has shown, the two-way fixed-effects regression we rely on as our preferred specification can produce biased estimates in such contexts when treatment effects are heterogeneous across units or dynamic over time (see, e.g., Callaway and Sant’Anna 2021; de Chaisemartin and D’Haultfœuille 2020; Goodman-Bacon 2021). We examine these issues in several ways.

To address concerns about bias due to staggered timing, we use the alternative estimator developed by Callaway and Sant’Anna (2021), which addresses bias in two-way fixed-effects estimates. Doing so, however, requires us to restructure our dataset because this estimator can only have one treatment and one observation per unit-year. In the analysis presented above, we use each election as the unit of analysis. For the new analysis, we collapse the data up to the city-year level.[[14]](#footnote-15) In addition, because it is common for cities to have staggered elections, with half of the city council seats up every two years, we create a new dependent variable that captures a running average of the number of city council seats held by each racial or ethnic group based on the last two elections.[[15]](#footnote-16)

Furthermore, we construct a new analytic sample limited to the subset of years where election timing changes are most plausibly exogenous, driven by a California state law passed in 2015 that required cities to move local elections on-cycle if participation rates in off-cycle elections were below a relatively high threshold.[[16]](#footnote-17) We identify cities that switched their election timing to be primarily on-cycle after 2015 (excluding special elections). We include elections held in these cities as early as 2014 to have a pre-treatment baseline for early switchers and use all available years of data since then.[[17]](#footnote-18)

Figure 2 below presents the results in the form of event study plots, again estimated using the Callaway and Sant’Anna (2021) method. The left side of the panels shows that cities do not see any significant changes in the racial and ethnic composition of their city councils in the years leading up to changes in their election schedule. This useful placebo check provides evidence that changes in election timing are indeed plausibly exogenous. It also provides support for the parallel trends assumption underlying the analysis. As cities shift to on-cycle elections, we see a significant increase in the share of city council seats held by Latinos. The point estimate fluctuates modestly over time, but significant increases in Latino representation persist for at least six years after the switch. The estimated dynamic average treatment effects suggest that the switch to on-cycle local elections increased the Latino share of city councils by about 6.1 percentage points during the period under observation (2014-2022). These estimates align with the previous findings, as city council elections are typically staggered, with representational gains accumulating over time.

These figures also provide additional evidence that the White share of city councils may decrease when cities switch to on-cycle elections. Though the average treatment effect is not statistically significant, the models suggest that the White share of city councils decreases by about 4 percentage points when cities make the switch, the largest observed negative effect among all racial groups, and the effect of election consolidation on White representation appear to be more negative during periods when Latinos make the largest gains. By contrast, similar figures for Asian American and African American representation show largely null effects in the years after the change in election time. While the coefficients are negative, they are small, particularly for Asian Americans, and the standard errors are large. These sets of findings suggest that representational gains for Latinos appear to be coming from representational losses for Whites, who are historically overrepresented in elected offices.

**Figure 2: Effect of On-cycle Elections on City Council Share using HHE Robust Estimators**

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In addition, we conducted a series of further tests to help ensure the robustness of our results. First, we looked to see if the findings extend beyond city council elections to other local races. To do so, we incorporated all municipal offices in the CEDA data into the analysis. That includes mayors, city clerks, and district attorney races. This additional analysis suggests that switching to on-cycle local elections improves Latino representation in local government across a range of city offices, not just city councils (see Appendix D). In another test, we also control for whether or not cities utilize at-large elections (see Appendix E). Substantively, all of the analyses point to the same finding of Latino representational gains during on-cycle — especially presidential — elections.

Furthermore, we test whether the effects of election timing on descriptive racial representation generalize outside of California using a more limited cross-sectional dataset (see Appendix F). We acquire race and ethnicity data for a national sample of local elected officials from Bucchianeri et al. (2021) and election timing data from Dynes, Hartney, and Hayes (2021). While this dataset is smaller and cross-sectional, limiting statistical power, multivariate regression analysis provides suggestive evidence that the effects discovered above generalize outside of California. While the effects are not statistically significant, the analysis suggests that local elected officials are about 3.5 percentage points more likely to be Latino and about 6.5 percentage points less likely to be White when city elections are held on-cycle (see Appendix F).

***Mechanisms***

Why do Latinos win when election dates shift, while other groups lose or remain largely unaffected? To answer this question, we now turn to an examination of the three potential mechanisms that we highlighted earlier: (1) increased overall turnout, (2) increases in the share of voters from communities of color, and (3) strategic candidate exit and entry.[[18]](#footnote-19)

We begin by analyzing the first-stage effect of election timing on each of these potential mechanisms. For a mediator to have explanatory power, it must first be affected by election timing. As we see in Table 2, on-cycle elections affect our mediators in the way we would expect.[[19]](#footnote-20) On-cycle elections do lead to higher overall turnout, affect the share of voters from each racial and ethnic group, and shift the racial and ethnic mix of candidates running for office.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 2: Analysis of Potential Mediators** | | | | | | |
|  | DV: | | | | |
|  | Overall Turnout (Share of Voting Age Population that Voted) | | | | |
| Presidential timing | 0.354\*\*\*  (0.018) | | | | |
|  |
| Midterm timing | 0.261\*\*\* | | | | |
|  | (0.023) | | | | |
|  | | DV: | | | | |
|  | | Share of Voters Latino | Share of Voters Asian | Share of Voters Black | Share of Voters White | |
| Presidential timing | | 0.043\*\*\* | 0.012\*\* | 0.014\*\*\* | -0.079\*\*\* | |
|  | | (0.007) | (0.003) | (0.003) | (0.012) | |
| Midterm timing | | 0.037\*\*\* | 0.005 | 0.016\*\*\* | -0.077\*\*\* | |
|  | | (0.009) | (0.004) | (0.003) | (0.015) | |
|  | |  |  |  |  | |
|  | | DV: | | | | |
|  | | Number of City Council Candidates  Latino | Number of City Council Candidates  Asian | Number of City Council Candidates  Black | Number of City Council Candidates  White | |
| Presidential timing | | 0.378+ | -0.203 | -0.179 | 0.154 | |
|  | | (0.197) | (0.198) | (0.121) | (0.422) | |
| Midterm timing | | -0.123 | -0.087 | -0.126 | -0.266 | |
|  | | (0.153) | (0.215) | (0.170) | (0.545) | |
|  | | | | | | |
| City | | Yes | Yes | Yes | Yes | |
| Year | | Yes | Yes | Yes | Yes | |
| Time Variant Controls | | Yes | Yes | Yes | Yes | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | | | |

Digging deeper, the results in Table 2 could also help to explain why different racial and ethnic groups do not appear to see equal improvements in descriptive representation from on-cycle elections. First, in terms of each group’s respective share of the electorate, we find that when local elections are held in November of even years, the biggest compositional gains occur for Latinos. We estimate that the Latino share of voters increases substantially (by about 4 percentage points). By contrast, White Americans are the biggest losers here. Their share of voters decreases substantially (by about 8 percentage points). The share of voters who are Asian American and Black American also increases, but much more modestly.[[20]](#footnote-21)

Second, when we focus on the racial mix of candidates, we find that on-cycle elections affect the number of Latino candidates running for office but do not impact the number of White or Asian American candidates. We estimate that 0.38 additional Latino candidates run when local elections are held concurrently with presidential elections (p = 0.05). Given that only 1.1 Latino candidates run in the average off-cycle elections, that estimate represents a 35 percent increase in Latino candidates. These results are robust when we measure the share of candidates from each racial group rather than the total number of candidates (see Appendix G). In additional results reported in the appendix, we find no evidence of strategic incumbent retirement after changes in election timing, suggesting that this mechanism is not contributing to our findings (see Appendix H).[[21]](#footnote-22)

But do these different mechanisms lead to changes in representation? To understand whether changes in overall turnout, in the racial composition of voters, and in the candidate pool account for the changes in each group’s electoral success, we carry out additional tests in the spirit of mediation analysis. Specifically, we examine whether cities that experience the largest increases in voter participation, municipalities where groups experience larger increases in their share of the citywide electorate, and jurisdictions that see larger shifts in the racial mix of candidates after the changes in timing are also the ones that see the largest increase in Latino electoral success. We view these analyses as suggestive rather than definitive because we cannot directly test the formal statistical assumptions (i.e., sequential ignorability) necessary to interpret these results as a definitive causal mediation analysis (Imai et al. 2011).[[22]](#footnote-23)

We start with a mechanism that does not appear to directly affect descriptive representation for any of the four racial and ethnic minority groups. On-cycle elections have a strong positive effect on aggregate turnout rates, but as Table 3 indicates, turnout itself does not significantly predict the racial and ethnic composition of election winners.

Table 3 does, however, indicate that candidate supply appears to have a relatively consistent effect across the four groups. The coefficients in Table 3 for the number of candidates from each group all hover around 0.1. For each group, that means that an additional candidate on the ballot is associated with about a 10 percent increase in the share of winners from the group. Estimated candidate entry effects are strongest for Asian Americans and weakest for Black Americans.

Table 3 also shows that the *share of voters* from each minority group may positively impact descriptive representation, but similar increases in a group’s share of the overall electorate do not translate to equal gains in descriptive representation across all groups. Specifically, the table suggests the size of each group’s voting block is more consequential for Latinos than other groups. For Latinos, a ten percentage point increase in their share of the citywide electorate predicts about a five percent increase in the share of winners who are Latino. We see no statistically significant effects of electorate composition on co-racial candidate success among any other group of voters when controlling for the number of candidates from each group running.[[23]](#footnote-24)

Together, these results suggest that on-cycle elections appear to produce Latino representational gains through two primarily channels — by increasing the share of voters who are themselves Latino and boosting the number of Latino candidates running for local office. Table 3 also helps us to understand how much of the impact of election timing can be explained by these three mechanisms. After we control for a racial group’s share of the electorate, the number of candidates from a racial group, and overall turnout rates, the coefficients for the election timing variables are no longer significant. This suggests that changes in the racial composition of voters and strategic candidate entry nearly fully explain the effects of election timing on the racial composition of city council election winners. However, this analysis cannot precisely tell how much of the total timing effect can be attributed to each mechanism. To provide some suggestive evidence on this point, we present additional analyses in the supplemental appendix, where we carry out the mediation analysis one mechanism at a time for Latinos (see Appendix J for the full regression results). As before, we find that increases in total turnout do not appear to be responsible for the gains in descriptive representation. The remaining two mechanisms — a group’s share of the electorate and the racial and ethnic mix of candidates — each appear to mediate away about half of the estimated impact of timing on representation, suggesting that both contribute meaningfully and importantly to the representational gains we find.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 3: Mechanism Test Through Mediation Analysis** | | | | | |
|  | | DV: | | | |
|  | | ` | | | |
|  | | Share of Winners in City Council Races  Latino | Share of Winners in City Council Races Asian | Share of Winners in City Council Races Black | Share of Winners in City Council Races White |
|  | | | | | |
| Presidential timing | | 0.027 | -0.014 | -0.014 | -0.038 |
|  | | (0.036) | (0.027) | (0.017) | (0.043) |
| Midterm timing | | 0.031 | -0.008 | -0.014 | -0.038 |
|  | | (0.042) | (0.030) | (0.033) | (0.054) |
| Share of Voters | | 0.540\*\* | 0.192 | 0.364 | 0.159 |
| from Racial Group | | (0.194) | (0.324) | (0.291) | (0.114) |
| Number of Candidates | | 0.103\*\*\* | 0.112\*\*\* | 0.086\*\*\* | 0.095\*\*\* |
| from Racial Group | | (0.007) | (0.009) | (0.016) | (0.006) |
| Share of VAP | | 0.038 | 0.006 | 0.006 | 0.001 |
| that Voted | | (0.040) | (0.020) | (0.016) | (0.042) |  |
|  | |  |  |  |  |
|  | | | | | |
| City | | Yes | Yes | Yes | Yes |
| Year | | Yes | Yes | Yes | Yes |
| Time Variant Controls | | Yes | Yes | Yes | Yes |
| Note: | Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p < 0.1~~;~~ \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

***Other Factors***

One other potentially important contextual factor that we have not yet investigated is the overall size of each racial group in each city. One reason why the compositional gains from on-cycle elections translate to candidate success among Latinos may be because this group’s size makes it plausibly pivotal. When a given racial and ethnic group makes up a relatively small share of the local population, increases or decreases in turnout for that group are unlikely to impact the outcome of a citywide vote in a major way.[[24]](#footnote-25)

We examine this hypothesis in Figure 3. Specifically, we show how the effects of election timing vary across cities as a function of their respective racial demography. Se group cities into three buckets based on the percentage of the local voting-age population in each racial and ethnic subgroup: a) cities where the group in question makes up less than 20 percent of the population, b) cities where the group makes up between 20 and 50 percent of the local population, and 3) cities where the group represents a numerical majority of the population.[[25]](#footnote-26)

Figure 3 reveals that the effects of election timing are somewhat dependent on group size. At least for Latinos, gains in representation tend to be concentrated in cities with a higher baseline Latino population — places that have more potential but, prior to the switch, not-yet-active voters. Once again, the clearest effects for Latinos are observed when local elections are moved to the same date as presidential elections. When local elections are held on presidential dates and when Latinos represent between 20 and 50 percent of the population, the proportion of Latino winners increases by roughly 20 percent. Coupling local elections with midterm dates also appears to matter and to increase as the size of the Latino population increases in these cities.

Interestingly, we do not find significant representational gains from holding local elections concurrently with presidential races in majority-Latino cities.[[26]](#footnote-27) This result may at first seem surprising. However, it is consistent with our theoretical prediction that timing should matter only when it affects the probability that a given racial voting bloc is pivotal. In majority Latino cities, it may be that Latinos represent a sufficiently large voting bloc regardless of when an election is held, making additional increases in the Latino share of the electorate less important for election outcomes.[[27]](#footnote-28)

Group size also appears to matter for Whites. As Figure 3 illustrates, moving to even-year elections does not clearly impact representation when White residents make up more than half of the population. This suggests that any decline in the White share of the electorate is not sufficient large to affect the overwhelming numerical advantage that White voters have in these cities. But as Figure 3 also reveals, White representation does decline substantially when local elections are moved to on-cycle dates in cities where Whites represent less than half of the electorate. Additional analysis confirms that White losses are greatest in cities with large Latino populations (see Appendix K).

Summarizing our findings across the various analyses, timing produces few clear effects for Blacks and Asian Americans.

**Figure 3: Effect of On-cycle Elections by Each Group’s Population Share**

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*Note:* Categories in each plot are defined with respect to the race/ethnicity of the focal group defined as the dependent variable. Our data contain too few post-reform midterm elections in cities with sizeable (more than 20 percent) African American populations to reliably estimate this effect for African American electoral success.

**Discussion**

Prior research has found compelling evidence that election timing substantially impacts voter turnout and, importantly, narrows the turnout gaps for minority voters. In this study, we build on this body of evidence to show that election timing also impacts election outcomes themselves, potentially increasing descriptive representation for minority communities. Importantly, we also find that the effects of election timing vary in systematic and predictable ways. Our analysis demonstrates for whom election timing matters, where it matters, when it matters — and finally, why.

The biggest winners from on-cycle elections are Latino candidates. We find evidence that this is due both to Latino voters seeing larger relative increases in turnout, which translate to the group representing a proportionately larger voting block in even years, and more Latino candidates running for office. There are also signs that White candidates lose when local elections are aligned with federal elections — another pattern that appears to reflect the changes in the racial composition of the electorate. While the coefficients are not all statistically significant, the estimates consistently suggest that Whites see the largest decline in their share of the overall electorate after cities shift their election timing. The share of winners and city councilors who are White appears to decrease most after election consolidation when Latinos win or in cities where Latinos are a stronger political force.

For Asian Americans, a group whose share of the electorate increases only marginally, we find few clear gains in representation. We find limited effects for Black representation, though there is some suggestive evidence that election consolidation marginally decreases Black candidates’ electoral success. These null results appear to reflect both smaller relative turnout gains and also the fact that these groups rarely represent sufficiently large voting blocks for timing to meaningfully impact election outcomes.

We can also predict and then demonstrate where and when gains in representation occur. In line with expectations, gains are greater where the group in question represents a larger share of the local city population and where the resulting change in voter composition is likely to affect whether the group is pivotal. In particular, Latino representational gains from on-cycle elections appear to occur only in cities with sufficiently large Latino populations. Also, in line with expectations, we find that gains in representation are greatest when local elections coincide with presidential elections — a date that leads to the most dramatic changes in turnout.

Finally, we provide some evidence on why timing appears to matter. Our analysis shows that the effects of election timing on the racial composition of city council election winners appear to be explained by two mechanisms — changes in the racial composition of voters and strategic candidate entry. We can also rule out strategic incumbent retirement as a mechanism (see Appendix H).

These findings have profound implications. Surveys of minority voters show that their subjective satisfaction with local government is higher when they see themselves represented among the ranks of local policymakers (Bobo and Gilliam 1990). In addition, a large body of research on “representative bureaucracy” shows that minority constituents often fare better when represented by those who look most like them. For example, in a recent study leveraging close school board elections in California, Kogan, Lavertu, and Peskowitz (2021) show that electing more Latino candidates into office increases spending on school facilities, raises the share of non-White school principals, and ultimately improves academic achievement of non-White students. Any new pathway that leads to more racial and ethnic minorities in office thus represents an important step forward for both descriptive and substantive representation.

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**SUPPLEMENTARY MATERIALS**

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**Appendix A – Race Prediction Validation**

Table A compares the results of our Bayesian improved surname geocoding (BISG) results using the WRU package in R (Imai and Khanna 2016) to data collected by Beach and Jones (2017), which uses more precise hand-coding methods. Beach and Jones (2017) collected race and ethnicity data from 5,177 city council candidates running for office in California between 2005 and 2011 by contacting local government offices and leveraging a Mechanical Turk survey to code pictures of candidates. Using similar methods to code the 35,000 candidates in our dataset would be unfeasible.

The validation results suggest that BISG is precise and accurate for most racial and ethnic groups. The true positives and true negatives rates for Whites, Asians, and Latinos/Hispanics are over 80%. BISG is less precise for Black Americans, with recall and precision rates around 60%. The lower precision and recall rates for Black Americans are potentially affected by the use of city-level demographic data instead of a more granular census tract or block data. However, more granular data for city council candidates is unavailable. It is important to note that random measurement error increases the likelihood of type II errors, reducing the likelihood of finding statistically significant results, so it cannot explain the significant representational gains we find in our analysis.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table A: Bayesian Improved Surname Geocoding Validation Check** | | | | | | | | | | |
|  | | | Beach and Jones (2017) Race and Ethnicity Measurement | | | | | | | |
| Black | East Asian/ Pacific Islander | Latino | Indian | Middle Eastern/ North African | Native Ameri-can | White | **True Positives** |
| Bayesian Improved Surname Geocoding | Asian | | 3 | 168 | 17 | 18 | 6 | 0 | 34 | 78% |
| Black | | 172 | 4 | 14 | 0 | 1 | 0 | 108 | 58% |
| Latino | | 4 | 9 | 1031 | 0 | 1 | 0 | 102 | 90% |
| White | | 110 | 36 | 81 | 2 | 21 | 1 | 4406 | 95% |
| **True Negatives** | | 60% | 77% | 90% | 90% | 77%\* | NA\*\* | 95% |  |
|  | |

**Appendix B – Complete Tables for Tables 1-3 in the Main Text**

Table 1 in the main text illustrates the effects of election timing on key coefficients related to racial and ethnic minority candidate success. Tables B1-B8 present full regression results from which the main coefficients are drawn.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
| **Table B1: Complete Models for Table 1, Model 1** | | | | |
|  | Dependent variable: | | | |
|  |  | | | |
|  | Share of Winners White | Share of Winners Latino | Share of Winners Asian | Share of Winners Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.046 | 0.099\* | -0.034 | -0.022 |
|  | (0.048) | (0.041) | (0.026) | (0.024) |
|  |  |  |  |  |
| Midterm | -0.038 | 0.062 | -0.012 | -0.015 |
|  | (0.060) | (0.043) | (0.032) | (0.045) |
|  |  |  |  |  |
| Primary | 0.007 | 0.014 | -0.009 | -0.014 |
|  | (0.044) | (0.036) | (0.026) | (0.033) |
|  |  |  |  |  |
| Number of won | 0.004 | -0.0001 | -0.005 | 0.001 |
|  | (0.010) | (0.010) | (0.006) | (0.005) |
|  |  |  |  |  |
| Number of Contests | -0.011 | 0.018+ | -0.005 | -0.002 |
|  | (0.012) | (0.011) | (0.008) | (0.005) |
|  |  |  |  |  |
| Number of Candidates | -0.002 | 0.001 | 0.001 | 0.0001 |
|  | (0.003) | (0.002) | (0.002) | (0.001) |
|  |  |  |  |  |
| City Median Income | 0.00000 | -0.00000 | 0.00000 | -0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.188 | -0.125 | 0.245 | 0.084 |
|  | (0.331) | (0.256) | (0.189) | (0.084) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 0.583 | -0.548+ | -0.144 | 0.099 |
|  | (0.380) | (0.325) | (0.208) | (0.104) |
|  |  |  |  |  |
| Share of Population Black | 1.319 | -1.568+ | -0.309 | 0.544 |
|  | (0.892) | (0.853) | (0.404) | (0.626) |
|  |  |  |  |  |
| Share of Population Asian | -0.930\* | -0.150 | 0.953\*\* | 0.115 |
|  | (0.429) | (0.339) | (0.313) | (0.183) |
|  |  |  |  |  |
| Share of Population Latino | -0.318 | 0.904+ | -0.315 | -0.269 |
|  | (0.550) | (0.482) | (0.254) | (0.198) |
|  |  |  |  |  |
| DV Mean | 0.728 | 0.192 | 0.046 | 0.034 |
|  | (0.357) | (0.312) | (0.149) | (0.140) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.717 | 0.683 | 0.534 | 0.651 |
| Adjusted R2 | 0.653 | 0.611 | 0.428 | 0.571 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table B2: Complete Models for Table 1, Model 2** | | | | |
|  | Dependent variable: | | | |
|  |  | | | |
|  | Share of Winners White | Share of Winners Latino | Share of Winners Asian | Share of Winners Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.088 | 0.140\* | 0.002 | -0.051 |
|  | (0.069) | (0.060) | (0.029) | (0.037) |
|  |  |  |  |  |
| Midterm | -0.084 | 0.116\* | 0.017 | -0.045 |
|  | (0.087) | (0.055) | (0.043) | (0.067) |
|  |  |  |  |  |
| Primary | -0.033 | 0.066 | 0.007 | -0.037 |
|  | (0.067) | (0.045) | (0.036) | (0.053) |
|  |  |  |  |  |
| Number of Winners | -0.004 | 0.010 | -0.002 | -0.004 |
|  | (0.012) | (0.011) | (0.007) | (0.006) |
|  |  |  |  |  |
| Number of Contests | 0.003 | 0.0004 | -0.006 | 0.003 |
|  | (0.014) | (0.014) | (0.010) | (0.007) |
|  |  |  |  |  |
| Number of Candidates | -0.002 | 0.001 | 0.0005 | 0.0004 |
|  | (0.004) | (0.003) | (0.003) | (0.002) |
|  |  |  |  |  |
| City Median Income | 0.00000 | -0.00000 | -0.00000 | 0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -1.420 | 1.048 | -0.281 | 0.680 |
|  | (1.322) | (1.197) | (0.739) | (0.488) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 1.760 | -0.919 | -1.189 | 0.297 |
|  | (1.887) | (1.752) | (1.100) | (0.656) |
|  |  |  |  |  |
| Share of Population Black | -0.315 | 0.445 | 0.488 | -0.677 |
|  | (4.448) | (4.229) | (1.548) | (6.323) |
|  |  |  |  |  |
| Share of Population Asian | 1.706 | -2.621 | 1.153 | -0.269 |
|  | (2.196) | (2.146) | (1.400) | (1.060) |
|  |  |  |  |  |
| Share of Population Latino | 0.064 | -1.689 | -0.089 | 1.671 |
|  | (1.826) | (1.688) | (0.515) | (2.131) |
|  |  |  |  |  |
| DV Mean | 0.728 | 0.192 | 0.046 | 0.034 |
|  | (0.357) | (0.312) | (0.149) | (0.140) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
| City Time Trends | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.793 | 0.762 | 0.658 | 0.725 |
| Adjusted R2 | 0.677 | 0.628 | 0.467 | 0.571 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

### **Table B3: Complete Models for Table 1, Model 3**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | |
|  | Dependent variable: | | | | | | |
|  |  | | | | | | |
|  | Number of White Winners | | Number of Latino Winners | | Number of Asian Winners | | Number of Black Winners | |
|  | (1) | | (2) | | (3) | | (4) | |
|  | | | | | | | |
| Presidential | -0.016 | | 0.305\*\* | | -0.146\* | | -0.151 | |
|  | (0.131) | | (0.103) | | (0.072) | | (0.099) | |
|  |  | |  | |  | |  | |
| Midterm | 0.082 | | 0.145 | | -0.086 | | -0.146 | |
|  | (0.184) | | (0.110) | | (0.093) | | (0.185) | |
|  |  | |  | |  | |  | |
| Primary | -0.052 | | 0.102 | | 0.036 | | -0.091 | |
|  | (0.151) | | (0.102) | | (0.082) | | (0.161) | |
|  |  | |  | |  | |  | |
| Number of Winners | 0.736\*\*\* | | 0.183\*\*\* | | 0.052\*\* | | 0.028+ | |
|  | (0.034) | | (0.030) | | (0.018) | | (0.015) | |
|  |  | |  | |  | |  | |
| Number of Contests | -0.093\*\* | | 0.073\* | | 0.002 | | 0.019 | |
|  | (0.035) | | (0.033) | | (0.018) | | (0.017) | |
|  |  | |  | |  | |  | |
| Number of Candidates | -0.008 | | 0.002 | | 0.004 | | 0.002 | |
|  | (0.008) | | (0.006) | | (0.005) | | (0.004) | |
|  |  | |  | |  | |  | |
| City Median Income | 0.00000 | | -0.00000 | | 0.00000 | | -0.00000 | |
|  | (0.00000) | | (0.00000) | | (0.00000) | | (0.00000) | |
|  |  | |  | |  | |  | |
| Share of Population with College Degree | -0.744 | | 0.294 | | 0.365 | | 0.133 | |
|  | (0.906) | | (0.720) | | (0.503) | | (0.195) | |
|  |  | |  | |  | |  | |
| Share of Population Over Age 65 | 1.766+ | | -1.381 | | -0.589 | | 0.173 | |
|  | (1.044) | | (0.882) | | (0.521) | | (0.268) | |
|  |  | |  | |  | |  | |
| Share of Population Black | 2.019 | | -3.391 | | 0.051 | | 1.281 | |
|  | (2.317) | | (2.137) | | (0.959) | | (1.605) | |
|  |  | |  | |  | |  | |
| Share of Population Asian | -2.190\* | | -0.400 | | 2.279\*\* | | 0.276 | |
|  | (1.086) | | (0.872) | | (0.759) | | (0.465) | |
|  |  | |  | |  | |  | |
| Share of Population Latino | -0.732 | | 2.643\* | | -0.917 | | -0.987\* | |
|  | (1.390) | | (1.163) | | (0.681) | | (0.480) | |
|  |  | |  | |  | |  | |
| DV Mean | 1.802 | | 0.471 | | 0.117 | | 0.085 | |
|  | (1.048) | | (0.774) | | (0.368) | | (0.349) | |
|  |  | |  | |  | |  | |
|  | | | | | | | |
| City | Yes | | Yes | | Yes | | Yes | |
| Year | Yes | | Yes | | Yes | | Yes | |
|  | | | | | | | |
| Observations | 2,658 | | 2,658 | | 2,658 | | 2,658 | |
| R2 | 0.789 | 0.688 | | 0.539 | | 0.645 | |
| Adjusted R2 | 0.741 | 0.617 | | 0.434 | | 0.564 | |
|  | | | | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table B4: Complete Models for Table 1, Model 4** | | | | | | |
|  | Dependent variable: | | | | | |
|  |  | | | | | |
|  | Number of White Winners | | Number of Latino Winners | Number of Asian Winners | | Number of Black Winners |
|  | (1) | | (2) | (3) | | (4) |
|  | | | | | | |
| Presidential | 0.073 | | 0.310\* | -0.090 | | -0.283 |
|  | (0.191) | | (0.150) | (0.099) | | (0.177) |
|  |  | |  |  | |  |
| Midterm | 0.200 | | 0.135 | -0.020 | | -0.305 |
|  | (0.251) | | (0.144) | (0.117) | | (0.291) |
|  |  | |  |  | |  |
| Primary | 0.008 | | 0.117 | 0.104 | | -0.221 |
|  | (0.230) | | (0.146) | (0.111) | | (0.261) |
|  |  | |  |  | |  |
| Number of Winners | 0.723\*\*\* | | 0.198\*\*\* | 0.059\*\* | | 0.018 |
|  | (0.040) | | (0.036) | (0.021) | | (0.016) |
|  |  | |  |  | |  |
| Number of Contests | -0.068 | | 0.043 | -0.005 | | 0.030 |
|  | (0.042) | | (0.039) | (0.021) | | (0.023) |
|  |  | |  |  | |  |
| Number of Candidates | -0.006 | | 0.002 | 0.003 | | 0.001 |
|  | (0.011) | | (0.007) | (0.007) | | (0.005) |
|  |  | |  |  | |  |
| City Median Income | 0.00002\* | | -0.00002+ | -0.00001 | | 0.00000 |
|  | (0.00001) | | (0.00001) | (0.00001) | | (0.00000) |
|  |  | |  |  | |  |
| Share of Population with College Degree | -4.889 | | 2.936 | 0.729 | | 1.306 |
|  | (3.356) | | (3.040) | (1.602) | | (1.101) |
|  |  | |  |  | |  |
| Share of Population Over Age 65 | 3.105 | | -1.513 | -2.644 | | 0.898 |
|  | (4.866) | | (4.408) | (2.637) | | (1.608) |
|  |  | |  |  | |  |
| Share of Population Black | -8.120 | | 0.980 | 3.158 | | 3.807 |
|  | (11.613) | | (11.741) | (4.204) | | (8.831) |
|  |  | |  |  | |  |
| Share of Population Asian | 4.066 | | -5.815 | 1.869 | | -0.213 |
|  | (5.461) | | (5.438) | (3.500) | | (2.044) |
|  |  | |  |  | |  |
| Share of Population Latino | 1.149 | | -1.918 | -0.061 | | 0.704 |
|  | (4.502) | | (4.220) | (1.453) | | (2.929) |
|  |  | |  |  | |  |
| DV Mean | 1.802 | | 0.471 | 0.117 | | 0.085 |
|  | (1.048) | | (0.774) | (0.368) | | (0.349) |
|  |  | |  |  | |  |
|  | | | | | | |
| City | Yes | | Yes | Yes | | Yes |
| Year | Yes | | Yes | Yes | | Yes |
|  | | | | | | |
| Observations | 2,658 | | 2,658 | 2,658 | | 2,658 |
| R2 | 0.845 | | 0.763 | 0.670 | | 0.723 |
| Adjusted R2 | 0.758 | | 0.631 | 0.485 | | 0.568 |
|  | | | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | | | |
|  |  | | | | | |
|  |  | | | | | |
| **Table B5: Complete Models for Table 2, Top** | | | | |
|  | | Voter Turnout as of VAP | | |
|  | |  | | |
|  | | | | |
| Presidential | | 0.354\*\*\* | | |
|  | | (0.018) | | |
|  | |  | | |
| Midterm | | 0.261\*\*\* | | |
|  | | (0.023) | | |
|  | |  | | |
| Primary | | 0.116\*\*\* | | |
|  | | (0.019) | | |
|  | |  | | |
| City Median Income | | -0.00000\* | | |
|  | | (0.00000) | | |
|  | |  | | |
| Share of Population with College Degree | | -0.355 | | |
|  | | (0.243) | | |
|  | |  | | |
| Share of Population Over Age 65 | | 0.464 | | |
|  | | (0.295) | | |
|  | |  | | |
| Share of Population Black | | -0.113 | | |
|  | | (0.690) | | |
|  | |  | | |
| Share of Population Asian | | -0.448+ | | |
|  | | (0.260) | | |
|  | |  | | |
| Share of Population Latino | | -0.377 | | |
|  | | (0.402) | | |
|  | |  | | |
|  | | | | |
| City | | Yes | | |
| Year | | Yes | | |
|  | | | | |
| Observations | | 2,658 | | |
| R2 | | 0.894 | | |
| Adjusted R2 | | 0.870 | | |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table B6: Complete Models for Table 2, Middle** | | | | |
|  | Share of Voters by Racial Group | | | |
|  |  | | | |
|  | Share of Voters White | Share of Voters Latino | Share of Voters Asian | Share of Voters Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.079\*\*\* | 0.043\*\*\* | 0.012\*\*\* | 0.014\*\*\* |
|  | (0.012) | (0.007) | (0.003) | (0.003) |
|  |  |  |  |  |
| Midterm | -0.077\*\*\* | 0.037\*\*\* | 0.005 | 0.016\*\*\* |
|  | (0.015) | (0.009) | (0.004) | (0.003) |
|  |  |  |  |  |
| Primary | -0.031\*\* | 0.013+ | -0.001 | 0.013\*\*\* |
|  | (0.012) | (0.007) | (0.003) | (0.004) |
|  |  |  |  |  |
| City Median Income | -0.00000\* | -0.00000\*\* | 0.00000\*\*\* | -0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.428\*\*\* | 0.194\*\*\* | 0.054 | 0.084\*\* |
|  | (0.114) | (0.054) | (0.037) | (0.026) |
|  |  |  |  |  |
| Share of Population Over Age 65 | -0.593\*\*\* | -0.181\* | -0.045 | -0.030 |
|  | (0.154) | (0.077) | (0.043) | (0.035) |
|  |  |  |  |  |
| Share of Population Black | -1.750\*\*\* | -0.175 | -0.061 | 0.319\* |
|  | (0.501) | (0.226) | (0.094) | (0.126) |
|  |  |  |  |  |
| Share of Population Asian | -0.664\*\*\* | -0.110 | 0.628\*\*\* | 0.095\* |
|  | (0.153) | (0.070) | (0.078) | (0.040) |
|  |  |  |  |  |
| Share of Population Latino | -1.031\*\*\* | 0.645\*\*\* | -0.084+ | 0.152\*\* |
|  | (0.261) | (0.109) | (0.048) | (0.048) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.972 | 0.985 | 0.975 | 0.964 |
| Adjusted R2 | 0.966 | 0.982 | 0.969 | 0.956 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table B7: Complete Models for Table 2, Bottom** | | | | |
|  | *Dependent variable:* | | | |
|  |  | | | |
|  | Number of White Candidates | Number of Latino Candidates | Number of Asian Candidates | Number of Black Candidates |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | 0.154 | 0.378+ | -0.203 | -0.179 |
|  | (0.422) | (0.197) | (0.198) | (0.121) |
|  |  |  |  |  |
| Midterm | -0.266 | -0.123 | -0.087 | -0.126 |
|  | (0.545) | (0.253) | (0.215) | (0.170) |
|  |  |  |  |  |
| Primary | 0.234 | 0.209 | 0.088 | -0.014 |
|  | (0.425) | (0.194) | (0.144) | (0.166) |
|  |  |  |  |  |
| Number of Winners | 1.439\*\*\* | 0.401\*\*\* | 0.110\*\*\* | 0.074\*\*\* |
|  | (0.085) | (0.053) | (0.032) | (0.020) |
|  |  |  |  |  |
| Number of Contests | 0.111 | 0.247\*\*\* | 0.029 | 0.076\* |
|  | (0.127) | (0.066) | (0.032) | (0.030) |
|  |  |  |  |  |
| City Median Income | 0.00001\* | -0.00000 | 0.00000 | -0.00000 |
|  | (0.00001) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -5.143\* | -0.588 | 0.767 | 0.750 |
|  | (2.551) | (1.126) | (0.797) | (0.933) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 7.523\*\* | -1.862 | -1.112 | -0.144 |
|  | (2.855) | (1.312) | (0.866) | (0.675) |
|  |  |  |  |  |
| Share of Population Black | -5.225 | -6.515 | 0.695 | -3.604 |
|  | (5.420) | (5.342) | (2.561) | (7.027) |
|  |  |  |  |  |
| Share of Population Asian | -3.986 | -1.611 | 5.033\*\*\* | -0.548 |
|  | (2.998) | (1.708) | (1.340) | (1.466) |
|  |  |  |  |  |
| Share of Population Latino | -8.693\*\* | 3.943+ | -1.134 | -0.991 |
|  | (3.075) | (2.309) | (0.929) | (1.037) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.699 | 0.734 | 0.646 | 0.763 |
| Adjusted R2 | 0.631 | 0.674 | 0.565 | 0.709 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

**Table B8: Complete Models for Table 3**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  |  | | | |
|  |  | | | |
|  | Share of Winners White | Share of Winners Latino | Share of Winners Asian | Share of Winners Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.038 | 0.027 | -0.014 | -0.014 |
|  | (0.043) | (0.036) | (0.027) | (0.017) |
|  |  |  |  |  |
| Midterm | -0.038 | 0.031 | -0.008 | -0.014 |
|  | (0.054) | (0.042) | (0.030) | (0.033) |
|  |  |  |  |  |
| Primary | 0.023 | -0.008 | -0.016 | -0.016 |
|  | (0.036) | (0.032) | (0.023) | (0.026) |
|  |  |  |  |  |
| Number of White Candidates | 0.095\*\*\* |  |  |  |
|  | (0.006) |  |  |  |
|  |  |  |  |  |
| Share of Voters White | 0.159 |  |  |  |
|  | (0.114) |  |  |  |
|  |  |  |  |  |
| Number of Latino Candidates |  | 0.103\*\*\* |  |  |
|  |  | (0.007) |  |  |
|  |  |  |  |  |
| Share of Voters Latino |  | 0.540\*\* |  |  |
|  |  | (0.194) |  |  |
|  |  |  |  |  |
| Number of Asian Candidates |  |  | 0.112\*\*\* |  |
|  |  |  | (0.009) |  |
|  |  |  |  |  |
| Share of Voters Asian |  |  | 0.192 |  |
|  |  |  | (0.324) |  |
|  |  |  |  |  |
| Number of Black Candidates |  |  |  | 0.086\*\*\* |
|  |  |  |  | (0.016) |
|  |  |  |  |  |
| Share of Voters Black |  |  |  | 0.364 |
|  |  |  |  | (0.291) |
|  |  |  |  |  |
| Overall Turnout | 0.001 | 0.038 | 0.006 | 0.006 |
|  | (0.042) | (0.040) | (0.020) | (0.016) |
|  |  |  |  |  |
| Number of Winners | -0.004 | 0.005 | -0.004 | 0.004 |
|  | (0.009) | (0.009) | (0.006) | (0.004) |
|  |  |  |  |  |
| Number of Contests | 0.010 | -0.001 | -0.005 | -0.007 |
|  | (0.011) | (0.009) | (0.007) | (0.004) |
|  |  |  |  |  |
| Number of Candidates | -0.066\*\*\* | -0.021\*\*\* | -0.005\*\*\* | -0.004\*\*\* |
|  | (0.005) | (0.003) | (0.002) | (0.001) |
|  |  |  |  |  |
| City Median Income | -0.000 | 0.00000 | -0.00000 | -0.000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | 0.091 | -0.237 | 0.122 | -0.027 |
|  | (0.281) | (0.208) | (0.143) | (0.082) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 0.256 | -0.184 | 0.017 | 0.139 |
|  | (0.329) | (0.268) | (0.154) | (0.090) |
|  |  |  |  |  |
| Share of Population Black | 1.153 | -1.104 | -0.472 | 0.673 |
|  | (0.882) | (0.699) | (0.297) | (0.696) |
|  |  |  |  |  |
| Share of Population Asian | -0.512 | 0.070 | 0.262 | 0.126 |
|  | (0.380) | (0.282) | (0.340) | (0.148) |
|  |  |  |  |  |
| Share of Population Latino | 0.236 | 0.036 | -0.213 | -0.266 |
|  | (0.499) | (0.421) | (0.188) | (0.198) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.772 | 0.752 | 0.646 | 0.716 |
| Adjusted R2 | 0.720 | 0.695 | 0.565 | 0.651 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

**Appendix C – Proportional Representation**

In addition to looking at win rates, we also want to know if the changes that election timing lead to more representative outcomes. In cities that formally switch the timing of their regular elections between 2008 and 2020, successful city council candidates and city councils themselves look similar to the population they represent. Latinos compromise about 30 percent of the population in these cities on average. Prior to the switch to on-cycle elections, only 19 percent of successful city council candidates are Latino. After these cities switch to on-cycle elections, 29 percent of successful city council candidates are Latino.

We test this more formally in Table C, where we focus on whether the move to on-cycle elections leads the racial share of successful city council candidates to look more like the racial shares of cities’ populations. The dependent variables in these models is the ratio of the share of city council candidates from a racial group over the share of the population from that racial group. A value of one corresponds to perfect representation. Estimates above one indicate that a group is proportionately over-represented, while values below one indicate that a group is under-represented.

The results suggest that on-cycle elections produce governing bodies that look more like their respective population. In general, the share if winning candidates who are Latino tends to be lower than the share of voting-age Latinos in the city. However, the results reveal that when cities shift to presidential election dates, they see significant increases representational outcomes — gains that move the share of winning candidates that are Latino closer to the Latino population share. While the effects of midterm-concurrent elections are weaker and not statistically significant, the point estimate is substantively large. There is also some indication that holding local contests concurrently with presidential elections could bring ratio of White winners to White population size down and close to parity, but that effect is not quite statistically significant. Election timing changes appear to have a limited impact on proportionality for Asian Americans and Black Americans.

**Table C: Effects of Election Timing on Representation Gaps**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  | Dependent variable: | | | |
|  |  | | | |
|  | White Share of Winners to Share of Population | Latino Share of Winners to Share of Population | Asian Share of Winners to Share of Population | Black Share of Winners to Share of Population |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.382 | 0.319\* | 0.142 | -0.163 |
|  | (0.289) | (0.150) | (0.290) | (0.230) |
|  |  |  |  |  |
| Midterm | -0.527 | 0.141 | 0.049 | -0.140 |
|  | (0.350) | (0.163) | (0.271) | (0.382) |
|  |  |  |  |  |
| Primary | -0.246 | 0.029 | 0.077 | -0.045 |
|  | (0.254) | (0.148) | (0.196) | (0.295) |
|  |  |  |  |  |
| Number of Winners | 0.016 | -0.018 | 0.083 | 0.022 |
|  | (0.049) | (0.041) | (0.092) | (0.052) |
|  |  |  |  |  |
| Number of Contests | -0.050 | 0.068 | -0.062 | -0.044 |
|  | (0.049) | (0.043) | (0.079) | (0.049) |
|  |  |  |  |  |
| Number of Candidates | -0.001 | 0.002 | -0.011 | 0.001 |
|  | (0.012) | (0.008) | (0.016) | (0.012) |
|  |  |  |  |  |
| City Median Income | -0.00000 | -0.00000 | 0.00000 | 0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -1.071 | -0.064 | 5.230\* | 1.768 |
|  | (1.381) | (1.335) | (2.547) | (1.096) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 1.299 | -1.902 | 3.405 | 1.203 |
|  | (1.188) | (1.467) | (2.542) | (0.801) |
|  |  |  |  |  |
| DV Mean | 1.442 | 0.585 | 0.174 | 0.774 |
|  | (1.201) | (1.117) | (0.717) | (7.836) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.514 | 0.371 | 0.323 | 0.462 |
| Adjusted R2 | 0.404 | 0.229 | 0.170 | 0.341 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |
|  |  | | | |

**Appendix D – Assessing the Effects of Election Timing on All Local Candidates**

The figures in the body of the manuscript present estimated effects of election timing on candidate success in city council races. To determine if the effects of election timing apply to a broader set of local elections, we analyzed the effects of election timing across all the different types of local elections included in our data set. In addition to city council elections, this includes contests for mayors, city clerks, and district attorneys.

Tables D1 and D2 assess the effects of local election timing on the share and number of winners in all local races from each racial and ethnic group. While the effects are weak and not statistically significant, Table D1 suggests that results in Table 1 are largely robust when we look at all local races held in this sample of elections. When local elections are held concurrently with presidential elections, the share of successful candidates that are Latino increases by five percentage points while the share of successful candidates that are White decreases by 4.3 percentage points. The share of candidates that are Asian or Black is largely unaffected and midterm election timing seems to have weaker effects. Table D2 shows that, on average, 0.2 more Latino candidates are elected to local office when cities hold their elections concurrently with presidential elections and this finding is statistically significant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table D1: Share of Winners in All Local Races by Racial Group** | | | | |
|  | Dependent variable: | | | |
|  |  | | | |
|  | Share of Winners White | Share of Winners Latino | Share of Winners Asian | Share of Winners Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.047 | 0.056 | -0.005 | -0.005 |
|  | (0.038) | (0.034) | (0.015) | (0.011) |
|  |  |  |  |  |
| Midterm | -0.028 | 0.023 | 0.013 | -0.009 |
|  | (0.042) | (0.034) | (0.021) | (0.017) |
|  |  |  |  |  |
| Primary | -0.003 | -0.007 | 0.012 | -0.003 |
|  | (0.040) | (0.036) | (0.018) | (0.015) |
|  |  |  |  |  |
| Number of Winners | 0.003 | -0.003 | -0.0003 | 0.0003 |
|  | (0.007) | (0.007) | (0.004) | (0.003) |
|  |  |  |  |  |
| Number of Contests | 0.0003 | 0.005 | -0.005 | -0.0001 |
|  | (0.007) | (0.007) | (0.004) | (0.004) |
|  |  |  |  |  |
| Number of Candidates | -0.002 | 0.0003 | 0.001 | 0.0005 |
|  | (0.002) | (0.002) | (0.001) | (0.001) |
|  |  |  |  |  |
| City Median Income | 0.00000 | -0.00000\* | 0.00000 | 0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.206 | -0.082 | 0.209 | 0.096 |
|  | (0.275) | (0.227) | (0.160) | (0.076) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 0.880\*\* | -0.730\*\* | -0.156 | -0.012 |
|  | (0.318) | (0.273) | (0.171) | (0.085) |
|  |  |  |  |  |
| Share of Population Black | 1.082 | -1.438\* | 0.013 | 0.338 |
|  | (0.667) | (0.698) | (0.233) | (0.480) |
|  |  |  |  |  |
| Share of Population Asian | -0.717+ | -0.038 | 0.851\*\*\* | -0.113 |
|  | (0.393) | (0.315) | (0.239) | (0.153) |
|  |  |  |  |  |
| Share of Population Latino | -0.271 | 0.473 | -0.084 | -0.163 |
|  | (0.383) | (0.339) | (0.206) | (0.123) |
|  |  |  |  |  |
| DV Mean | 0.712 | 0.201 | 0.049 | 0.038 |
|  | (0.359) | (0.313) | (0.149) | (0.146) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 3,139 | 3,139 | 3,139 | 3,139 |
| R2 | 0.755 | 0.719 | 0.572 | 0.717 |
| Adjusted R2 | 0.708 | 0.665 | 0.490 | 0.662 |
|  | | | | |
| Note: Includes years 2008-2022. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |
|  |  | | | |

**Table D2: Number of Winners in All Local Races by Racial Group**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  | Dependent variable: | | | |
|  |  | | | |
|  | Number of White Winners | Number of Latino Winners | Number of Asian Winners | Number of Black Winners |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.097 | 0.226\* | -0.067 | -0.005 |
|  | (0.107) | (0.094) | (0.046) | (0.011) |
|  |  |  |  |  |
| Midterm | 0.056 | 0.048 | -0.029 | -0.009 |
|  | (0.133) | (0.098) | (0.055) | (0.017) |
|  |  |  |  |  |
| Primary | -0.080 | 0.068 | 0.048 | -0.003 |
|  | (0.125) | (0.100) | (0.055) | (0.015) |
|  |  |  |  |  |
| Number of Winners | 0.683\*\*\* | 0.181\*\*\* | 0.063\*\*\* | 0.0003 |
|  | (0.039) | (0.027) | (0.015) | (0.003) |
|  |  |  |  |  |
| Number of Contests | -0.016 | 0.037 | -0.024+ | -0.0001 |
|  | (0.033) | (0.025) | (0.013) | (0.004) |
|  |  |  |  |  |
| Number of Candidates | -0.015 | 0.004 | 0.006 | 0.0005 |
|  | (0.011) | (0.006) | (0.004) | (0.001) |
|  |  |  |  |  |
| City Median Income | 0.00000 | -0.00000\* | 0.00000 | 0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.886 | 0.120 | 0.478 | 0.096 |
|  | (0.928) | (0.821) | (0.476) | (0.076) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 2.827\*\* | -2.316\* | -0.457 | -0.012 |
|  | (1.059) | (0.930) | (0.467) | (0.085) |
|  |  |  |  |  |
| Share of Population Black | 3.093 | -4.743\* | 0.018 | 0.338 |
|  | (2.040) | (1.884) | (0.674) | (0.480) |
|  |  |  |  |  |
| Share of Population Asian | -2.015+ | -0.332 | 2.572\*\*\* | -0.113 |
|  | (1.216) | (0.997) | (0.749) | (0.153) |
|  |  |  |  |  |
| Share of Population Latino | -1.272 | 2.214\* | -0.224 | -0.163 |
|  | (1.120) | (1.005) | (0.546) | (0.123) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 3,139 | 3,139 | 3,139 | 3,139 |
| R2 | 0.834 | 0.749 | 0.606 | 0.716 |
| Adjusted R2 | 0.802 | 0.700 | 0.531 | 0.661 |
|  | | | | |
| Note: Includes years 2008-2022. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

**Appendix E – Controlling for District vs. At-large Elections**

In Table D, we add controls for the share of council seats that are elected at-large (rather than by ward or district) to address the possibility that election timing changes coincide with other electoral rules that could increase minority representation. Although we find strong evidence that minority candidates do better when city council elections are held by district rather than city-wide, consistent with much prior research, we still find a significant and independent effects of timing on Latino candidate success.

**Table E: Controlling for the Percent of Elections At-large**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | |
|  | Dependent variable: | | | | | | | | |
|  |  | | | | | | | | |
|  | Share of Winners White | | Share of Winners Latino | | Share of Winners Asian | | Share of Winners Black | |
|  | (1) | | (2) | | (3) | | (4) | |
|  | | | | | | | | | |
| Presidential | | | -0.047 | | 0.100\* | | -0.033 | | -0.022 | |
|  | | | (0.048) | | (0.040) | | (0.026) | | (0.024) | |
|  | | |  | |  | |  | |  | |
| Midterm | | | -0.037 | | 0.062 | | -0.012 | | -0.015 | |
|  | | | (0.060) | | (0.042) | | (0.032) | | (0.045) | |
|  | | |  | |  | |  | |  | |
| Primary | | | 0.002 | | 0.018 | | -0.008 | | -0.014 | |
|  | | | (0.045) | | (0.035) | | (0.026) | | (0.033) | |
|  | | |  | |  | |  | |  | |
| Number of Winners | | | -0.005 | | 0.009 | | -0.004 | | 0.0002 | |
|  | | | (0.011) | | (0.010) | | (0.007) | | (0.005) | |
|  | | |  | |  | |  | |  | |
| Number of Contests | | | 0.017 | | -0.007 | | -0.009 | | -0.00003 | |
|  | | | (0.015) | | (0.015) | | (0.011) | | (0.007) | |
|  | | |  | |  | |  | |  | |
| Number of Candidates | | | -0.003 | | 0.002 | | 0.001 | | 0.0001 | |
|  | | | (0.003) | | (0.002) | | (0.002) | | (0.001) | |
|  | | |  | |  | |  | |  | |
| % of Elections At-Large | | | 0.087\*\* | | -0.080\*\* | | -0.012 | | 0.005 | |
|  | | | (0.031) | | (0.030) | | (0.018) | | (0.011) | |
|  | | |  | |  | |  | |  | |
| City Median Income | | | 0.00000 | | -0.00000 | | 0.00000 | | -0.00000 | |
|  | | | (0.00000) | | (0.00000) | | (0.00000) | | (0.00000) | |
|  | | |  | |  | |  | |  | |
| Share of Population with College Degree | | | -0.142 | | -0.167 | | 0.239 | | 0.086 | |
|  | | | (0.333) | | (0.257) | | (0.190) | | (0.083) | |
|  | | |  | |  | |  | |  | |
| Share of Population Over Age 65 | | | 0.534 | | -0.503 | | -0.138 | | 0.096 | |
|  | | | (0.383) | | (0.329) | | (0.207) | | (0.104) | |
|  | | |  | |  | |  | |  | |
| Share of Population Black | | | 1.424 | | -1.664+ | | -0.323 | | 0.550 | |
|  | | | (0.914) | | (0.867) | | (0.410) | | (0.626) | |
|  | | |  | |  | |  | |  | |
| Share of Population Asian | | | -0.905\* | | -0.173 | | 0.950\*\* | | 0.117 | |
|  | | | (0.430) | | (0.337) | | (0.314) | | (0.183) | |
|  | | |  | |  | |  | |  | |
| Share of Population Latino | | | -0.201 | | 0.796 | | -0.331 | | -0.262 | |
|  | | | (0.560) | | (0.489) | | (0.263) | | (0.200) | |
|  |  | |  | |  | |  | |
| DV Mean | 0.728 | | 0.192 | | 0.046 | | 0.034 | |
|  | (0.357) | | (0.312) | | (0.149) | | (0.140) | |
|  |  | |  | |  | |  | |
|  | | | | | | | | | |
| City | Yes | | Yes | | Yes | | Yes | |
| Year | Yes | | Yes | | Yes | | Yes | |
|  | | | | | | | | | |
| Observations | 2,658 | | 2,658 | | 2,658 | | 2,658 | |
| R2 | 0.719 | | 0.685 | | 0.534 | | 0.651 | |
| Adjusted R2 | 0.654 | | 0.612 | | 0.428 | | 0.571 | |
|  | | | | | | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | | | | | | |

**Appendix F – National Cross-sectional Analysis**

To see if the effects of election timing on racial representation generalize beyond California, we undertook an additional test that tries to assess the link between timing and minority representation across the whole country. We acquired data on the racial makeup of mayors and city councilors and the timing of local elections for a range of cities around the country. The data on city officials’ racial and ethnic identity are from a national survey of elected officials conducted in 2015 and 2016 and includes complete data for 729 local officials across all 50 states (Bucchianeri et al. 2021).[[28]](#footnote-29) We then combined that survey data with data on election timing from Dynes, Hartney, and Hayes (2021).[[29]](#footnote-30)

We once again classify cities as “off-cycle” if their municipal elections are not held on the same date as general national elections. Our core question is thus whether holding local elections on the same date as national or state contests is associated with greater office holding for racial and ethnic minorities. In our regression analysis, we also control for a range of other factors — including the racial demographics of the city population — that have been linked to descriptive representation.

As shown in Table F, we find that cities with on-cycle elections are 6.5 percentage points less likely to be White, 3.6 percentage points more likely to be Latino, and 2.4 percentage points more likely to be Black. While these findings are not statistically significant, the effect sizes are in line with what we would expect given the main analysis and the small size of the Latino population outside of California. Nevertheless, these findings — although based on cross sectional analysis and a smaller sample — do strengthen the external validity of our California findings regarding the link between election timing and minority representation.

It is worth noting that no other local institutional factor that we include in the analysis (e.g. partisan vs. non-partisan elections, district vs. at-large elections, term limits, the presence of a directly elected mayor) is associated with levels of minority representation around the country. In fact, other than the racial demographics of a city, on-cycle elections were the only factor that predicted the number of non-White city council members. As one would expect, minority representation expands as the size of the non-white and Hispanic populations in a city increases.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table F: National Cross-Sectional Analysis of Election Timing Effects on City Officials’ Race and Ethnicity** | | | |
|  | Dependent variable: | | |
|  |  | | |
|  | City Official White | City Official Latino | City Official Black |
|  | (1) | (2) | (3) |
|  | | | |
| On-cycle | -0.065 | 0.036 | 0.024 |
|  | (0.060) | (0.033) | (0.038) |
|  |  |  |  |
| City Ideology | -0.100 | 0.038 | -0.004 |
|  | (0.105) | (0.058) | (0.067) |
|  |  |  |  |
| Logged City Expenditures | -0.010 | 0.006 | 0.025 |
|  | (0.047) | (0.026) | (0.030) |
|  |  |  |  |
| Logged City Revenue | -0.008 | 0.023 | 0.004 |
|  | (0.050) | (0.028) | (0.032) |
|  |  |  |  |
| 2012 Rep Pres Share | 0.274 | -0.046 | 0.027 |
|  | (0.205) | (0.114) | (0.130) |
|  |  |  |  |
| Logged City Population | -0.013 | -0.00003 | 0.020 |
|  | (0.022) | (0.012) | (0.014) |
|  |  |  |  |
| Logged Median Income | 0.071 | -0.111\* | 0.074 |
|  | (0.096) | (0.053) | (0.061) |
|  |  |  |  |
| Logged Median Home Value | -0.056 | 0.053 | -0.043 |
|  | (0.074) | (0.041) | (0.047) |
|  |  |  |  |
| % Population Non-White | -0.423\*\* | -0.031 | 0.383\*\*\* |
|  | (0.139) | (0.077) | (0.089) |
|  |  |  |  |
| % Population Hispanic | -0.409\*\* | 0.471\*\*\* | -0.032 |
|  | (0.129) | (0.071) | (0.082) |
|  |  |  |  |
| City Services Provided | 0.004 | -0.004 | 0.006 |
|  | (0.008) | (0.004) | (0.005) |
|  |  |  |  |
| Partisan Elections | -0.115 | 0.008 | 0.061 |
|  | (0.059) | (0.033) | (0.037) |
|  |  |  |  |
| Perc Districts At-large | -0.018 | 0.022 | 0.008 |
|  | (0.044) | (0.024) | (0.028) |
|  |  |  |  |
| Term Limits | 0.048 | -0.001 | -0.014 |
|  | (0.039) | (0.022) | (0.025) |
|  |  |  |  |
| City Elects Mayor | 0.002 | 0.022 | -0.010 |
|  | (0.038) | (0.021) | (0.024) |
|  |  |  |  |
| Mayor Cand Dummy | 0.097\* | -0.021 | -0.030 |
|  | (0.040) | (0.022) | (0.026) |
|  |  |  |  |
|  | | | |
| State FEs | Yes | Yes | Yes |
|  | | | |
| Observations | 658 | 658 | 658 |
| R2 | 0.191 | 0.204 | 0.213 |
| Adjusted R2 | 0.120 | 0.134 | 0.144 |
|  | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | |

**Appendix G – Share of Candidates from Each Racial and Ethnic Group**

Table G1 provides a robustness test for the second set of models in Table 2. Instead of analyzing the impact of election timing on the *number* of candidates from each racial group, it analyzes the impact of elections timing on the *share* of candidates from each racial group. The findings suggest that Latinos account for 3.8 percentage points more city council candidates when local elections are held concurrently with presidential elections, though this finding is just short of conventional levels of statistical significance.

**Table G1: Share of Candidates from Each Racial and Ethnic Group**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | |
|  | Dependent variable: | | | |
|  |  | | | |
|  | Share of Candidates White | Share of Candidates Latino | Share of Candidates Asian | Share of Candidates Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | 0.012 | 0.038 | -0.024 | -0.027 |
|  | (0.035) | (0.029) | (0.021) | (0.018) |
|  |  |  |  |  |
| Midterm | 0.013 | -0.006 | 0.009 | -0.017 |
|  | (0.038) | (0.032) | (0.024) | (0.019) |
|  |  |  |  |  |
| Primary | 0.034 | -0.015 | -0.003 | -0.017 |
|  | (0.031) | (0.028) | (0.022) | (0.015) |
|  |  |  |  |  |
| Number of Winners | 0.001 | 0.004 | -0.004 | -0.002 |
|  | (0.006) | (0.006) | (0.004) | (0.002) |
|  |  |  |  |  |
| Number of Contests | -0.008 | 0.012+ | -0.005 | 0.0002 |
|  | (0.008) | (0.007) | (0.005) | (0.004) |
|  |  |  |  |  |
| City Median Income | 0.00000 | -0.00000 | 0.00000 | -0.00000 |
|  | (0.000) | (0.000) | (0.000) | (0.000) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.063 | -0.159 | 0.180 | 0.053 |
|  | (0.249) | (0.206) | (0.121) | (0.084) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 0.116 | -0.022 | -0.147 | 0.036 |
|  | (0.280) | (0.247) | (0.141) | (0.071) |
|  |  |  |  |  |
| Share of Population Black | 0.837 | -0.946 | 0.008 | 0.092 |
|  | (0.606) | (0.641) | (0.284) | (0.615) |
|  |  |  |  |  |
| Share of Population Asian | -0.764\* | 0.070 | 0.629\*\*\* | 0.053 |
|  | (0.356) | (0.306) | (0.184) | (0.154) |
|  |  |  |  |  |
| Share of Population Latino | -0.856\* | 1.095\*\* | -0.116 | -0.157 |
|  | (0.347) | (0.332) | (0.165) | (0.120) |
|  |  |  |  |  |
|  | | | | |
| City | Yes | Yes | Yes | Yes |
| Year | Yes | Yes | Yes | Yes |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.805 | 0.777 | 0.629 | 0.749 |
| Adjusted R2 | 0.760 | 0.726 | 0.545 | 0.692 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

Table G2 analyzes the effects of election timing on candidate success by racial group, controlling for the share of candidates from each racial group. Much like our analysis in Table 2, this analysis suggests that candidate entry accounts for about half the gain made by Latino candidates due to on-cycle elections. See Appendix J for one-by-one inclusion of mediators.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table G2: Mediation Based on Share of Candidates from Each Racial and Ethnic Group** | | | | |
|  | Number of Winning Candidates | | | |
|  |  | | | |
|  | Share of Winners White | Share of Winners Latino | Share of Winners Asian | Share of Winners Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.056+ | 0.067\* | -0.014 | -0.0005 |
|  | (0.029) | (0.028) | (0.016) | (0.019) |
|  |  |  |  |  |
| Midterm | -0.047 | 0.067\* | -0.020 | -0.001 |
|  | (0.044) | (0.034) | (0.021) | (0.040) |
|  |  |  |  |  |
| Primary | -0.023 | 0.028 | -0.006 | -0.0004 |
|  | (0.032) | (0.025) | (0.020) | (0.034) |
|  |  |  |  |  |
| Share of Candidates White | 0.845\*\*\* |  |  |  |
|  | (0.030) |  |  |  |
|  |  |  |  |  |
| Share of Candidates Latino |  | 0.855\*\*\* |  |  |
|  |  | (0.033) |  |  |
|  |  |  |  |  |
| Share of Candidates Asian |  |  | 0.821\*\*\* |  |
|  |  |  | (0.055) |  |
|  |  |  |  |  |
| Share of Candidates Black |  |  |  | 0.808\*\*\* |
|  |  |  |  | (0.064) |
|  |  |  |  |  |
| Number of Winners | -0.002 | -0.001 | -0.001 | 0.003 |
|  | (0.008) | (0.008) | (0.005) | (0.004) |
|  |  |  |  |  |
| Number of Contests | -0.006 | 0.009 | -0.001 | -0.002 |
|  | (0.009) | (0.008) | (0.006) | (0.004) |
|  |  |  |  |  |
| Number of Candidates | 0.0002 | -0.001 | 0.001 | -0.0001 |
|  | (0.002) | (0.002) | (0.001) | (0.001) |
|  |  |  |  |  |
| City Median Income | 0.00000 | -0.00000 | 0.00000 | -0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00000) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.124 | 0.004 | 0.095 | 0.040 |
|  | (0.231) | (0.168) | (0.146) | (0.068) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 0.474+ | -0.523\* | -0.021 | 0.071 |
|  | (0.262) | (0.225) | (0.131) | (0.086) |
|  |  |  |  |  |
| Share of Population Black | 0.648 | -0.781 | -0.323 | 0.465 |
|  | (0.668) | (0.625) | (0.257) | (0.621) |
|  |  |  |  |  |
| Share of Population Asian | -0.281 | -0.211 | 0.437+ | 0.072 |
|  | (0.324) | (0.260) | (0.248) | (0.119) |
|  |  |  |  |  |
| Share of Population Latino | 0.421 | -0.043 | -0.223 | -0.144 |
|  | (0.399) | (0.339) | (0.168) | (0.175) |
|  |  |  |  |  |
|  | | | | |
| City | No | No | No | No |
| Year | No | No | No | No |
|  | | | | |
| Observations | 2,658 | 2,658 | 2,658 | 2,658 |
| R2 | 0.823 | 0.802 | 0.698 | 0.779 |
| Adjusted R2 | 0.782 | 0.756 | 0.629 | 0.729 |
|  | | | | |
| Note: | p<0.1; ***p<0.05;***p<0.01 | | | |

**Appendix H – Controlling for Percent of Candidates Who are Incumbents**

One potential mechanism for the results we present is that incumbents — who are disproportionately White at the time of the switch — choose to retire strategically in response to changes in local election rules, such as the timing of elections. This allows them to be replaced by more diverse newcomers. In Table H, we add controls for the share of incumbents seeking reelection (the findings are consistent if we control for the *number* of incumbents running). Adding this control does not affect our main estimates, however. In addition, we find no evidence that higher rates of incumbent retirement affect the diversity of candidates elected to replace them.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table H: Controlling for Percent of Candidates that are Incumbents** | | | | | | | |
|  | | | | | *Dependent variable:* | | |
|  | | | | |  | | |
|  | | Share of Winners White | | Share of Winners Latino | | Share of Winners Asian | Share of Winners Black |
|  | | (1) | | (2) | | (3) | (4) |
|  | | | | | | | |
| Presidential | | -0.047 | | 0.100\* | | -0.033 | -0.023 |
|  | | (0.048) | | (0.041) | | (0.026) | (0.024) |
|  | |  | |  | |  |  |
| Midterm | | -0.039 | | 0.063 | | -0.011 | -0.015 |
|  | | (0.060) | | (0.043) | | (0.032) | (0.045) |
|  | |  | |  | |  |  |
| Primary | | 0.007 | | 0.014 | | -0.009 | -0.014 |
|  | | (0.045) | | (0.036) | | (0.026) | (0.033) |
|  | |  | |  | |  |  |
| Number of Winners | | 0.001 | | 0.003 | | -0.004 | -0.001 |
|  | | (0.011) | | (0.011) | | (0.006) | (0.005) |
|  | |  | |  | |  |  |
| Number of Contests | | -0.011 | | 0.019+ | | -0.005 | -0.002 |
|  | | (0.012) | | (0.011) | | (0.008) | (0.005) |
|  | |  | |  | |  |  |
| Number of Candidates | | -0.001 | | -0.0002 | | 0.0005 | 0.001 |
|  | | (0.004) | | (0.003) | | (0.002) | (0.001) |
|  | |  | |  | |  |  |
| % of Candidates Incumbents | | 0.023 | | -0.020 | | -0.013 | 0.010 |
|  | | (0.025) | | (0.023) | | (0.014) | (0.009) |
|  | |  | |  | |  |  |
| City Median Income | | 0.00000 | | -0.00000 | | 0.00000 | -0.00000 |
|  | | (0.00000) | | (0.00000) | | (0.00000) | (0.00000) |
|  | |  | |  | |  |  |
| Share of Population with College Degree | | -0.192 | | -0.121 | | 0.247 | 0.082 |
|  | | (0.332) | | (0.256) | | (0.190) | (0.084) |
|  | |  | |  | |  |  |
| Share of Population Over Age 65 | | 0.572 | | -0.538+ | | -0.138 | 0.094 |
|  | | (0.380) | | (0.326) | | (0.208) | (0.105) |
|  | |  | |  | |  |  |
| Share of Population Black | | 1.320 | | -1.568+ | | -0.309 | 0.544 |
|  | | (0.898) | | (0.853) | | (0.406) | (0.624) |
|  | |  | |  | |  |  |
| Share of Population Asian | | -0.934\* | | -0.146 | | 0.956\*\* | 0.113 |
|  | | (0.428) | | (0.339) | | (0.312) | (0.183) |
|  | |  | |  | |  |  |
| Share of Population Latino | | -0.313 | | 0.899+ | | -0.318 | -0.267 |
|  | | (0.552) | | (0.482) | | (0.256) | (0.198) |
|  | |  | |  | |  |  |
|  | | | | | | | |
| City | | Yes | | Yes | | Yes | Yes |
| Year | | Yes | | Yes | | Yes | Yes |
|  | | | | | | | |
| Observations | | 2,671 | | 2,671 | | 2,671 | 2,671 |
| R2 | | 0.717 | | 0.682 | | 0.536 | 0.654 |
| Adjusted R2 | | 0.653 | | 0.610 | | 0.431 | 0.575 |
|  | | | | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p <0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | | | | |
|  | | | | | | | |
|  | *Dependent variable:* | | | | | | |
|  |  | | | | | | |
|  | Share of Winners White | | Share of Winners Latino | | | Share of Winners Asian | Share of Winners Black |
|  | (1) | | (2) | | | (3) | (4) |
|  | | | | | | | |
| Presidential | -0.051 | | 0.104\*\* | | | -0.032 | -0.024 |
|  | (0.047) | | (0.038) | | | (0.024) | (0.023) |
|  |  | |  | | |  |  |
| Midterm | -0.045 | | 0.066 | | | -0.013 | -0.010 |
|  | (0.064) | | (0.043) | | | (0.030) | (0.043) |
|  |  | |  | | |  |  |
| Primary | 0.001 | | 0.021 | | | -0.008 | -0.016 |
|  | (0.047) | | (0.036) | | | (0.024) | (0.030) |
|  |  | |  | | |  |  |
| Number of Winners | 0.003 | | 0.002 | | | -0.004 | -0.002 |
|  | (0.011) | | (0.010) | | | (0.006) | (0.006) |
|  |  | |  | | |  |  |
| Number of Contests | -0.011 | | 0.019 | | | -0.007 | -0.001 |
|  | (0.011) | | (0.011) | | | (0.008) | (0.005) |
|  |  | |  | | |  |  |
| Number of Candidates | -0.001 | | -0.001 | | | 0.001 | 0.001 |
|  | (0.004) | | (0.003) | | | (0.002) | (0.001) |
|  |  | |  | | |  |  |
| % of Candidates Incumbents | 0.022 | | -0.021 | | | -0.012 | 0.011 |
|  | (0.025) | | (0.022) | | | (0.014) | (0.009) |
|  |  | |  | | |  |  |
| City Median Income | 0.00000 | | -0.00000 | | | 0.00000 | -0.00000 |
|  | (0.00000) | | (0.00000) | | | (0.00000) | (0.00000) |
|  |  | |  | | |  |  |
| Share of Population with College Degree | -0.195 | | -0.129 | | | 0.255 | 0.085 |
|  | (0.331) | | (0.256) | | | (0.190) | (0.083) |
|  |  | |  | | |  |  |
| Share of Population Over Age 65 | 0.586 | | -0.539 | | | -0.152 | 0.094 |
|  | (0.380) | | (0.326) | | | (0.211) | (0.104) |
|  |  | |  | | |  |  |
| Share of Population Black | 1.297 | | -1.539 | | | -0.310 | 0.539 |
|  | (0.895) | | (0.851) | | | (0.404) | (0.622) |
|  |  | |  | | |  |  |
| Share of Population Asian | -0.929\* | | -0.141 | | | 0.948\*\* | 0.110 |
|  | (0.428) | | (0.340) | | | (0.313) | (0.183) |
|  |  | |  | | |  |  |
| Share of Population Latino | -0.306 | | 0.903 | | | -0.331 | -0.265 |
|  | (0.550) | | (0.480) | | | (0.261) | (0.197) |
|  |  | |  | | |  |  |
|  | | | | | | | |
| City | No | | No | | | No | No |
| Year | No | | No | | | No | No |
|  | | | | | | | |
| Observations | 2,671 | | 2,671 | | | 2,671 | 2,671 |
| R2 | 0.717 | | 0.682 | | | 0.536 | 0.654 |
| Adjusted R2 | 0.653 | | 0.610 | | | 0.431 | 0.575 |
|  | | | | | | | |
| *Note:* | *p<0.05;****p<0.01;***p<0.001 | | | | | | |

**Appendix I –** **Subset Analysis Conditional on a Candidate of the Racial Group Running**

Table I tests the effects of election timing on candidate success only in races where at least one candidate from that racial group runs for office. The models suggest that the results in the main text are largely robust to this subset analysis. Latino candidates are more successful when local elections are held on-cycle. The analysis further suggest that Asian Americans are significantly less likely to win when local elections are held on-cycle, with their share of the winning candidates dropping by about 25 percentage points. However, we suggest caution when interpreting this analysis for several reasons. First, decisions to run for office are likely endogenous with election timing. Second, the analysis of a subset of cases leads to severe imbalance in the panel, potentially worsening biases in two-way fixed-effects models using staggered treatment implementation. This latter issue is more likely to impact models analyzing Asian American and Black candidate success, as those panels become the most unbalanced when elections not including candidates of those racial groups are dropped. The results for Asian Americans diverge significantly from the models we believe are best specified: models using linear-time trends (see Model 3 in Table B2) and the bias-robust event plot models (see Figure 2.3 in the main text), which suggest that Asian American city council candidate success is not impacted by local election timing.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table I: Impact of Election Timing Conditional on a Candidate of the Racial Group Running** | | | | |
|  | *Dependent variable:* | | | |
|  |  | | | |
|  | Share of Winners White | Share of Winners Latino | Share of Winners Asian | Share of Winners Black |
|  | (1) | (2) | (3) | (4) |
|  | | | | |
| Presidential | -0.054 | 0.128+ | -0.240\*\* | -0.037 |
|  | (0.050) | (0.074) | (0.078) | (0.104) |
|  |  |  |  |  |
| Midterm | -0.046 | 0.159+ | -0.230\* | 0.111 |
|  | (0.059) | (0.087) | (0.098) | (0.137) |
|  |  |  |  |  |
| Primary | -0.001 | 0.103 | -0.052 | -0.024 |
|  | (0.044) | (0.075) | (0.072) | (0.120) |
|  |  |  |  |  |
| Number of Winners | -0.0003 | -0.004 | -0.067\* | 0.018 |
|  | (0.010) | (0.019) | (0.034) | (0.049) |
|  |  |  |  |  |
| Number of Contests | -0.011 | 0.015 | 0.051+ | -0.054 |
|  | (0.012) | (0.019) | (0.029) | (0.042) |
|  |  |  |  |  |
| Number of Candidates | -0.004 | -0.010\*\* | -0.007 | -0.007 |
|  | (0.003) | (0.004) | (0.008) | (0.009) |
|  |  |  |  |  |
| City Median Income | 0.00000 | 0.00000 | 0.00000\* | -0.00000 |
|  | (0.00000) | (0.00000) | (0.00000) | (0.00001) |
|  |  |  |  |  |
| Share of Population with College Degree | -0.178 | -0.382 | 0.691 | 1.465 |
|  | (0.334) | (0.696) | (1.158) | (3.285) |
|  |  |  |  |  |
| Share of Population Over Age 65 | 0.627 | -2.042+ | 2.833 | 3.536 |
|  | (0.403) | (1.202) | (1.932) | (2.988) |
|  |  |  |  |  |
| Share of Population Black | 1.677+ | -2.447+ | -0.415 | 0.592 |
|  | (0.991) | (1.245) | (2.127) | (2.029) |
|  |  |  |  |  |
| Share of Population Asian | -0.797+ | -0.239 | 0.887 | -2.138 |
|  | (0.421) | (0.718) | (1.148) | (2.692) |
|  |  |  |  |  |
| Share of Population Latino | -0.070 | 0.328 | 1.764 | -3.747 |
|  | (0.593) | (0.742) | (2.072) | (2.786) |
|  |  |  |  |  |
|  | | | | |
| City | No | No | No | No |
| Year | No | No | No | No |
|  | | | | |
| Observations | 2,484 | 1,286 | 463 | 278 |
| R2 | 0.630 | 0.659 | 0.616 | 0.608 |
| Adjusted R2 | 0.543 | 0.515 | 0.311 | 0.357 |
|  | | | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p < 0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | |

**Appendix J – Testing Potential Mediators Separately**

Table J reports an analysis including potential mechanisms as mediators in model individually, versus all together as we do in Table 3. It focuses on our main finding: that on-cycle local elections benefit Latinos. Model 1 suggests that controlling for the share of voters who are Latino reduces the unmediated effect of election timing, with the coefficient for presidential timing decreasing by one-third and it no longer being statistically significant (p = 0.11). However, the coefficient remains relatively large and the standard errors relatively small, even if not significant, indicating the local elections held concurrently with presidential elections may still benefit Latino candidate even when control the share of voters that are Latino. Model 2 shows that Latino candidate entry has a similar effect on the coefficient for presidential timing, reducing it by about one-third and it no longer being statistically significant at conventional level, (p=0.07). However, like in the previous model, the coefficient remains relatively large and the standard errors relatively small, even if not significant. Again, this suggests that candidate entry alone does not fully account for the effect of election timing on Latino candidate success. Both mechanisms seem to account for about half of the effect of election timing on Latino candidate success. Model 3 shows that overall turnout is not an important mechanism shaping Latino candidate success.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table J: Mechanism Test for Latinos Through One-by-one Addition of Potential Mechanisms** | | | | | |
|  | DV: | | | | |
|  |  | | | | |
|  | | Share of Winners in City Council Races  Latino | | |  | | |
|  | | | | | |
| Presidential timing | | 0.064 | 0.063+ | 0.100\* |  | | |
|  | | (0.040) | (0.034) | (0.044) |  | | |
| Midterm timing | | 0.031 | 0.062 | 0.063 |  | | |
|  | | (0.042) | (0.046) | (0.044) |  | | |
| Share of Voters | | 0.806\*\*\* |  |  |  | | |
| from Racial Group | | (0.220) |  |  |  | | |
| Number of Candidates | |  | 0.104\*\*\* |  |  | | |
| from Racial Group | |  | (0.007) |  |  | | |
| Share of VAP | |  |  | -0.004 |  | | |
| that Voted | |  |  | (0.044) |  | |  | |
|  | |  |  |  |  | | |
|  | | | | | |
| City | | Yes | Yes | Yes |  | | |
| Year | | Yes | Yes | Yes |  | | |
| Time Variant Controls | | Yes | Yes | Yes |  | | |
| Note: Includes years 2008-2020, during which we have Catalist data on city-level vote share. Cluster-robust standard errors in parentheses. + = p < 0.1; \* = p < 0.05; \*\* = p < 0.01; \*\*\* = p < 0.001 | | | | | |

**Appendix K – Latino Population Size and Candidate Success Effects by Racial Groups**

Figure K tests city council candidate success for candidates of different racial groups broken down by the size of the Latino population in the city. Figure J shows that White candidate losses tend to occur in cities with larger Latino populations, where Latino constitute at least 50 percent of the population on average.

**Figure K: Differential Effects of Election Timing by Latino Population Size**

A group of white lines with black dots

Description automatically generated

1. Non-Hispanic Whites make up only 58 percent of the national population, but they hold fully 89 percent of the Senate, 77 percent of the House, and 85 percent of all state legislative seats across the country (Hajnal, Hutchings, and Lee 2024). [↑](#footnote-ref-2)
2. We also find suggestive evidence that higher relative turnout among Latinos predicts Latino candidate success, but higher relative turnout among Asian Americans and Black Americans does not have a statistically significant effect on co-racial candidate success when controlling for candidate entry (see Table 3). [↑](#footnote-ref-3)
3. Hajnal, Kogan, and Markarian (2022) show that local elections that are held concurrently with federal contest not only bring in more racial and ethnic minority voters, but also make the active electorate more representative along other dimensions. More specifically, concurrent local elections lead to larger share of younger and more liberal voters — two groups that may be more likely to support racial and ethnic minority candidates. [↑](#footnote-ref-4)
4. This may be particularly important in non-partisan elections like those held in California. Without being able to rely on party cues, voters may be more likely to rely on race/ethnicity cues (Burnett and Kogan 2022). [↑](#footnote-ref-5)
5. Of course, without racially polarized voting, gains in relative turnout might not translate to gains in representation. [↑](#footnote-ref-6)
6. One could imagine timing reform also working by changing incentives, and thus the policy decisions of officeholders without necessarily changing the outcomes of elections. We do not investigate this alternate pathway in this article. [↑](#footnote-ref-7)
7. Since most cities stagger their elections, with half of the council elected every two years, cities with on-cycle elections will in practice typically hold elections during both presidential and midterm years. [↑](#footnote-ref-8)
8. By “decisive” we mean election dates on which *at least one* candidate for local office was elected. Thus, we exclude purely primary elections which only winnow the field for the runoff as well as elections featuring only ballot measures. We include all primary elections during which at least one candidate was elected (e.g., in cities where the runoff is optional). [↑](#footnote-ref-9)
9. We also estimate separate effects for local elections that coincide with statewide primary contests. [↑](#footnote-ref-10)
10. Our preferred estimates focus on the city-by-election-date level, rather than analyzing individual candidate performance, for two reasons. First, this is the level at which treatment actually varies. Second, as we note above, candidate entry decisions are strategic — and we cannot observe how a particular racial or ethnic group does unless at least one candidate from that group actually runs. Thus, conditioning the sample on candidate entry would result in post-treatment bias, causing our estimates to be downward biased. However, our results are substantively similar if we examine candidate-level outcomes. [↑](#footnote-ref-11)
11. City demographic data including median income, age, college attainment, and racial demographics comes from the Census using the Integrated Public Use Microdata Series (IPUMS) National Historical GIS site. Data for in-between census years is interpolated using linear regression with the decennial census acting as “anchors” every 10 years. [↑](#footnote-ref-12)
12. Full model results are available in Appendix B. [↑](#footnote-ref-13)
13. It is worth noting that representational gains do not occur for moves that sync local elections with primary contests (see Appendix C for complete tables). We find no significant differences in outcomes for Latino or Asian American candidates between off-cycle contests and contest coinciding with statewide primary election dates. This pattern could be reflective of the relatively low turnout rates for city elections held on primary dates (27 percent on average) (Hajnal, Kogan, Markarian 2022). Presidential and midterm elections, by contrast, stand out in terms of the high overall turnout that they stimulate (55 and 37 percent, respectively). As such, it is not too surprising that they also stand out in terms of gains that they foster for racial and ethnic minority candidates. [↑](#footnote-ref-14)
14. Special elections are excluded when doing so. Cities like San Diego and Fresno, where candidates who win a sufficiently high share of votes in the primary is declared the winner but those who fall short of the threshold must compete in a runoff election in November, are dropped from the analysis. [↑](#footnote-ref-15)
15. In other words, while our TWFE analysis focuses on the *flow*, this specification examines the *stock* of elected officials. [↑](#footnote-ref-16)
16. As an additional robustness check, we would have liked to examine localities that moved from on-cycle to off-cycle elections before the passage of the 2015 California timing law. Unfortunately, not a single city in our sample made such timing change. [↑](#footnote-ref-17)
17. Results are robust when including years 2008-2022. [↑](#footnote-ref-18)
18. Strategic candidate behavior could include strategic retirement by (disproportionately White) incumbents after election timing changes or shifts in the willingness of non-White candidates to enter races. In particular, Anzia (2012) provides evidence that incumbents respond strategically when election timing changes. [↑](#footnote-ref-19)
19. See Appendix I for the full regression model on overall turnout. [↑](#footnote-ref-20)
20. Our results diverge slightly from those found by Hajnal, Kogan, and Markarian (2022) because we include additional years (2017-2020) and year fixed-effects in our models. [↑](#footnote-ref-21)
21. Although we expect strategic retirement decisions to principally impact incumbent behavior at the time of the shift to on-cycle elections, we also conducted a more general test of strategic retirement to see how the inclusion of incumbent retirement decisions the results of our main analysis. When we added the number of incumbents running and the share of candidates who are incumbents to our main models, neither significantly affected the racial composition of election winners, and the inclusion of these variables did little to impact our estimates of the effect of timing on the results presented above. All of this suggests that strategic retirement is not a central mechanism driving the increased success of Latino candidates in on-cycle elections. [↑](#footnote-ref-22)
22. We have also conducted an additional analysis that focused exclusively on elections where at least one racial and ethnic minority candidate was on the ballot. The results of this additional analysis generall mirror our main findings. See Appendix I for the full regressions. [↑](#footnote-ref-23)
23. This may be indicative of differences in the degree of racially polarized voting across minority groups. Alternatively, the importance of co-racial voter share may be non-linear and depend on the size of each group, something we examine in the next section. [↑](#footnote-ref-24)
24. Similarly, when a group is sufficiently large, changes in voter composition on the margin may not matter much either. [↑](#footnote-ref-25)
25. Since Blacks never make up more than 50 percent of the population in our sample of California cities, we are not able to look at outcomes in majority Black cities. In addition, we see too few post-reform midterm elections to reliably estimate this effect for African American electoral success. [↑](#footnote-ref-26)
26. The effects are positive but not quite significant for midterm elections. [↑](#footnote-ref-27)
27. Latinos account for 43 percent of voters during off-cycle elections in majority-Latino cities by population. This increases to 51 percent during presidential elections. [↑](#footnote-ref-28)
28. The municipalities are representative of larger cities (populations over 30,000) across the nation and the racial makeup of city council members in these municipalities corresponds closely with existing estimates of the racial makeup of city councils across the country. [↑](#footnote-ref-29)
29. Dynes, Hartney, and Hayes’ (2021) data covers roughly 1,600 American cities with a population over 20,000. [↑](#footnote-ref-30)