

The Electoral and Policy Effects of Election Timing in City and County Governments

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Abstract

In this paper, we provide the first holistic assessment of the impact of election timing on the electoral process and policy outputs of city and county governments. Moving local elections on-cycle significantly increases overall voter turnout and the participation of younger and non-white voters. It also slightly improves the congruence between the partisanship of voters and politicians. But it has only small effects on the partisan lean of the electorate. It also only has modest impacts on the partisan and ideological outcomes of elections, especially over the past decade. Nor do on-cycle elections significantly change the policy outputs of city and county governments. Overall, our results indicate there are significant participatory benefits to on-cycle local elections in city and county governments while few *political* consequences. Our results help build a more holistic understanding of representation in local governments and the distinctive role of electoral institutions in facilitating representation.

Keywords: Local politics, ideology, partisanship, representation, legislatures, election timing

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1 Introduction

In recent years, a consensus has developed among scholars that the timing of local elections has large effects on the electoral and political process at the local level. This literature has found that on-cycle elections lead to higher turnout (Hajnal and Lewis, 2003; Anzia, 2013; Marschall and Lappie, 2018); they change the composition of the electorate (Kogan, Lavertu, and Peskowitz, 2018; Hajnal, Kogan, and Markarian, 2022); and, more tentatively, they could impact governments’ policy outputs (Anzia, 2013). Several recent studies have also found that on-cycle elections improve policy representation (Schaffner, Rhodes, and La Raja, 2020; Dynes, Hartney, and Hayes, 2021; Hartney and Hayes, 2021). Even a recent paper that is generally skeptical of the impact of voting reforms on electoral outcomes suggests that “[election timing] is ... the rare kind of policy that could change outcomes” (Grimmer and Hersh, 2024).

Previous work on the impact of election timing, however, has typically focused on snapshots of a single office (e.g., school boards or mayors), geographic unit (e.g., California), or window in time. Moreover, no previous study has examined the entire pathway from voters to elections to policy. Indeed, there has been no work at all to-date on the impact of election timing on the partisan or ideological outcomes of elections.

In this paper, we provide the first holistic assessment of the impact of election timing on the electoral process and political outputs of city and county governments. To do so, we draw from a new comprehensive dataset of elections in medium and large cities and counties across the country between 1990 and 2022 (de Benedictis-Kessner et al., 2023). We also examine data on the impact of election timing on the composition of the electorate in California cities (Hajnal, Kogan, and Markarian, 2022, 2024; Ornstein, 2024). Finally, we examine the impact of election timing on local government policy outputs, including fiscal policies from the Census of Local Governments, gay rights policies from HRC’s Municipal Equality Index, and housing policy from the Census Bureau’s Building Permits Survey. We leverage new advances in causal inference to avoid pitfalls of more traditional time-series models.

Throughout our analysis, we examine how within-place variation in election timing affects outcomes using both regression models and difference-in-difference models (Liu, Wang, and Xu, 2022).

Consistent with previous work, we find that on-cycle elections have much higher turnout than off-cycle elections. Switching from off-cycle to on-cycle elections more than doubles voter turnout. It also affects the demographic composition of the electorate. We find that switching to on-cycle elections leads to a younger and more racially diverse electorate. However, we only find modest evidence that election timing affects the partisan or ideological composition of the electorate. In recent years, we find no effect whatsoever of election timing on the partisan composition of the electorate. This suggests that election timing is likely to only have small impacts on downstream electoral or policy outcomes that are influenced by the partisan composition of the electorate.

As predicted by the limited impacts of election timing on the political composition of the electorate, we find only some evidence that election timing affects the partisanship or ideology of city and county government officials. It appears to only very modestly affect the proportion of Democrats or Republicans elected, and it has no impact on the partisan outcome of elections in the Trump-era. Switching to on-cycle elections also does not change the ideological preferences of the winners of city and county elections. However, we do find tentative evidence that on-cycle elections reduce the gap in partisan vote shares between presidential and local contests, which suggests it could improve political representation (Schaffner, Rhodes, and La Raja, 2020; Dynes, Hartney, and Hayes, 2021; Hartney and Hayes, 2021).

We also examine how the timing of elections influences policy outcomes. Previous work has yielded mixed evidence on the policy effects of election timing (Anzia, 2011, 2012*a*; Berry and Gersen, 2011). We find that on-cycle elections appear to have no substantial effects on the overall expenditures of city and county governments, the number of local government employees or their average pay, the municipal equality index of cities (one measure of local

social policy related to LGBTQ rights), the number of multi-family housing units or the multi-family proportion of housing units permitted.

Overall, our findings indicate that shifting local governments to on-cycle elections would significantly increase participation in the political process. It would also make the electorate more representative of the broader public, and it would make election outcomes more congruent with the preferences of the broader electorate. Yet the shift to on-cycle elections would have little effect on the partisan or ideological lean of local governments. Our paper contributes to a larger literature on the catalysts and hindrances to democratic representation in local governments in the United States (Trounstine, 2010; Tausanovitch and Warshaw, 2014; Warshaw, 2019). It also affirms recent research on the partisan-neutrality of most electoral institutional reforms (Grimmer and Hersh, 2024).

The paper proceeds as follows. First, we discuss the historical and theoretical background of election timing, both of which guide our analyses. We then introduce our data and research design. Next, we examine the effect of election timing on voter turnout in local elections, including both aggregate turnout and the composition of the electorate. We then turn to the effects of election timing on electoral outcomes, including the partisanship and ideology of elected officials. Finally, we examine the impact of election timing on policy outputs in municipal and county governments.

2 Background

Election timing across the United States varies substantially in states and cities. While national elections are held in November of even-numbered years, states and cities often hold elections in the spring, or in odd-numbered years. This is largely a result of reform efforts in the early 20th century, in which political parties, organizations such as the National Municipal League, and other organized interest groups encouraged cities to hold off-cycle elections (Anzia, 2012*b*; National Municipal League, 1916; Trounstine, 2010, 2020). These

reforms included off-cycle elections, but also affected other features of local government such as city manager form of government, nonpartisan elections, and merit-based civil service systems. Together, this suite of reform policies were often designed to stunt the influence of political machines in cities, separate local elections from the themes of more contentious partisan national contests, and increase the influence of informed and knowledgeable voters (Trounstein, 2009). Reforms were also often used to fight the growing influence of immigrant and Black populations (Grumbach, Mickey, and Ziblatt, 2023; Ruhil, 2003; Tolbert and Zucker, 1983; cf. Kuipers and Sahn, 2023).

As a result, many cities switched from holding their elections concurrently with federal elections in November of even years to instead holding them during other months or in odd years. More recently, however, local governments have shifted their elections to be on-cycle with federal and state contests in order to decrease the costs of running elections or to increase voter turnout (Jomsky, Mullins, and Pope, 2015). Moreover, in California a statewide law forced most local governments to switch their elections to take place on-cycle (Ornstein, 2024). These changes have not been without debate: some cities have opposed such changes in their timing under the assumption that off-cycle contests allow voters to focus on local issues (Koss, 2015). The contemporary policy debate around this particular institution has continued both in legislative and judicial bodies.¹ In part, this is because of the unclear effects of election timing on a variety of electoral and political outcomes.

Recent work has highlighted the particular role of on-cycle elections as an important way in which governments can improve participation and – by implication – democratic representation and accountability (Payson, 2017; Dynes, Hartney, and Hayes, 2021; cf. de Benedictis-Kessner, 2018). There is a large literature that finds that off-cycle elections have substantially lower turnout (Hajnal and Lewis, 2003; Holbrook and Weinschenk, 2014; Marschall and Lap-
pierre, 2018, 2024; Kogan, Lavertu, and Peskowitz, 2018). In general, these studies indicate that on-cycle elections more than double voter turnout relative to off-cycle elections. Theo-

¹See, e.g., *Citizens Project v. City of Colorado Springs*, <https://www.cpr.org/2022/06/06/colorado-springs-april-elections-lawsuit/>.

	Design			Results Show Timing Affects:			
	Geography	Period	Method	Age	Race	Income	Renters
Kogan, Lavertu, and Peskowitz (2018)	4 states (School Boards)	2000-15	1WFE	Yes	Mixed	Mixed	-
Hajnal, Kogan, and Markarian (2022)	CA (Cities)	2008-16	1WFE	Yes	Yes	No	Mixed
Hajnal, Kogan, and Markarian (2024)	CA (Cities)	2008-20	2WFE	-	Yes	-	-
Einstein et al. (2025)	National (Cities)	2022	XS	Yes	Yes	-	Yes
Ornstein (2024)	CA (Cities)	2010-22	2WFE	Yes	Yes	-	Yes

Table 1: Previous Findings on Effect of Election Timing on Demographic Composition of the Electorate

retically, this increased participation could incentivize politicians to represent the wishes of a broader electorate relative to the smaller electorate of off-cycle voters.

More recently, scholars have examined how election timing affects the composition of the electorate by leveraging information from the voter file about the demographic and partisan characteristics of voters (Kogan, Lavertu, and Peskowitz, 2018; Hajnal, Kogan, and Markarian, 2022, 2024; Einstein et al., 2025). Table 1 summarizes studies on the impact of election timing on the demographic composition of the electorate. The biggest effects of election timing are on the age of the electorate (Kogan, Lavertu, and Peskowitz, 2018). On-cycle elections have substantially more young voters and fewer senior citizens that go to the ballot box. There is also some evidence that voters in on-cycle elections are less affluent than voters in off-cycle elections, but the findings are mixed across studies. Voters in on-cycle elections appear to be somewhat more racially diverse than voters in off-cycle elections (Hajnal, Kogan, and Markarian, 2022, 2024). There are also substantially more renters and non-homeowners in on-cycle elections than in off-cycle ones (Einstein et al., 2025; Ornstein, 2024).

Of course, the fact that election timing affects the demographic composition of voters does not automatically mean that it will change the partisan or ideological composition of the electorate. Changing the age composition of the electorate, for instance, would only lead to partisan effects if older voters tend to be politically homogeneous (Grimmer and Hersh, 2024). According to the 2020 exit polls, however, there were only modest partisan differences between senior citizens and middle aged voters. About 47% of people 65+ voted for President Biden, compared with 52% of people between the ages of 30-44. In the 2024

Study	Design			Results Show Timing Affects:	
	Geography	Period	Method	Partisanship	Ideology
Kogan, Lavertu, and Peskowitz (2018)	National (Schools)	2000-15	1WFE	Yes	-
Hajnal, Kogan, and Markarian (2022)	CA (Cities)	2008-16	1WFE	Mixed	Yes
Einstein et al. (2025)	National (Cities)	2022	XS	Mixed	-

Table 2: Previous Findings on Effect of Election Timing on Partisan Composition of the Electorate

Edison Exit Poll, exactly the same percentage of people voted for Kamala Harris in each of these age groups.² This implies that even large changes in the relative turnout of older and younger voters will probably only change the partisan composition of the electorate by a percentage point or two.

In line with this prediction, recent studies have found that there are only modest partisan differences due to election timing (see Table 2). Kogan, Lavertu, and Peskowitz (2018) examines differences between on and off-cycle elections on the political composition of voters in school tax referenda in four states. They find that on-cycle referenda have 1-2 percentage points more Democrats and liberals in the electorate than off-cycle elections. Hajnal, Kogan, and Markarian (2022) examine switches in election timing among California cities between 2008 and 2016. They find that moving off-cycle elections in California to occur concurrently with presidential elections increased the percentage of Democrats and liberals in the electorate by 3-4 percentage points. But they found little or no such effects from moving elections to occur concurrently with midterm federal elections and state elections.³ Einstein et al. (2025) find that on-cycle elections have more Independents and fewer partisans than off-cycle elections.

It is also important to examine whether the impact of election timing on the electorate has changed in recent years. In past years, working class voters were overwhelmingly Democratic, and higher-income, college educated voters tended to be Republicans (Gelman et al.,

²<https://www.cnn.com/election/2024/exit-polls/national-results/general/president/0>

³It is also worth noting that the regression models in Hajnal, Kogan, and Markarian (2022) include city fixed effects to examine over-time variation within cities, but they do not include year fixed effects. As a result, it is difficult to disentangle the impact of election timing from longer-term changes in the composition of the electorate in California.

2009). So it is not particularly surprising that on-cycle elections would have slightly helped Democrats by bringing lower-propensity Democratic-leaning voters into the electorate. But Grossmann and Hopkins (2024) find that voters, especially white voters, have increasingly re-aligned along educational lines in the Trump-era (e.g., 2016, 2018, and 2020 elections).⁴ College-educated whites are increasingly voting for Democrats, while working class whites are more likely to vote Republican. Fraga, Velez, and West (Forthcoming) find evidence for a similar realignment among Hispanic voters. This educational realignment in the electorate may reduce the impact of election timing on the partisan composition of the electorate. Eventually, it could even lead on-cycle elections to slightly advantage Republican by bringing lower propensity, Republican-leaning working class voters into the electorate.⁵

Another pathway whereby election timing might influence elections is by changing the turnout of policy demanders, such as unions and other interest groups (Anzia, 2011, 2013; Payson, 2017). These groups might be over-represented in lower turnout off-cycle elections. But Kogan, Lavertu, and Peskowitz (2018) finds that low-turnout referenda elections “do not appear to materially increase the share of ‘high demanders’ in the electorate. Although education employees make up a somewhat larger share of the electorate in low-turnout elections, the difference is small and they still account for a small slice of voters.”

The muted impact of election timing on the partisan, ideological, or ‘high demander’ composition of the electorate implies that switching to on-cycle elections is unlikely to substantially affect election outcomes. Due largely to limited data on local election outcomes, however, there has not been much empirical study of the impact of election timing on the outcomes of elections. Hajnal and Trounstein (2005) find that cities with higher voter turnout and concurrent elections tend to have more racially diverse city councils. Anzia and Bernhard (2022) find that women candidates are more successful than men in off-cycle elections for some local offices but not other local offices. And Hajnal, Kogan, and Markarian (2024)

⁴See also Gethin, Martínez-Toledano, and Piketty (2022)

⁵Along similar lines, some research indicates that Democrats have had a turnout advantage in special elections in recent years, and higher turnout elections might help Republicans. See <https://www.nytimes.com/2024/02/02/upshot/special-elections-democrats-turnout-2024.html>

show that on-cycle election lead to more Hispanic leaders in California.

The modest impact of election timing on the partisan composition of the electorate also implies there are unlikely to be large policy effects from election timing, at least via the electoral process.⁶ Indeed, the previous literature on the policy impact of election timing has generated mixed results. Anzia (2011) finds that school districts with on-cycle elections pay experienced teachers about 3% less than districts that hold off-cycle elections. Similarly, Anzia (2012*a*) finds that school districts in Texas that were forced by a state law to switch to on-cycle elections responded by granting about 1% lower salary raises to teachers. In contrast, Berry and Gersen (2011) find that switches to on-cycle elections in California school districts led to modest (less than 1%) changes in teacher salaries, but the effects are not robust across research designs. Overall, these studies indicate that switching to on-cycle elections probably reduces teacher salaries. There has been less study of the causal impact of election timing on policy outputs from other levels of local government, such as counties or cities. In one of the few studies to focus on city government policies, Anzia (2013, Chapter 6), finds that California cities with off-cycle elections spend more on salaries and workers' retirement benefits.

Finally, several studies have examined the impact of election timing on political representation more generally. Dynes, Hartney, and Hayes (2021) finds local governments are less responsive to the mass public in places with off-cycle elections. In addition, Schaffner, Rhodes, and La Raja (2020) and Hartney and Hayes (2021) find that local governments with off-cycle elections are somewhat less congruent with the ideological preferences of their constituents. But the effects on congruence are relatively modest in size. Overall, the causal effects of election timing on the electoral and political outcomes of city and county governments more broadly remain unclear.

⁶To the extent election timing affects policy, it would have to be via lobbying from interest groups or other non-electoral mechanisms.

3 Research Design and Data

This section discusses our data and research design. We have assembled a diverse set of data to comprehensively examine the impact of election timing in city and county politics. First, we discuss our research design, Next, we discuss data on the composition of the electorate in California elections (Hajnal, Kogan, and Markarian, 2022, 2024). Then, we discuss our data on local elections, the American Local Elections Database (de Benedictis-Kessner et al., 2023), and the ideological composition of local governments. Finally, we discuss data on policy outputs in local governments.

3.1 Research Design

We use a number of research designs to probe the impact of election timing on these outcomes. As previous literature has recognized, there are a wide variety of potential confounders that make it difficult to determine the causal effect of election timing on downstream outcomes. So, first we deploy a series of regression models. These include cross-sectional models with biennium fixed-effects. In these models, we also control for the partisanship or ideology of places since previous work has shown that partisanship and ideology are important predictors of local electoral and policy outcomes (Tausanovitch and Warshaw, 2014; Warshaw, 2019; Einstein and Kogan, 2016). We also use models with biennium and city/county fixed effects to isolate over-time variation within places.

Our most demanding models use the `fect` package in R to examine over-time changes in election timing within places using the counterfactual fixed effects models developed by Liu, Wang, and Xu (2022). This model is based on a difference-in-differences approach, and allows us to accommodate switches both from off-cycle elections to on-cycle elections and the reverse. It avoids the negative weights problem in traditional two-way fixed effects methods and corrects biases induced by treatment effect heterogeneity by not using the treated observations at the modeling stage and by imposing uniform weights on individu-

alistic treatment effects on treated observations (Liu, Wang, and Xu, 2022). We examine separately switches from off-cycle to on-cycle elections (in the main body of the paper) and switches from on-cycle to off-cycle (in the appendix).

This design enables us to validate the parallel trends assumption by demonstrating the absence of pre-treatment placebo effects. We can also visualize the dynamic trajectory of the post-treatment impact of election timing. In Appendix A, we show that each of our main analyses using `fect` pass placebo checks (i.e., no pre-treatment effects on outcomes of interest) that validate the parallel trends assumption. Most of our analyses also satisfy more demanding equivalence tests (Liu, Wang, and Xu, 2022).

In all of our analyses, we analyze both the overall treatment effects, and how the treatment effects vary overtime. This enables us to assess whether the impact of election timing is changing as the electorate has re-aligned along educational lines in the Trump-era (Grossmann and Hopkins, 2024; Zingher, 2022).

3.2 Composition of the Electorate

In order to examine the impact of election timing on the composition of the electorate, we focus on data from Hajnal, Kogan, and Markarian (2022, 2024) on the impact of election timing on the composition of the electorate in California city elections between 2008 and 2020 based on aggregated voter file data assembled by Catalist.⁷ The original papers examined a bevy of different variables. Our analysis focuses on only a handful of these variables. First, we examine the demographic composition of the electorate. In particular, we examine the percentage of voters that are 65+, the percentage of voters that are white, and the percentage of voters that are Hispanic. Next, we examine the partisan and ideological composition of the electorate. Specifically, we focus on the percentage of voters that are Democrats and the percentage that are liberals.

We also make several other minor changes in our analyses compared to the original

⁷We are in the process of acquiring voter file data to extend the analysis to other states.

analyses in Hajnal, Kogan, and Markarian (2022, 2024). The original papers had a nuanced, multichotomous definition of election timing. We collapse their data on election timing to a binary variable based on whether the election took place at the same time as major federal elections (Dynes, Hartney, and Hayes, 2021). In addition, Hajnal, Kogan, and Markarian (2022) used one-way fixed effects to account for time invariant unit-level confounders. We focus on difference-in-difference models that account for both time invariant confounders within unit and unit invariant confounders within time periods.

3.3 Local Elections Data

To examine turnout, election outcomes, and the ideological preferences of elected officials, we use a new data source of local elections and local political candidates from 1990-2022 in medium and large cities and counties (de Benedictis-Kessner et al., 2023). The final dataset that we use consists of 4,701 mayoral elections, 19,669 individual city council elections and 26,116 county legislative elections in 661 cities and 578 counties.

These data give us information on several characteristics of both the constituencies that elect local politicians and those leaders once they are in office. On the constituency side, these data contain the Democratic share of the two-party presidential vote for the city (for citywide candidates) or district in which many candidates ran for office (for district-level city councilors and county legislators). On the candidate side, these data contain information about the partisanship, race, and gender of candidates.⁸

We also use our data on local elections to define whether elections take place on- or off-cycle. We define on-cycle elections as those that take place concurrently with a major federal election in November of even-numbered years (Dynes, Hartney, and Hayes, 2021). Off-cycle elections, in contrast, do not take place at the same time as federal elections but

⁸The partisanship, race, and gender estimates of candidates in these data rely on validated models for each characteristic that incorporate information from a variety of sources (de Benedictis-Kessner et al., 2023). Partisanship estimates, in particular, are based not necessarily on ballot designations alone but on information from voter files, campaign finance-based ideological scores, candidate websites, and news reports, among other sources.

occur in other months or in odd-numbered years.

Figure 1 plots the timing of elections for cities in our data that switch the timing of their mayoral elections. As the plot indicates, a large number of cities switched the timing of their mayoral elections over the course of the last three decades. This includes cities like Baltimore, MD, which held its mayoral elections in odd-years until 2016, when it switched to holding November elections concurrent with federal elections, but also cities like Ann Arbor, MI, which has held its elections on-cycle for much longer (since 1994). Finally, it also includes cities like Baton Rouge, LA, which has gone back and forth between holding its mayoral elections on- and off-cycle in the last three decades.

3.4 Ideology of Local Elected Officials

We use two approaches to estimate the ideology of local elected officials. First, we have information on the ideology of a subset of local candidates that de Benedictis-Kessner et al. (2023) matched to campaign finance records from the database curated by Bonica (2019). This measure (a CF-score) creates an ideological score for people based on their contributions to federal and state candidates in elections. Higher scores indicate more conservative contributors, and lower scores indicate more liberal ones.

Second, we estimated roll-call based measures of local legislators' ideal points in about 100 local governments. For these localities, we obtained raw roll call data from Bucchianeri (2020) and collected supplementary data by scraping Legistar. We then scaled the one-dimensional ideal points using the `ideal` package in R. We bridged across cities by using CF-Scores as a prior in our model for legislators where those were available.⁹ We validated the ideal points by showing that they are highly correlated within locality with both CF-Scores and presidential vote.

⁹We assumed the CF-Scores have a standard error of .08, which allowed the final posterior estimates to be influenced by the roll call votes.

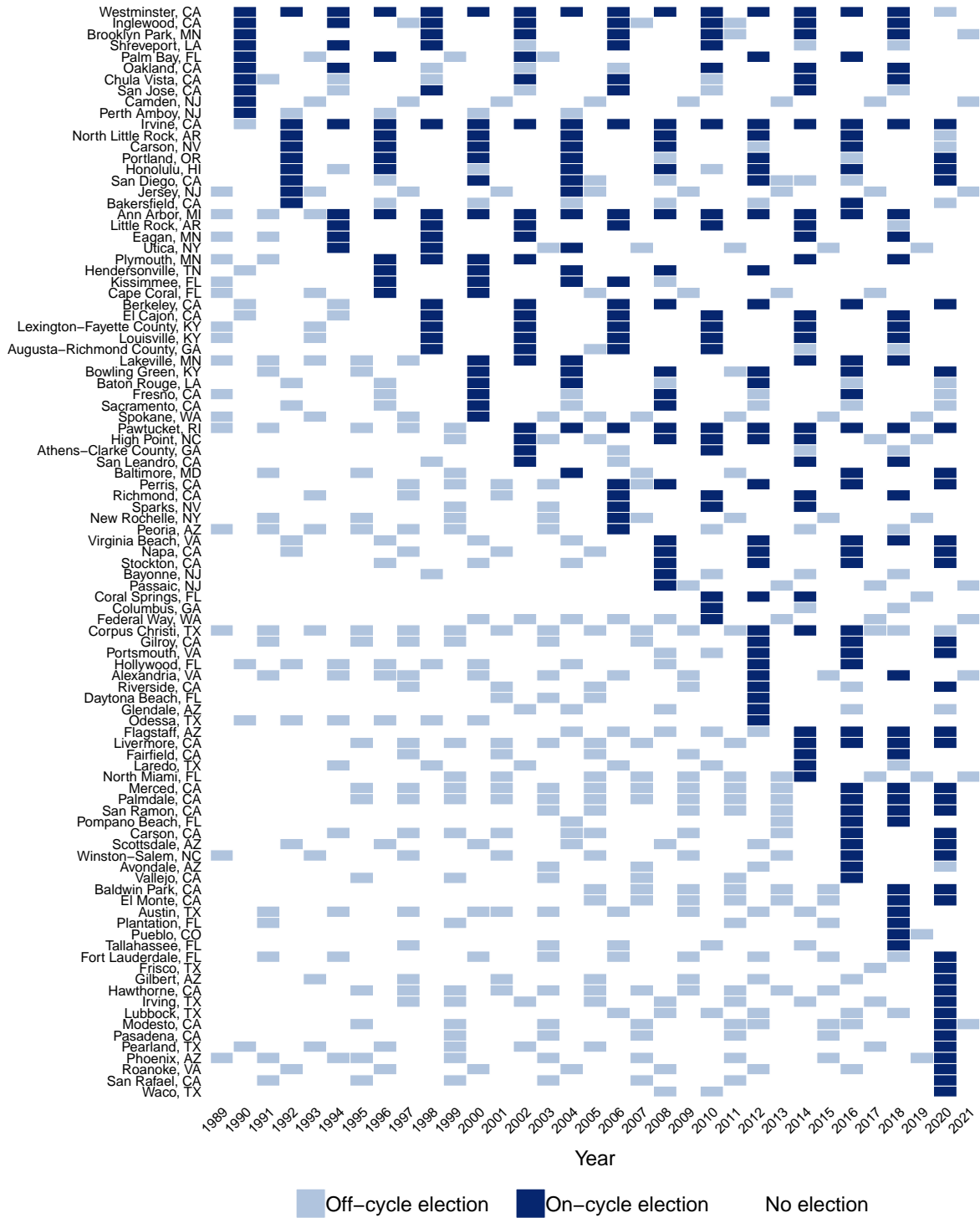


Figure 1: Election timing in cities that switched the timing of their mayoral elections. Light blue rectangles indicate a year in which an off-cycle mayoral election occurred, while dark blue rectangles indicate an on-cycle election, and blank white spaces indicate no mayoral election in that year.

3.5 Policy Outputs

To assess the subsequent outcomes of representation, we use data on fiscal policy data from the Historical Database of Individual Government Finances and specifically data on local government expenditures and revenue.¹⁰ These data have been broadly used in prior studies. We also harness data from the Census Bureau’s Annual Survey of Public Employment and Payroll (ASPEP), which records both the number of employees of different types and the payroll expenditures on those employees for local governments. As one measure of social policy, we use the Municipal Equality Index from the Human Rights Campaign, which measures the liberalness of policies related to LGBTQ rights in several hundred cities around the country. Finally, we use data from the Census Bureau’s Building Permits Survey, which tracks the number and type of building permits issued by cities for new privately-owned residential construction.

4 Results

4.1 Turnout in Local Elections

In this section, we examine the impact of election timing on the electorate in local elections. First, we examine the impact on aggregate turnout. Second, we examine the impact on the demographic composition of the electorate. Lastly, we look at the impact on the partisan and ideological composition of the electorate.

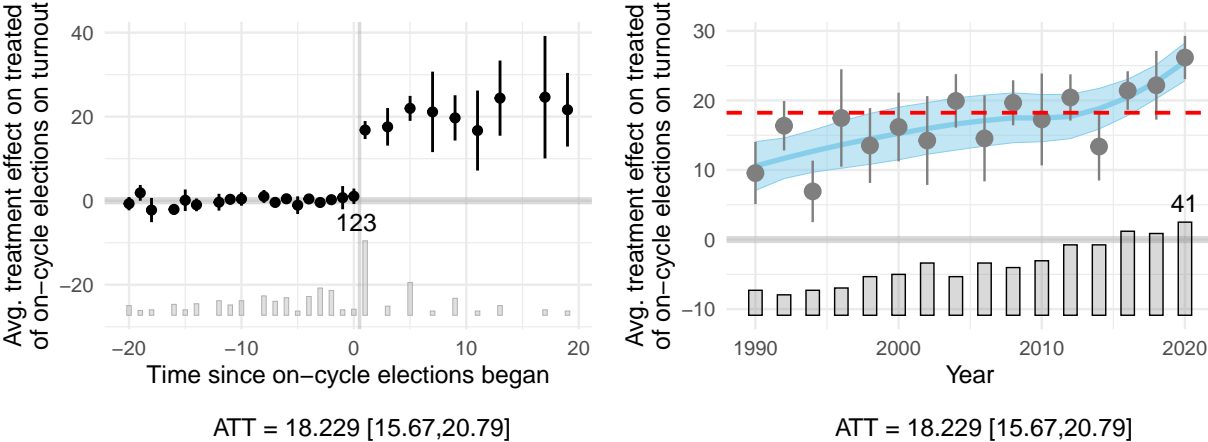
4.1.1 Aggregate Turnout

We first examine the effect of on-cycle elections on aggregate voter turnout in local elections. As others have suggested, the lower turnout in off-cycle local elections may lead to represen-

¹⁰These data are based on a Census of Governments conducted every five years and the Annual Survey of Governments collected in every non-census year. We adjusted all monetary figures into 2019 dollars based on the consumer price index. In our analyses of fiscal policy, we use logged per capita expenditures to account for population differences across cities.

tational biases. As a first look at this, we examine turnout differences in mayoral elections that are held on- and off-cycle based on the mayoral election data in de Benedictis-Kessner et al. (2023).¹¹ In mayoral elections held on-cycle, turnout (as a share of the population) is 29.1% on average, while in off-cycle elections it is 13.8% on average.

Next, we examine the causal impact of election timing on turnout using the counterfactual fixed effects model developed in Liu, Wang, and Xu (2022). The left panel of Figure 2 shows that switching to on-cycle elections increases voter turnout by about 20 percentage points. This is equivalent to a little more than a doubling in voter turnout between off- and on-cycle elections. Moreover, the right panel of Figure 2 shows that the effect of election timing on turnout is relatively stable across time, though there are nearly always bigger effects in presidential years. Overall, this analysis confirms previous work showing massive effects of election timing on voter turnout (Hajnal and Lewis, 2003; Anzia, 2013; Marschall and Lappie, 2018).



(a) Mayoral elections

Figure 2: Effect of Switches to On-Cycle Elections on Turnout in Mayoral Elections

¹¹For simplicity, we calculate turnout here as the total number of votes over the city-wide population estimate.

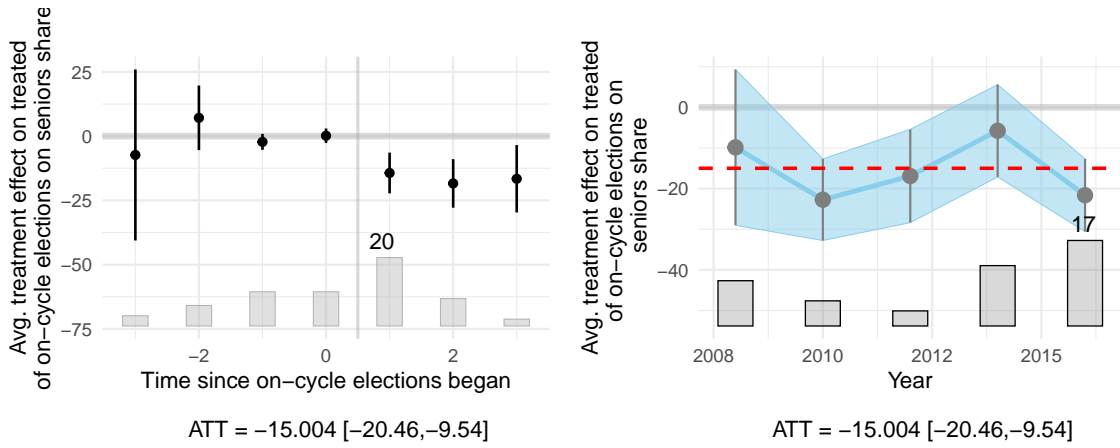
4.1.2 Composition of the Electorate

Next, we examine how election timing affects the composition of the electorate based on pooled data from California local elections between 2008 and 2020 in Hajnal, Kogan, and Markarian (2022, 2024) using a counterfactual two-way fixed effects model (Liu, Wang, and Xu, 2022). California is a good case study for the impact of election timing on elections in city and county governments because many local governments there have recently switched their elections to coincide with federal elections. Figure 3 shows how the effects vary dynamically after-treatment (left panels) and how they vary over calendar-time (right-panels). The bottom of each graph shows the overall average treated effect on the treated (ATT).

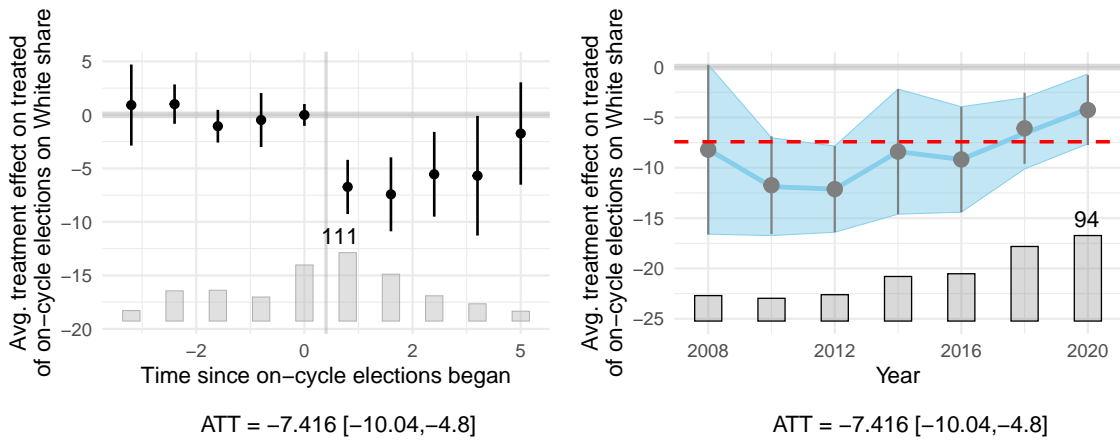
The top panel of Figure 3 shows the effects of election timing on the demographic composition of the electorate. Panel (a) of Figure 3 shows that switching to on-cycle elections decreases the percentage of voters over 65 by 15-20 percentage points. Thus, switching to on-cycle elections has very large effects on the age composition of the electorate, leading to a much younger electorate.¹² Panel (b) and (c) examines the impact of election timing on the racial composition of the electorate. We find that switching to on-cycle elections substantially decreases the share of white voters and increases the share of Hispanic voters. Moreover, both of these effects are relatively stable across time.

The average age and racial composition of the electorate is important for a variety of representational reasons. But the fact that election timing changes these demographic factors does not automatically mean that it substantially influences the partisanship or ideology of the electorate, or policy outcomes. In fact, neither age nor income are strongly correlated with partisanship and ideology in recent American elections. Polarization between older and younger voters may exist on certain issues such as policing or climate change (Goldstein, 2021; Trachtman, Anzia, and Hill, 2023), but age is not strongly correlated with voting

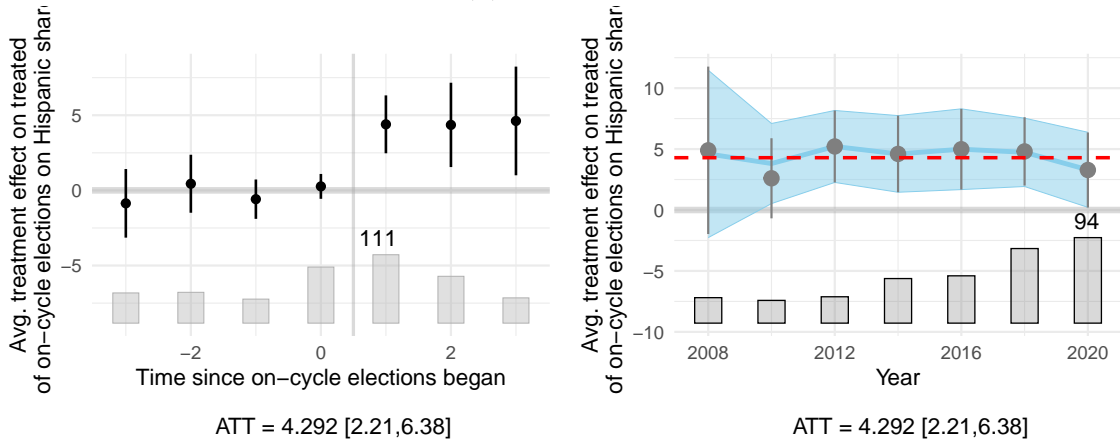
¹²Our results using a two-way fixed effects counterfactual model are broadly similar to the one-way fixed effect regression results reported in the original papers. Like Hajnal, Kogan, and Markarian (2022), we find quite large impacts of election timing on the demographic composition of the electorate, but more muted effects on the partisan and ideological composition.



(a) Seniors share



(b) White share



(c) Hispanic share

Figure 3: Effect of Switches in Election Timing on Demographic Composition of the Electorate in California Elections based on FEct model

behavior (e.g., Gelman and Azari, 2017). Moreover, seniors make up a fairly large share of the electorate in both types of elections: in off-cycle races in CA, seniors are on average 50% of voters, while in on-cycle races they are still 38% of voters. In both cases, policymakers may feel pressured to disproportionately respond to older voters given their voting power regardless of election timing.

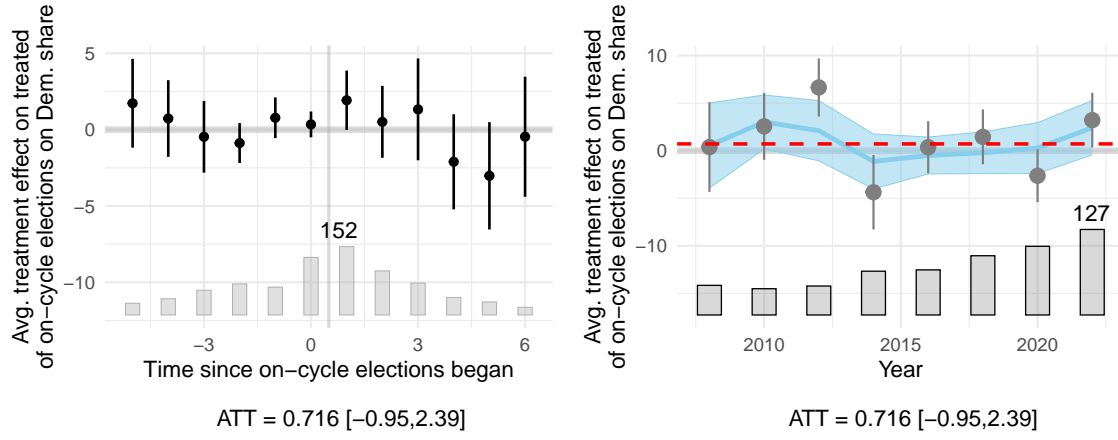
Table 3: Effect of Switches in Election Timing on Partisan and Ideological Composition of the Electorate in California Elections¹

Dependent Variable: Model:	Dem. Share of Electorate (1)	Dem. Share of Electorate (2)
<i>Variables</i>		
On-cycle	2.41*** (0.632)	4.29*** (0.745)
On-cycle × 2015-2022		-3.81*** (0.716)
<i>Fixed-effects</i>		
FIPS	Yes	Yes
Biennium	Yes	Yes
<i>Fit statistics</i>		
Observations	5,124	5,124
R ²	0.907	0.909
Within R ²	0.015	0.035

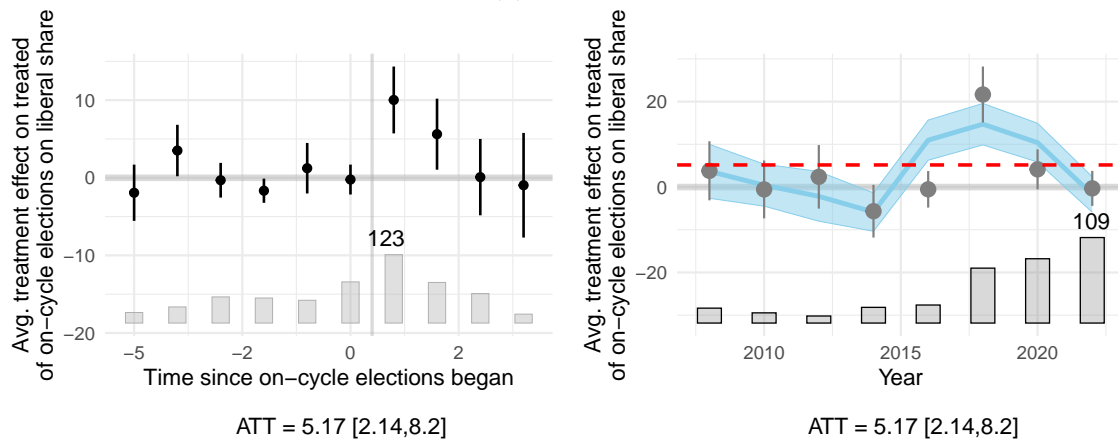
Clustered (FIPS) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Next, we examine whether election timing influences the partisan or ideological composition of the electorate in Figure 4. Panel (a) shows that switching to on-cycle elections has no significant impact on the share of Democratic voters in California’s electorate. To the extent there is an effect at all, it appears to have peaked in about 2012 and declined to zero by the end of the data in 2020. Panel (b) of Figure 4 examines the impact of election timing on the ideological composition of the electorate. It shows that on-cycle elections also has no detectable impact on the share of liberals in the electorate. And similarly to the partisan effects in panel (a), the impact of election timing on voters’ ideology appears to have peaked in about 2012 and declined to about zero by the end of the data on voters’ ideology in 2016.

Overall, our analyses in this section indicate that election timing can have very large



(a) Democratic share



(b) Liberal share

Figure 4: Effect of Switches in Election Timing on Partisan and Ideological Composition of the Electorate in California Elections based on FEct model

impacts on the demographic composition of the electorate. On-cycle elections lead to substantially fewer senior citizens in the electorate. They also lead to somewhat more socioeconomically diverse electorates. But there are more modest impacts of election timing on the partisan and ideological composition of the electorate. Moreover, these latter effects appear to have disappeared entirely by the Trump-era as partisans have re-sorted by education (Grossmann and Hopkins, 2024).

4.2 Electoral Outcomes

In this section, we examine the impact of election timing on the outcomes of local elections. We begin by examining its impact on the two-party vote share of Democrats and Republicans in mayoral, city council, and county legislative elections. Then, we examine the impact of election timing on the ideological composition of local governments.

4.2.1 Partisan Outcomes of Elections

One of the most important consequences of election is whether Democratic or Republican-leaning candidates win the election. These election results are likely to impact downstream policies and other societal outcomes (de Benedictis-Kessner and Warshaw, 2016, 2020; de Benedictis-Kessner, Jones, and Warshaw, 2023).

Table 4: Effect of Election Timing on Democratic Voteshare in Local Elections

Dependent Variables: Model:	Democratic Voteshare			Prob. Dem. Wins		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Variables</i>						
On-cycle	0.023 (0.015)	0.017** (0.009)	0.031*** (0.010)	0.022 (0.016)	0.015* (0.008)	0.025** (0.010)
Pres. Dem. voteshare	1.30*** (0.088)			1.54*** (0.114)		
On-cycle \times 2015-2024			-0.036*** (0.010)			-0.028** (0.014)
<i>Fixed-effects</i>						
Biennium	Yes	Yes	Yes	Yes	Yes	Yes
City/County	Yes			Yes		
City/County-District		Yes	Yes		Yes	Yes
<i>Fit statistics</i>						
Observations	8,812	39,549	39,549	10,468	46,300	46,300
R ²	0.640	0.726	0.727	0.563	0.686	0.686
Within R ²	0.258	0.0003	0.002	0.199	0.0001	0.0006

Clustered (fips_office) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

First, we use a variety of fixed effect regression models to examine the impact of holding on-cycle elections on partisan outcomes. The left-panel of Table 5 shows the relationship between timing and Democrats' share of the two-way vote. The right-panel of Table 5 shows

Table 5: Effect of Election Timing on Democratic Voteshare in Special Elections

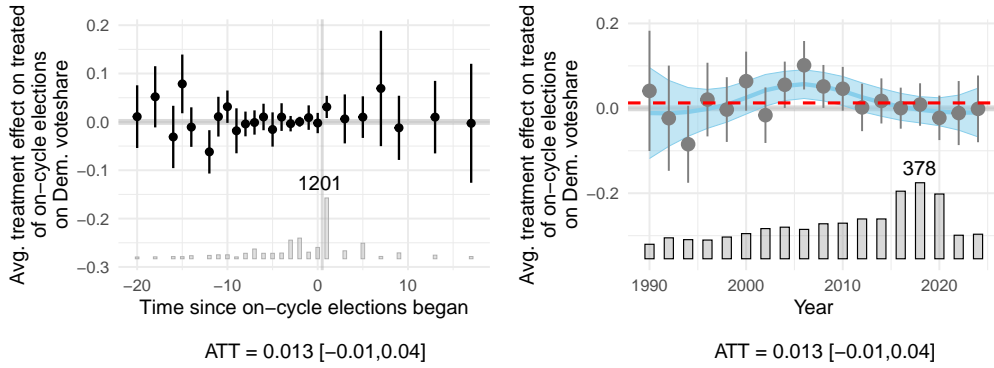
Dependent Variables: Model:	Democratic Voteshare		Prob. Democratic Win	
	(1)	(2)	(3)	(4)
<i>Variables</i>				
Incumbent	0.060*** (0.0009)	0.060*** (0.0009)	0.279*** (0.003)	0.279*** (0.003)
<i>Fixed-effects</i>				
state_district_decade	Yes	Yes	Yes	Yes
stateabbrev_cycle	Yes	Yes	Yes	Yes
<i>Fit statistics</i>				
Observations	44,276	44,276	78,194	78,194
R ²	0.931	0.931	0.878	0.878
Within R ²	0.296	0.296	0.340	0.340

Clustered (state_district_decade) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

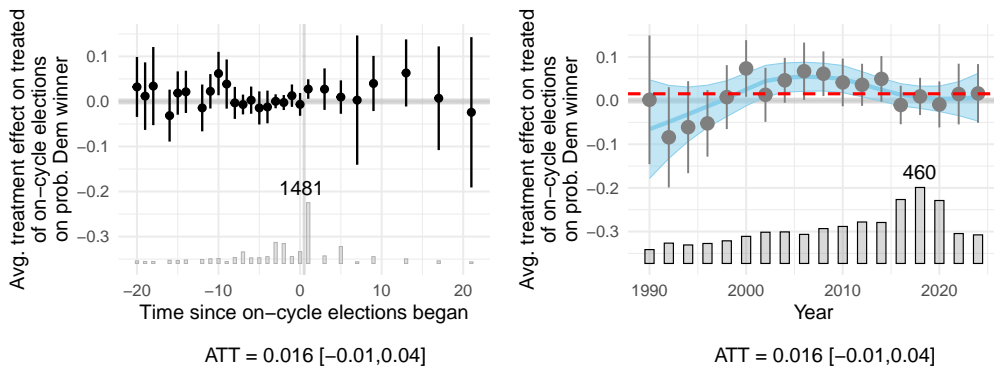
the relationship between election timing and whether the Democratic-leaning candidate wins the election. Both panels have three regression models. Columns (1) and (4) have fixed effects for each biennium and locality, and control for presidential vote share in each constituency. Columns (2) and (5) add constituency fixed effects. We have a larger sample size for these models since we are missing data on presidential vote for many elections. Columns (3) and (6) examine variation in the impact of election timing on partisan outcomes overtime.

Overall, the results are fairly consistent across models. Looking across the last 30 years, the regression results in Table 5 show that switching to on-cycle elections boosts Democrats vote share by about 2 percentage points and their probability of winning the election by 1.5 percentage points. However, these results are concentrated in the pre-Trump era. In recent years, there is no partisan impact of switching to on-cycle elections (columns (3) & (6)).

Figure 5 uses a counterfactual two-way fixed effects model (Liu, Wang, and Xu, 2022) to further examine variation overtime. It suggests that on-cycle elections might lead to slightly higher Democratic vote share (ATT = 1.3 percentage points). But the results are not statistically significant. Similarly to Table 5, there appears to be no impact at all of



(a) Dem. Vote Share



(b) Prob. Dem. Wins

Figure 5: Effect of Switches to On-Cycle Elections on Democratic Vote Share across Mayor, City Council, and County Council Elections based on FEct model

election timing on partisan election outcomes in recent years (right panels).

4.2.2 Ideological Outcomes of Elections

Here, we examine the effect of election timing on the ideology of the winners in local elections. First, we harness the auxiliary data from de Benedictis-Kessner et al. (2023) that contains campaign finance-based (CF-score) measure of candidates' ideology (Bonica, 2019). Both the more strenuous models with constituency-level fixed effects in Table 6 and the counter-factual two-way fixed effects model in Figure 6 indicate that on-cycle elections have no significant effects on the campaign finance-based measure of elected officials' ideology.

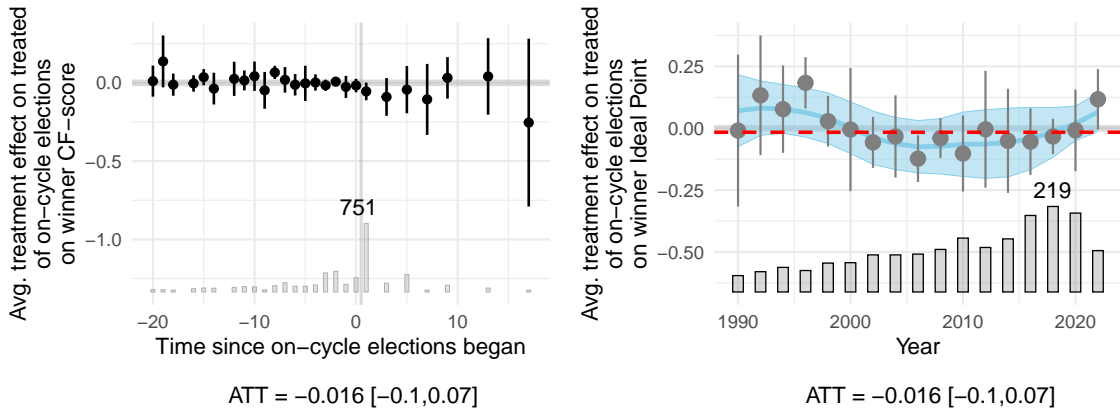
Table 6: Effect of Election Timing on the Ideology of Winners in Local Elections

Dependent Variables:	contributor.cfscore		RC-based Ideal Points			
	All Offices					
Model:	(1)	(2)	(3)	(4)	(5)	(6)
<i>Variables</i>						
On-cycle	-0.074*	-0.031*	-0.032	-0.122*	-8.42×10^{-5}	-0.055
	(0.041)	(0.018)	(0.021)	(0.065)	(0.047)	(0.065)
Pres. Dem. voteshare	-2.12***			-2.57***		
	(0.182)			(0.550)		
On-cycle \times period			0.003			0.101
			(0.025)			(0.080)
<i>Fixed-effects</i>						
Biennium	Yes	Yes	Yes	Yes	Yes	Yes
City/County	Yes			Yes		
City/County-District		Yes	Yes		Yes	Yes
<i>Fit statistics</i>						
Observations	7,076	28,599	28,599	1,135	2,795	2,795
R ²	0.539	0.730	0.730	0.367	0.780	0.780
Within R ²	0.133	0.0002	0.0002	0.147	1.83×10^{-9}	0.002

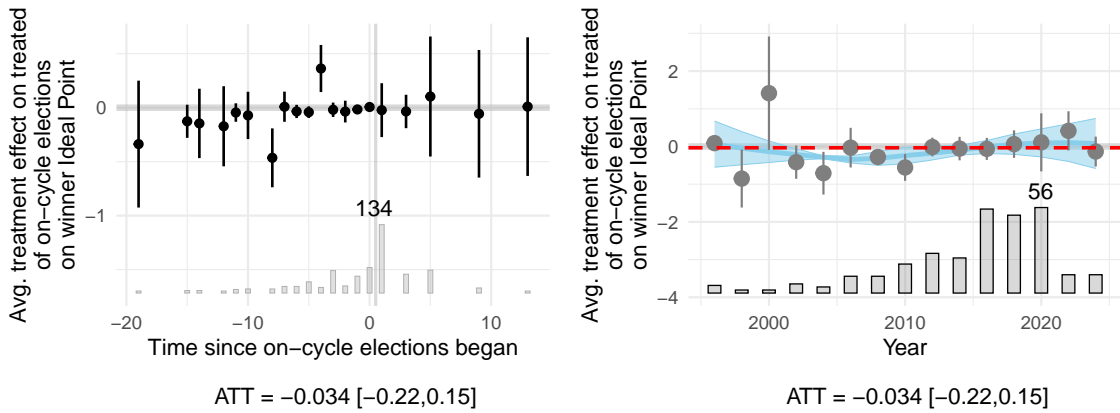
Clustered (fips_office) standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Next, we examine the impact of election timing on the roll-call based measures of elected officials' ideal points. The results are similar to those using CF-Scores. Once again, we see no clear impact of election timing on officials' ideology (left panels of Figure 6). For both the CF-Scores and the ideal points, the figures show that the point estimates are approximately zero in recent years (right panels).



(a) Contributor CF-Score



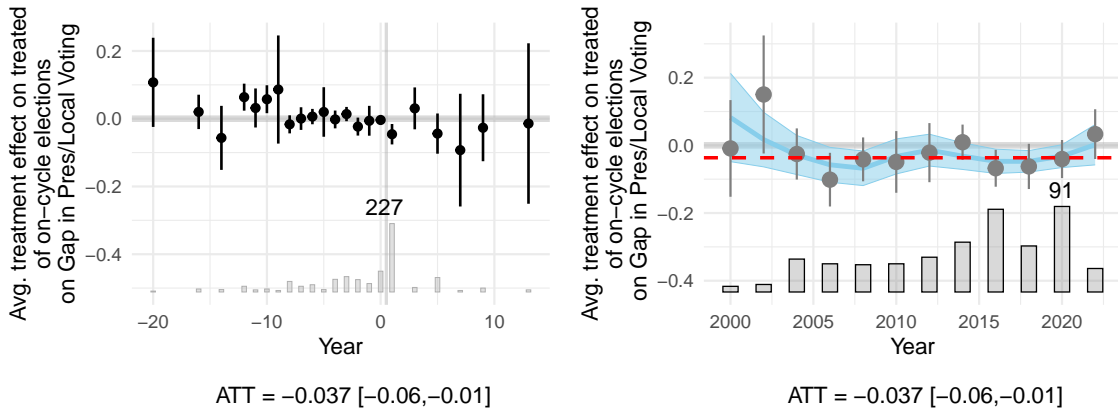
(b) RC-based Ideal Point

Figure 6: Effect of Switches to On-Cycle Elections on Ideology across Mayor, City Council, and County Council Elections based on FEct model

4.3 Representation

Next, we examine the impact of election timing on partisan representation in local government elections. There are a number of ways to conceptualize representation (Caughey and Warshaw, 2022). Here, we look at whether on-cycle elections reduce the gap between the Democratic vote share in the nearest presidential election and in the local election. In other words, do they make the partisan outcomes of local elections more congruent with voters' preferences in national ones with high turnout?

In Figure 7, we show that on-cycle elections reduce this representational deficit by about 3.7 percentage points (left panel). Moreover, this improvement in representation is fairly



(a) Gap between presidential and local elections Dem. Share

Figure 7: Effect of Switches to On-Cycle Elections on Partisan Representation across Mayor, City Council, and County Council Elections based on FEct model

stable across time (right panel). This suggests that on-cycle elections modestly improve electoral representation. These findings are consistent with previous work showing that on-cycle elections improve cross-sectional responsiveness (Dynes, Hartney, and Hayes, 2021; Hartney and Hayes, 2021) and the congruence between the ideology of the public and elected officials (Schaffner, Rhodes, and La Raja, 2020).

4.4 Local Policy Outputs

In this section, we examine the effect of election timing on the policy outputs of local governments. Specifically, we examine whether mayoral election timing affects per capita expenditures, the average pay of municipal employees, the per capita number of city employees, cities' LGBTQ rights policies, or housing policy.¹³ These results are shown in Figure 8. We also examine the effects of county legislative election timing on per capita county expenditures, county employee pay, and the per capita number of county employees in Figure 9. These analyses use the counterfactual fixed effects model (Liu, Wang, and Xu, 2022), which

¹³We focus on the timing of mayoral elections given the role of mayors as executive policymakers in these cities and previous research showing the effects of mayors, but not city councilors, on policy (de Benedictis-Kessner and Warshaw, 2016; de Benedictis-Kessner, Jones, and Warshaw, 2023).

leverage within-city and within-county switches in election timing.¹⁴ This enables us to examine the longer-term dynamic effects of election timing on policy.

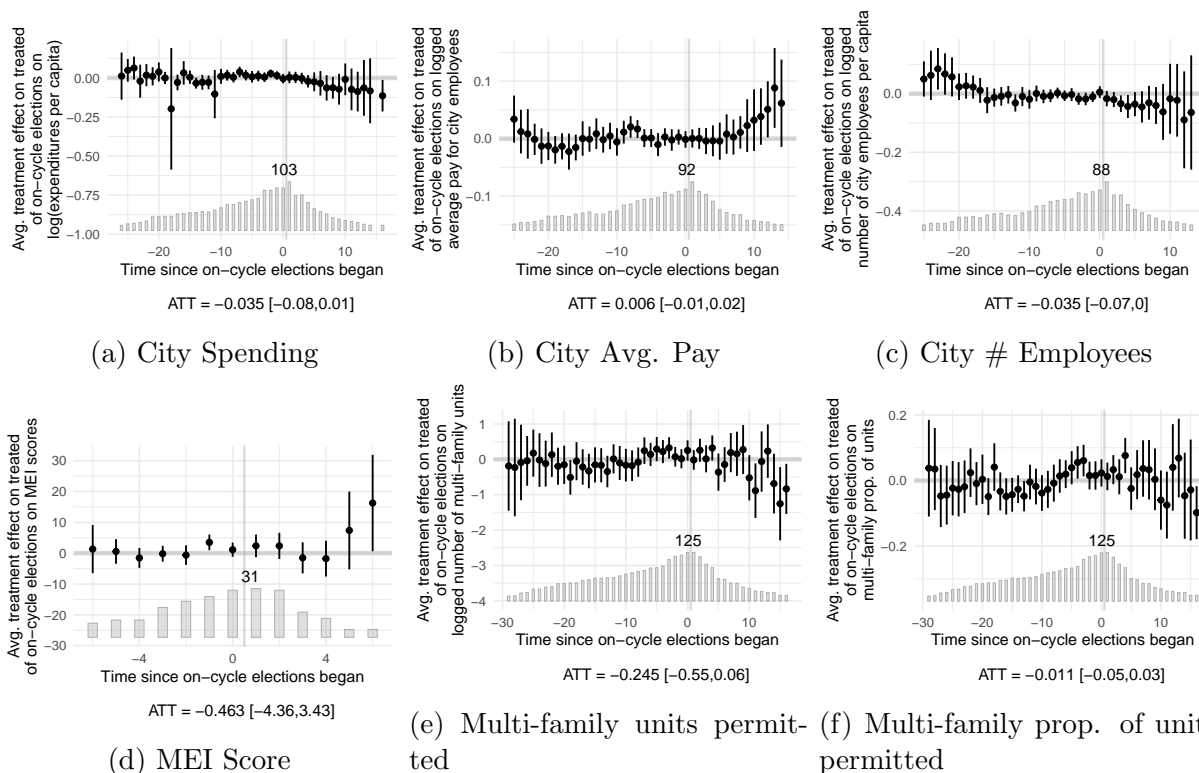


Figure 8: Effect of Switches to On-Cycle Elections on City Policy Outputs based on FEct model

Figures 8 and 9 indicate that election timing has no short or medium-run causal effects on any of the policy outputs we examine. For some policies, there is suggestive evidence of effects over longer time horizons ($t+10$). But these estimates tend to be under-powered and very noisy. So, overall, there does not appear to be strong evidence that election timing influences municipal or county policy outputs. It is important to note, however, that we do not specifically focus on outcomes likely to be heavily favored by interest groups and other policy demanders, such as police and fire salaries (Anzia, 2013, Chapter 6). In future versions, we plan to incorporate these sorts of policies into our analysis.

¹⁴We also examine the effects of timing on individual categories of city and county expenditures and revenue in Appendix B.

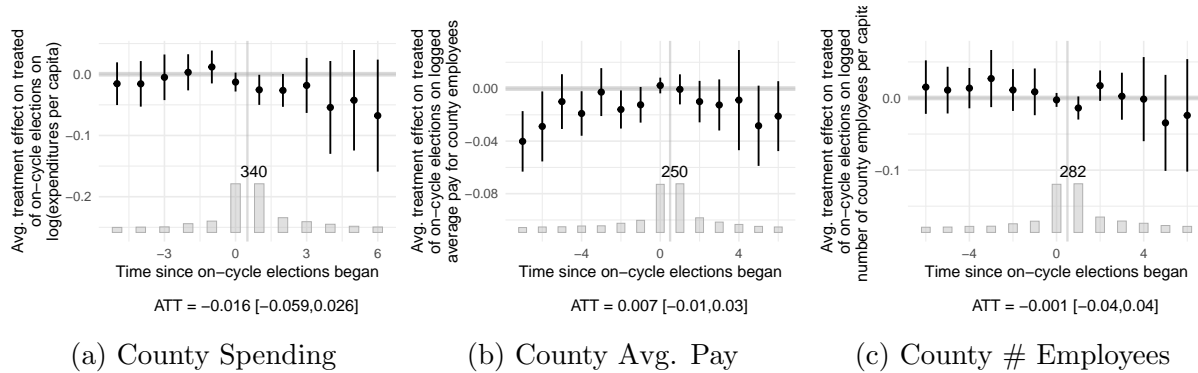


Figure 9: Effect of Switches to On-Cycle Elections on County Policy Outputs based on FEct model

5 Conclusion

In this paper, we have examined how election timing influences the electoral and policy processes of local governments. Consistent with previous literature, we have shown that switching to on-cycle elections substantially increases turnout. Moreover, it changes the demographic composition of the electorate to be more representative of the broader population – bringing more younger and non-white people into the electorate. However, we found only small effects of election timing on the partisan or ideological composition of the electorate, especially in recent years. The muted effects on these groups suggest that the impact of election timing on the electoral and political process is likely to be relatively limited.

We uncover little evidence that election timing influences the outcomes of mayoral, city council, or county legislative elections. We find only limited evidence that on-cycle elections affect the partisan outcomes of elections, and none that it affects the ideology of local elected officials. Election timing appears to have minimal effects on who – demographically or politically – is elected to local office.

Finally, we examine the impact of election timing on the policy outputs of city and county governments. We find no clear evidence that switching to on-cycle elections affects municipal expenditures, the pay of local employees, the number of municipal employees, LGBTQ rights policies enacted by municipal governments, or their housing policy (see Ornstein, 2024, for

similar findings in California). We also find no impact of election timing on the policies of county governments.

Overall, our results indicate there are significant participatory benefits to on-cycle local elections while few *political* consequences. Moving more local elections on-cycle would significantly increase overall voter turnout and the participation of younger and more non-white voters. It also appears to modestly improve partisan representation (Schaffner, Rhodes, and La Raja, 2020; Dynes, Hartney, and Hayes, 2021; Hartney and Hayes, 2021). At the same time, it would lead to few changes in electoral outcomes. Nor would on-cycle elections change the policy outputs of city and county governments. The modest electoral and policy effects of election timing appear to be similar to the small effects of many other electoral rules and institutions in state and local politics (Tausanovitch and Warshaw, 2014; Schaffner, Rhodes, and La Raja, 2020; Caughey and Warshaw, 2022; Grimmer and Hersh, 2024).¹⁵ Future work on election timing could further examine more subtle potential impacts on political accountability and the incumbency advantage (de Benedictis-Kessner, 2018).

Our findings in this paper contribute to ongoing policy debates about election administration and institutions that facilitate voter enfranchisement. Our paper also contributes to the literature on representation in local politics, as well as the broader literature on democratic governance in the United States.

¹⁵This does, however, contrast with some recent work showing the distinctive impact of another local electoral rule, district vs. at-large elections, on the racial makeup of local elected officials and subsequent policy outcomes (Abott and Magazinnik, 2020; Hankinson and Magazinnik, 2023; Trounstine and Valdini, 2008).

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Supplementary Appendix for “The Electoral and Policy Effects of Election Timing in City and County Governments”

A Placebo Checks for Main Results

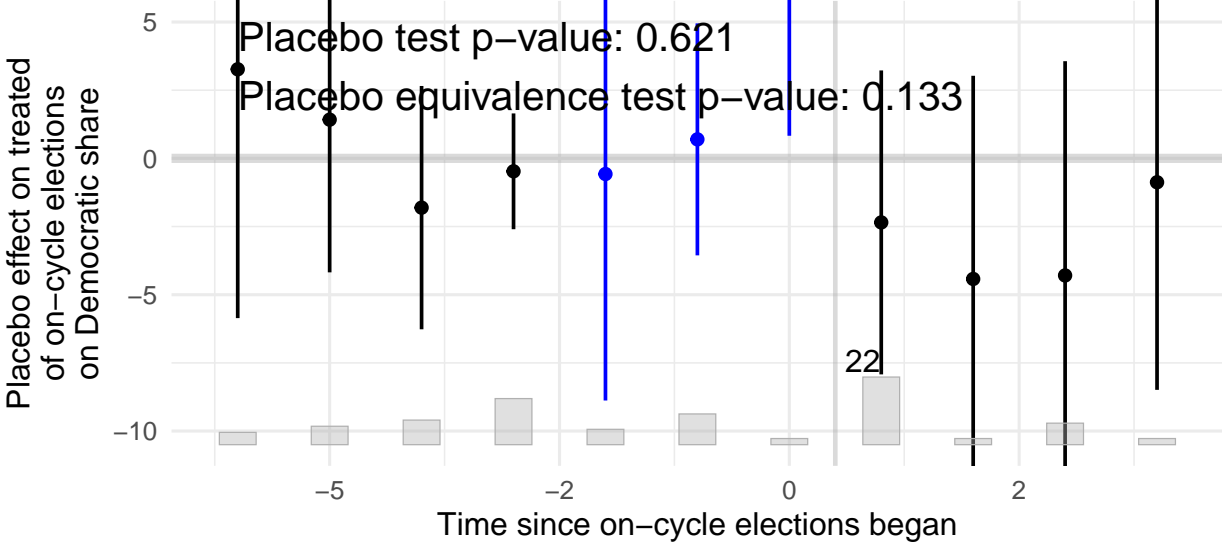


Figure A1: Placebo Check for Effect on Partisan Composition of Electorate

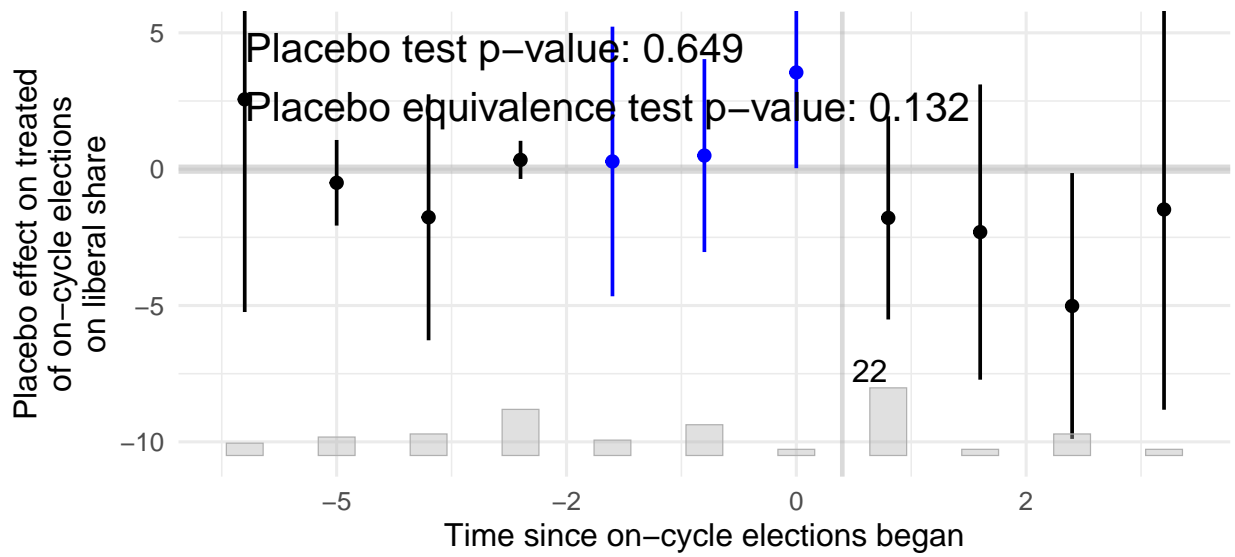


Figure A2: Placebo Check for Effect on Ideological Composition of Electorate

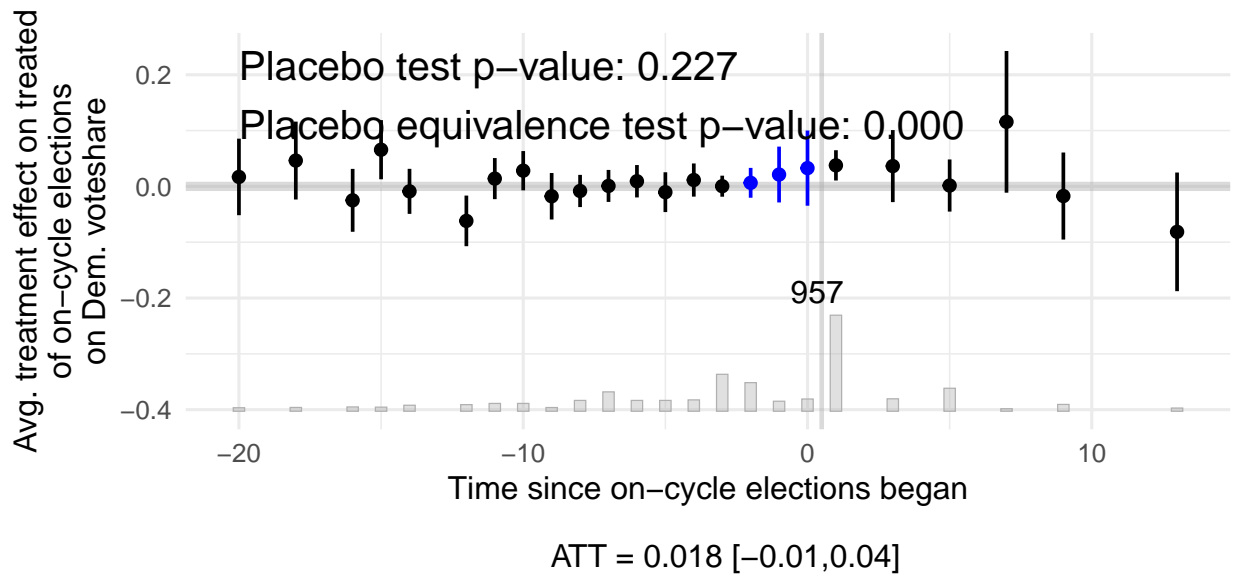


Figure A3: Placebo Check for Effect on Partisan Outcomes of Elections

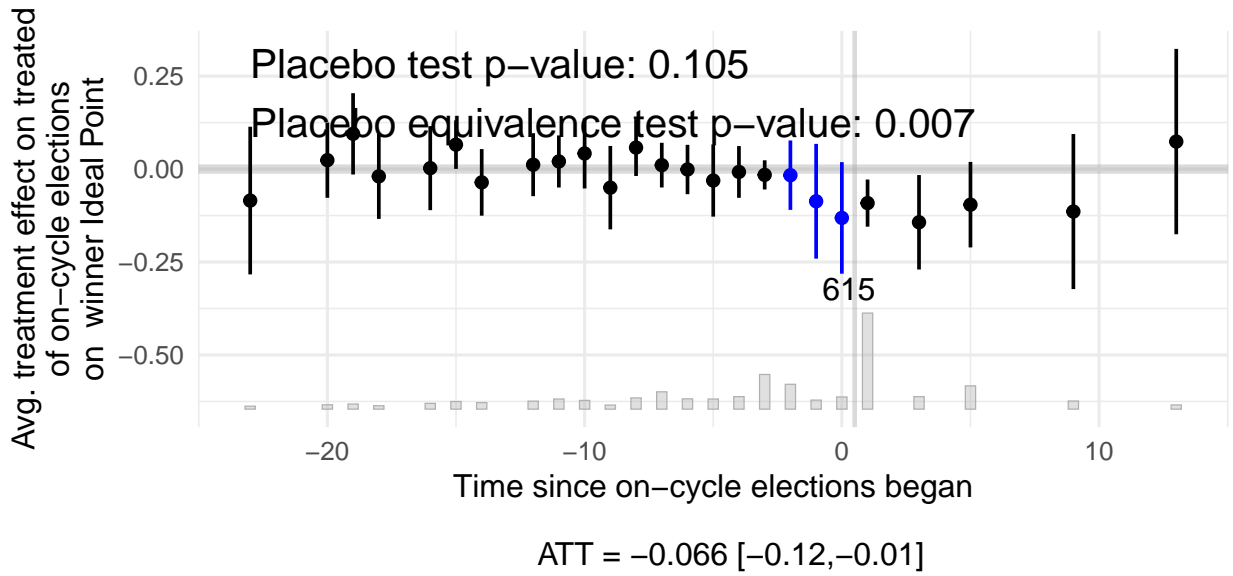


Figure A4: Placebo Check for Effect on Ideological Outcomes of Elections

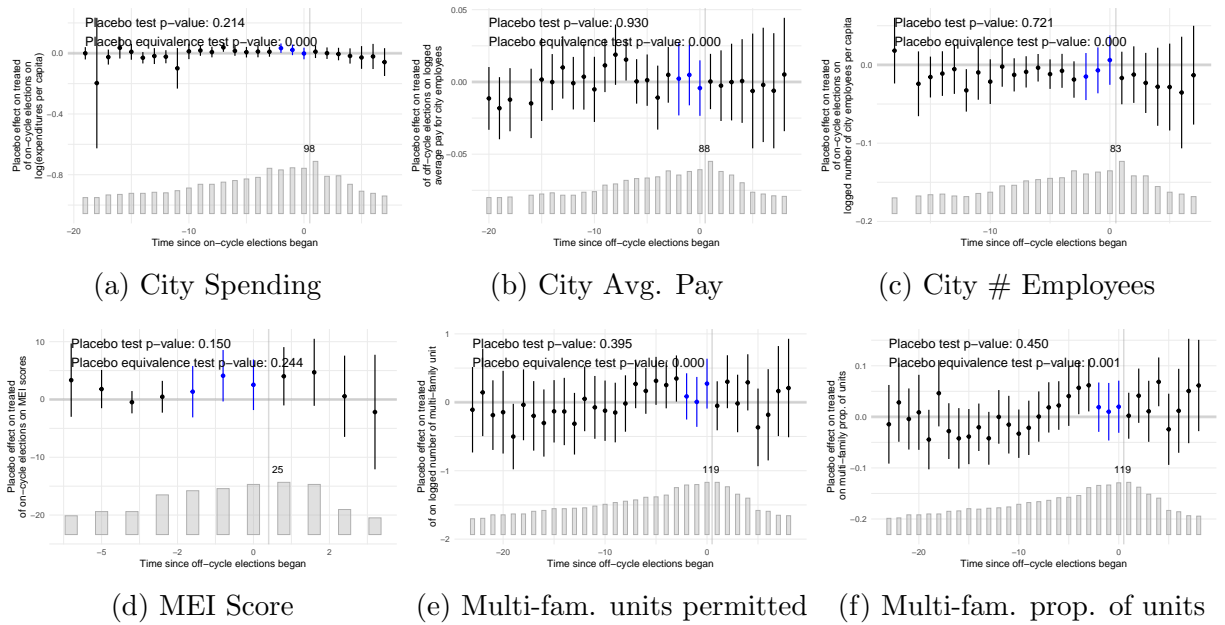


Figure A5: Placebo of Switches to On-Cycle Elections on City Policy Outputs

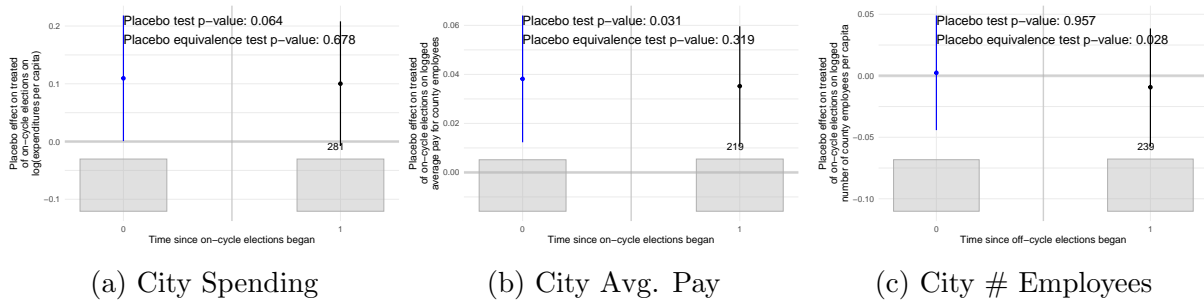


Figure A6: Placebo of Switches to On-Cycle Elections on County Policy Outputs

B Fiscal policy results: expenditure and revenue categories

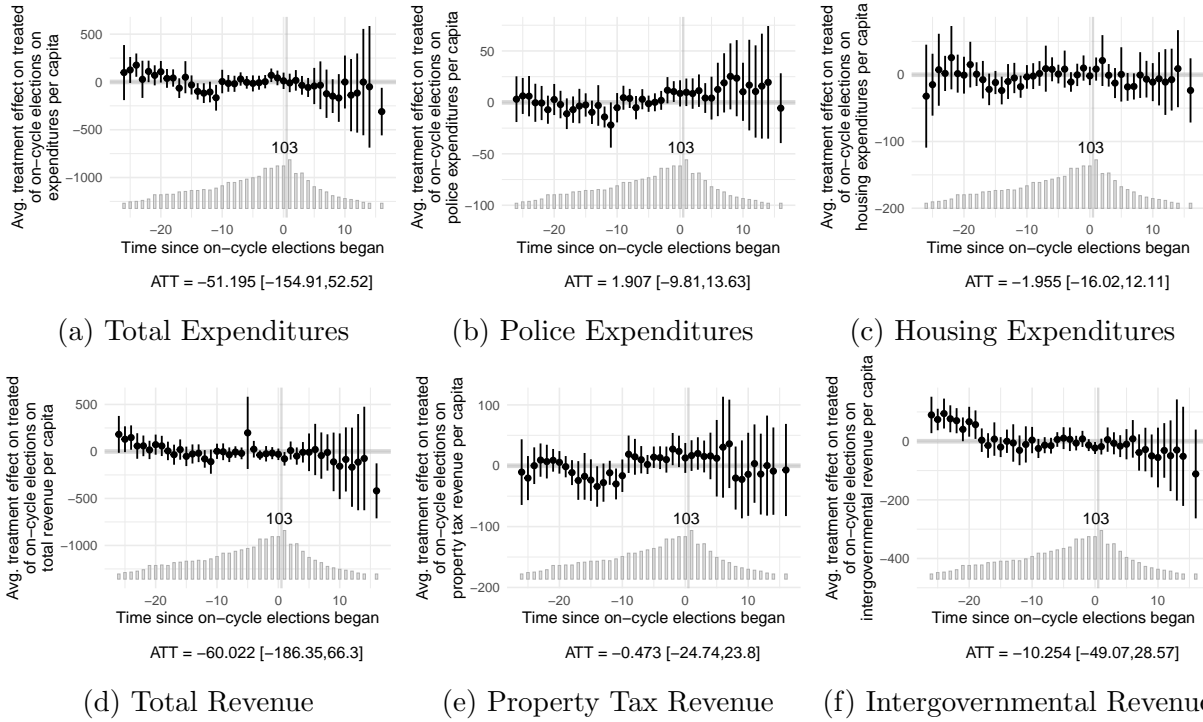


Figure A7: Effect of Switches to On-Cycle Mayoral Elections on City Fiscal Policy Outputs

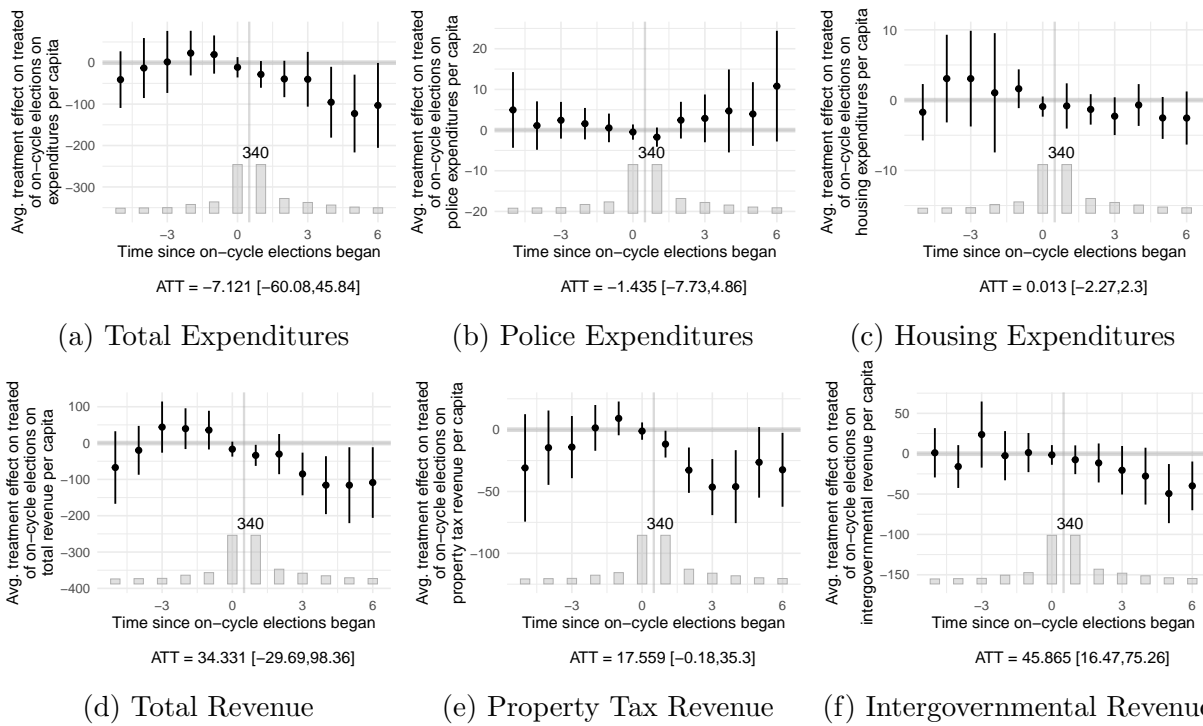
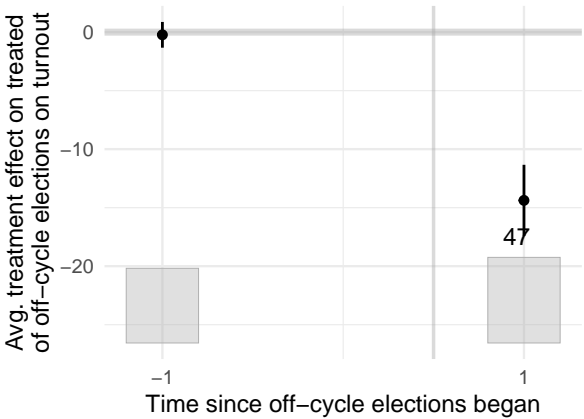


Figure A8: Effect of Switches to On-Cycle County Legislative Elections on County Fiscal Policy Outputs

C FECT results for analyses of switches to off-cycle elections



(a) Mayoral elections: Off-cycle

Figure A9: Effect of Switches in Election Timing on Turnout

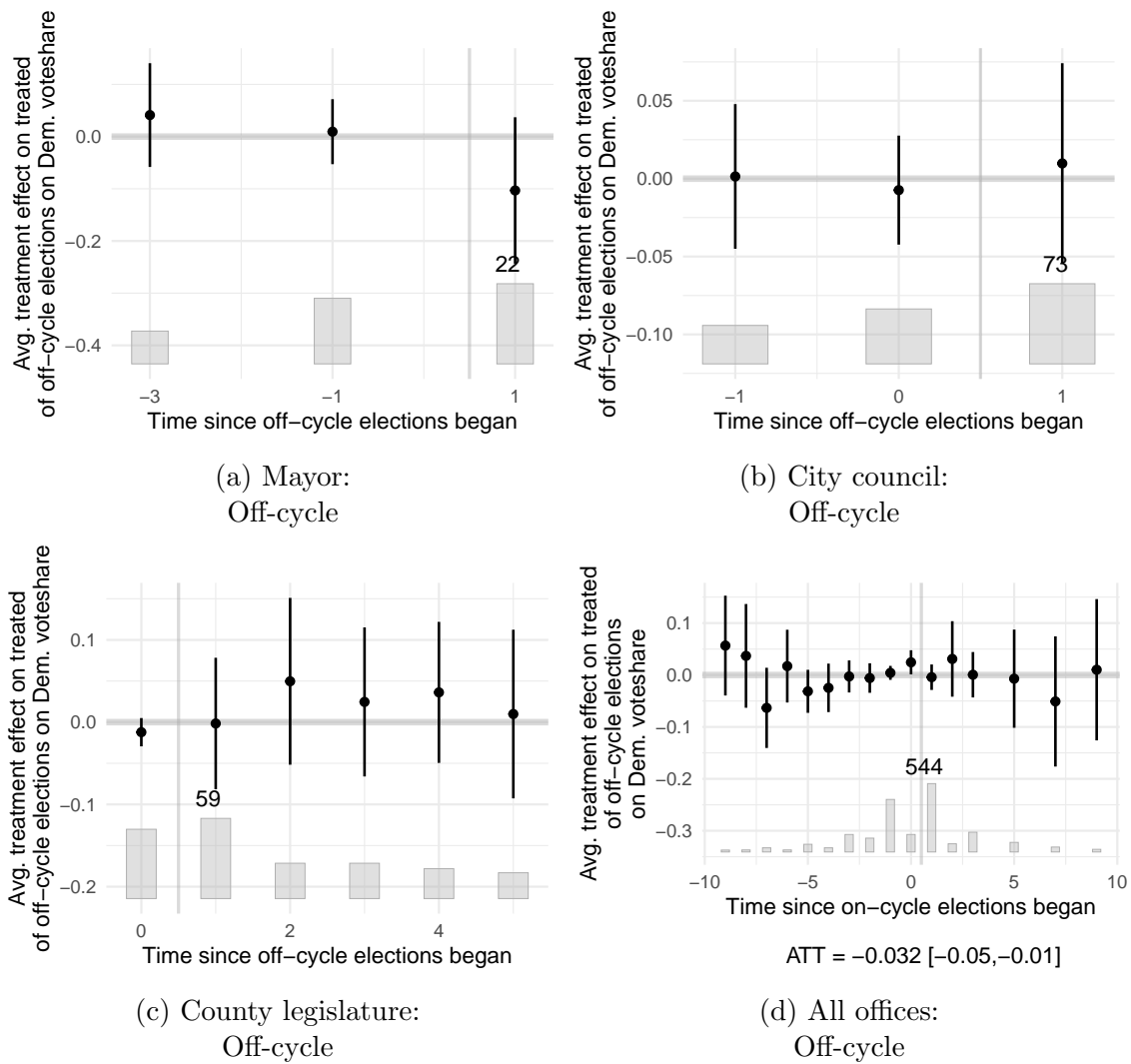


Figure A10: Effect of Switches in Election Timing on Democratic Vote Share

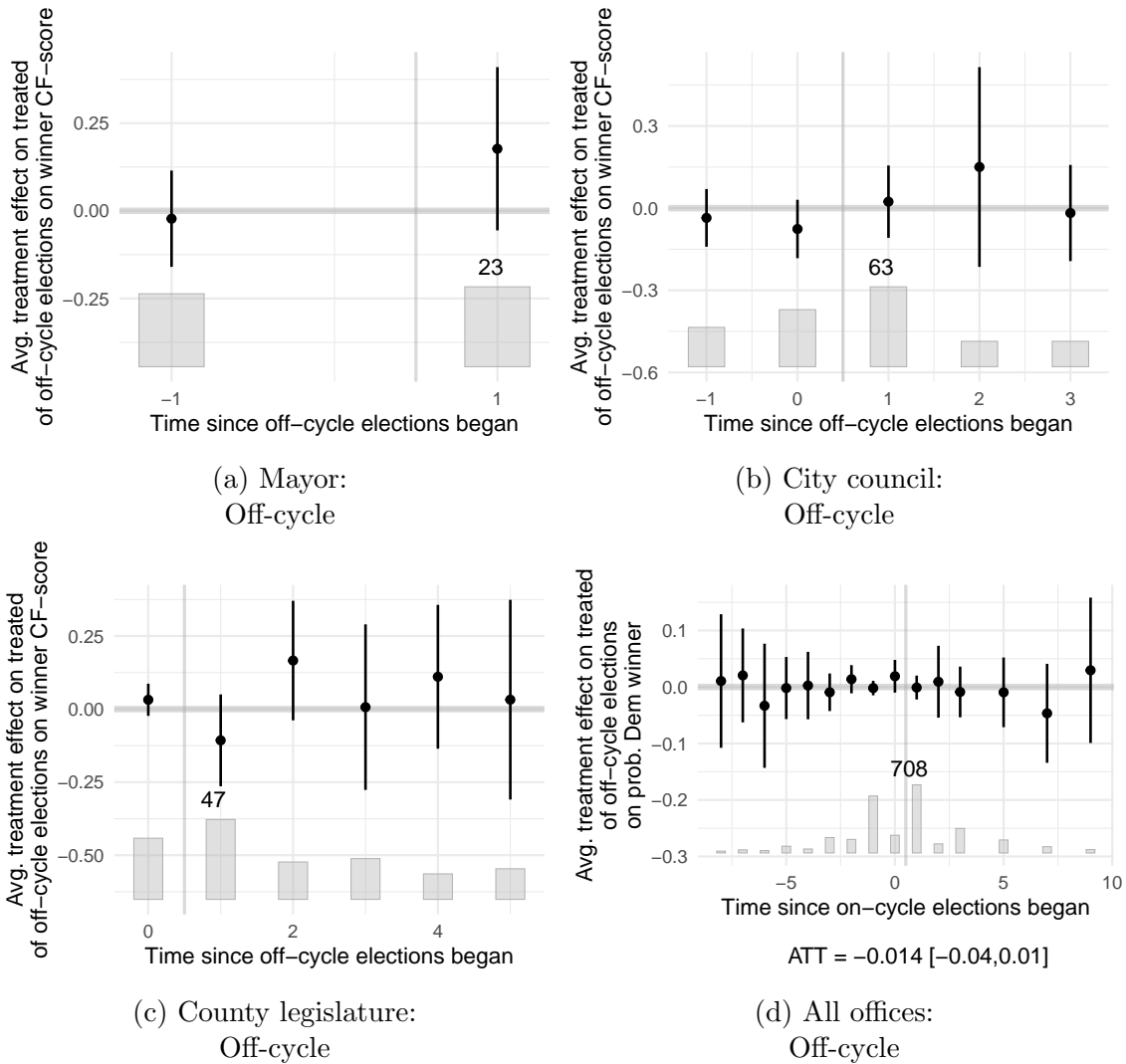


Figure A11: Effect of Switches in Election Timing on Ideology of Winners

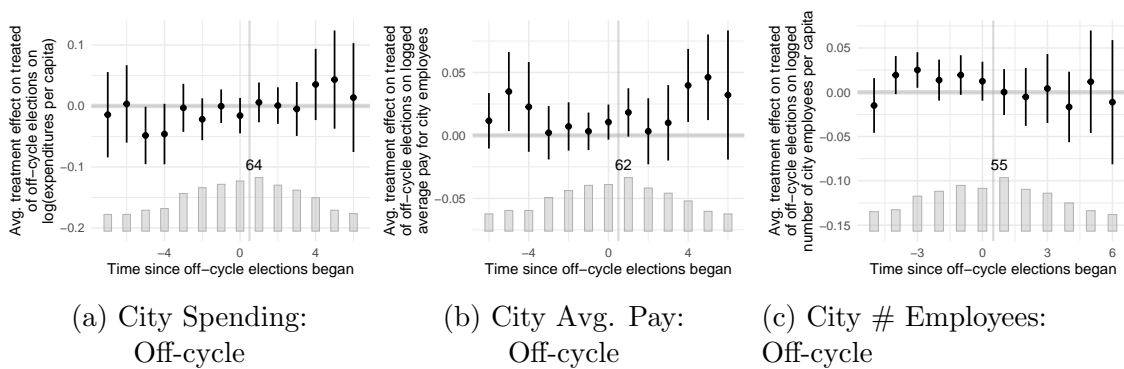
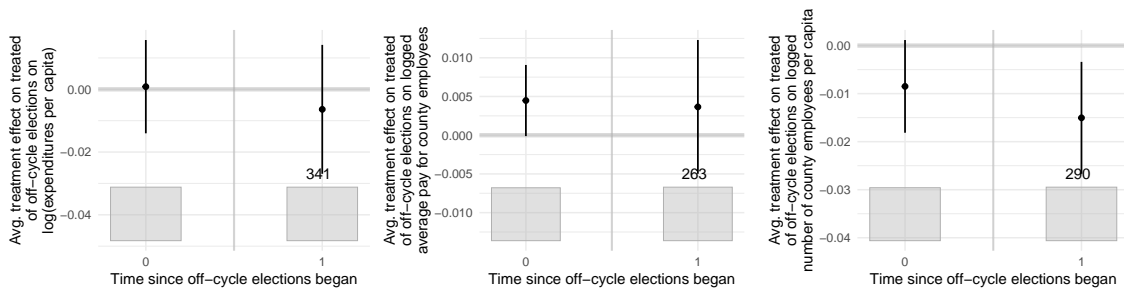


Figure A12: Effect of Switches in Election Timing on City Policy Outputs



(a) County Spending:
Off-cycle

(b) County Avg. Pay:
Off-cycle

(c) County # Employees:
Off-cycle

Figure A13: Effect of Switches in Election Timing on County Policy Outputs

D Analyses of the candidate supply pool

In this appendix, we examine the effect of election timing on the supply of candidates in local elections. Much as the analyses in the main body of the manuscript looking at the winners of local elections, we harness our auxiliary data on candidates running in local elections to examine the number of candidates running in an election, the average ideology of those candidates, and the ideological variation among those candidates. The figures below indicate that election timing has little detectable impact on any of these candidate supply outcomes.

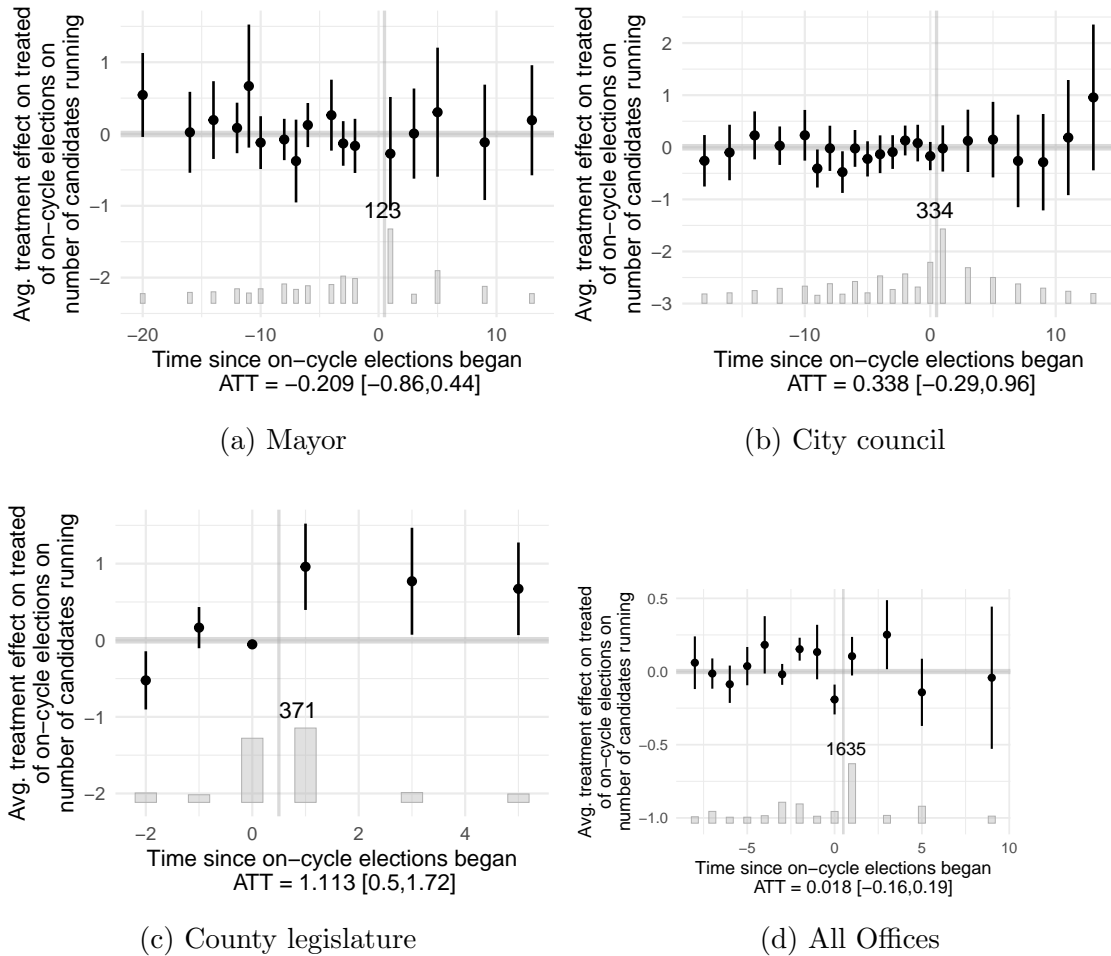


Figure A14: Effect of Switches to On-Cycle Elections on Number of Candidates in Mayoral, City Council, and County Legislative Elections

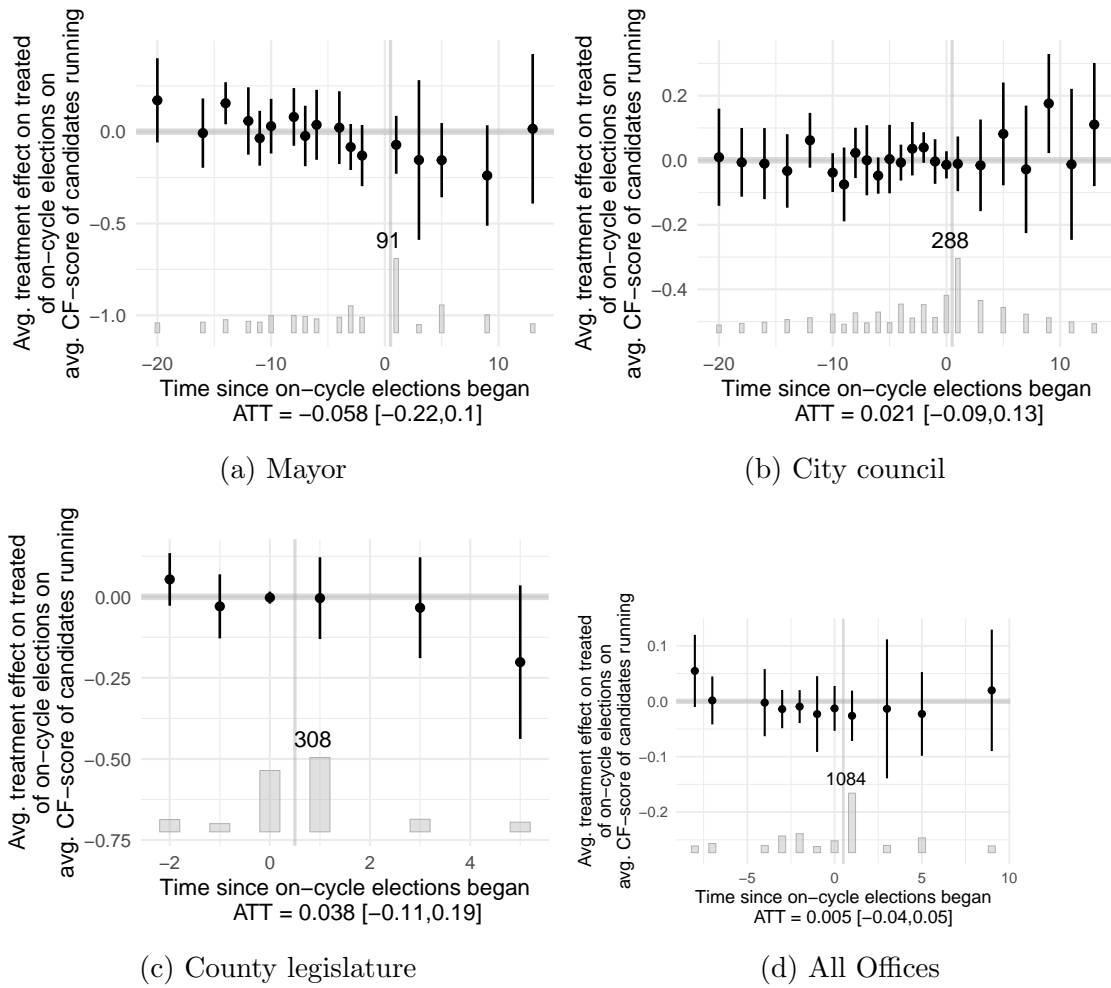


Figure A15: Effect of Switches to On-Cycle Elections on Average Ideology of Candidates in Mayoral, City Council, and County Legislative Elections

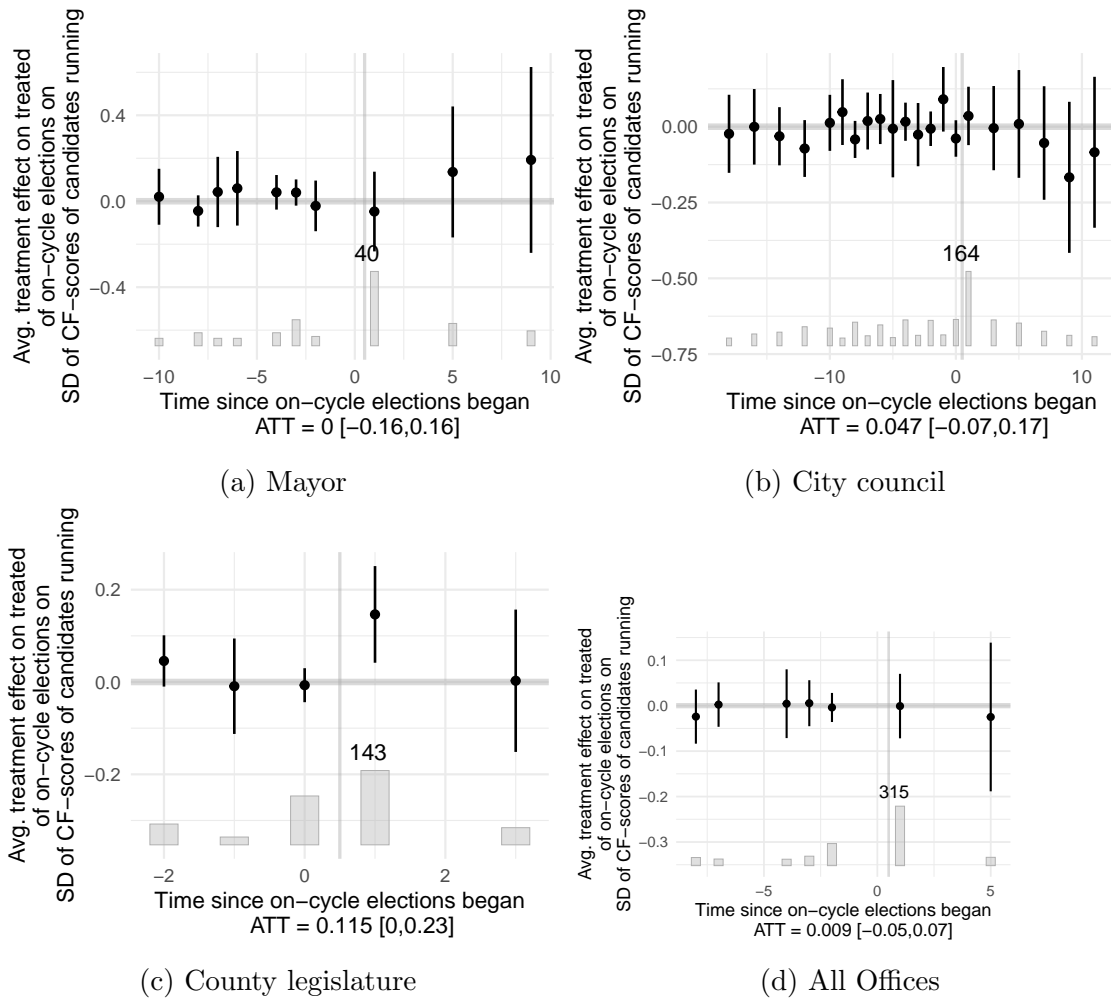


Figure A16: Effect of Switches to On-Cycle Elections on Variation in Ideology of Candidates in Mayoral, City Council, and County Legislative Elections