# Concurrent Elections, Candidate Entry, and Local Competition*

April 11, 2026

**Abstract**

This paper investigates how the institutional timing of elections shapes local candidate entry and political competition. Exploiting quasi-random variation in Italy's staggered national–local concurrent elections, this paper employs a difference-in-differences design. Estimates reveal that concurrency reduces the number of mayoral candidates and discourages participation by independent lists, increasing the relative presence of nationally established parties. These changes in candidate composition are associated with higher vote shares and higher probabilities of victory for nationally affiliated candidates, alongside a reduction in overall political competition. Concurrent elections also affect who holds office: mayors elected in such contests are more likely to have lower education and less prior experience. At the same time, while these mayors do not alter overall spending or revenue trajectories, they secure greater intergovernmental transfers, collect taxes more efficiently and increase spending in specific categories.

*Keywords:* Concurrent elections, Political Competition, Political Participation.

*JEL:* D72, H70.

*I would like to thank the editors and two anonymous referees for their excellent comments and suggestions. I wish to thank Francesca Maria Calamunci, Agustin Casas, Italo Colantone, Nicola Mastrorocco, Gaia Narciso, Marvin Suesse, Federico Trombetta, Michael Wycherley and participants at the IPECE conference and at the Trinity College Dublin Economics seminars.
This version of the article has been accepted for publication, after peer review (when applicable) but is not the Version of Record and does not reflect post-acceptance improvements, or any corrections. The Version of Record is available online at: http://dx.doi.org/10.1007/s11127-026-01402-9. Use of this Accepted Version is subject to the publisher's Accepted Manuscript terms of use https://www.springernature.com/gp/open-research/policies/accepted-manuscript-terms

# 1 Introduction

Low levels of political competition and candidate entry are problematic for a well-functioning democracy. In fact, such low levels can alter the incentives of politicians, reducing contestability, facilitating rent extraction, and undermining accountability (Bueno de Mesquita et al. 2001; Stratmann 2005; Afzal 2014). These dynamics vary between "first-order" national elections and "second-order" local ones (Reif and Schmitt 1980). Along this dimension, the degree of political alignment between local governments and nationally-established parties is crucial for policy outcomes. Independent parties may be more responsive to local preferences (Otjes 2018), better balancing the implementation of national policies (Alesina and Rosenthal 1996), while at the same time risk inefficiencies by weakening coordination across tiers. Nationally-established parties facilitate alignment and access to central resources, yet increase the scope for favouritism and rent allocation (Curto-Grau et al. 2018). The balance between these party types thus matters not only for electoral competition but also for the distribution of public goods. Given the increasing role of cities in modern society and the economy (Glaeser et al. 1992), local elections are becoming more salient and important.

Concurrent elections are often justified on grounds of administrative efficiency and increased voter turnout. A growing literature in political economy and political science confirms that concurrency raises voter turnout (Fauvelle-Aymar and François 2015; Revelli 2017; Bracco and Revelli 2018; Garmann 2020; Cantoni et al. 2021). Yet, less is known about how concurrency shapes candidate entry, partisan reallocation, and political competition—core outcomes for assessing the functionality of a multi-tier democracy. Within concurrent elections, electoral results and the vertical interplay across multiple levels of government also remain under-explored (Rudolph and Leininger 2021).

Does concurrent national-local elections raise coordination rents for national parties while lowering entry and competitive pressure from independents? This paper provides causal evidence on how concurrent elections impact these outcomes at the local election level by exploit the quasi-random variation in the timing of national-local concurrent elections. Although national and local-mayoral elections are held every five years, their concurrency can vary due to unexpected dissolutions and institutional rules.[1] Leveraging this quasi-random variation, this paper estimates a staggered difference-in-differences design that compares municipalities exposed to an national-local concurrent election with those that are not, before and after the election. The analysis focuses on three dimensions: (i) candidates entry, measured by the number of mayoral candidates, further divided by independent versus nationally-established parties; (ii) the electoral performance of independent versus nationally-established parties; (iii) com-

1. Sections 3, 4, and 5 expand on this topic.

petition, measured using a Herfindahl–Hirschman political competition index (HHPC), where lower values imply weaker contestability (Afzal 2014; Meriläinen and Tukiainen 2018). Because meaningful competition requires the presence of both nationally-established and independent parties, I restrict the sample to municipalities that experienced such competition at least once during the period. Further, the fact that municipalities voting in the same year but on a different date are virtually absent from the estimating sample, and the closest control elections occur at least one full year after the national contest, sharply limits the scope for spillovers and SUTVA violations.

Conceptually, concurrent national–local elections modify the informational and strategic environment in which local political competition takes place. When the two electoral tiers are held on the same day, the national contest typically dominates media coverage, party mobilisation, and campaign signalling, crowding out attention to local issues and candidates. In this setting, voters are more likely to rely on simple heuristics—most notably party affiliation—and common national signals can facilitate coordination on nationally salient political options. Anticipating these evaluation rules, forward-looking and office-seeking candidates face altered entry incentives. Independent or locally based candidates may expect lower electoral viability, while nationally established parties can leverage organisational scale, reputational advantages, and cross-level electoral appeals linking local races to national agendas. As a result, independent candidacies may be discouraged, and affiliation with national parties becomes relatively more attractive. Importantly, possible differences between immediate entry responses and observed electoral outcomes should be interpreted primarily as equilibrium selection effects: by inducing weaker independent candidates to exit at the entry stage, concurrency can reshape local competition without necessarily producing contemporaneous changes in vote shares.

Empirical estimates show that the concurrency reduces the number of candidates running in local elections. The effect is heterogeneous depending on whether a candidate is affiliated with an independent or a nationally-established party. Specifically, the concurrency mostly reduces candidacies of the former, while mildly increasing candidacies of the latter. Further, concurrent elections decrease the vote share of independent parties while, although not statistically significantly, increase the share of nationally-established parties. This further translates into a reduction (increase) in the probability of victory for independent (nationally-established) candidates of roughly 10.5 percentage points, corresponding to a mean incidence of 25.93%. At the same time, estimates show that concurrent national-local elections reduce the HHPC index, effectively diminishing political competition. To better understand the chain of events, I decompose the difference-in-differences estimates into event-studies at the municipality-election year level. Given the staggered nature of the design, I follow the recent literature on the topic (Roth et al. 2023) and employ an estimator that accounts for hetero-

geneous treatment effects, specifically that developed by Sun and Abraham (2021). The time profile of the estimates confirms the presence of immediate supply-side responses in the form of candidate exit at concurrency, together with differences in the timing of observed electoral outcomes that are consistent with equilibrium selection effects. Independent candidates exit at the concurrent election, while changes in electoral performance reflect the endogenous adjustment of the candidate pool rather than delayed voter responses.

The results are robust to several checks. First, and most importantly, when estimating the event-study specification, I visually assess the conditional parallel trends assumption. In none of the specifications is there evidence of pre-trends, which supports the validity of the assumption. Second, contemporaneous controls are either replaced with baseline controls interacted with election-year fixed effects, or with an alternative set of control variables. Third, I replace the OLS estimator with a Poisson pseudo-likelihood one. Fourth, I exclude the handful of municipalities that experience both concurrencies, and limit the treatment absorption assumption. Finally, I change the level of cluster of the standard errors. Overall, the main estimates are robust across the board.

The analysis is then extended in two directions. First, it assesses whether national-local concurrent elections shape voters' choices of candidates. Formally, it examines whether mayors elected in national-local concurrent elections differ systematically from those elected in asynchronous context. The estimates suggest that mayors elected in such contexts are more likely to be born in the municipality where they are elected, to have lower educational attainment. Event-study estimates also show they are less likely to have prior political experience. Second, the analysis assesses whether mayors elected in concurrent national–local elections——who are more likely backed by nationally-established parties——govern differently. The analysis also examines the fiscal consequences of concurrent elections. While concurrency does not affect overall revenue or expenditure levels, it is associated with meaningful changes in how local governments raise and allocate resources. Mayors elected under concurrent elections collect taxes more efficiently and secure significantly higher transfers from the central government in subsequent years. These patterns are consistent with theories of vertical alignment and partisan allocation, whereby nationally affiliated local executives benefit from improved access to information, networks, or bargaining channels at higher tiers of government (Solé-Ollé and Sorribas-Navarro 2008; Bracco et al. 2015; Kauder et al. 2016). At the same time, the evidence does not point to broad-based expansions in spending. Instead, additional resources are primarily directed toward education and environmental or urban-development expenditures, suggesting targeted adjustments rather than wholesale changes in local fiscal policy.

Overall, the results point to a trade-off in the welfare implications of concurrent national–local

elections. On the one hand, concurrency reduces political contestability by discouraging independent candidacies and concentrating competition along national-party lines, potentially weakening electoral accountability and the disciplining role of competition. On the other hand, mayors elected under concurrency exhibit stronger fiscal performance, improving tax collection efficiency, securing higher intergovernmental transfers, and allocating additional resources to education and environmental or urban development. These patterns suggest that while concurrency may entail political costs in terms of reduced competition, it can also generate efficiency gains through improved vertical coordination and access to national resources. The net welfare effect is therefore ambiguous ex ante and likely context dependent, depending on the relative importance of accountability versus fiscal capacity in local governance.

This paper contributes to several strands of the literature. First, it extends the political economy research on concurrent elections (Zudenkova 2011; Fauvelle-Aymar and François 2015; Garmann 2016; Revelli 2017; Bracco and Revelli 2018; Lo Prete and Revelli 2021; Armillei and Cavallotti 2021; Cantoni et al. 2021) by moving beyond voter turnout to examine candidate entry, partisan reallocation, and political competition—dimensions central to accountability and rent extraction. Second, it speaks to the study of "first-order" and "second-order" elections (Reif and Schmitt 1980; Heath et al. 1999; Hix and Marsh 2011; Hobolt and Wittrock 2011; Cabeza 2018), showing how national salience projects onto local contests and shifts incentives for both voters and candidates (Alesina and Rosenthal 1996; Erikson et al. 2015). Third, it adds to the literature on post-election consequences of concurrency by documenting how partisan alignment influences the allocation of intergovernmental transfers (Solé-Ollé and Sorribas-Navarro 2008; Migueis 2013; Bracco et al. 2015; Kauder et al. 2016), while finding little evidence of systematic changes in local spending priorities (Ferreira and Gyourko 2009).

The structure of the paper is as follows. section 2 presents a conceptual framework that formalises expectations. section 3 provides background on the Italian electoral and political context. section 4 presents the data. section 5 outlines the empirical strategy. section 6 reports the main results, robustness checks, and extensions. section 7 concludes.

## 2 Conceptual Framework

Local and national elections take place within a multi-layered political environment in which voters, candidates, and parties interact under informational and organisational constraints. When elections at different tiers are held concurrently, the national contest—typically the first-order election—becomes particularly salient and generates spillovers that extend to the local arena. In this paper, concurrency refers to cases in which municipal and national elections occur on the same day, implying a substan-

tial overlap in media coverage, party mobilisation, and campaign activity. Such institutional timing can alter the strategic environment of local politics, with implications for candidate entry, partisan alignment, and political competition.

A natural starting point is the literature on second-order elections. Voters often perceive local elections as subordinate to national politics, especially when national campaigns are salient or temporally proximate (Reif and Schmitt 1980). In the run-up to concurrent elections, national contests dominate the media environment and increase the visibility of national parties, leaders, and issues. Under these conditions, attributing responsibility in local races becomes more difficult (León 2012). At the same time, acquiring and processing detailed information about individual local candidates is costly, which makes voters more reliant on simple heuristics such as party affiliation or incumbency (Downs 1957; Feddersen and Pesendorfer 1996; Martinelli 2006). Taken together, these factors suggest that national politics may crowd out attention to local contests when elections are held concurrently.

Concurrency can also facilitate coordination on nationally salient political options. When voters are exposed to common political signals, they may not only update their beliefs but also condition their behaviour on shared expectations (Arias et al. 2019). National elections provide precisely such signals: media coverage, partisan mobilisation, and public debate generate focal political narratives around parties and leaders. In low-information local races, these focal points tend to advantage candidates affiliated with nationally established parties, whose reputations, organisational capacity, and ideological positions are more widely recognised.

Further, political agency models of coattail voting provide additional insight into how these voter-side mechanisms translate into candidate behaviour. In particular, Zudenkova (2011) shows that, in simultaneous elections, voters optimally evaluate candidates jointly across offices and rely on party affiliation as a key informational device. These evaluation rules are anticipated by candidates at the time of entry. Coattail effects therefore emerge in equilibrium as the outcome of forward-looking candidate behaviour under known voter heuristics, rather than as mechanical vote transfers occurring on election day.

This equilibrium logic has direct implications for candidate entry. Prospective candidates internalise the electoral environment they expect to face. Anticipating that voters will rely more heavily on party-based heuristics and joint evaluations in concurrent elections, independent or locally based candidates may expect lower electoral viability. By contrast, nationally established parties benefit from economies of scale in organisation, mobilisation, and campaign infrastructure (Cox 2015; Rudolph and Leininger 2021). They can also exploit cross-level electoral appeals by explicitly linking local candidates to national leaders, partisan agendas, or flagship policies (Hijino and Ishima 2021). In equilibrium, these

asymmetries induce selection on entry: weaker independent candidates optimally exit the race, while the remaining civic candidates are positively selected.

Selection on entry has direct implications for observed electoral outcomes. In line with political agency models of coattail voting (Zudenkova 2011; Halberstam and Montagnes 2015), concurrency affects voters' evaluation rules at the time of the election, but these effects may be masked in observed vote shares by endogenous selection into candidacy. If weaker independent candidates anticipate reduced electoral viability and exit at the entry stage, the remaining civic candidates are positively selected. As a result, their observed electoral performance need not deteriorate contemporaneously, even in the presence of voter heuristics that favour nationally affiliated parties. An alternative, and not mutually exclusive, interpretation is that voters adjust only gradually to the informational environment created by concurrent elections. Evidence from Italy suggests that voters respond strongly to broad signals of candidate competence while engaging only partially with finer-grained information (Kendall et al. 2015), and that demand for detailed local candidate attributes remains limited even when information is readily available (Galli et al. 2025). Under this view, electoral effects may emerge over time as partisan cues and reputational advantages consolidate across electoral cycles.

This framework yields several testable implications. Concurrent national–local elections should increase the relative attractiveness of national-party affiliation for prospective local candidates, discouraging independent entry and favouring nationally affiliated lists. As a result, local political competition is expected to become more concentrated along national-party lines, reducing contestability. Consequently, possible differences in the timing of electoral outcomes can be interpreted primarily as equilibrium selection effects, reflecting forward-looking candidate behaviour under anticipated voter heuristics. These implications guide the empirical analysis that follows.

## 3 Institutional Background

Italy is a parliamentary republic with four levels of government: the national government, the regions (*regioni*), the provinces (*province*), and the municipalities (*comuni*). As mentioned above, this paper focuses on the first and the last of these tiers.

National elections are held every five years, on the same day across all municipalities. Given Italy's bicameral legislature, voters elect the members of two chambers: the Upper Chamber (Senate) and the Lower Chamber (Chamber of Deputies). In practice, the powers of these two institutions are essentially the same, producing a system of perfect bicameralism. At the end of the electoral process, voters have cast their ballots for their preferred party, and the party or coalition receiving a majority of the vote is

tasked with nominating the Prime Minister, who in turn selects the Ministers for each portfolio.[2] The President of the Republic—who is elected by Parliament rather than directly by the population—then formally confirms this appointment and grants the mandate to govern for the subsequent five years. It is not uncommon, however, for governments to change composition during a legislature due to shifting political circumstances. Moreover, if the government loses its majority in either chamber, the President of the Republic can call early elections, which terminate both the legislature and the sitting government before the scheduled end of the mandate.

Municipalities, by contrast, are headed by a directly elected mayor, who appoints an executive committee and governs alongside a city council. Municipal elections are also held every five years, though the election date varies across clusters of municipalities. In these elections, voters cast a ballot for a preferred mayor, who runs with a proposed team of council members. Since 1993, municipalities with a population above 15,000 have adopted a two-round system: if no candidate secures more than 50% of the vote in the first round, a run-off is held between the two leading candidates. Local elections may also take place earlier than scheduled if the local government experiences premature termination. This can occur for a variety of reasons, such as violations of the law by the mayor or council, the resignation or death of the mayor, or the resignation of more than half of the city council. At the local level, candidates may run either with a nationally-established party or with an independent party.

## 4 Data and Descriptive Evidence

**Local election characteristics.** I collect data on local elections from the archive of the Italian Ministry of the Interior.[3] The dataset covers all municipal elections held between 1991 and 2019 in 15 of Italy's 20 regions.[4] For each election, I observe the date, turnout, number of candidates, votes received, party affiliation, whether a second round was held, the presence of an incumbent, and the name of the winning candidate.

I use the party affiliation of each candidate to classify them as running either with a nationally-established party or with an independent local party. For example, a mayoral candidate supported by the "Northern League" (*Lega Nord*) or the "Democratic Party" (*Partito Democratico*) is classified as nationally established, while a candidate supported only by an independent list—often with generic or city-specific names—is coded as independent.[5] When a candidate is supported both by an independent

2. Chiaramonte (2015) provides a detailed overview of the national electoral laws in force during the period under consideration.

3. https://elezionistorico.interno.gov.it/eligendo/opendata.php

4. I include only the 15 regions with ordinary status, excluding the five special statute regions, as these follow different electoral rules at both the local and national level.

5. An example is the list "The Ideal Comerio" (*Comerio Ideale*) in the city of Comerio in 2016.

party and by a national party, as part of a local coalition, I classify them as nationally established.

From these data, I construct the main outcomes of interest, which capture both political competition and participation by party type (established or independent). Specifically, I focus on: (i) the total number of candidates, and the number by party type (either independent or nationally-established); (ii) the vote share and probability of victory for each party type; (iii) the Herfindahl–Hirschman Political Competition Index (HHPC).[6] The HHPC index is a standard measure of contestability in political economy (Afzal 2014; Meriläinen and Tukiainen 2018). It is defined as $HHPC_{i,t} = 1 - \sum_c (Votes\,Share_{c,i,t})^2$, that is, one minus the sum of squared vote shares of all candidates $c$ running in municipality $i$ at time $t$. The index ranges from 0 (no competition) to 1 (maximum competition).

I also use the data to identify municipalities that, at least once during the sample period, experienced electoral competition between an independent and a nationally-established party. In addition, I draw on the Ministry of the Interior archive to identify the years in which local and national elections were held concurrently: 13$^{\text{th}}$ May 2001 and 13$^{\text{th}}$ April 2008.

**Municipal characteristics.** Socio-demographic information is drawn from the Italian National Institute of Statistics (ISTAT).[7] I collect municipal-level data from the population censuses of 1991, 2001, and 2011, covering an extensive range of variables.

**Other data.** Information on mayoral characteristics comes from the archive of local administrators maintained by the Ministry of the Interior.[8] For each elected mayor, I observe age, gender, education, and occupation outside politics (if any). Importantly, since the dataset also records other municipal officials, I can track whether a mayor held any prior local office before election.

I further collect municipal balance sheet data (*Certificati Consuntivi*) from 1998 to 2015.[9] These contain annual information on both revenues and expenditures, disaggregated into several sub-categories. I focus on: total revenues; revenues from taxes; intergovernmental transfers; total expenses; spending on economic development, environmental and urban development, administrative services, education and social services. Further, related to revenues I collect both collected ("Conto competenza") and accrued ("Accertamenti") revenues. Taking the ratio of the former over the latter conveys a measure of efficiency in revenues collection. With respect to expenses, I collect both collected and committed ("Impegni") expenses. Again, taking the ratio of the first over the second results in a measure of efficiency in local spendig. Both efficiency measures are standard in the literature (Gagliarducci and

6. The vote share of a candidate $c$ running with a nationally-established (independent) party in municipality $i$ at time $t$ is computed as $Votes\,Share_{i,t} = \sum_c \frac{Votes_{i,c,t}}{\sum_c (Votes_{i,c,t} - Null\,Votes_{i,c,t})}$.

7. https://ottomilacensus.istat.it/

8. https://dait.interno.gov.it/elezioni/anagrafe-amministratori

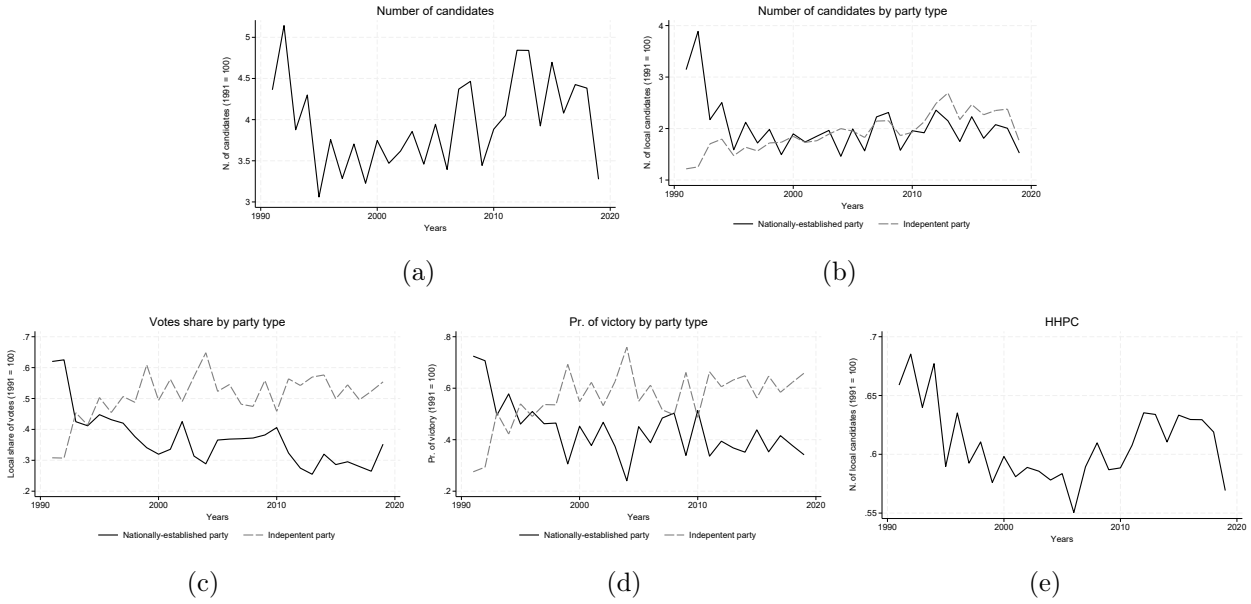
9. https://finanzalocale.interno.gov.it/

Nannicini 2013).

The final dataset consists of 6,685 municipalities observed between 1991 and 2019, with an average of 3.55 local elections per municipality. Of these, 5,790 experienced electoral competition between an independent and a nationally-established party at least once, and 535 had at least one concurrent local and national election, while 19 had it twice.[10]

Table A1 reports summary statistics of main variables of the dataset. The average number of candidates in a local election is 3.592, almost equally split between independent (1.861) and nationally-established (1.731) parties. Independent parties receive a higher mean vote share (0.545) than nationally-established parties (0.362), which translates into a respective higher probability of victory for the former (0.614 versus 0.386 for the latter). The average HHPC index is 0.594, suggesting moderate contestability overall.

Figure 1: Local political participation and competition, by party type




*Notes*. These plots show the evolution over time of the share of votes, number of candidates, and probability of victory in local elections, distinguishing independent from nationally-established parties.

Figure 1 illustrates the evolution of the main outcomes of interest across local election years. The number of candidates fluctuates between three and five, without a clear long-run trend. The remains broadly similar across party types. By contrast, independent parties consistently outperform nationally-established ones in vote share and electoral success. The HHPC index displays a steady decline, indicating falling contestability. Finally, the sharp drop in support for nationally-established parties after 1992 likely reflects the "Clean Hands" (*Mani Pulite*) corruption scandal, which weakened

10. Descriptive statistics henceforth refers to municipalities that experienced electoral competition between an independent and a nationally-established party at least once, as it will be the main sample restriction, as outlined in the next section.

trust in national party labels.

## 5 Empirical strategy

The shifting calendars of both national and, especially, local elections generate quasi-random variation in the timing, number, and identity of municipalities that experience national-local concurrent elections. This institutional feature provides the source of identification. To illustrate the context, Figure A1 shows the geographic distribution of municipalities that experienced national-local concurrent elections, which are relatively evenly spread across Italian regions. Figure A2 depicts the timing of national elections (dashed-dotted vertical lines), local elections (solid connected lines), and the timing of national-local concurrent elections (solid vertical lines). As mentioned in the previous section, concurrent national-local election took place only in two dates: 13$^{\text{th}}$ May 2001 and 13$^{\text{th}}$ April 2008.

To estimate the effect of national–local concurrent elections on local political outcomes, I exploit this quasi-random variation in a difference-in-differences framework. I compare political outcomes in municipalities with and without such concurrent elections, before and after their occurrence. Treated observations are all subsequent local elections since the one that coincided with a national contest; the control group consists of municipalities that never experienced any concurrency, as well as pre-treatment elections in municipalities that were eventually treated. The concurrency is defined in a strict sense: a municipality is considered treated only if its local election and the national election occur on the same calendar day.

Hence, the baseline specification is:

$$Y_{i,t} = \alpha + \beta NLCE_{i,t} + \gamma \mathbf{X}'_{\mathbf{i,t}} + \tau_t + \sigma_i + \theta_{r(i)} \times \eta_y + \epsilon_{i,t} \tag{1}$$

where $Y_{i,t}$ denotes the outcome of interest in municipality $i$ at election-date $t$. $NLCE_{i,t}$ is the treatment variable, equal to one for all municipalities-election-dates exposed to a national-local concurrent election.[11] $\mathbf{X}'_{\mathbf{i,t}}$ is a vector of control variables unbalanced by treatment exposure, including: employment in industry; employment in agriculture; home-ownership rate; elderly dependency index; tertiary education rate; employment in services; the share of families below the poverty line; and the unemployment rate. Such controls are selected by estimating univariate cross-sectional regressions of the form $Pr(NLCE_i) = \alpha + \beta Control_i^{1991} + \sigma_p + \epsilon_i$, retaining only statistically significant covariates.[12] This selection criterion is adopted to control for observables pre-treatment characteristics that are systematically correlated with exposure to concurrent elections. All covariates are measured prior to

11. Exposure to one national-local concurrent election does not imply subsequent concurrence.
12. See Figure A3.

treatment and therefore do not condition on post-treatment outcomes. $\tau_t$ and $\sigma_i$ are election-date and municipality fixed effects, which absorb time-invariant shocks that are municipality specifics, and shocks common to all municipalities holding an election on the same calendar date. $\theta_{r(i)} \times \eta_y$ are region-by-year fixed effects and refer to the calendar year in which the municipal election takes place and the region to which the municipality belongs. These fixed effects absorb shocks affecting a region in a given calendar year, such as regional political cycles, regional economic performance, or institutional reforms.[13] $\epsilon_{i,t}$ is the error term.

Because meaningful competition requires the presence of both nationally-established and independent parties, I restrict the sample to municipalities that experienced such competition at least once during the period.[14] This restriction does not exclude never-treated municipalities, but ensures that treatment and control units are comparable in electoral structure. Potential concerns arise if municipalities holding elections close to a national contest were partially exposed to national-level narratives or organisational spillovers. In practice, this is not an issue in the present setting. Municipalities voting at local elections in the same calendar year as a national election but on a different date are virtually absent from the estimating sample: only two such cases occur (both in 2008), and neither enters the analysis due to sample restriction describe above. Excluding these cases, the closest election dates for control municipalities occur at least one full year after the national election, sharply limiting the scope for spillovers and alleviating concerns of SUTVA violations related to partial exposure.

As in any difference-in-differences setting the key identifying assumption is conditional parallel trends: conditional on covariates, treated and control municipalities should evolve similarly before exposure. I test this using the following event-study specification:

$$Y_{i,t} = \alpha + \sum_{p=-3}^{3} \beta_p \, \mathbb{1}\{t - T_i = p\} + \gamma \mathbf{X}'_{i,t} + \sigma_i + \tau_t + \theta_{r(i)} \times \eta_y + \epsilon_{i,t}, \tag{2}$$

where treatment is decomposed into leads and lags, $\mathbb{1}\{t - T_i = p\}$, of up to three elections, with the election immediately before concurrence ($p = -1$) as the omitted category. The other elements of the specification remain the same as in Equation 1.

Given the staggered nature of treatment, I follow recent literature on staggered DiD designs (see Roth et al. 2023 for a review) and use the estimator proposed by Sun and Abraham (2021). Their method constructs group-by-event-time effects by comparing treated municipalities only to not-yet-treated or never-treated units. This yields interpretable averages of treatment effects across cohorts

13. Because election dates do not align mechanically with calendar years (i.e., some municipalities vote in April 2008, others in June 2009, others in May 2013), election-date and region-by-year fixed effects are not collinear.

14. This restriction excludes about 1,293——mostly small—municipalities. The average population in the estimation sample is 15,591, compared to 3,553 in the excluded group.

and periods, under the assumption of treatment absorption, and provides cleaner estimates of dynamic responses over time. The use of treatment absorption in this setting reflects the idea that concurrency operates as a one-off coordination shock that permanently reshapes the local political equilibrium, as highlighted in section 2. When a local election coincides with a national one, the national contest reshapes the informational environment and candidate incentives to participate. Further, local party structures tend to persist because of path dependence and organisational asymmetries. Voter responses can adjust more slowly, as heuristics related to party labels and visibility are updated gradually in low-information local elections. As a result, the effects of concurrency may continue to influence electoral outcomes even in non-concurrent elections.

# 6 Results

Table 1 reports the results related to candidates' entry, overall (columns 1–3) and by party type (columns 4-6 and 7-9). Within each bundle of columns, columns progressively add controls and fixed effects.

Table 1: Concurrent national-local elections, candidates entry.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.074 | -0.091 | -0.076 | 0.105 | 0.101 | 0.172** | -0.179** | -0.192** | -0.248*** |
| | (0.099) | (0.098) | (0.098) | (0.072) | (0.072) | (0.073) | (0.076) | (0.075) | (0.076) |
| $N$ | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 |
| Mean Y | 3.735 | 3.735 | 3.735 | 1.849 | 1.849 | 1.849 | 1.886 | 1.886 | 1.886 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

While the overall number of mayoral candidates does not change significantly (columns 1–3), the composition of entry shifts markedly. Concurrency increases the number of candidates affiliated with nationally-oriented parties (column 6), while significantly reducing the number of independent candidates (column 9). The point estimates imply that national-local concurrent elections raise candidacies established national parties by about 17.2 percentage points, implying a relative increase of 9.30%, and lower independent ones by 24.8 percentage points, implying a relative decrease of 13.15%. Thus the concurrency favours entry of nationally-established parties, while discouraging independents, possibly reducing the scope of local contestability and increasing the coordination rents enjoyed by nationally established parties. From a political economy perspective, whether having a higher or lower number of

candidates' entries is welfare ambiguous. On the one hand, more political participation raises competitive pressure on incumbents and challengers to respond to voter preferences, as a greater number of opponents reduces any single candidate's winning probability (Stratmann 2005). On the other hand, fewer candidates may reduce voters' information costs, facilitating scrutiny and selection (Martinelli 2006).

Table 2: Concurrent national-local elections, electoral outcomes.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.003 | 0.007 | 0.018 | -0.017 | -0.020 | -0.035** |
| | (0.019) | (0.019) | (0.019) | (0.015) | (0.014) | (0.014) |
| Mean Y | 0.370 | 0.370 | 0.370 | 0.528 | 0.528 | 0.528 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.079** | 0.083*** | 0.105*** | -0.079** | -0.083*** | -0.106*** |
| | (0.032) | (0.031) | (0.031) | (0.032) | (0.031) | (0.031) |
| Mean Y | 0.405 | 0.405 | 0.405 | 0.594 | 0.594 | 0.594 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.014** | -0.016** | -0.012* | | | |
| | (0.007) | (0.007) | (0.007) | | | |
| $N$ | 13388 | 13388 | 13388 | | | |
| Mean Y | 0.605 | 0.605 | 0.605 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Turning to Table 2, Panel A focuses on the local vote share. While some of the estimates are imprecise, the pattern is clear: coefficients for nationally-established parties are positive, whereas those for independent parties are negative. The coefficient in column (6) is statistically significant and corresponds to a 6.63% reduction in the vote share of independent parties. This shift of vote share translates into differences in the probability of victory. As shown in Panel B, nationally-established parties benefit from national-local concurrencies, with their probability of winning increasing by up to 10.5 percentage points, implying an increase of 25.93%; mechanically, the opposite holds for independent parties. Lastly, Panel C documents a significant decline in the Herfindahl–Hirschman Political Competition (HHPC) index of about 1.98%, indicating greater vote concentration and weaker con-

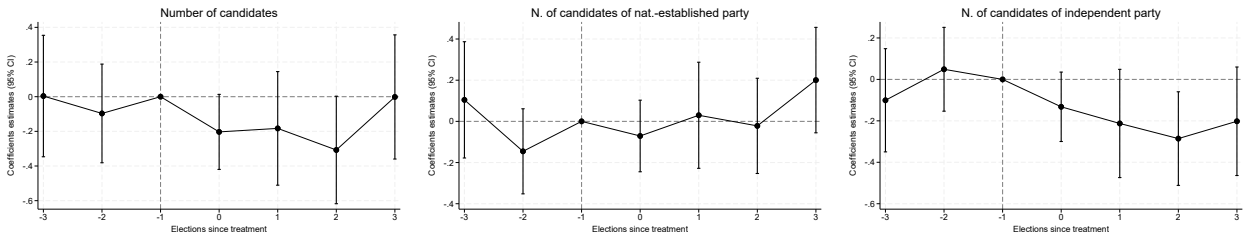
testability. Note that these specifications are best interpreted as capturing medium-run persistence, potentially reflecting treatment absorption. However, under a more conservative window the core results continue to hold and are in fact stronger in both statistical significance and magnitude. This is documented in Table A10 and Table A11, which restrict the post-treatment period to $t + 2$, thereby relaxing the treatment-absorption assumption.

Overall, the results from Table 1 and Table 2 suggest that when local and national elections are held concurrently, candidates affiliated with the national political arena gain an advantage. Concurrent elections reshape entry incentives by discouraging independent candidacies and encouraging those aligned with national parties. This compositional shift carries through into electoral performance: independents lose vote share and are significantly less likely to win, while nationally-oriented candidates gain both representation and office. The net effect is a measurable decline in the HHPC index, signalling lower contestability.

These findings are robust to several checks. In Table A2 and Table A3, contemporaneous controls are replaced with baseline controls interacted with election-year fixed effects. In Table A4 and Table A5 report the main estimates including an alternative set of control variables that is standard in the literature (Bracco and Revelli 2018, for example). Table A6 and Table A7 re-estimate the models using a Poisson pseudo-likelihood estimator. Table A8 and Table A8 exclude the handful of municipalities that experience both concurrencies. Finally, Table A12 and Table A13 cluster standard errors at the province rather than municipality level. Overall, the main estimates are robust across the board.

Figure 2 and Figure 3 display the estimates related to the event-study specification. In this setting, event-study estimates serve two purposes: first, they allow for a visual inspection of the conditional parallel trends assumption; second, they trace the dynamic response of outcomes over time, which, as conjectured in the section 2, may reveal an immediate adjustment in candidate entry and exit followed by possibly more gradual effects on electoral outcomes. Importantly, none of the specifications exhibits clear pre-trends, lending support to the conditional parallel trends assumption.

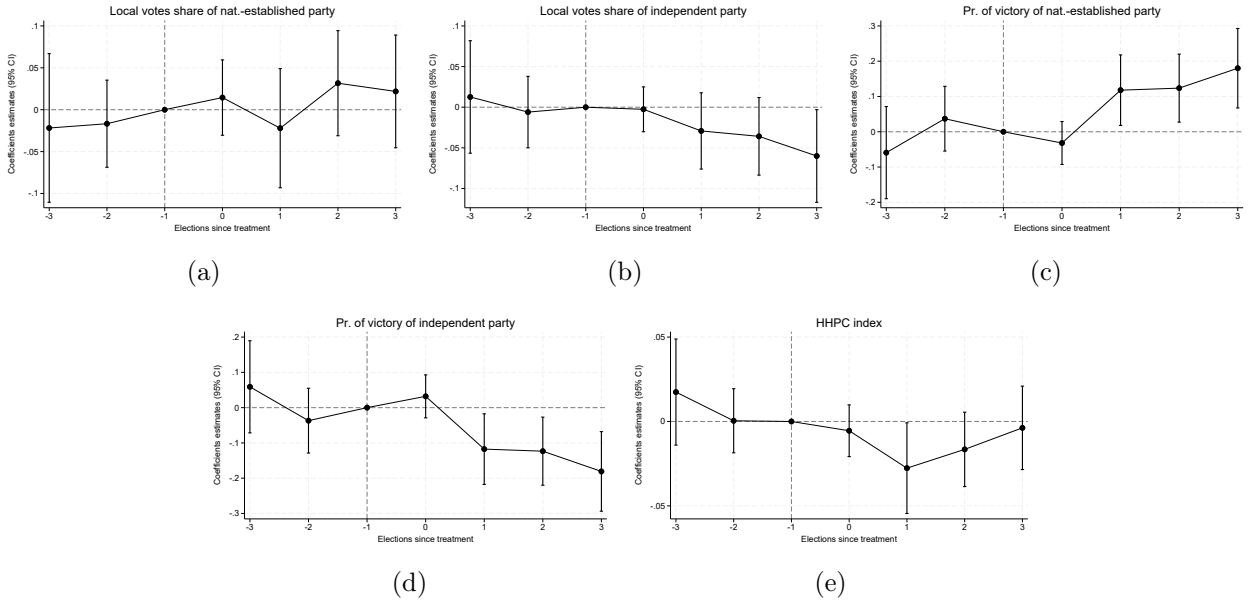
Figure 2: Concurrent national-local elections, candidates entry. Event-study estimates




(a) (b) (c)

*Notes*. Event-study estimates with 95% confidence intervals corresponding to Equation 2, using the estimator of Sun and Abraham (2021).

Figure 3: Concurrent national-local elections, electoral outcomes. Event-study estimates




*Notes*. Event-study estimates with 95% confidence intervals corresponding to Equation 2, using the estimator of Sun and Abraham (2021).

The difference in timing between immediate adjustments in candidate participation and subsequent changes in observed electoral outcomes is novel in the empirical literature on concurrent elections and is consistent with the equilibrium selection mechanism outlined in the Conceptual Framework (section 2).

The "first-order" (national) contest projects its agenda and salience onto the "second-order" (local) contest, partially overshadowing it. This shift in visibility alters the strategic incentives faced by local candidates. Office-seeking candidates may find affiliation with nationally established parties relatively more attractive, while independent local candidates may either affiliate with such parties or avoid entering the mayoral race altogether. As Figure 2 suggests, the latter channel appears more relevant in the data. While the increase in nationally affiliated local candidates is modest, the decline in independent candidates is pronounced. Consistent with this interpretation, Figure A4 examines whether independent candidates relabel as nationally affiliated between elections and finds essentially no evidence of such behaviour.[15] As outlined in the Conceptual Framework, candidate entry and exit respond at the time of the concurrent election. This is consistent with forward-looking behaviour: candidates can plausibly anticipate the increased salience of national political events and the associated evaluation rules faced by voters. In this environment, candidates affiliated with nationally established parties benefit from economies of scale in organisation, mobilisation, and campaign infrastructure (Cox 2015; Rudolph and Leininger 2021). Observed differences in electoral performance in subsequent local

15. I generate a dummy equal to one if a mayoral candidate, within a municipality and between elections, changes affiliation from an independent list to a nationally established party, and then collapse this information at the municipality–election-date level.

elections should therefore be interpreted through the lens of equilibrium selection. By discouraging the entry of weaker independent candidates at the concurrent election, concurrency reshapes the composition of the candidate pool. Nationally affiliated candidates can further capitalise on this environment by deploying cross-level electoral appeals (Hijino and Ishima 2021), such as emphasising links to national parties or leaders, commenting on national policies, or evaluating the performance of the national government. Together, these mechanisms affect both the composition of candidates across party types and their observed electoral success, without requiring delayed adjustments in voter behaviour.

A few important questions remain unanswered within this setting. One pertains the candidates selection taking place in concurrent national-local elections. Does the heightened visibility generated by the concurrence increase citizen scrutiny of mayoral candidates (Besley 2005; Snyder Jr and Strömberg 2010)? Another, pertains the type of policies implemented by elected mayors in concurrent elections. Do concurrent elections, by increasing the probability of nationally-aligned mayors, alter how municipalities collect revenues and allocate spending?

### 6.1 Elected candidates

The results above show that concurrent national–local elections reshape the local electoral arena. This subsection examines candidate selection at the local level during national-local concurrent elections. Ideally, one would compare the characteristics of all candidates in concurrent and non-concurrent elections to assess selection directly, but detailed data on all mayoral candidates are unavailable.[16] I therefore focus on elected mayors and compare those elected during national-local concurrencies to those elected in non-concurrent election-years. The objective is to characterise the choices that emerge in concurrent settings in terms of mayoral selection.

Table 3 applies the estimating framework of Equation 1 to the following outcomes: (i) the mayor's education level; (ii) an indicator equal to one if the mayor was born in the municipality; (iii) an indicator for female mayor; (iv) age; and (v) an indicator for prior experience in office. Mayors elected during national-local concurrent elections are less educated and more likely to be locally born. This pattern is consistent with national parties strategically supporting candidates with strong local roots——who enjoy a documented electoral advantage (Górecki and Marsh 2012; Campbell et al. 2019), possibly because voters express place-based identity in their choices (Schulte-Cloos and Bauer 2023)——even if

16. In principle, losing mayoral candidates in small municipalities could be identified through the role "City Councilor – Candidate for Mayor" (*Consigliere comunale – candidato sindaco*). In practice, this information is only available from the 2006 elections onward and exhibits very limited and uneven coverage in the early years, with too few observations to construct credible pre-treatment periods or inspect pre-trends around the 2001 and 2008 concurrencies. Coverage improves only in later years, raising concerns about reporting discontinuities and comparability over time. For these reasons, the analysis focuses on elected candidates, for whom consistent information is available throughout the sample period.

Table 3: Concurrent national-local elections, elected mayors characteristics.

| | (1) *Education* | (2) *Born in city* | (3) *Female* | (4) *Age* | (5) *Exp. in office* |
|---|---|---|---|---|---|
| $NLCE_{i,t}$ | -0.112** | 0.076* | -0.001 | 0.593 | 0.023 |
| | (0.051) | (0.039) | (0.024) | (0.808) | (0.033) |
| $N$ | 12618 | 12618 | 12618 | 12618 | 12618 |
| Mean Y | 2.402 | 0.473 | 0.891 | 48.330 | 0.798 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Region × Year FE | ✓ | ✓ | ✓ | ✓ | ✓ |

*Notes:* Dependent variables: the education level of the mayor; a dummy equal to one if the mayor is born in the city she is elected in; a dummy equal to one if the gender of the mayor is female; the age of the mayor; a dummy equal to one if the mayor had previous experience in office. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

this comes at the cost of lower formal education and, potentially, limited on-the-job experience. A caveat concerns the interpretation of candidates' place of birth as a proxy for local rootedness. In the Italian context—characterised by a large number of small municipalities without local hospitals—place of birth does not necessarily coincide with place of residence. For this reason, birthplace should be interpreted with caution and not as a direct measure of candidates' local visibility. To partially address this concern, Table A14 explores possible heterogeneity by municipality size. The results indicate that the association between concurrency and locally born mayors is present in larger municipalities, where birthplace is more likely to reflect actual residence. While this exercise does not fully resolve the measurement issue, it suggests that the pattern is not driven exclusively by misclassification in very small municipalities.

The event-study plots in Figure A5 show a positive spike at the concurrence date for the "born in municipality" indicator and a negative spike for prior experience in office, reinforcing the interpretation that national parties prioritise local origin over other favourable attributes in concurrent settings and are rewarded by the electorate.

### 6.2 Intergovernmental transfers and local spending

Do national-local concurrent elections, by reshaping local politics, affect resource flows and policy implementation? Candidates affiliated with national parties may differ systematically from independent candidates in expenditure choices. Nationally-established officials might align spending with broader party objectives, cultivate support from higher tiers of government, or attract central resources; independent officials may face fewer partisan constraints, potentially responding more directly to local

preferences. These divergent incentives suggest that political alignment across tiers could shape municipal funding and spending patterns. I test this hypothesis using the annual municipal balance sheets described in section 4. Drawing from the previous estimating equation, I formally estimate the following equation,

$$Y_{i,t} = \alpha + \beta NLCE_{i,t} + \gamma \mathbf{X}'_{\mathbf{i,t}} + \sigma_i + \tau_t + \sigma_{r(i)} \times \tau_t + \sum_{k=1}^{K} \eta_k Z^k_{i,t} + \epsilon_{i,t}, \tag{3}$$

where $Y_{i,t}$ is the outcome of interest in year $t$ and municipality $i$, $NLCE_{i,t}$ is the difference-in-differences treatment variable related to the concurrency, $\mathbf{X}'_{\mathbf{i,t}}$ is the previous vector of controls, $\sigma_i$ are municipality fixed effects, $\tau_t$ are year fixed effects, $\sigma_{r(i)} \times \tau_t$ are region-by-year fixed effects, and the set of $Z^k_{i,t}$ captures years-since-election fixed effects. These last terms flexibly absorb the electoral cycle ensuring that the estimated treatment effect isolates the impact of concurrent elections rather than mechanically reflecting the election-year cycle. Coherently, I estimate also the following event-study specification,

$$Y_{i,t} = \alpha + \sum_{p=-3}^{3} \beta_p \, \mathbb{1}\{t - T_i = p\} + \gamma \mathbf{X}'_{i,t} + \sigma_i + \tau_t + \theta_{r(i)} \times \tau_t + \sum_{k=1}^{K} \eta_k Z^k_{i,t} + \epsilon_{i,t}, \tag{4}$$

where treatment is decomposed into leads and lags, $\mathbb{1}\{t - T_i = p\}$, of up to five years, with the year immediately before concurrence ($p = -1$) as the omitted category. The choice of the event-study window to $-5$ to $+5$ years is consistent with a full municipal term and therefore with the temporal structure of local fiscal policy.

Table 4: Concurrent national-local elections, local revenues, taxes and national transfers.

| | (1) *Total revenues (IHS)* | (2) *Eff. coll. Tot. revenues* | (3) *Total taxes (IHS)* | (4) *Eff. coll. Tot. taxes* | (5) *Nat. transfers (IHS)* | (6) *Eff. coll. Nat. trasnfers* |
|---|---|---|---|---|---|---|
| $NLCE_{i,t}$ | 0.001 | 0.002 | 0.078 | 0.023* | 0.322** | 0.019* |
| | (0.014) | (0.005) | (0.129) | (0.012) | (0.152) | (0.011) |
| $N$ | 38628 | 38628 | 38752 | 38752 | 38726 | 38726 |
| Mean Y | 15.775 | 0.662 | 11.313 | 0.521 | 13.626 | 0.839 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Rel. to ele. year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Region × Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

*Notes:* The dependent variables are: collected total revenues (IHS) and the ratio between collected and accrued total revenues; collected total taxes (IHS) and the ratio between collected and accrued total taxes; received national transfers (IHS) and the ratio between received and accrued national transfers. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce; mayor education; mayor age; if mayor is from the city; if mayor has past office experience; mayor gender. Estimates include municipality and year fixed effects, region by year fixed effects, as well as relative to the election year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table 4 reports estimates of the effect of concurrent national–local elections on municipal revenues,

taxes, and intergovernmental transfers, distinguishing between revenue levels (columns 1, 3, and 5) and efficiency collection (columns 2, 4, and 6). The efficiency measures corresponds to the ratio between collected revenues (*conto competenza*) and accrued revenues (*accertamenti*), as defined in section 4. The table reports no effect on the concurrency on total revenues, while it affects efficiency in tax collection and the levels (and efficiency collection) of national government transfers. Tax collection efficiency increases increases by 2.3 percentage points (approximately 4.4% relative to the mean). Transfers from the national government increase markedly: levels rise by 37.9%, and efficiency increases by 1.9 percentage points (around 2.3% relative to the mean).[17] These findings are broadly consistent with the event-study estimates in Figure A6. The only exception is the pre-trend observed in the efficiency of collecting national transfers, which suggests that mayors elected under concurrency halt a declining trend rather than generating an outright improvement.

Table 5: Concurrent national-local elections, local spending by type.

| | (1) *Total expenses (IHS)* | (2) *Efficiency Tot. expenses* | (3) *Tot. econ. development (IHS)* | (4) *Efficiency econ. dev.* | (5) *Tot. env and urban (IHS)* | (6) *Efficiency env. and urban* |
|---|---|---|---|---|---|---|
| $NLCE_{i,t}$ | 0.005 | 0.013 | 0.137 | 0.374 | 0.191* | -0.024 |
| | (0.033) | (0.016) | (0.212) | (0.621) | (0.114) | (0.051) |
| $N$ | 38717 | 38717 | 30894 | 30894 | 38654 | 38654 |
| Mean Y | 14.542 | 0.492 | 2.827 | 2.421 | 11.946 | 0.798 |
| | *Total admin. (IHS)* | *Efficiency admin.* | *Tot. educ. (IHS)* | *Efficiency educ.* | *Tot. social (IHS)* | *Efficiency social* |
| $NLCE_{i,t}$ | -0.011 | -0.006 | 0.018 | 0.347** | -0.079 | -0.014 |
| | (0.104) | (0.011) | (0.024) | (0.166) | (0.162) | (0.032) |
| $N$ | 38582 | 38582 | 38287 | 38287 | 38342 | 38342 |
| Mean Y | 11.567 | 0.196 | 9.131 | 0.362 | 8.627 | 0.359 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Rel. to ele. year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Region × Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

*Notes:* The dependent variables are: total commited expenses (IHS) and the ratio between actual and committed total expenses; commited expenses on economic development (IHS) and the ratio between actual and committed expenses on economic development; commited expenses on environmental and urban development (IHS) and the ratio between actual and committed expenses on environmental and urban development; commited expenses on administrative activities (IHS) and the ratio between actual and committed expenses on administrative activities; commited expenses on education (IHS) and the ratio between actual and committed expenses on education; commited expenses on social welfare (IHS) and the ratio between actual and committed expenses on social welfare. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce; mayor education; mayor age; if mayor is from the city; if mayor has past office experience; mayor gender. Estimates include municipality and year fixed effects, region by year fixed effects, as well as relative to the election year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Turning to expenditure, Table 5 reports both levels (odd columns) and efficiency (even columns). Efficiency in spending is defined as the ratio between actual expenditure (*conto competenza*) and committed expenditure (*impegni*).[18] Most spending categories are unaffected by concurrent-election

17. For interpreting IHS transformed outcomes I apply $\%\Delta Y = 100 \times (exp(\beta) - 1)$.

18. Unlike efficiency in revenue collection, expenses efficiency is not mechanically bounded by one. Payments recorded in current competence may include liabilities originating in previous years but recognised and paid within the year (e.g. late commitments, recognised off-budget debts, or re-imputed residuals after accounting revisions), implying that payments can exceed same-year commitments.

mayors. Two notable exceptions emerge. First, spending on environmental and urban development increases by roughly 21%. This category includes urban planning, public housing, water and waste management, and maintenance of parks and green areas. Second, spending efficiency in education rises sharply by 34.7 percentage points, corresponding to a 95.8% increase relative to the mean outcome. These patterns are also visible in the event studies in Figure A7. Total spending and efficiency show mildly positive post-treatment movements, and spending on economic development displays a similar but weaker pattern. Both level and efficiency estimates for environmental and urban spending exhibit clear positive post-treatment effects. Education spending and efficiency also increase after concurrent elections. Importantly, none of the event-study spending-related plots shows evidence of pre-trends.

Overall, the evidence suggests that mayors elected under concurrent national–local elections affect local fiscal policy in meaningful ways. They secure higher transfers from the central state, improve certain aspects of revenue-collection efficiency, and expand spending—particularly in education and environmental and urban development.

### 6.3 Implications for Local Welfare

Taken together, the results of this paper point to a mixed set of welfare implications, reflecting both potential efficiency gains and possible losses on the political accountability margin. Concurrent national–local elections reduce the number of candidates entering the race—primarily by discouraging independents—and thereby increase the electoral advantage of nationally established parties. This narrowing of the candidate pool lowers local political contestability, which may weaken the disciplinary role of elections in holding officeholders accountable (Bracco and Revelli 2018). In fact, reduced competition can dampen incentives for effort and responsiveness, and may limit the scope for yardstick competition (Bordignon et al. 2003; Foucault et al. 2008), as voters have fewer credible alternatives against which to benchmark local candidates' performance. At the same time, concurrency shifts the profile of those elected: mayors tend to be less educated, have less prior political experience, and are more often locally born. The former two in particular may raise concerns about administrative capacity or policy expertise (Dal Bó et al. 2017). These political costs, however, coexist with notable improvements in local fiscal performance. Mayors elected under concurrency collect taxes more efficiently, secure substantially higher transfers from the central state, and allocate a significant share of these additional resources to education and environmental or urban-development spending. These patterns are consistent with theoretical accounts of partisan alignment, whereby local executives affiliated with national parties benefit from preferential access to information, networks, and intergovernmental support (Solé-Ollé and Sorribas-Navarro 2008; Migueis 2013; Bracco et al. 2015; Kauder et al. 2016;

Curto-Grau et al. 2018). In this sense, concurrency may enhance fiscal capacity and service provision through improved vertical coordination. Overall, the welfare effects of concurrent elections are therefore ambiguous ex ante and likely context dependent: concurrency appears to weaken political contestability and alter the composition of elected officials, yet it also enables aligned local governments to secure and deploy greater resources for public services.

# 7 Conclusions

This paper exploits quasi-random variation in the timing of Italy's national–local concurrent elections to analyse their effects on local politics. Using a staggered difference-in-differences design, I show that concurrency reduces the number of mayoral candidates that are independent-party affiliated, and the Herfindahl–Hirschman Political Competition index, signalling a measurable decline in local contestability. At the same time, nationally-established parties gain ground: their vote share rises, independents lose, and the probability of national-party victory increases by around ten percentage points. In terms of political selection, mayors elected under concurrency are more likely to be locally born but less educated and less experienced in office. Finally, while these mayors do not alter overall spending or revenue trajectories, they secure greater intergovernmental transfers—reflecting distributive rents from vertical alignment— collect taxes more efficiently and increase spending in specific categories.

These findings highlight a novel interaction between first- and second-order elections: while local contests provide feedback to national politics, the timing of national elections reshapes incentives for entry, selection, and fiscal outcomes at the local level. The evidence suggests a clear institutional trade-off. Concurrent elections may deliver administrative efficiencies and higher turnout, but they also reduce pluralism, weaken independent representation, while at the same time increasing possible rents available through partisan alignment with the centre and improving spending and revenues efficiency.

Future work should test the external validity of these findings in other multi-tier democracies, investigate how information costs and media coverage shape the reallocation of candidacies, and assess whether fiscal advantages for nationally-aligned mayors translate into long-run policy convergence. Such inquiries are essential to understanding how electoral calendars distribute rents and accountability, and to designing institutions that balance efficiency gains against the preservation of genuine local contestability.

# A Appendix

## A.1 Figures

Figure A1: Geographic distribution of national-local concurrent elections

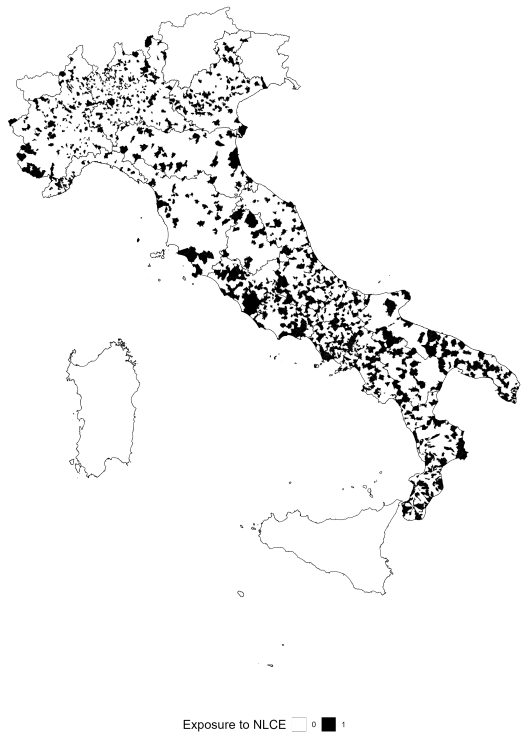
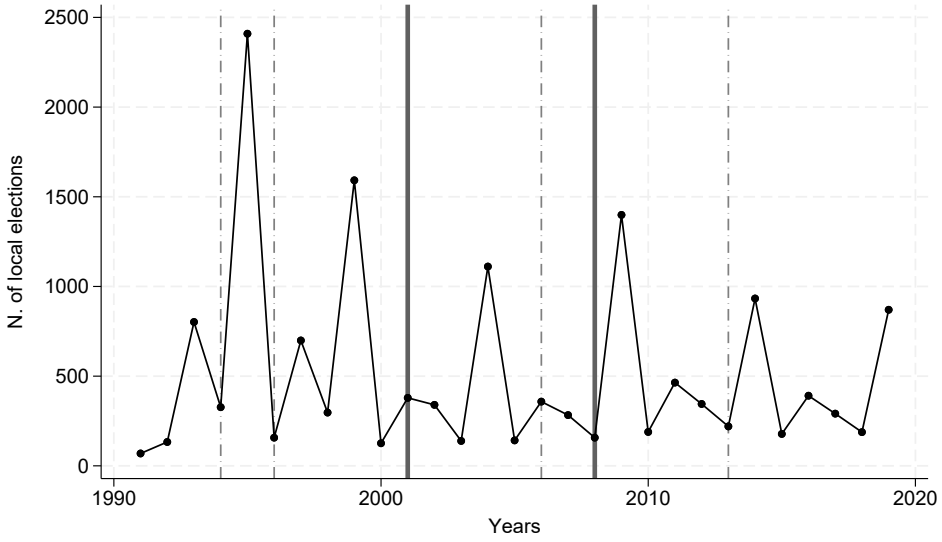
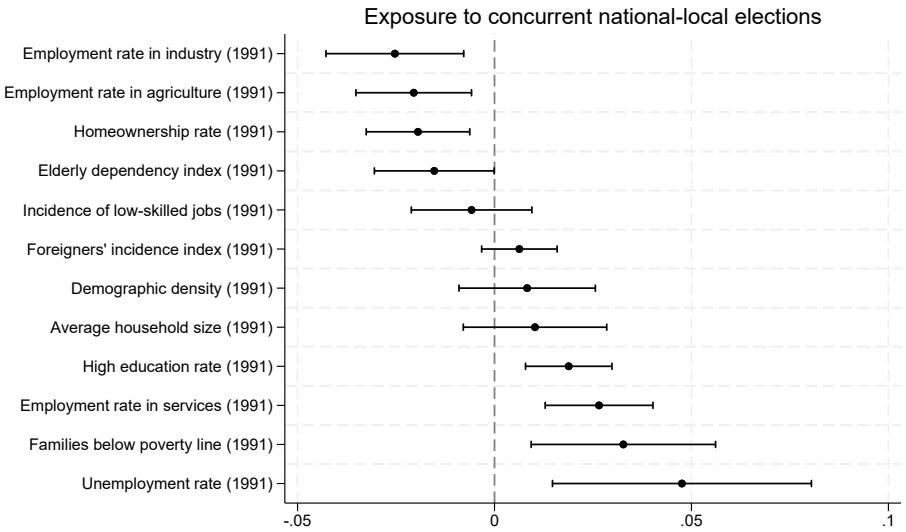



Figure A2: Number of local elections over time



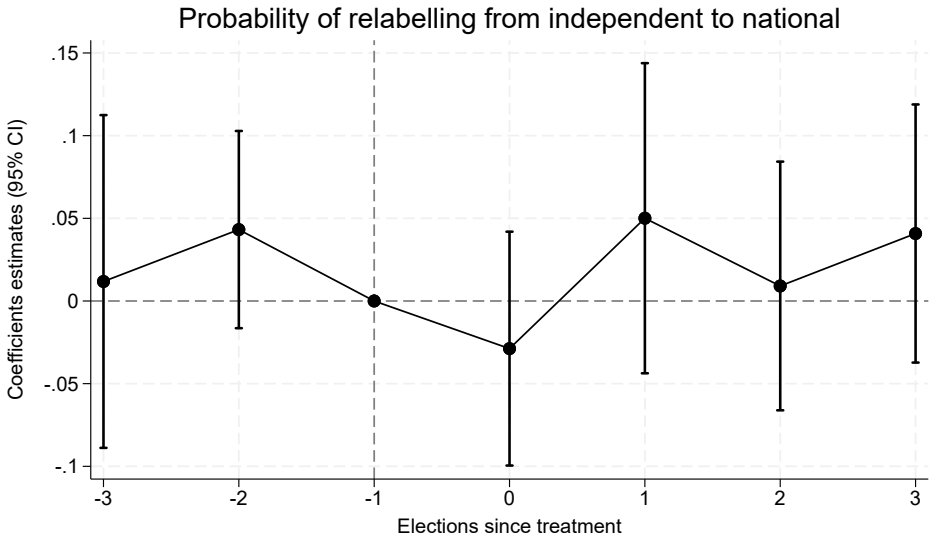

*Notes*. This plot shows the number of local elections over time. The dashed-dotted vertical lines highlight the years of not-concurrent national elections, while the solid vertical lines show the years of concurrent national-local elections.

Figure A3: Balanced controls



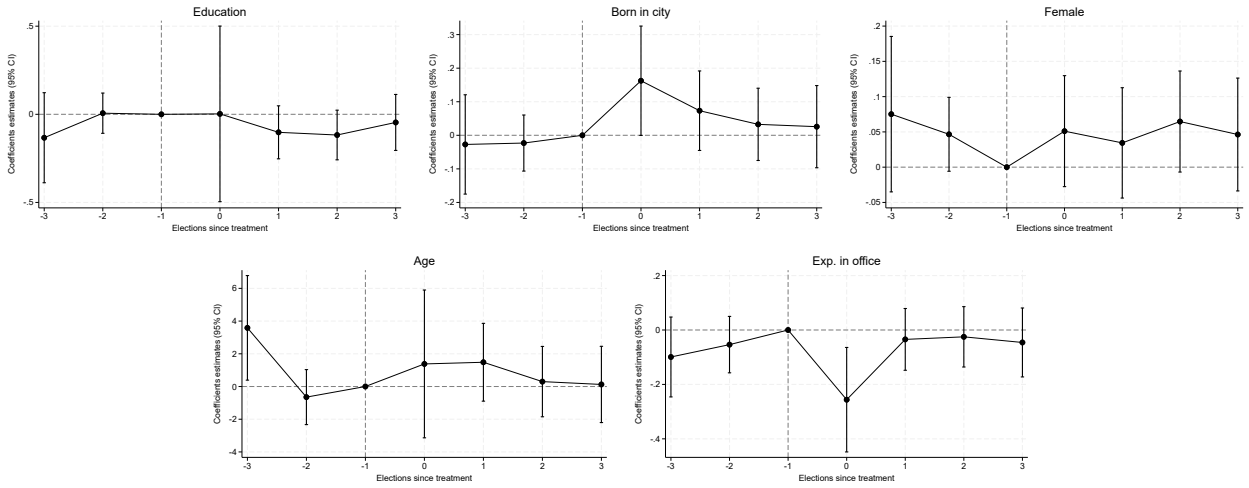

*Notes*. This plot shows the balancedness of municipal characteristics by exposure to concurrent national-local elections. Municipal characteristics are standardized. Coefficients plotted with 95% confidence intervals.

Figure A4: Concurrent national-local elections, candidates entry. Event-study estimates




*Notes*. Event-study estimates with 95% confidence intervals corresponding to Equation 2, using the estimator of Sun and Abraham (2021).

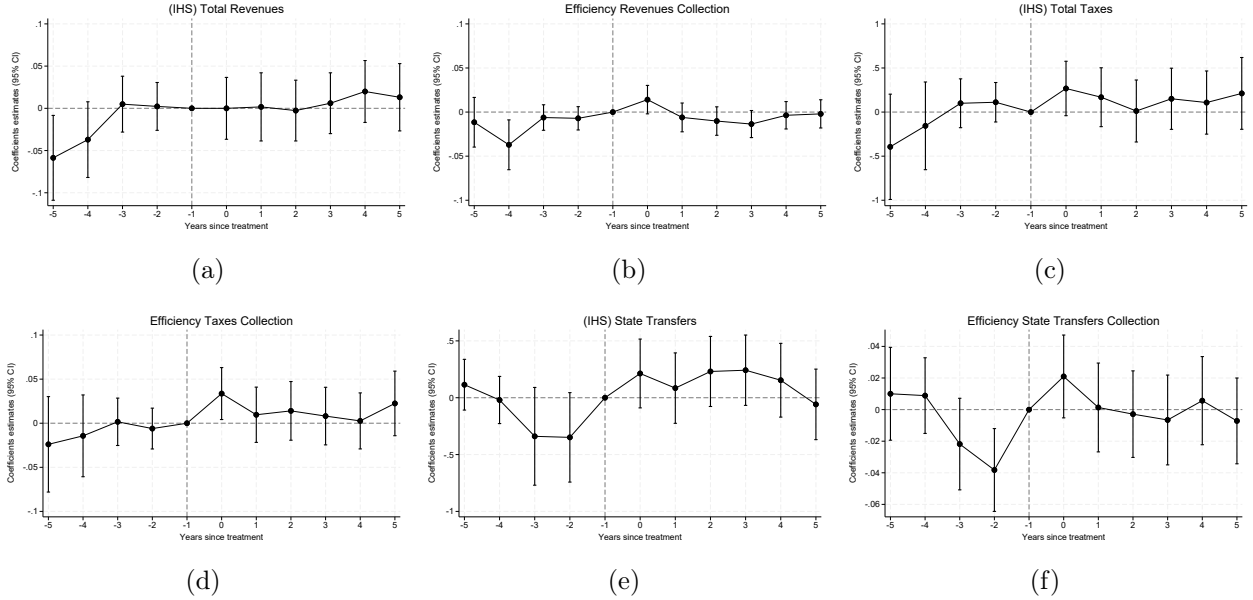
Figure A5: national-local concurrent elections. Event study specification. Elected mayors characteristics.




*Notes*. Event-study estimates with 95% confidence intervals corresponding to Equation 2, using the estimator of Sun and Abraham (2021).

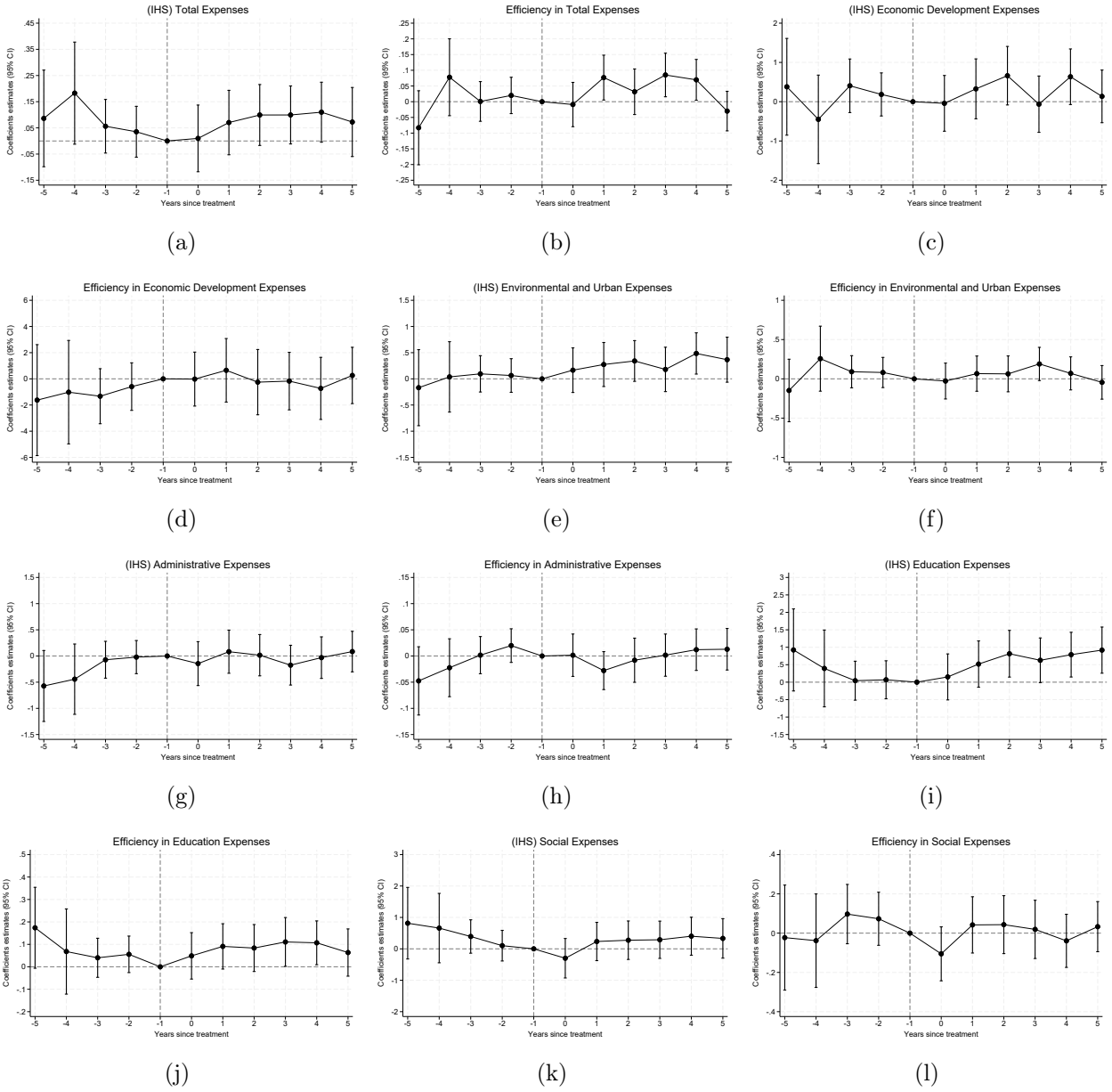
with 95% confidence intervals

Figure A6: Concurrent national-local elections, local revenues, taxes and transfers: Event-study estimates




*Notes*: Event-study estimates with 95% confidence intervals corresponding to Equation 4, using the estimator of Sun and Abraham (2021).

Figure A7: Concurrent national-local elections and local expenditures: Event-study estimates




(a) (b) (c)

(d) (e) (f)

(g) (h) (i)

(j) (k) (l)

*Notes*: Event-study estimates with 95% confidence intervals corresponding to Equation 4, using the estimator of Sun and Abraham (2021).

## A.2 Tables

Table A1: Descriptive statistics of main variables

| | Mean | SD | Min | p50 | Max |
|---|---|---|---|---|---|
| *Outcome* | | | | | |
| N. of candidates | 3.735 | 1.673 | 2.000 | 3.000 | 19.000 |
| HHPC index | 0.605 | 0.114 | 0.000 | 0.616 | 0.935 |
| N. of candidates of independent parties | 1.886 | 0.956 | 1.000 | 2.000 | 11.000 |
| N. of candidates of nat.-established parties | 1.849 | 1.350 | 1.000 | 1.000 | 14.000 |
| Local share of votes of local nat-.established party | 0.370 | 0.251 | 0.000 | 0.335 | 0.987 |
| Local share of votes of independent party | 0.528 | 0.285 | 0.002 | 0.554 | 1.000 |
| Pr. victory of nat.-established party | 0.405 | 0.491 | 0.000 | 0.000 | 1.000 |
| Pr. victory of independet party | 0.594 | 0.491 | 0.000 | 1.000 | 1.000 |
| *Treatment* | | | | | |
| NLCE DiD | 0.148 | 0.355 | 0.000 | 0.000 | 1.000 |
| *Controls* | | | | | |
| Elderly dependency index | 28.313 | 11.496 | 5.148 | 26.727 | 182.500 |
| Foreigners' incidence index | 29.533 | 36.815 | 0.000 | 13.471 | 367.089 |
| Average household size | 2.655 | 0.335 | 1.258 | 2.638 | 4.010 |
| Homeownership rate | 74.848 | 7.523 | 17.647 | 75.360 | 99.145 |
| High education rate | 35.022 | 14.815 | 0.000 | 34.028 | 83.450 |
| Unemployment rate | 11.659 | 9.722 | 0.000 | 7.576 | 59.519 |
| Employment rate in agriculture | 8.700 | 9.363 | 0.000 | 5.203 | 70.833 |
| Employment rate in industry | 38.703 | 13.227 | 3.896 | 38.276 | 81.912 |
| Employment rate in services | 34.908 | 10.957 | 7.955 | 33.871 | 87.446 |
| Incidence of low-skilled jobs | 14.102 | 6.824 | 0.000 | 13.679 | 67.468 |
| Families below poverty line | 2.023 | 2.675 | 0.000 | 1.073 | 24.480 |
| Demographic density | 516.012 | 910.184 | 1.502 | 235.254 | 15164.905 |

*Notes.* This table shows the descriptive statistics of the main variables used in the analysis.

Table A2: Concurrent national-local elections, candidates entry. Baseline controls.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| *Panel A:* | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.074 | -0.083 | -0.048 | 0.105 | 0.156** | 0.207*** | -0.179** | -0.239*** | -0.255*** |
| | (0.099) | (0.097) | (0.097) | (0.072) | (0.071) | (0.073) | (0.076) | (0.076) | (0.077) |
| $N$ | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 |
| Mean Y | 3.735 | 3.735 | 3.735 | 1.849 | 1.849 | 1.849 | 1.886 | 1.886 | 1.886 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Controls are taken in 1991 and interacted with year fixed effects. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A3: Concurrent national-local elections, electoral outcomes. Baseline controls.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.003 | 0.007 | 0.013 | -0.017 | -0.024* | -0.033** |
| | (0.019) | (0.018) | (0.018) | (0.015) | (0.014) | (0.014) |
| Mean Y | 0.370 | 0.370 | 0.370 | 0.528 | 0.528 | 0.528 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.079** | 0.087*** | 0.097*** | -0.079** | -0.087*** | -0.096*** |
| | (0.032) | (0.031) | (0.031) | (0.032) | (0.031) | (0.031) |
| Mean Y | 0.405 | 0.405 | 0.405 | 0.594 | 0.594 | 0.594 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.014** | -0.015** | -0.011 | | | |
| | (0.007) | (0.007) | (0.007) | | | |
| $N$ | 13388 | 13388 | 13388 | | | |
| Mean Y | 0.605 | 0.605 | 0.605 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Controls are taken in 1991 and interacted with year fixed effects. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A4: Concurrent national-local elections, candidates entry. Alternative controls' set

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.074 | -0.085 | -0.073 | 0.105 | 0.110 | 0.172** | -0.179** | -0.194** | -0.245*** |
| | (0.099) | (0.098) | (0.098) | (0.072) | (0.071) | (0.072) | (0.076) | (0.076) | (0.076) |
| $N$ | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 |
| Mean Y | 3.735 | 3.735 | 3.735 | 1.849 | 1.849 | 1.849 | 1.886 | 1.886 | 1.886 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population, elderly index, foreigners index, tertiary-education index, and employment rate in agriculture, industry, and services. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A5: Concurrent national-local elections, electoral outcomes. Alternative controls' set

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.003 | 0.008 | 0.018 | -0.017 | -0.023 | -0.036** |
| | (0.019) | (0.019) | (0.019) | (0.015) | (0.014) | (0.014) |
| Mean Y | 0.370 | 0.370 | 0.370 | 0.528 | 0.528 | 0.528 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.079** | 0.088*** | 0.108*** | -0.079** | -0.088*** | -0.108*** |
| | (0.032) | (0.031) | (0.031) | (0.032) | (0.031) | (0.031) |
| Mean Y | 0.405 | 0.405 | 0.405 | 0.594 | 0.594 | 0.594 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.014** | -0.015** | -0.011 | | | |
| | (0.007) | (0.007) | (0.007) | | | |
| $N$ | 13388 | 13388 | 13388 | | | |
| Mean Y | 0.605 | 0.605 | 0.605 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population, elderly index, foreigners index, tertiary-education index, and employment rate in agriculture, industry, and services. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A6: Concurrent national-local elections, candidates entry. Poisson estimator.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| *Panel A:* | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.012 | -0.017 | -0.012 | 0.047 | 0.045 | 0.072** | -0.085** | -0.093** | -0.116*** |
| | (0.022) | (0.022) | (0.022) | (0.029) | (0.029) | (0.029) | (0.037) | (0.037) | (0.037) |
| $N$ | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 |
| Mean Y | 3.735 | 3.735 | 3.735 | 1.849 | 1.849 | 1.849 | 1.886 | 1.886 | 1.886 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates employ a Poisson pseudo-likelihood estimator. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A7: Concurrent national-local elections, electoral outcomes. Poisson estimator.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.004 | 0.016 | 0.046 | -0.045 | -0.050 | -0.084*** |
| | (0.053) | (0.052) | (0.052) | (0.032) | (0.032) | (0.031) |
| Mean Y | 0.370 | 0.370 | 0.370 | 0.528 | 0.528 | 0.528 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.139** | 0.151** | 0.180*** | -0.170** | -0.175*** | -0.241*** |
| | (0.066) | (0.066) | (0.069) | (0.066) | (0.066) | (0.068) |
| Mean Y | 0.405 | 0.405 | 0.405 | 0.594 | 0.594 | 0.594 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.022** | -0.025** | -0.018* | | | |
| | (0.011) | (0.011) | (0.011) | | | |
| $N$ | 13388 | 13388 | 13388 | | | |
| Mean Y | 0.605 | 0.605 | 0.605 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates employ a Poisson pseudo-likelihood estimator. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A8: Concurrent national-local elections, candidates entry. Excluding municipalities that experience both concurrent elections

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.065 | -0.082 | -0.069 | 0.106 | 0.101 | 0.170** | -0.170** | -0.184** | -0.240*** |
| | (0.098) | (0.097) | (0.099) | (0.072) | (0.072) | (0.073) | (0.076) | (0.075) | (0.076) |
| $N$ | 13333 | 13333 | 13333 | 13333 | 13333 | 13333 | 13333 | 13333 | 13333 |
| Mean Y | 3.724 | 3.724 | 3.724 | 1.842 | 1.842 | 1.842 | 1.883 | 1.883 | 1.883 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region by Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population, elderly index, foreigners index, tertiary-education index, and employment rate in agriculture, industry, and services. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. The sample excludes those municipalities that experience the concurrency twice, i.e., both in 2001 and in 2008. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A9: Concurrent national-local elections, electoral outcomes. Excluding municipalities that experience both concurrent elections

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.005 | 0.009 | 0.019 | -0.018 | -0.021 | -0.036** |
| | (0.019) | (0.019) | (0.019) | (0.015) | (0.014) | (0.014) |
| Mean Y | 0.370 | 0.370 | 0.370 | 0.529 | 0.529 | 0.529 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.078** | 0.081** | 0.105*** | -0.078** | -0.081** | -0.106*** |
| | (0.032) | (0.032) | (0.031) | (0.032) | (0.032) | (0.031) |
| Mean Y | 0.404 | 0.404 | 0.404 | 0.596 | 0.596 | 0.596 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.015** | -0.016** | -0.012* | | | |
| | (0.007) | (0.007) | (0.007) | | | |
| $N$ | 13333 | 13333 | 13333 | | | |
| Mean Y | 0.605 | 0.605 | 0.605 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region by Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population, elderly index, foreigners index, tertiary-education index, and employment rate in agriculture, industry, and services. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. The sample excludes those municipalities that experience the concurrency twice, i.e., both in 2001 and in 2008. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A10: Concurrent national-local elections, candidates entry. Restricting the post-treatment period.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.143 | -0.155 | -0.115 | 0.075 | 0.069 | 0.136* | -0.218*** | -0.225*** | -0.252*** |
| | (0.109) | (0.109) | (0.111) | (0.077) | (0.077) | (0.078) | (0.085) | (0.084) | (0.087) |
| $N$ | 12845 | 12845 | 12845 | 12845 | 12845 | 12845 | 12845 | 12845 | 12845 |
| Mean Y | 3.714 | 3.714 | 3.714 | 1.843 | 1.843 | 1.843 | 1.870 | 1.870 | 1.870 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region by Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. The post-concurrency period is restricted up to *t+2*. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A11: Concurrent national-local elections, electoral outcomes. Restricting the post-treatment period.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.024 | 0.026 | 0.033 | -0.030* | -0.032** | -0.040*** |
| | (0.022) | (0.022) | (0.022) | (0.016) | (0.015) | (0.015) |
| Mean Y | 0.373 | 0.373 | 0.373 | 0.529 | 0.529 | 0.529 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.094*** | 0.096*** | 0.113*** | -0.094*** | -0.096*** | -0.112*** |
| | (0.034) | (0.034) | (0.033) | (0.034) | (0.034) | (0.033) |
| Mean Y | 0.406 | 0.406 | 0.406 | 0.594 | 0.594 | 0.594 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.025*** | -0.026*** | -0.022*** | | | |
| | (0.008) | (0.008) | (0.008) | | | |
| $N$ | 12845 | 12845 | 12845 | | | |
| Mean Y | 0.604 | 0.604 | 0.604 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region by Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. The post-concurrency period is restricted up to $t+2$.Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A12: Concurrent national-local elections, candidates entry. Provincial cluster.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| *Panel A:* | *Number of candidates* | | | *N. cand. of nationally-established party* | | | *N. cand. of independent party* | | |
| $NLCE_{i,t}$ | -0.074 | -0.091 | -0.076 | 0.105 | 0.101 | 0.172** | -0.179** | -0.192** | -0.248*** |
| | (0.098) | (0.098) | (0.086) | (0.078) | (0.077) | (0.074) | (0.074) | (0.073) | (0.070) |
| $N$ | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 | 13388 |
| Mean Y | 3.735 | 3.735 | 3.735 | 1.849 | 1.849 | 1.849 | 1.886 | 1.886 | 1.886 |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the number of candidates participating at the local election, overall and with a nationally-established/independent party. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Province clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A13: Concurrent national-local elections, electoral outcomes. Provincial cluster.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| *Panel A:* | *Sh. votes of nationally-established party* | | | *Sh. votes of independent party* | | |
| $NLCE_{i,t}$ | 0.003 | 0.007 | 0.018 | -0.017 | -0.020 | -0.035** |
| | (0.020) | (0.020) | (0.021) | (0.014) | (0.014) | (0.014) |
| Mean Y | 0.370 | 0.370 | 0.370 | 0.528 | 0.528 | 0.528 |
| *Panel B:* | *Pr. victory of nationally-established party* | | | *Pr. victory of independent party* | | |
| $NLCE_{i,t}$ | 0.079** | 0.083** | 0.105*** | -0.079** | -0.083** | -0.106*** |
| | (0.031) | (0.032) | (0.033) | (0.031) | (0.032) | (0.033) |
| Mean Y | 0.405 | 0.405 | 0.405 | 0.594 | 0.594 | 0.594 |
| *Panel C:* | *HHPC index* | | | | | |
| $NLCE_{i,t}$ | -0.014** | -0.016** | -0.012 | | | |
| | (0.007) | (0.007) | (0.007) | | | |
| $N$ | 13388 | 13388 | 13388 | | | |
| Mean Y | 0.605 | 0.605 | 0.605 | | | |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | | ✓ | ✓ | | ✓ | ✓ |
| Region × Year FE | | | ✓ | | | ✓ |

*Notes:* Dependent variables: the local votes share of an independent/nationally-established party; the probability of victory at the local election for a independent/nationally-established party; the Herfindahl-Hirschman political competition index. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Province clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A14: Concurrent national-local elections, mayor born in city and population size.

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| $NLCE_{i,t}$ | 0.076* | 0.111** | 0.016 | 0.137** | 0.168** |
| | (0.039) | (0.049) | (0.065) | (0.059) | (0.073) |
| $N$ | 12618 | 6434 | 6268 | 3690 | 2297 |
| Mean Y | 0.473 | 0.485 | 0.459 | 0.516 | 0.532 |
| Population (1991) | | Above median | Below median | Above 10k | Above 15k |
| Municipality FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ele. date FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Region × Year FE | ✓ | ✓ | ✓ | ✓ | ✓ |

*Notes:* Dependent variables: a dummy equal to one if the mayor is born in the city she is elected in. The treatment variable, $NLCE_{i,t}$, refers to the DiD variable capturing exposure to national-local elections. Controls include: population; share of adults with a tertiary degree; employment rate in agriculture; employment rate in services; employment rate in commerce. The sample is restricted base on population at baseline (1991). Column (1) reports the unrestricted estimates. Column (2) restricts the sample to have population (1991) above the median (roughly 5'000). Column (3) restricts the sample to have population (1991) below the median (roughly 5'000). Column (4) restricts the sample to have population (1991) above 10'000. Column (5) restricts the sample to have population (1991) above 15'000. Estimates include municipality and election date fixed effects, as well as region by year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

**Funding.** It is acknowledged the Irish Research Council 2020 Government of Ireland Postgraduate Scholarship (GOIPG/2020/1154).

## References

Afzal, Madiha. 2014. "Do barriers to candidacy reduce political competition? Evidence from a bachelor's degree requirement for legislators in Pakistan." *Public Choice* 161:51–72. https://doi.org/10.1007/s11127-013-0126-2.

Alesina, Alberto, and Howard Rosenthal. 1996. "A theory of divided government." *Econometrica* 64 (6): 1311–1341. https://doi.org/10.2307/2171833.

Arias, Eric, Pablo Balán, Horacio Larreguy, John Marshall, and Pablo Querubín. 2019. "Information provision, voter coordination, and electoral accountability: Evidence from Mexican social networks." *American Political Science Review* 113 (2): 475–498. https://doi.org/10.1017/S0003055419000091.

Armillei, Francesco, and Enrico Cavallotti. 2021. "Concurrent elections and voting behaviour: evidence from an Italian referendum." *BAFFI CAREFIN Centre Research Paper,* nos. 2021-164, https://doi.org/10.2139/ssrn.3910462.

Besley, Timothy. 2005. "Political selection." *Journal of Economic perspectives* 19 (3): 43–60. https://doi.org/10.1257/089533005774357761.

Bordignon, Massimo, Floriana Cerniglia, and Federico Revelli. 2003. "In search of yardstick competition: a spatial analysis of Italian municipality property tax setting." *Journal of Urban Economics* 54 (2): 199–217. https://doi.org/10.1016/S0094-1190(03)00062-7.

Bracco, Emanuele, Ben Lockwood, Francesco Porcelli, and Michela Redoano. 2015. "Intergovernmental grants as signals and the alignment effect: Theory and evidence." *Journal of Public Economics* 123:78–91. https://doi.org/10.1016/j.jpubeco.2014.11.007.

Bracco, Emanuele, and Federico Revelli. 2018. "Concurrent elections and political accountability: Evidence from Italian local elections." *Journal of Economic Behavior & Organization* 148:135–149. https://doi.org/10.1016/j.jebo.2018.02.006.

Bueno de Mesquita, Bruce, James D Morrow, Randolph M Siverson, and Alastair Smith. 2001. "Political competition and economic growth." *Journal of Democracy* 12 (1): 58–72. https://doi.org/10.1353/jod.2001.0011.

Cabeza, Laura. 2018. "'First-order thinking'in second-order contests: A comparison of local, regional and European elections in Spain." *Electoral Studies* 53:29–38. https://doi.org/10.1016/j.electstud.2018.03.004.

Campbell, Rosie, Philip Cowley, Nick Vivyan, and Markus Wagner. 2019. "Why friends and neighbors? Explaining the electoral appeal of local roots." *The Journal of Politics* 81 (3): 937–951. https://doi.org/10.1086/703131.

Cantoni, Enrico, Ludovica Gazzè, and Jerome Schafer. 2021. "Turnout in concurrent elections: Evidence from two quasi-experiments in italy." *European Journal of Political Economy,* 102035. https://doi.org/10.1016/j.ejpoleco.2021.102035.

Chiaramonte, Alessandro. 2015. "The unfinished story of electoral reforms in Italy." *Contemporary Italian Politics* 7 (1): 10–26. https://doi.org/10.1080/23248823.2014.1002244.

Cox, Gary W. 2015. "Electoral rules, mobilization, and turnout." *Annual Review of Political Science* 18 (1): 49–68. https://doi.org/10.1146/annurev-polisci-060414-035915.

Curto-Grau, Marta, Albert Solé-Ollé, and Pilar Sorribas-Navarro. 2018. "Does electoral competition curb party favoritism?" *American Economic Journal: Applied Economics* 10 (4): 378–407. https://doi.org/10.1257/app.20160618.

Dal Bó, Ernesto, Frederico Finan, Olle Folke, Torsten Persson, and Johanna Rickne. 2017. "Who becomes a politician?" *The Quarterly Journal of Economics* 132 (4): 1877–1914. https://doi.org/10.1093/qje/qjx016.

Downs, Anthony. 1957. "An economic theory of political action in a democracy." *Journal of political economy* 65 (2): 135–150. https://doi.org/10.1086/257897.

Erikson, Robert S, Olle Folke, and James M Snyder Jr. 2015. "A gubernatorial helping hand? How governors affect presidential elections." *The Journal of Politics* 77 (2): 491–504.

Fauvelle-Aymar, Christine, and Abel François. 2015. "Mobilization, cost of voting and turnout: a natural randomized experiment with double elections." *Public Choice* 162 (1): 183–199. https://doi.org/10.1007/s11127-014-0212-0.

Feddersen, Timothy J, and Wolfgang Pesendorfer. 1996. "The swing voter's curse." *The American economic review* 86 (3): 408–424.

Ferreira, Fernando, and Joseph Gyourko. 2009. "Do political parties matter? Evidence from US cities." *The Quarterly journal of economics* 124 (1): 399–422. https://doi.org/10.1162/qjec.2009.124.1.399.

Foucault, Martial, Thierry Madies, and Sonia Paty. 2008. "Public spending interactions and local politics. Empirical evidence from French municipalities." *Public Choice* 137 (1): 57–80. https://doi.org/10.1007/s11127-008-9312-z.

Gagliarducci, Stefano, and Tommaso Nannicini. 2013. "Do better paid politicians perform better? Disentangling incentives from selection." *Journal of the European Economic Association* 11 (2): 369–398. https://doi.org/10.1111/jeea.12002.

Galli, Emma, Giampaolo Garzarelli, Gabriele Pinto, and Massimo Pulejo. 2025. "Do voters use information on candidates? Experimental evidence from a recent election." *Public Choice,* 1–34. https://doi.org/10.1007/s11127-025-01325-x.

Garmann, Sebastian. 2016. "Concurrent elections and turnout: Causal estimates from a German quasi-experiment." *Journal of Economic Behavior & Organization* 126:167–178. https://doi.org/10.1016/j.jebo.2016.03.013.

———. 2020. "Political efficacy and the persistence of turnout shocks." *Economics & Politics* 32 (3): 411–429. https://doi.org/10.1111/ecpo.12153.

Glaeser, Edward L, Hedi D Kallal, Jose A Scheinkman, and Andrei Shleifer. 1992. "Growth in cities." *Journal of Political Economy* 100 (6): 1126–1152. https://doi.org/10.1086/261856.

Górecki, Maciej A, and Michael Marsh. 2012. "Not just 'friends and neighbours': Canvassing, geographic proximity and voter choice." *European Journal of Political Research* 51 (5): 563–582. https://doi.org/10.1111/j.1475-6765.2011.02008.x.

Halberstam, Yosh, and B Pablo Montagnes. 2015. "Presidential coattails versus the median voter: Senator selection in US elections." *Journal of Public Economics* 121:40–51. https://doi.org/10.1016/j.jpubeco.2014.10.002.

Heath, Anthony, Iain McLean, Bridget Taylor, and John Curtice. 1999. "Between first and second order: A comparison of voting behaviour in European and local elections in Britain." *European Journal of Political Research* 35 (3): 389–414. https://doi.org/10.1023/A:1006924510899.

Hijino, Ken Victor Leonard, and Hideo Ishima. 2021. "Multi-level muddling: Candidate strategies to "nationalize" local elections." *Electoral Studies* 70:102281. https://doi.org/10.1016/j.electstud.2021.102281.

Hix, Simon, and Michael Marsh. 2011. "Second-order effects plus pan-European political swings: An analysis of European Parliament elections across time." *Electoral Studies* 30 (1): 4–15. https://doi.org/10.1016/j.electstud.2010.09.017.

Hobolt, Sara Binzer, and Jill Wittrock. 2011. "The second-order election model revisited: An experimental test of vote choices in European Parliament elections." *Electoral Studies* 30 (1): 29–40. https://doi.org/10.1016/j.electstud.2010.09.020.

Kauder, Björn, Niklas Potrafke, and Markus Reischmann. 2016. "Do politicians reward core supporters? Evidence from a discretionary grant program." *European Journal of Political Economy* 45:39–56. https://doi.org/10.1016/j.ejpoleco.2016.09.003.

Kendall, Chad, Tommaso Nannicini, and Francesco Trebbi. 2015. "How do voters respond to information? Evidence from a randomized campaign." *American Economic Review* 105 (1): 322–353. https://doi.org/10.1257/aer.20131063.

León, Sandra. 2012. "How do citizens attribute responsibility in multilevel states? Learning, biases and asymmetric federalism. Evidence from Spain." *Electoral Studies* 31 (1): 120–130. https://doi.org/10.1016/j.electstud.2011.09.003.

Lo Prete, Anna, and Federico Revelli. 2021. "Voter Turnout and City Performance: Evidence from Italian Municipalities." *The Journal of Law, Economics, and Organization* 37 (1): 168–197. https://doi.org/10.1093/jleo/ewaa012.

Martinelli, César. 2006. "Would rational voters acquire costly information?" *Journal of Economic Theory* 129 (1): 225–251. https://doi.org/10.1016/j.jet.2005.02.005.

Meriläinen, Jaakko, and Janne Tukiainen. 2018. "Rank effects in political promotions." *Public Choice* 177 (1): 87–109. https://doi.org/10.1007/s11127-018-0591-8.

Migueis, Marco. 2013. "The effect of political alignment on transfers to Portuguese municipalities." *Economics & Politics* 25 (1): 110–133. https://doi.org/10.1111/ecpo.12005.

Otjes, Simon. 2018. "Pushed by national politics or pulled by localism? Voting for independent local parties in the Netherlands." *Local Government Studies* 44 (3): 305–328. https://doi.org/10.1080/03003930.2018.1427072.

Reif, Karlheinz, and Hermann Schmitt. 1980. "Nine second-order national elections–a conceptual framework for the analysis of European Election results." *European journal of political research* 8 (1): 3–44. https://doi.org/10.1111/j.1475-6765.1980.tb00737.x.

Revelli, Federico. 2017. "Voter turnout in italian municipal elections, 2002–2013." *Italian Economic Journal* 3 (2): 151–165. https://doi.org/10.1007/s40797-017-0050-6.

Roth, Jonathan, Pedro HC Sant'Anna, Alyssa Bilinski, and John Poe. 2023. "What's trending in difference-in-differences? A synthesis of the recent econometrics literature." *Journal of Econometrics* 235 (2): 2218–2244. https://doi.org/10.1016/j.jeconom.2023.03.008.

Rudolph, Lukas, and Arndt Leininger. 2021. "Coattails and spillover-effects: Quasi-experimental evidence from concurrent executive and legislative elections." *Electoral Studies* 70:102264. https://doi.org/10.1016/j.electstud.2020.102264.

Schulte-Cloos, Julia, and Paul C Bauer. 2023. "Local candidates, place-based identities, and electoral success." *Political Behavior* 45 (2): 679–698. https://doi.org/10.1007/s11109-021-09712-y.

Snyder Jr, James M, and David Strömberg. 2010. "Press coverage and political accountability." *Journal of political Economy* 118 (2): 355–408. https://doi.org/10.1086/652903.

Solé-Ollé, Albert, and Pilar Sorribas-Navarro. 2008. "The effects of partisan alignment on the allocation of intergovernmental transfers. Differences-in-differences estimates for Spain." *Journal of Public Economics* 92 (12): 2302–2319. https://doi.org/10.1016/j.jpubeco.2007.06.014.

Stratmann, Thomas. 2005. "Ballot access restrictions and candidate entry in elections." *European Journal of Political Economy* 21 (1): 59–71. https://doi.org/10.1016/j.ejpoleco.2004.05.007.

Sun, Liyang, and Sarah Abraham. 2021. "Estimating dynamic treatment effects in event studies with heterogeneous treatment effects." *Journal of Econometrics* 225 (2): 175–199. https://doi.org/10.1016/j.jeconom.2020.09.006.

Zudenkova, Galina. 2011. "A political agency model of coattail voting." *Journal of Public Economics* 95 (11-12): 1652–1660. https://doi.org/10.1016/j.jpubeco.2011.07.003.