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June 18, 2024

Abstract

Due to a last-minute fight among the candidates, Vox, a party at the right end of the Spanish political spectrum, could not run in Santa Cruz de Tenerife, a relatively representative electoral constituency, in the general election of July 23, 2023. Since this fight was a power struggle within Vox unrelated to any fundamental in the constituency or ideological differences among the candidates, we can exploit this event as a quasi-natural experiment to measure the effects of new parties on electoral outcomes. Using three different but complementary research designs (matching, synthetic controls, and a triple-difference analysis), we get to the same main result: Vox's presence significantly increases votes for the right as a whole. The increase in votes for the right caused by Vox's presence is particularly strong in areas with high unemployment. The presence of Vox also reduces protest votes but, on the other hand, votes for the left are unaffected.

Keywords: New parties, quasi-natural experiments, electoral outcomes.

JEL codes: D72, N30, N40, Z13.

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1 Introduction

The last two decades have witnessed the electoral success all across the world of a new generation of right-wing parties or leaders. In countries in the Americas, which typically feature a presidential system with first-past-the-post parliamentary elections, this has mostly taken the form of the new right taking over existing parties (e.g., Trump in the U.S.) or largely replacing them (e.g., Milei in Argentina). In continental Europe, where most countries use a parliamentary system, this change has taken the form of the electoral breakthrough of a new generation of right-wing parties (or of somewhat older parties that have reshaped themselves, like the French National Rally, the old National Front from 1972 to 2018, or the Sweden Democrats). Most of these parties self-identify as national conservatives and are positioned at the right end of the political spectrum, with tough anti-immigration stands and varying degrees of Euroscepticism.

The motivation and emphasis of these parties are heterogeneous, with some parties being propelled by immigration concerns and others by economic stagnation, political corruption, and anti-elitism. However, a common denominator of these parties is an explicit break with the three historical party families that dominated the European right after World War II: liberals, Christian democrats, and conservatives (Fernández-Villaverde and Santos, 2017). As we motivate in Appendix A, we will call this second group of parties the “classical right.”

The appearance of this new crop of new right parties raises many questions: Who votes for them? How would voters behave if these parties did not exist? What factors account for their appearance? Are economic factors more or less important than cultural disputes?

A key challenge when addressing these questions is that we rarely observe the behavior of individual voters and their preferences. Polls and surveys are often not reliable, in particular, because many voters are reluctant to disclose their beliefs or behavior to pollsters due to a social desirability bias.

In this paper we address some of the questions above by taking advantage of a quasi-natural experiment that occurred in the Spanish general election of July 23, 2023. In one electoral constituency, Santa Cruz de Tenerife, Vox, a right-wing party founded in 2013 that had gained electoral success after 2019, could not run because some of the candidates withdrew from the race in the last hours before the filing deadline.¹ This withdrawal was unexpected by Vox and all the other parties, and none of them could react to it when selecting their candidates. Furthermore, the reason the candidates withdrew was a personal quarrel for political power within the local Vox organization and largely unrelated to any ideological,

¹To avoid unnecessary repetition, we will write Tenerife as shorthand for Santa Cruz de Tenerife. Tenerife is also an island within the constituency of Santa Cruz de Tenerife. We will mention the island explicitly when we refer to it instead of the constituency as a whole.

strategic, or sociological motivation.

In other words, we can think about the candidates’ withdrawal as a “random” shock or, at least, as a shock unrelated to any variable of interest for our analysis. This quarrel happened to Vox only in Tenerife, and the party could run in the other 51 electoral constituencies in Spain.

The other three large national parties in Spain did not face Vox’s problem in Tenerife and ran in all 52 constituencies. In particular, the Partido Popular (hereafter, PP), a mainstream classical right party (mainly conservative, with some minor Christian-democrat and liberal factions) that had dominated the center-right spectrum of Spanish politics since 1982, ran in Tenerife without any national competitor in its political space.²

As luck would have it, Tenerife is not too far from the median electoral constituency in Spain. It is only slightly more left-wing than the median and local parties have the support of a fair share of voters (as in many other regions of Spain) but without the overwhelming dominance that they have, for instance, in parts of the Basque Country. Also, the constituency elects seven seats under a proportional representation system, close to the median of a constituency in Spain (five seats), limiting the amount of strategic voting but not fully eliminating it. Finally, its economic and sociodemographic features are close to the median, being a bit poorer and having somewhat higher unemployment. Thus, this quasi-experiment can be particularly informative. Hence, it allows us to build on the methodologies used in studies like those by [Abadie et al. \(2015\)](#), which advocate for the rigorous application of causal inference techniques in observational data.

We exploit this quasi-natural experiment to estimate the counterfactual of what would have occurred had Vox run for the election in Tenerife. This allows us to gauge how Vox votes were transferred to PP or resulted in abstention or protest (null and blank) votes, and how the other parties’ vote share was affected.³ This exercise also allows us to compute a counterfactual seat apportionment.

We employ three different research designs. First, we use a matching estimator where we match small granular census tracts in Tenerife, where Vox did not run, with similar census tracts in the rest of Spain, where Vox ran. In our baseline specification, we match on the electoral results in the previous general election, which we find are excellent predictors of voting. We also show results when matching on sociodemographic and economic characteristics.

²As we will explain in Section 2, the other national center-right party, Ciudadanos, did not participate in the 2023 general election. There was, though, a center/center-right regional party that competed with PP.

³Throughout the paper, we use “transfers” to refer to the estimated change in each of the other parties’ vote shares that are caused by Vox’s absence. This does not imply that such transfers follow directly from Vox voters switching to each party. There might be indirect transfers, e.g., Vox’s absence makes some Vox voters switch to party B and some party B voters switch to party C. Given that we do not observe individual voting data, we can only identify the final balance of transfers.

Second, we build a synthetic control method by building a “synthetic Tenerife” using observations from previous elections. Both methods allow us to get a very good balance, ensuring that the treated census tracts (or provinces) were voting very similarly to the controls in the past.

The identification assumption behind our first two designs is that, since the last election, there have been no specific shocks affecting Tenerife aside from Vox’s absence from the ballot that could have altered voter behavior in this province compared to the rest of Spain. There are two ways in which we provide evidence of the validity of that assumption. One is to exploit the fact that there were local elections in the whole country in May 2023, just two months before the general election. We take this into account by conducting robustness checks in which we match on the results of those local elections. The other way we address the possibility of asymmetric shocks is to exploit the fact that, in the Tenerife province in the July 2023 election, Vox did not run for Congress but *did* run for the Senate, which was elected on the same day. We perform a triple-difference estimation in which votes for the Senate in Tenerife serve as an additional counterfactual. This last third research design is particularly interesting because it documents that Vox’s voters in Tenerife did not grow sour with the party due to the infighting that prevented it from running for Congress.

Our three methods have comparative strengths and weaknesses, as we discuss below, but all paint a very similar picture. First, Vox’s presence increases the votes of the right bloc (PP plus Vox). We estimate that had Vox run, the right would have gotten between 1.89 and 3.44 additional percentage points (p.p.) in terms of votes over the electoral roll, depending on specification. That is a considerable difference. This increase in the vote of the right is due to the fact that PP only ends up getting between 53% and 75% of the Vox vote.⁴

A simple interpretation of this finding is that a significant share of voters of the new right parties do not feel that the classical right parties represent their interests or goals. When we look at census tracts, we find that the loss of votes by the right bloc is particularly serious in areas of high unemployment. The previous finding fits well with a narrative that emphasizes that many of the voters of the new right parties are motivated by concerns such as immigration, nationalism, cultural change, or economic difficulties more than by the historical drivers of the classical right parties in Europe, such as balanced budgets, low taxation, or market-friendly policies.⁵

⁴If we include the votes for the center-right regional party, the results are very stable, suggesting that the classical right captures around 78% of the new right vote.

⁵[Inglehart and Norris \(2016\)](#) suggest two hypotheses behind the emergence of the new right: economic insecurity, which emphasizes the consequences of profound changes transforming the workforce and society in post-industrial economies, and cultural backlash, which suggests that support for new right parties can be explained as a reaction to progressive value change. See also [Kim and Hall \(2023\)](#), who find that feelings of personal unfairness increase support for the new right, and [Rodríguez-Pose et al. \(2023\)](#), who find that in

A second finding is that the vote for the parties on the left in Tenerife is not affected by the presence or absence of parties like Vox. This is interesting because a plausible hypothesis is that the left could have benefited from a higher mobilization within its base to “stop” Vox at the ballot. Given that seats are apportioned in Spain at the constituency level without any national compensation scheme, there was not much motivation for left-wing voters to vote “against” Vox in Tenerife. However, we are extremely cautious about the interpretation of this result. Voters in Tenerife knew that Vox was running in the rest of Spain. Had Vox been absent from the elections in all of Spain, parties and voters might have changed their strategies in the rest of the country, a “general equilibrium effect.” Unfortunately, we cannot measure these potential aggregate effects.

A third finding is that the absence of the new right from the ballot increases protest (i.e., blank and null) votes. This effect is quantitatively very large, with the number of protest votes increasing by 27.8% (from 1.33% to 1.70% of the census) in our baseline matching specification. This result provides further evidence that many voters believe that the classical right parties do not adequately represent them. Also, this result points to the presence of a substantial presence of expressive (as opposed to strategic) voting. We also find evidence that Vox’s absence increased abstention, but the statistical significance depends on specification.

A fourth finding is that while the right as a whole obtains a higher vote share when the new right is on the ballot, the division of these votes into two different lists has an electoral cost when the seat allocation in the parliament is not fully proportional. In particular, a naive exercise where one would compute a counterfactual Spanish parliament by assuming that PP could absorb all Vox votes misses the point that many of the latter are not willing to transfer to PP. This finding fits well with the observation that in countries with a first-past-the-post electoral system, such as the U.S. and the U.K., there has been no new party on the right (or at least not one that did not fizzle out such as UKIP), and instead has forced the Conservative and Republican parties to steer toward different political agendas closer to those of the new generation of right-wing parties in continental Europe.

As a first external validation analysis, we look at Spanish local elections. We exploit the feature that Vox’s entry was staggered over time across the last three local elections (2015, 2019, and 2023). We first study Vox’s decision to run in a given municipality. We find that, intuitively, Vox is more likely to run for the first time in municipalities where the two traditional big parties on the right and left are becoming weaker and where new parties are becoming stronger, suggesting that Vox understands that there is more to gain electorally by running in municipalities where the demand for new parties is stronger. However, the fact

Europe, the most significant factor behind the rise of the new right is economic decline. Regarding populism more generally (not necessarily right-wing), [Guiso et al. \(2024\)](#) find that adverse shocks to economic security increase abstention and the populist vote.

that Vox’s entry is endogenous makes it harder to estimate the causal effects of Vox’s presence on election results. Our strategy is to focus on small municipalities (<5000 inhabitants in our baseline specification). In such places, parties’ presence largely depends on idiosyncratic factors, like having an activist neighbor or not. We validate our assumption by showing parallel trends, i.e., Vox’s first participation in local elections is, in this sample, uncorrelated with previous vote shares. The results from this external validation analysis also point to the new right’s presence increasing the right’s vote share and decreasing protest votes and abstention.

As a second external validation analysis, we look at survey data. We study how respondents who state that Vox is their preferred party grade the main parties on a 0-10 scale, where 0 means that they do not like the party and 10 means that they do. We find that there is a considerable mass (13.5%) of Vox sympathizers giving the PP a 0 out of 10, and 27% giving it a grade from 0 to 3. This analysis is consistent with our estimates from actual vote data and suggests that our findings are not specific to Tenerife and would be similar in the rest of Spain.

As a third external validation analysis, we look at a cross-section of Western European countries and document that, when there are more electorally viable parties at the end of the right side of the political spectrum, the right’s share of votes goes up on average by 3.48 p.p. Interestingly, this is roughly the same number as in our analysis for Tenerife (between 1.89 and 3.44 additional p.p. depending on the specification). While this is not a causal analysis, and we are most careful about its interpretation, nonetheless, it agrees with our results for Spain. *Prima facie*, other European countries seem to behave as Spain does regarding the electoral role of new right-wing parties.

While we focus on the right side of the political divide, there is nothing specific to our investigation of these political views. A similar research design could be applied to the role of some of the new parties of the left that have appeared in Europe, such as Podemos in Spain. Whether left-wing voters respond in similar ways to the presence or absence of new parties on the ballot is something we cannot answer with our quasi-natural experiment.

Our paper contributes to the literature studying the emergence of right-wing parties. Perhaps the most relevant paper for us is [Guriev and Papaioannou \(2022\)](#), who review the appearance of populist parties across many democracies and call for more research on the topic. Similarly, [Funke et al. \(2023\)](#) argue that populist policies have large economic consequences by building a long-run cross-country database of the macroeconomic history of populism. Some related research has studied the drivers of the vote for the new right parties in Europe. [Gabriel et al. \(2023\)](#), using a regional database of elections in several European countries, provide evidence that fiscal consolidations lead to a significant increase in extreme

parties' vote share, lower voter turnout, and a rise in political fragmentation. [Dippel et al. \(2022\)](#) provide evidence from Germany that exposure to imports from low-wage countries increased the support for nationalist parties between 1987 and 2009, while increasing exports had the opposite effect. The net effect translates into increasing support for Alternative for Germany. [Gethin et al. \(2022\)](#) review the changing political cleavages since 1948 and provide evidence that the reversal of the education cleavage is strongly linked to the emergence of a new sociocultural axis of political conflict. [Rodrik \(2021\)](#) finds that globalization shocks have played an important role in increasing support for populist movements, especially of the right-wing kind. [Dal Bó et al. \(2023\)](#) use administrative data to study the politicians and voters of the Sweden Democrats. They find that the Sweden Democrats have higher electoral support in precincts with higher shares of marginalized groups.⁶ We advance this literature by providing evidence from a quasi-natural experiment in a high-stakes election. Our finding that the presence of new right-wing parties expands the vote share of the right as a whole, reducing protest votes and abstention, implies that these parties capture different voters than the classical right.

Second, we contribute to the literature studying whether voters vote expressively, i.e., based on their preference among candidates, or strategically, i.e., based on the likely outcomes of the election. This point has huge implications for the theoretical literature on voter behavior ([Spenkuch, 2018](#)). The empirical challenge is that voters' preferences are unobservable. To deal with that, the literature has relied on survey data to estimate voters' preferences or on imposing assumptions on the mapping between voters' preferences and vote choices.⁷

An exception is [Pons and Tricaud \(2018\)](#), who, like us, exploit exogenous variation in the presence or absence of an additional party in an election. They use the two-round structure of French parliamentary elections to show that the presence of a third candidate in the second round reduces the vote share of the top two candidates, disproportionately hurting the other candidate who is ideologically closest to him—the same effect that we document between the new right and the classical right in our analysis. They conclude that the findings can only be rationalized by incorporating expressive motives. Similarly, our findings imply that 12% of the new right votes are transferred to either protest votes or small parties. A distinctive feature of our research designs is that Spain uses multi-member constituencies under proportional

⁶Similarly, [Dehdari \(2022\)](#) finds that one layoff notice among low-skilled native-born workers increases, on average, support for the Sweden Democrats by 0.17-0.45 votes.

⁷For example, [Spenkuch \(2018\)](#) exploits the dual voting in German elections by comparing votes cast for party lists under a proportional representation system with votes cast for individual candidates under a plurality system. He finds that approximately one-third of voters vote strategically. [Spenkuch \(2015\)](#) exploits a flaw in the German electoral system by which a party could gain more seats by receiving fewer votes in a by-election in Germany and finds that about 9% of voters did not behave expressively. [Kawai and Watanabe \(2013\)](#) develop a comprehensive structural model to analyze voting decisions in Japan's general election. Their findings indicate that between 63% and 85% of voters engage in strategic voting.

representation, while France uses single-member constituencies. This implies that, in France, there is a stronger incentive to vote strategically (at least in the run-off) than in Spain. Hence, our research designs can provide a clearer sense of voters’ true ideological preferences.

For Spain, there was a related event in the early 2000s when a pro-independence leftist party in the Basque Country and Navarre was banned from contesting local elections because of its ties to a terrorist group. [Arenas \(2021\)](#) exploits the fact that the ban’s length was heterogeneous across municipalities to study the effects of these legal actions on the elections. Our investigation has the advantage of being a true surprise: Vox could not present a candidate list in Tenerife against everyone’s expectations. In comparison, the situation in the Basque Country and Navarre was the consequence of a protracted legal battle, with many iterations and strategic decisions by all the agents involved.

The rest of the paper is organized as follows. Section 2 provides institutional background and describes the situation in Tenerife in detail. Section 3 presents our first research design, matching. Section 4 presents our second research design, synthetic controls. Section 5 presents our third research design, using the Senate election. Section 6 discusses the outcome of counterfactual elections where Vox does not run in the rest of Spain and discusses the interpretation and generalizability of our findings. Section 7 presents our analysis of Spanish local elections. Section 8 provides evidence from survey data, while Section 9 looks at evidence from other European countries. Section 10 closes the paper. An Appendix provides further details and robustness tests.

2 Institutional Background and Data

This section provides institutional background on the Spanish electoral and party systems, the quasi-natural experiment that will provide us with identification in our analysis, a description of the data we use, and the seat allocation in Tenerife.

2.1 The Spanish Electoral and Party Systems

Spain is a parliamentary monarchy with a multi-party system. Its bicameral legislature (“Cortes Generales”) is comprised of a lower house, the Congress (“Congreso de los Diputados”), and an upper house, the Senate (“Senado”). Congress holds almost all the power, including electing the prime minister and the final approval of laws. In comparison, the Senate’s power is rather limited.

General elections are held at least once every four years. However, early elections are often called, either by the prime minister or when some conditions specified in the Spanish constitution are met (e.g., no government can obtain a plurality in Congress). In each

general election, all 350 members of Congress are elected using 52 electoral constituencies, corresponding to each of Spain’s 50 provinces plus the two autonomous cities of Ceuta and Melilla. These constituencies vary greatly in size, ranging from one deputy in Ceuta and Melilla and two in Soria to 32 in Barcelona and 37 in Madrid.⁸

Political parties submit closed constituency-wide lists of candidates to the electorate.⁹ Each voter picks one of the lists without indicating any ranking of the candidates within the list. Seats are allocated to parties according to their votes following the D’Hondt rule with a 3% vote threshold; that is, parties need to get at least 3% of the votes to enter into the distribution of seats. The candidates are elected according to the order in which they appear on the party list and without any compensation across constituencies. For example, if Party Yellow is allocated three seats in Constituency A, the first, second, and third candidates in the list of Constituency A of Party Yellow are elected as deputies. Hence, the higher a candidate appears on the list, the higher the probability he will be elected.

Not surprisingly, the closed-list rule has two implications. First, the party leaders are nearly always placed at the top of the list. Second, determining the positions in the list causes bitter disputes within parties: being listed as number three vs. number four might mean the difference between being or not being elected. While parties in Spain recently have been using primaries to select the national or regional leaders at the top of the list (primaries are not mandated by law but have become popular), the positions in the list below the top are decided either by the party’s electoral committees or by often protracted bargaining among parties within coalitions.

After the election, the deputies vote for the prime minister (who does not need to be a member of the “Cortes”). The prime minister picks his cabinet and, as mentioned before, can call for a new election but not earlier than twelve months after the previous election and not later than the four-year limit.

Two parties have dominated Spain’s political landscape since 1982: the center-right PP (“Partido Popular,” previously “Alianza Popular,” or AP) and the center-left Spanish Workers’ Socialist Party (“Partido Socialista Obrero Español,” henceforth PSOE). At the peak of their electoral dominance, the 2008 general election, these two parties gathered 82% of all votes cast. In each of the 14 general elections from 1982 to 2023, PSOE and PP have copped the first two positions in votes and deputies: PSOE has been the most-voted party eight times and PP six.¹⁰ Also, there was a small United Left coalition (“Izquierda Unida”); “Centro

⁸The number of seats elected by each constituency is reapportioned before every election according to population. The reported figures are for the 2023 election.

⁹Coalitions, federations of parties, and voters’ associations can also submit lists of candidates. Nearly all electoral rules apply equally to them, so we will refer to “parties” unless it becomes necessary to differentiate.

¹⁰As we will explain later, there are no census-tract data available for elections in Spain before 1982.

Democrático y Social,” a centrist party that ran into irrelevance in the early 1990s; and many nationalist and regional parties. These parties are quite strong in Catalonia and the Basque Country and mildly strong in Galicia, Navarre, Valencia, and the Canary Islands.¹¹

After the financial crisis, the political landscape shifted with the emergence of new parties at the national level. First, Podemos (“We Can”), a left-wing party, emerged in the 2014 European election following political discontent about political corruption and the contractionary fiscal measures passed in response to the economic crisis. In the 2015 election, Podemos almost overtook the PSOE as the main party on the left, obtaining a 19% vote share (vs. 22% of the PSOE). In 2016, Podemos ran in coalition with the United Left. The coalition obtained a 21% vote share. It then fell to 14% in April 2019 and 13% in November 2019. Despite these vote losses, Podemos and the United Left joined a coalition government with PSOE after the latter election.

Second, Ciudadanos (“Citizens”), a center or center-right party created in 2006 in Catalonia primarily as an anti-independentist party, expanded to the whole of Spain, obtaining a 14% vote share in the 2015 election. It obtained a 13% vote share in the 2016 election, which grew to 16% in the April 2019 election and fell to 7% in November 2019.¹²

The last new national party to break through, and our focus, was Vox. This right-wing party, a breakaway of some of the most conservative members of PP, ran in the 2015 and 2016 elections but obtained a meager 0.2% vote share. However, Vox grew dramatically in subsequent elections, obtaining a 10% vote share in the April 2019 election and 15% in the November 2019 election.

2.2 Elections in the Canary Islands

The Canary Islands are an insular region of 2.2 million inhabitants consisting of two provinces: Las Palmas and Santa Cruz de Tenerife (recall that we will drop “Santa Cruz de”). Las Palmas elected eight deputies in 2023, and Tenerife seven. The Canary Islands have a regional centrist party, Coalición Canaria (“Canarian Coalition,” hereafter CC), which obtained one seat in the 2015 and 2016 elections and two seats in the April and November 2019 elections. In these elections, CC ran in a coalition with New Canarias (“Nueva Canarias,” a center-left regionalist party, hereafter NC). We include NC in CC votes to facilitate

¹¹We adopt the convention of using English names in the main text for those regions or provinces where the English term is well-known (e.g., Catalonia) and Spanish names otherwise. While several electoral constituencies have official names not in Spanish (e.g., A Coruña), those might be less familiar to non-Spanish readers. Official names are used in the detailed tables in the Appendix.

¹²Sanz et al. (2022) provide evidence on the emergence of Podemos and Ciudadanos, showing how they benefited from corruption scandals affecting PP and PSOE.

comparisons over time.¹³

2.3 The July 23, 2023 Election

On May 28, 2023, local elections were held in all municipalities in Spain and regional elections in 11 regions. Following a poor result for his party (PSOE), which lost five regional governments and many large cities like Seville, Prime Minister Pedro Sanchez called for a snap election to be held on July 23, 2023, six months ahead of December 2023, when the four-year legislative period was due to expire.

The main national contenders were PSOE, PP, Sumar (a newly created coalition of left-wing parties including Podemos and the United Left), and Vox. Ciudadanos decided not to run following a dismal performance in the May 2023 elections. These four parties were expected to run in all 52 constituencies.

However, when the candidates were made public on June 27, 2023, news broke out that Vox was not running in the constituency of Tenerife.¹⁴ Due to infighting about the order of the candidates within the list, several of the candidates for deputies selected by the leadership of Vox had informed the Provincial Electoral Commission that they were no longer running a few hours before the deadline to file a candidacy. This sudden withdrawal left no time for Vox to present a complete slate of candidates, a requirement to have a party list. Although Vox appealed to the Provincial Electoral Commission and filed criminal charges against the renegade candidates, the Provincial Electoral Commission turned the appeal down, and the criminal charges were dismissed.¹⁵

Importantly for our analysis, the infighting within Vox was not linked to any feature of Tenerife's economic or social situation (or even to material differences in ideology or political agendas). As reported by the media, the infighting was a pure dispute about who would have a higher position within the list. This last-minute development was unexpected both for Vox and for all other parties running in Tenerife, which had assumed Vox would be running in this constituency when selecting their candidates. In fact, as we will discuss later, Vox ran candidates for the Senate in Tenerife, since those candidacies were not affected by the power struggles. Thus, we consider Vox's failure to file a candidate list in Tenerife a quasi-natural experiment triggered by random power clashes within the party. From this perspective,

¹³Including NC in CC's total is immaterial for our analysis of Tenerife. NC is a party that obtains nearly all of its support in Las Palmas, not in Tenerife. In the latter province, NC got 0.4% of the vote in 2023.

¹⁴See, among many articles in the press, <https://www.abc.es/espana/canarias/vox-queda-lista-santa-cruz-tenerife-23j-20230627000706-nt.html> and <https://www.elmundo.es/elecciones/elecciones-generales/2023/06/27/649ade81e85ece100f8b4574.html>.

¹⁵See <https://rtvc.es/rechazan-recursos-vox-por-candidatura-santa-cruz-de-tenerife/> and <https://tinyurl.com/y8h2v48m>.

Tenerife is the treatment group, and the rest of Spain is the control group.

This unexpected turn of events was a serious blow for Vox. In the previous November 2019 election, Vox had obtained 6.26% of the votes in the Tenerife constituency (out of the total electoral roll), yielding one deputy, and polls were predicting that it had an excellent chance to keep that seat. Vox did not endorse any other party for the Tenerife province following its exclusion from the election. As mentioned above, Vox was able to run in all other 51 constituencies. PSOE, PP, and Sumar ran in all 52 constituencies.

2.4 Data

Electoral data. We use election data from the Spanish home office (“Ministerio del Interior”) containing election results from 1982 at a very fine observation level, the census tract (“sección censal”). There are 36,086 census tracts in Spain, with an average population slightly below 1,300 persons. Data for the first two general elections after Franco’s death, 1977 and 1979, are not available at the census-tract level.

We focus on vote shares for the main parties —Vos, PP, PSOE, and Sumar— and a group that we will call territorial parties.¹⁶ Among the territorial parties, we highlight CC and NC in Tenerife and Las Palmas, but there are many territorial parties in other regions.¹⁷ We also perform some analysis for the right bloc as a whole, which includes the sum of the PP, Vox, and Ciudadanos. Finally, we add blank and null votes as protest votes. These two have a similar interpretation, and, therefore, we aggregate them for most analyses (the Appendix shows the results when we do not do so).¹⁸

All shares are defined relative to the census (voter registration is automatic in Spain for all resident citizens; hence, the electoral roll and the census of national residents are the same). Defining vote shares instead as relative to turnout or valid votes would create an endogeneity

¹⁶To facilitate comparisons over time, Sumar votes include the votes that the United Left, Podemos, and Más País (a breakaway from Podemos) obtained in previous elections; all these parties and coalitions run together under the collective umbrella Sumar in 2023.

¹⁷Specifically, we include as territorial votes the votes for the following parties or coalitions (with their different naming fluctuations across time): CC, NC, Convergència i Unió/Junts, Esquerra Republicana de Catalunya, Partido Nacionalista Vasco, Herri Batasuna/Euskal Herria Bildu, Bloque Nacionalista Galego, Teruel Existe, Partido Aragonés, Partido Andalucista, Coalición por Melilla, Partido Regionalista de Cantabria, Unitat del Poble Valencià, Unión Valenciana, Soria Ya, Chunta Aragonesista, Partit Socialista de Mallorca-Entesa/Més, Candidatura d’Unitat Popular, and Unión del Pueblo Leonés. We add the votes of Unión del Pueblo Navarro to those of PP. In most general elections (but not in 2023), both parties run together. Given the small size of Unión del Pueblo Navarro, this sum is irrelevant to our quantitative results.

¹⁸Blank votes are those in which the ballot envelope is cast with no party-list inside. Null votes are those that include more than one list, invalid lists, or the list is spoiled with written messages, etc. While some blank or null votes may be accidental, there is no reason to believe that the probability of such accidents changed differentially in Tenerife in the 2023 election: the ballot envelopes, the urns, the voting booths, the graphic design of the lists, the electoral system, etc. were the same as in previous elections.

problem given that these variables may have arguably been affected by the treatment, while the census was fixed pre-treatment. Also, our approach allows us to quantify the prevalence of the options faced by (potential) Vox voters: vote for a different party, cast a protest vote, or abstain. Hence, we decompose the census as follows:

$$\text{Census}_c = \sum_i \text{Votes Party}_{ic} + \text{Protest Votes}_c + \text{Abstention}_c,$$

where c denotes a census tract and i denotes a party.

We drop 434 census tracts (8 in Tenerife) with changes in boundaries since 2019. This is 1.2% of initial observations (also 1.2% in Tenerife). We define a change in boundaries as the centroid of a census tract changing by more than 250 meters. We checked that all results remain unchanged when including these observations in the analysis. Electoral constituencies, on the other hand, have remained unchanged since 1977.

Additional data. We complement the electoral data with detailed economic and sociodemographic variables at the census-tract level. Specifically, we consider two economic variables, the unemployment rate (defined as a percent of the active population) and the mean net household income (in euros), and three sociodemographic variables: the share of foreign population, the share with higher education, and mean age.¹⁹ Unemployment, foreign population, and education are obtained from the 2021 census. Income and mean age are obtained from the Atlas de Distribución de Renta de los Hogares, elaborated by the National Institute for Statistics (INE).

Summary statistics. Table 1 shows the descriptive statistics for the main variables we use. We report the mean and standard deviation of each variable for Tenerife and Spain across the census tracts. We do not weigh the moments by the census tract populations since, later, we will match observations at the census-tract level.

While all variables are statistically different in the two samples due to the large number of census tracts (see last column for statistical significance), in fact voting in Tenerife is quite close to being representative of the whole country. In 2023, the mean census tract in Tenerife had a 22.30% vote share for PP, while it was 24.18% in the rest of the country. For PSOE, these figures are 21.38% and 22.26%, while for Sumar, they are 6.83% and 8.16%. CC is obviously different, as it only runs in the Canary Islands (recall that the rest of Spain includes the constituency of Las Palmas), but there is also a non-negligible share of territorial votes in Spain (“Terr” in our figures and tables throughout the paper; 10.94% in Tenerife vs.

¹⁹Higher education includes university undergraduate and graduate degrees and advanced professional or vocational training.

Table 1: Sample Characteristics

	(1)			(2)			(3)
	Tenerife			Rest of Spain			Difference
	mean	sd	N	mean	sd	N	
Election 2023							
% Right	22.20	6.56	662	32.97	14.85	34938	10.77***
% Vox	0.00	0.00	662	8.78	4.55	34938	8.78***
% PP	22.20	6.56	662	24.18	12.23	34938	1.98***
% PSOE	21.42	4.26	662	22.29	6.67	34938	0.87***
% Sumar	6.84	2.66	662	8.17	4.24	34938	1.33***
% Territorial	10.96	4.84	662	5.48	10.75	34938	-5.48***
% Other	1.19	0.50	662	1.01	0.92	34938	-0.18***
% Protest	1.46	0.60	662	1.33	0.90	34938	-0.12***
% Abstention	35.94	7.75	662	28.75	8.35	34938	-7.19***
% Right	22.23	5.91	662	30.86	14.04	34938	8.63***
Election 2019							
% Vox	6.96	2.04	662	10.37	5.73	34938	3.41***
% PP	12.31	4.66	662	15.99	9.53	34938	3.68***
% PSOE	17.53	3.73	662	19.62	7.11	34938	2.09***
% Sumar	9.31	3.42	662	9.90	5.02	34938	0.59***
% Territorial	10.14	4.58	662	7.37	14.59	34938	-2.77***
% Other	1.36	0.58	662	1.12	0.94	34938	-0.24***
% Protest	1.02	0.43	662	1.37	0.93	34938	0.34***
% Abstention	38.41	7.75	662	29.76	7.96	34938	-8.64***
Economics and Sociodemographics							
% Foreign Nationality	10.79	11.58	662	10.19	8.85	33575	-0.61
% Higher Education	25.34	10.91	662	26.47	12.41	33575	1.13**
Mean Age	44.07	3.12	662	45.45	5.61	34938	1.38***
% Unemployed	25.06	6.46	662	17.08	8.13	33575	-7.98***
Mean Income	30282.02	8136.57	662	33074.25	10617.89	34924	2792.23***
Population of Mun	93357.69	82238.13	662	381455.87	847970.75	34938	288098.18***

Note: The unit of observation is a census tract. Vote shares are expressed in terms of the census, not as a share of valid votes. Territorial parties include the ones listed in Footnote 17. Economics and sociodemographics refer to 2021 (the last available year). * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

5.47% in the rest of Spain).²⁰ On the other hand, abstention is higher in Tenerife than in the rest of Spain (36.03% vs. 28.84%).

Regarding economic and sociodemographic variables, Tenerife has a slightly younger population, a similar share of foreigners, and a slightly less educated population than the rest of Spain. Also, Tenerife has a higher unemployment rate (25% vs. 17%) and is a bit poorer.²¹

²⁰The differences in voting behavior between Tenerife and the rest of Spain were a bit larger in November 2019. Nonetheless, the constituency was not a large outlier in terms of voting behavior. Recall that in that election, Ciudadanos also ran. Its votes are counted in the “Right” bloc for 2019.

²¹We are not too concerned about the differences in the unemployment rate. The measured average unemployment rate in the Canary Islands has historically been higher than in other parts of Spain due to the region’s heavy dependence on tourism and its seasonal fluctuations. This difference in measured unemployment rates has not translated in the past into differences in electoral behavior.

2.5 Seat Allocation in Tenerife

In November 2019, the seven seats in Tenerife were apportioned as follows: PSOE (first seat), PP (second seat), CC (third seat), PSOE (fourth seat), Sumar (which ran under a different name as a coalition between Podemos and the United Left; fifth seat), Vox (sixth seat), and PP (seventh and last seat). That is, PSOE and PP got two seats each, while CC, Sumar, and Vox got one each.

In July 2023, the seven seats were apportioned as follows: PP (first seat), PSOE (second seat), PP (third seat), PSOE (fourth seat), CC (fifth seat), PP (sixth seat), and PSOE (seventh and last seat). Sumar failed to gain a seat by 1,565 votes out of roughly half a million votes cast. That is, PSOE and PP got three seats each, and CC got one seat.

3 Research Design I: Matching

In this section, we present our first approach to estimating the causal effect of Vox’s absence from electoral competition on the vote shares of other political parties by employing a matching approach. We also describe a counterfactual seat assignment and discuss the robustness of our results.

3.1 Empirical Strategy

Matching estimation is based on the idea of creating a control group that is statistically similar to the treatment group in terms of observed covariates. It proceeds in two steps. First, it matches each census tract where Vox did not run (treatment group) with one comparable census tract where Vox did participate (control group). Second, for each dependent variable j , the average treatment effects on the treated (ATT) is calculated as the difference in the values of each variable between the matched treatment and control groups:

$$ATT_j = \frac{1}{N_t} \sum_{c \in T} (Y_{c1} - Y_{c0}),$$

where N_t is the number of treated sections, T denotes the set of treated tracts, $Y_{j,c1}$ is the dependent variable j in the treated tracts c , and $Y_{j,c0}$ is the corresponding vote share in the matched control tract.

Our identification assumption is that there was no shock specific to census tracts in the Tenerife province that changed voting behavior from 2019 to 2023 for reasons other than Vox’s absence. While this assumption is not directly testable, it is likely to hold. First, we are not

aware of any event in this period that could have differentially affected Tenerife.²² Second, the results are robust to matching on the local election results of May 2023—just two months before the general election. While local elections contain an idiosyncratic component, they also correlate with general election results, as shown in Table E.1. Hence, if some economic or political fundamentals changed from 2019 to May 2023, matching on such results would pick it up. Third, we use the results for the Senate election in Tenerife; see Section 5.

We match directly on the Mahalanobis distance between the covariates with a caliper method, which involves pairing each treated unit with one control unit that differs by no more than a predetermined threshold. We find that using covariate Mahalanobis matching performs better than the main alternative, propensity score matching (PSM). Mahalanobis matching is particularly good at balancing covariates between treated and control groups across the entire distribution of the covariates, not just on average, as is the case with PSM (King and Nielsen, 2019). In fact, we are able to obtain good matches not only on the mean of the covariates but also on their variances (see the next section). In comparison, we do not achieve that goal with PSM.²³

Ideally, one would want to match treatment and control census tracts on as many relevant variables as possible. However, adding too many variables runs into dimensionality problems, reducing the quality of matches. Our preferred choice is to match based on the votes of the parties (Vox, PP, PSOE, Sumar, and territorial parties) in the previous general election, as we find that they are excellent predictors of voter behavior.²⁴

Hence, in our baseline specification, we will compare the electoral results in census tracts that voted similarly in November 2019. We will show the robustness of our results to also matching on a set of sociodemographic and economic controls and on the local election results of May 2023. We will also show the results when, instead of matching CC vote share with any territorial vote, we do so with only the right-wing territorial vote share. As explained in Section 2, CC shares a territorial and a right-wing component. In 2019, it ran in coalition

²²There was a change in the regional government following the 2023 regional elections, but this also affected the Las Palmas province and many other regions in our control group. Perhaps a bigger shock was the 2021 Cumbre Vieja volcanic eruption on La Palma island in the Santa Cruz de Tenerife province. However, the effects were very circumscribed to a small portion of the island, which has a total population of only 83,875 inhabitants. Our results are unchanged when we drop La Palma from our sample.

²³Mahalanobis matching has been shown to be robust under different settings (Zhao, 2004). Given that Mahalanobis distance takes into account the covariance between variables, it can be less susceptible to outliers in the covariate space compared to PSM. Also, unlike PSM, Mahalanobis matching does not require the specification of a model for the treatment assignment, reducing the risk of misspecification.

²⁴Column (1) of Appendix Table E.1 shows the results of a regression of our main outcome (vote share of the right in the 2023 general election) on the vote shares of Vox, PP, PSOE, and Sumar at the 2019 election. The R^2 of the regression is 0.94, an excellent value for microdata. The rest of the columns show that the set of sociodemographic and economic controls, the election results of April 2019, or the local election results of May 2023 also help predict votes in the 2023 general election but do not add as much explanatory power.

with a NC, a left-wing party, so it is more natural to match it with all territorial parties in our baseline analysis.

One important aspect of Mahalanobis matching is the caliper, i.e., how distant treated and control units are allowed to be in terms of the matched variables. There is a trade-off between bias and efficiency. A smaller caliper ensures more similarity, hence reducing potential bias, but also reduces the number of available observations. In our baseline specification, we consider a caliper of 0.05, which we show leads to a good balance in the treatment and control samples. Still, we study the robustness of the results to a wide range of calipers. When matching on additional variables (e.g., sociodemographics and economic variables), we do not impose a caliper in order to increase the number of observations.

Table 2: Examples of Matches

Province	Municipality	% Vox	% PP	% PSOE	% Sumar	% Terr	Dist
Tenerife	Arona	8.36	9.95	16.24	7.17	7.01	
Las Palmas	Sta. Lucía de Tirajana	8.79	10.14	16.45	7.11	5.83	0.01
Tenerife	S. Cr. de La Laguna	5.76	11.53	17.72	15.58	7.68	
La Coruña	Narón	5.63	11.80	19.13	15.74	6.60	0.05
Tenerife	S. Cr. de Tenerife	4.06	7.08	16.36	12.41	9.16	
Las Palmas	Las Palmas G.C.	4.34	8.57	17.71	12.23	5.49	0.09

Notes: Statistics for three pairs of census tracts that are matched in our baseline specification (Table 3). The statistics refer to one specific census tract in the indicated municipalities, not to the whole municipality. The last column displays the Mahalanobis distance between the two census tracts in each pair.

To get some intuition on what these magnitudes mean, Table 2 provides three examples of matches, from an outstanding one to a good one. The first example shows a match with a distance of just 0.01: a census tract in Santa Lucía de Tirajana in Las Palmas vs. a census tract in Arona. Both are municipalities in the Canary Islands with a population of around 80,000 inhabitants and with a strong presence of Vox. In the second match, we see that one census tract in San Cristóbal de La Laguna in Tenerife is matched to a census tract in the Narón municipality in Galicia. The Mahalanobis distance between these two census tracts is 0.05. San Cristóbal de La Laguna and Narón are mid-size cities with a strong left-wing presence and a territorial party with some (but not strong) electoral weight. The third example shows a match of a census tract in the capital of Tenerife, Santa Cruz de Tenerife, and one in Las Palmas de Gran Canaria, the capital city of the Las Palmas province. These are the two largest cities in the Canary Islands. The distance here is 0.09, which is close to the largest we allow in the baseline specification.

3.2 Results

Table E.3 in the Appendix shows the number of census tracts matched by province. Most census tracts come from Catalonia, Galicia, and Las Palmas. This result is not a surprise. Many parts of the metropolitan areas of Catalonia and Galicia have a share of votes for nationalist parties in the general elections that are roughly the same as those of CC in Tenerife. Las Palmas is the other province in the Canary Islands and, therefore, one with many cultural and socioeconomic similarities.

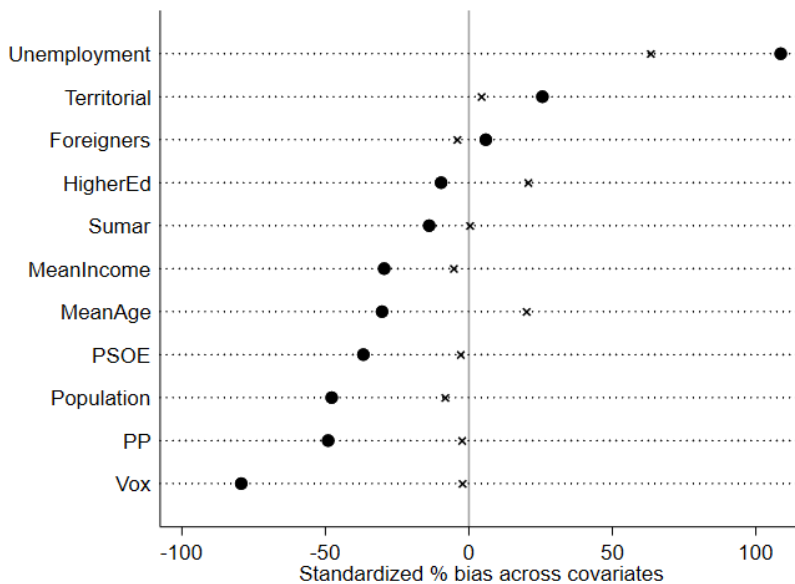


Figure 1: Means in Unmatched and Matched Data

Notes: Standardized bias for unmatched (large dots) and matched (small dots) census tracts in our baseline specification (Table 3). The standardized bias is defined as the % difference of the sample means in the treated and non-treated sub-samples as a percentage of the square root of the average of the sample variances in the treated and non-treated groups (Rosenbaum and Rubin, 1985).

Figure 1 shows balance tests between treated and control units in means. Table E.2 in the Appendix provides full details of the balance tests. The matched sample reduces the imbalance in terms of both mean and variance. After matching, there are no statistically significant differences across the matched dimensions, with p-values close to 1. Also, we achieve almost parity in the variances between the two samples. We also see that the matching reduces imbalances in our sociodemographic and economic variables even though we do not match on them. Quantitatively meaningful differences remain only in the unemployment rate. As we argued before, we are not too concerned about those. Nonetheless, we will also show the results of matching on these variables.

Table 3 shows the results for our preferred specification. In addition to providing the p.p. effects, the “transfers” row of Table 3 shows the percent of Vox votes that we estimate go to the other options, namely, votes for PP, PSOE, Sumar, the territorial parties, other parties, protest votes, or abstention. These are net transfers, i.e., the final balance of transfers, as we cannot estimate gross transfers, e.g., Vox’s absence makes some Vox voters switch to party B, and some party B voters switch to party C.

Table 3: Matching: Effects of Vox Absence on Election Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	% Right	% Vox	% PP	% PSOE	% Sumar	% Terr	% Other	% Protest	% Abs
No Vox	-3.44*** (0.80)	-7.28*** (0.18)	3.85*** (0.73)	-0.21 (0.71)	-0.13 (0.25)	1.84*** (0.41)	0.52*** (0.046)	0.37*** (0.059)	1.05 (1.12)
<i>Mean_Y</i>	33.0	8.78	24.2	22.3	8.17	5.48	1.01	1.33	28.8
Transfers	-47.2	-100	52.8	-2.82	-1.72	25.2	7.15	5.02	14.4
Obs	714	714	714	714	714	714	714	714	714

Notes: The unit of observation is a census tract. Each column shows the results of a Mahalanobis matching estimation of the indicated dependent variable on a dummy, indicating whether Vox did not run in the census tract. Matched variables are the vote shares of Vox, PP, PSOE, Sumar, and territorial parties in the previous general election (November 2019). Caliper = 0.1. *Mean_Y* indicates the mean of the dependent variable for the control group (Treatment=0). Transfers are calculated as $-100\beta_i/\beta_{Vox}$, i.e., they indicate the estimated share of Vox votes that switch to each option. Standard errors following [Abadie and Imbens \(2006\)](#) in parentheses. *p<0.1; **p<0.05; ***p<0.01.

The first column of Table 3 indicates that the right (PP+Vox) lost a 3.44 p.p. vote share due to Vox’s absence. Given the mean vote for the right in the control group (33%), this implies that Vox’s absence reduces the number of votes for the right by 10.4% (=3.44/33). Column (2) shows that we estimate that Vox would have obtained a 7.28% vote share had it been able to present a slate of candidates in Tenerife. The rest of the columns decompose this effect: note that the sum of the estimates from columns (3) to (9) is equal to the estimate from column (2). Similarly, the sum of the transfers from those columns adds up to 100.

Column (3) shows that Vox’s absence increased the PP’s vote share by 3.85 p.p. Given the PP mean vote in the control group (24.2%), this amounts to PP’s votes increasing by 15.9%. We estimate that the 52.8% of Vox votes are transferred to the PP.

The other two national parties, PSOE and Sumar, would have seen their vote shares and total votes largely unchanged (-0.21 p.p. for PSOE, column 4, and -0.13 p.p. for Sumar, column 5). A zero effect is well within one standard error for both parties. This result is not a surprise since PSOE and Sumar are ideologically very far away from Vox, and it is unlikely that many potential voters from Vox would have moved to them.

The territorial party, CC, got an additional 1.84 p.p. vote share, or 33.6% additional votes, capturing 25.2% of the transfers from Vox (column 6). This transfer between both parties seems plausible. The Spanish party system is structured around a left/right cleavage and

centralization/decentralization cleavage. CC is a territorial party that favors strong regional powers. Thus, CC is opposed to Vox’s wishes to return power from the regions to Madrid and has repeatedly expressed its opposition to any coalition agreement with Vox.²⁵ However, CC also has a center-to-center-right political position on other issues that make it closer to Vox. In particular, both CC and Vox have a tough stand against immigration from Africa, a salient political issue in the Canary Islands. Thus, many Vox’s voters might find that CC is their second choice.²⁶ In fact, the evidence that we will present in Section 8 suggests that a non-trivial share of Vox voters dislike PP, a party with which Vox has kept acrimonious relations from the day Vox’s founders broke away from it, so much that they prefer to jump to a party like CC, which is less ideologically aligned with them. If we consider CC as a classical right party, our estimates imply that the classical right captures 78% of the Vox vote (52.8% to PP and 25.2% to CC).

We estimate that many of the votes lost by the right as a whole went to other parties and protest votes. Other parties’ vote share increased by 0.52 p.p.²⁷ Protest votes increased by 0.37 p.p. This is a very large increase. Given that the baseline of protest votes is 1.33% of the census, our estimate implies that such votes increased by 27.8%. Combining other parties and protest votes, our estimates imply that 12% of the Vox votes went to either of these two options. This is interesting because, given that neither of these two options could be expected to be instrumental in that election, it points to a sizable share of expressive voting.

Finally, we estimate that 14.4% of the Vox vote share went to abstention, which increased by 1.05 p.p. This effect is not statistically significant in our baseline specification but becomes so with less demanding calipers and some alternative specifications (see our robustness discussion below).

3.3 A Counterfactual Seat Allocation

Given the results in Table 3, what would have been the counterfactual seat allocation in Tenerife had Vox run? Our point estimates suggest that Vox would have kept its seat at the

²⁵See <https://rtvc.es/coalicion-canaria-descarta-voto-investidura-vox-sumar/>.

²⁶A well-known fact of the Canary Islands elections is the existence of many voters who switch between a national party in general elections and a territorial party in regional and local elections. For instance, CC got around 60% more votes in the regional election of May 28, 2023, than in the general election of July 23, 2023, a pattern repeated for decades. Hence, many Vox voters might have already voted for CC in the past. Also, given the polls, it was easier for CC to get a second seat in Congress than for PP to get a fourth one at the expense of the left-wing parties. Thus, strategically, a vote for CC might have a more marginal effect in tilting the lower house toward the right, a desirable outcome for most Vox voters. Unfortunately, our research design cannot confirm or deny any of these conjectures.

²⁷The two most relevant among these parties are an environmentalist party, Partido Animalista con el Medio Ambiente, and a left-wing Spanish nationalist party, Frente Obrero, which may have attracted some of the more pro-labor Vox votes.

expense of PP, which would have lost its third seat. In other words, the allocation would have been PSOE (3), PP (2), CC (1), and Vox (1).

3.4 Robustness

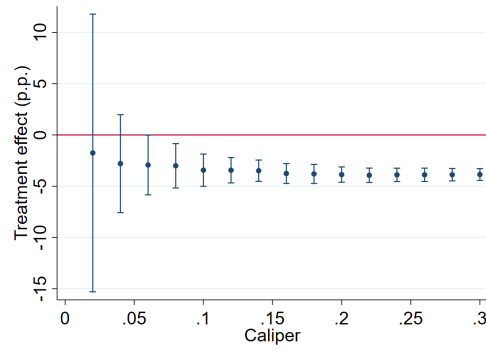
Figure 2 studies the robustness of the results to the caliper choice, i.e., how distant we allow matches to be. The figure demonstrates that our results, especially regarding the effects on votes for the right, Vox, PP, PSOE, and Sumar, are quite robust. The only result that is less robust is votes for territorial parties, as they are only present in some of the constituencies, limiting the total number of good matches when we reduce the caliper too much. Fortunately, for our main point—the impact of Vox on the total votes for the right and the votes to the classical right, this relative lack of robustness is not terribly important.

Tables E.4 and E.5 in the Appendix show the results of multiple robustness checks. Column (1) shows the baseline results. Column (2) shows the results with the whole sample (unrestricted caliper). This column facilitates comparison with the rest of the columns, in which we also use such a sample. Column (3) matches also on our set of sociodemographic and economic variables described in Section 2.4 and on the local elections of May 2023. Column (4) restricts the sample to regions with strong regional parties: Catalonia, the Basque Country, Navarre, Galicia, and the Canary Islands. Column (5) further restricts the sample, focusing on just Tenerife and Las Palmas, which, being the other province in the Canary Islands, may arguably be the province most similar to Tenerife. Column (6) matches on territorial right-wing parties rather than all territorial parties.²⁸ Finally, column (7) uses PSM rather than direct matching.

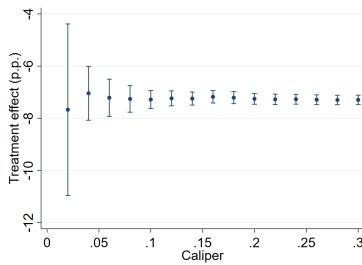
All the results point to the classical right losing support when the new right is absent, as in our baseline estimates. The PP is expected to receive a transfer ranging from 35% to 79% of Vox votes. This range of variation is almost fully accounted for by the variation in the territorial (CC) votes. Hence, our estimate of the combined vote share gains to PP and CC is quite stable around our baseline of 78%. The rest of the results are very stable across specifications, with Vox’s absence leaving the left’s vote roughly unchanged, increasing the share of protest votes, and, in some specifications, abstention. Finally, in the last two panels of Table E.5, we decompose protest votes into blank and null votes. We see that both increase following Vox’s absence, but this effect is particularly large for blank votes. This makes sense because blank votes are probably less likely to be accidental than null votes. In the baseline specification, blank votes increase by 38%, from 0.58% to 0.80% of the electoral census.

²⁸We consider CC, NC, Junts, and Partido Nacionalista Vasco as territorial right-wing parties.

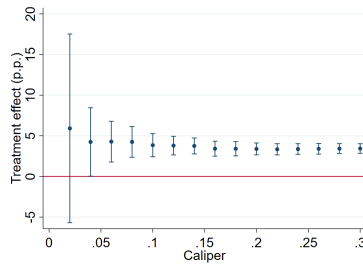
Figure 2: Matching: Robustness to Caliper



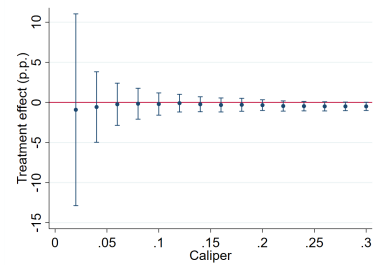
(a) Right



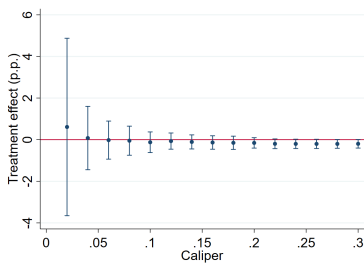
(b) Vox



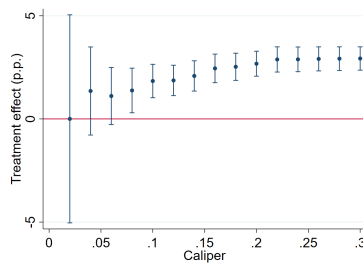
(c) PP



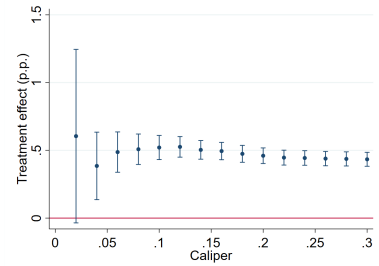
(d) PSOE



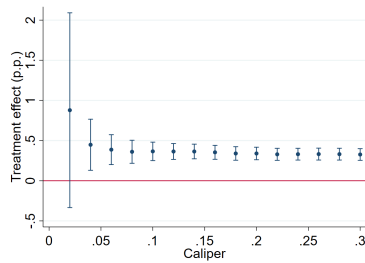
(e) Sumar



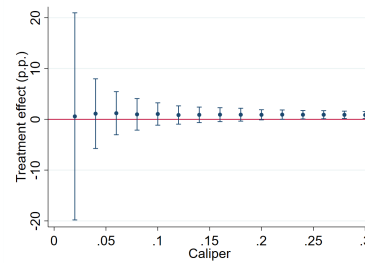
(f) Territorial



(g) Other Parties



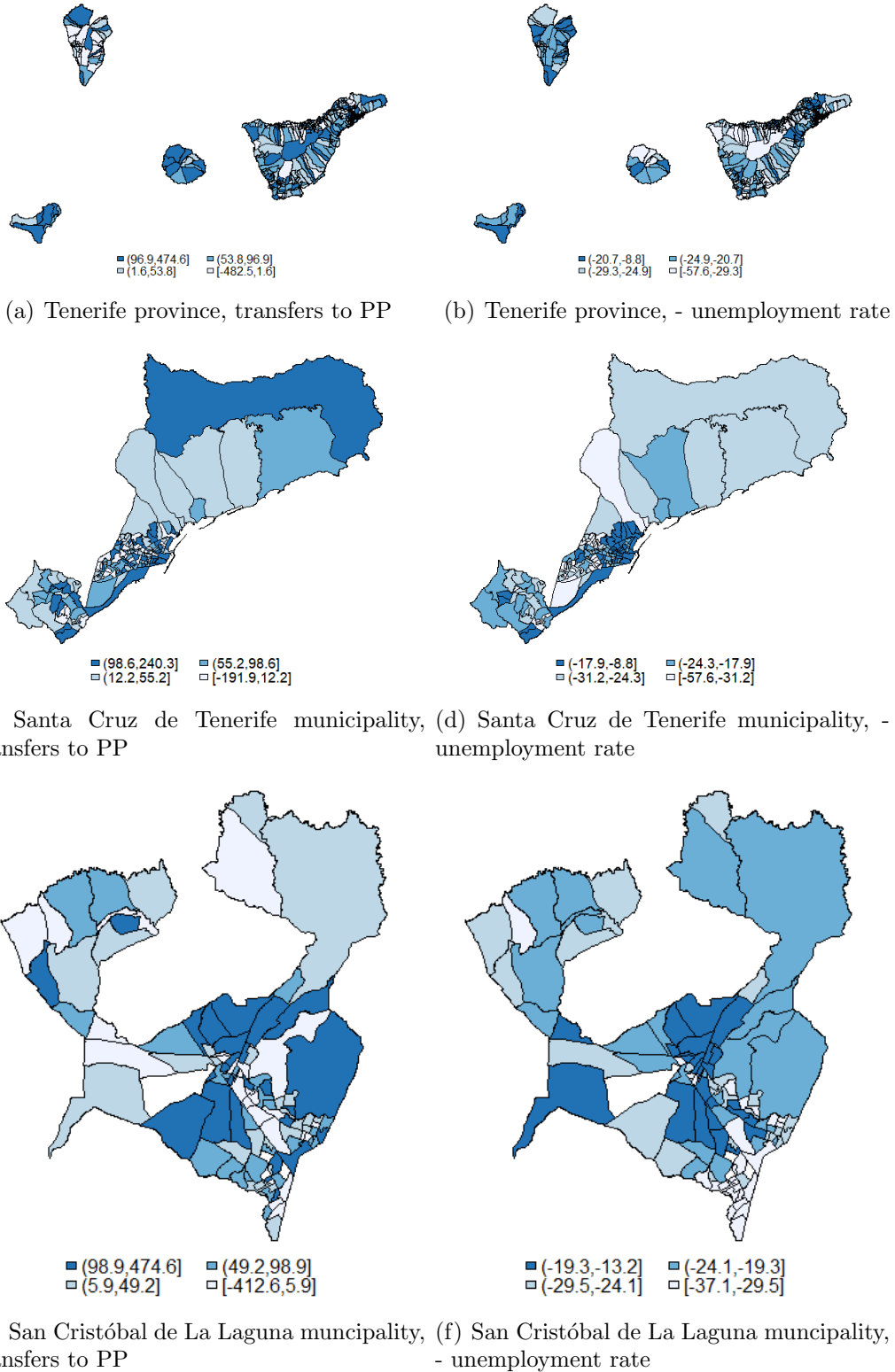
(h) Protest



(i) Abstention

Notes: Each figure shows the point estimates and 95% confidence intervals from a Mahalanobis matching estimation of the corresponding dependent variable on a dummy, indicating whether Vox did or did not run in the census tract. The unit of observation is a census tract. The x-axis shows the caliper used. Matched variables are the vote shares of Vox, PP, PSOE, Sumar, and territorial parties in the previous general election (November 2019). Confidence intervals calculated following [Abadie and Imbens \(2006\)](#).

Figure 3: PP's Vote Gains and Unemployment by Census Tract



Notes: Census tracts in the whole Tenerife province or Santa Cruz de Tenerife or La Laguna municipalities, according to the effect that Vox's absence had on PP's vote share by quartile (darker blue means more PP gains) or the unemployment rate (darker blue means a lower unemployment rate).

3.5 Heterogeneity

Next, we study the heterogeneity of the effects documented in Table 3. Figure 3 shows the map of the census tracts in the Tenerife province according to the effect that Vox’s absence had on PP’s vote by quartile (darker blue means a higher increase in the vote share for PP). We also zoom in on the two main cities in the Tenerife province, Santa Cruz de Tenerife (the capital) and La Laguna. The right-hand side of Figure 3 shows, analogously, the unemployment rate in the same geographical areas (darker blue means a lower unemployment rate). There is a striking correlation between the two, with PP benefiting more from Vox’s absence in those areas with lower unemployment.

To analyze this correlation formally, we estimate regressions at the census-tract level where the dependent variable is the PP’s estimated vote gain, and the independent variables are our set of economic and sociodemographic variables. Using vote gains by the right as the dependent variable is equivalent to using vote gains by PP, given that one is a linear transformation of the other. We bootstrap the standard errors to account for the fact that the dependent variable has been estimated.

Table 4 shows the results. In the first two columns, the dependent variable is obtained from the baseline specification (i.e., column (1) of Table E.4), while in the last two columns it is obtained from the specification with a larger caliper (i.e., column (2) of Table E.4). Columns (2) and (4) add municipality fixed effects, so we are comparing vote gains by PP in census tracts within the same municipality.

The results point to strong heterogeneities in the unemployment rate. An increase of 1 p.p. in the unemployment rate is associated with 2.73 to 6.81 p.p. fewer vote gains by PP, depending on the specification. Similarly, the PP gains more from Vox’s absence in larger municipalities. There is no significant correlation of PP vote gains with income, or age, and the correlation with the share of foreigners depends on the specification (with point estimates suggesting that PP gains more where there are more foreigners). An apparently counter-intuitive result is that an increase of 1 p.p. in the share of individuals with higher education is associated with 2.33 to 3.60 p.p. fewer vote gains for PP. However, these are conditional correlations. When we look at the simple regression of PP vote gains on the share with higher education, we obtain an insignificant and close to zero point estimate across specifications. This might be due to the fact that Spain is one of the advanced economies with the highest “overeducated” rate in terms of the mismatch between workers’ education and the jobs they occupy, with the subsequent wage penalty (Nieto, 2014; Pascual Sáez et al., 2016).

Our research design, as we mentioned above, does not allow us to ascertain whether the votes gained by PP (or any other party) were voters that could not vote for Vox.²⁹

²⁹For example, it is possible (although improbable) that Vox’s absence from the ballot induced some PSOE

Table 4: Correlates of PP's Vote Increases

	(1)	(2)	(3)	(4)
	Base. Samp.	+FE	Larger Samp.	+FE
% Unemployed	-6.81*** (1.71)	-4.72*** (1.82)	-2.73** (1.34)	-2.99** (1.26)
Mean Income	0.00027 (0.0017)	0.00025 (0.0022)	0.0024** (0.00097)	0.0022 (0.0017)
% Foreign Nationality	1.28*** (0.30)	0.74 (1.17)	1.16*** (0.25)	0.56 (0.88)
% Higher Education	-3.60*** (1.04)	-2.33 (1.98)	-2.54*** (0.79)	-2.68** (1.05)
Mean Age	-1.99 (1.82)	0.57 (1.91)	-1.22 (1.31)	0.15 (1.19)
Pop. of Mun. (log)	0.00028*** (0.000060)		0.00019*** (0.000051)	
<i>Mean_Y</i>	40.2	40.2	39.8	39.8
<i>R</i> ²	0.091	0.026	0.050	0.025
N	357	357	662	662

Notes: Each column shows the results of a regression of the estimated share of Vox votes that switch to PP on the indicated variables. The unit of observation is a census tract in the Tenerife province. In columns (1) and (2), the estimated switchers are obtained from the baseline matching specification (i.e., column (1) of Table E.4), while in columns (3) and (4) they are obtained from the specification with a larger caliper (i.e., column (2) of Table E.4). Columns (2) and (4) add municipality fixed effects. *Mean_Y* indicates the mean of the dependent variable for the control group (Treatment=0). Robust standard errors are in parentheses. *p<0.1; **p<0.05; ***p<0.01.

However, given the relative ideological affinity between the two parties, this is the most likely explanation for the swing in favor of PP. The results in Table 4 suggest that in those areas with lower unemployment, Vox's voters are closer to PP and switch between the two parties more easily. For these voters, Vox is a more assertive form of PP. In comparison, in areas with higher unemployment, Vox's voters belong, to an important degree, with a set of voters who do not identify with PP.

voters to switch to PP, accounting for PP's vote gains. In contrast, in this unlikely but possible example, Vox voters moved to PSOE, leaving PSOE's vote share roughly unchanged.

3.6 Taking Stock

Taking advantage of a quasi-natural experiment, we have used a matching approach to estimate that the right lost 3.44 p.p. of the vote due to the absence of Vox. We have also seen that this result is robust to a number of robustness checks. Finally, we have provided evidence of heterogeneity in the magnitude of the effects.

4 Research Design II: Synthetic Controls

Our second approach to estimating the causal effect of the absence of Vox from electoral competition on the vote shares of other political parties is to employ a synthetic control method (SCM) (Abadie et al., 2010; see Abadie, 2021, for a recent review). This research design takes advantage of the fact that seat allocation in Spain is done at the level of the electoral constituency to build a “synthetic” Tenerife. Data are also the same as before, but aggregated at the province level (i.e., the electoral constituency except for Ceuta and Melilla).

4.1 Empirical Strategy

Our treatment group consists of Tenerife, the province where Vox did not participate. The control group includes other provinces where Vox ran as usual. The SCM approach involves constructing a synthetic version of the treated province using a weighted average of control provinces. We estimate the effect of Vox’s non-participation by comparing the actual 2023 election outcomes in the treated province to the ones in its synthetic control. The difference in these outcomes post-intervention provides an estimate of the causal effect:

$$\text{Effect} = Y_{\text{Treated, Post}} - Y_{\text{Synthetic, Post}}$$

Analogously to our matching estimation, we chose the weights to minimize the differences in the previous election’s (November 2019) vote shares for PP, PSOE, Sumar, and territorial parties between the treated province and the synthetic control. We also show the robustness to minimizing the distance in the economic and sociodemographic covariates, the May 2023 local election results, and past election results. The estimated effects’ statistical significance is assessed via permutation tests, which involve recalculating the effect after randomly reassigning treatment status across provinces and comparing the observed effect to this reference distribution.

Table E.6 shows the summary statistics at the province level. To make results comparable

to the ones in Sections 3 and 7, we do not include the vote from citizens living abroad.³⁰

How does the SCM estimation differ from the matching estimation considered in Section 3? The SCM operates on the premise that when a limited number of aggregate entities are observed, a blend of unaffected units may offer a more suitable comparison than any single unaffected unit by itself. This approach reduces extrapolation by minimizing the reliance on potentially dissimilar control units, which might be the case in matching if exact matches are not available. On the other hand, matching allows for the use of potentially more informative disaggregated data.³¹ Also, matching allows for controlling the quality of the matches through the selection of covariates, the method of matching, and the definition of acceptable matches (using calipers). Finally, while the SCM requires a specific model to estimate the weights of control units, matching can be less sensitive to the assumptions about the functional form relating covariates to outcomes.

We use both approaches, matching and SCM, because they complement each other in their strengths and weaknesses. Since the results we get with each approach are very similar, we increase the credibility of our causality analysis.

4.2 Results

Table E.7 in the Appendix shows the weights that each province gets for all the outcomes considered. Not surprisingly, Las Palmas gets the highest weight, around 70%. Other provinces with sizable weights include Guipúzcoa and Orense.

In our baseline analysis, we match on the last general election’s vote shares (November 2019). Thus, we can check, as an out-of-sample validation of our research design, how well the synthetic panel predicts previous elections. We do so with Figure 4, which shows the trajectories of the dependent variables for Tenerife and the “synthetic Tenerife.”³² Statistical significance is assessed with placebo tests by applying the SCM to control provinces and verifying that no significant effects are detected when no intervention is actually present.

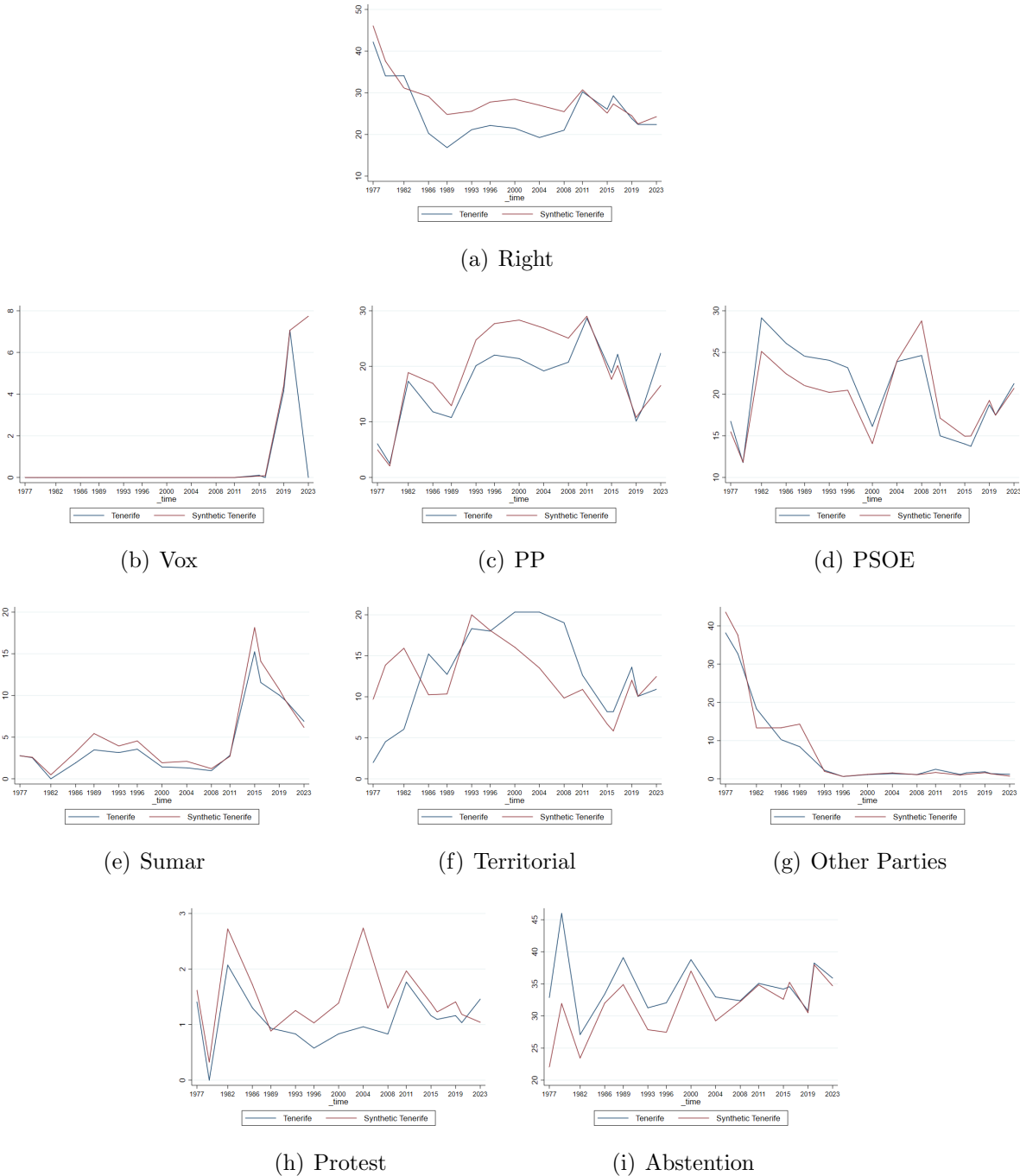
³⁰Votes from citizens living abroad (the “censo electoral de residentes-ausentes,” or CERA) is not assigned to any specific census tract and, therefore, are not included in our analysis in Section 3. Furthermore, those citizens are not allowed to vote in local elections, so they are not included in the analysis in Section 7. We checked that all the SCM results remain very similar when we include the CERA vote in the province-level analysis. This was expected, as there are few CERA votes in any given election.

³¹It might be possible to also do SCM at a more disaggregated unit of observation like census tracts. However, when there are many treated units, creating a synthetic control for each treated unit becomes less precise. Matching is more practical in these scenarios, especially when a large pool of potential control units is available to find good matches for all treated units.

³²In Subsection 4.3, we also run a specification when we matched in all elections since Vox first ran in 2015. However, matching elections before 2019 is a bad idea: Vox only started participating in 2015, and in its first two appearances on the ballot (2015 and 2016), it got only 0.2% of the votes. Thus, if we match earlier elections, we found that SCM delivers poor results. In comparison, matching only November 2019 explains well the elections since 2011, and we keep enough observations to validate our procedure.

Figure E.1 in the Appendix shows the results of these tests.

Figure 4: Synthetic Controls: Effects of Vox’s Absence on the Election Results



Notes: Each figure shows the evolution of the indicated variable for the treated province (Tenerife) and its synthetic control. Weights were calculated to minimize the distance to the vote shares of Vox, PP, PSOE, Sumar, and territorial parties in the previous general election (November 2019).

First, the pre-event trajectories are mostly parallel since the 2011 election. This is partic-

ularly true for the right bloc, PSOE, and Sumar. Focus on the top panel: the right (only PP) underperformed in Tenerife in the July 2023 election with respect to its synthetic equivalent. To understand this underperformance better, look at the left and center panels of the second row (Vox and PP): we can see how Vox would have continued increasing its voting share with respect to November 2019 and how PP’s actual vote share in Tenerife outperformed its synthetic equivalent. Figure 4 is also suggestive that Vox’s absence increases protest votes.

Table 5: Synthetic Controls: Effects of Vox Absence on Election Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	% Right	% Vox	% PP	% PSOE	% Sumar	% Terr	% Other	% Protest	% Abs
No Vox	-1.89 [0.33]	-7.74*** [0]	5.84** [0.039]	0.57 [0.69]	0.73 [0.39]	-1.55 [0.24]	0.48 [0.24]	0.42* [0.078]	1.21 [0.45]
<i>Mean_Y</i>	34.2	8.99	25.2	22.3	6.67	5.15	0.97	1.36	29.3
Transfers	-24.4	-100	75.4	7.32	9.40	-20.0	6.14	5.37	15.7

Notes: The unit of observation is an electoral district (50 provinces plus Ceuta and Melilla)-election. Each column shows the results of an SCM estimation of the indicated dependent variable on a Tenerife dummy. Weights were calculated to minimize the distance to the vote shares of Vox, PP, PSOE, Sumar, and territorial parties in the previous general election (November 2019). *Mean_Y* indicates the mean of the dependent variable for the control group (Treatment=0). Transfers are calculated as $-100\beta_i/\beta_{Vox}$, i.e., they indicate the estimated share of Vox votes that switch to each option. Permutation-test p-values in brackets. *p<0.1; **p<0.05; ***p<0.01.

Table 5 reports the estimated effects. The results are more imprecise than for matching but reveal a similar picture. The right lost a vote share of 1.89 p.p. (vs. 3.44 p.p. with matching) because of the absence of Vox. More concretely, Vox would have got 7.74 p.p. (vs. 7.28 p.p. with matching), and PP would have got 5.84 p.p. less (vs. 3.85 p.p. less with matching). In other words, we estimate roughly the same vote share for Vox. The main difference in the results is that, according to the SCM results, the PP benefited more from Vox’s absence than according to matching. For CC, SCM predicts a loss of 1.55 p.p., but this effect is non-significant. Hence, if we add up the transfers to PP and CC as classical right parties, SCM implies a 75.4% transfer—in line with our matching estimation. For the left parties, PSOE and Sumar, the results of SCM also point to close to zero effects. Finally, SCM also points to an increase in protest votes and abstention (but the latter is not significant).

4.3 Robustness

To validate our findings, we perform several robustness checks. See Tables E.8 and E.9 in the Appendix. Column (1) presents the baseline results for comparison. Then we show robustness when we minimize the distance to sociodemographic and economic covariates (column (2)), the outcome of the May 2023 local elections (column (3)), and the outcome of the April 2019 Congress elections (column (4)). Column (5) restricts the sample to regions with

strong regional parties—Catalonia, the Basque Country, Navarre, Galicia, and the Canary Islands. Column (6) matches on territorial right-wing parties. The results are very stable across specifications.

5 Research Design III: The Senate Election

For our third research design, we exploit the outcome of the Senate election in Tenerife in 2023. Vox’s problems with filling the list of candidates for Congress in Tenerife did not spill over to the Senate. While, for Congress, a party must present a list of candidates, candidates for the Senate run as individuals (although parties can endorse candidates and individuals are allowed to coordinate their electoral campaigns). In practice, the candidates are nearly always “asked” by the party to run. Vox did not suffer from any last-minute withdrawal of the candidates it had “asked” to run for the Senate in Tenerife.

Thus, we can look at Vox’s performance in the Senate races in Tenerife and get a sense of how it would have performed in the Congress election. By comparing votes for the Senate and Congress within the Tenerife province, we can control for idiosyncratic factors that may have affected electoral behavior in the Tenerife province in the 2023 general election.

On the other hand, a difficulty with this analysis is that the electoral system for the Senate is quasi-majoritarian, not proportional representation as in the Congress. This means that some assumptions need to be made on how to aggregate votes into parties. We discuss this point in Appendix B. Hence, we view this empirical analysis as a complement, not a substitute for the previous ones.

5.1 Empirical Strategy

We consider a triple-difference estimation of the form:

$$\begin{aligned}
 Y_{cth} = & \alpha + \beta_1 \text{Tenerife}_c + \beta_2 \text{Post}_t + \beta_3 \text{Congress}_h \\
 & + \beta_4 (\text{Post}_t \times \text{Tenerife}_c) + \beta_5 (\text{Post}_t \times \text{Congress}_h) + \beta_6 (\text{Tenerife}_c \times \text{Congress}_h) \\
 & + \beta_7 (\text{Post}_t \times \text{Tenerife}_c \times \text{Congress}_h) + \epsilon_{cth},
 \end{aligned} \tag{1}$$

where Y_{cth} is the vote share for a given party (or the share of protest votes or abstention) in census tract c in election year $t \in \{2019, 2023\}$ for election type $h \in \{\text{Congress}, \text{Senate}\}$, Tenerife_c is a dummy indicating whether the census tract is in the Tenerife province, Post_t is a dummy indicating whether the election year is 2023, and Congress_h is a dummy indicating whether the election type is Congress. Our estimate for the effect of Vox’s absence on the dependent variable will be given by β_7 . We restrict the sample to the census tracts in our

main matching specification. This ensures that the treated and control census tracts are very similar in past voting behavior. We cluster the standard errors at the province level.

Intuitively, equation (1) takes three differences. The first is how the vote share for a given party, let us say the PP, changed in the Tenerife province from the 2019 to the 2023 Congress election: $(\%PP_{\text{Tenerife}=1, \text{Congress}=1, \text{Post}=1} - \%PP_{\text{Tenerife}=1, \text{Congress}=1, \text{Post}=0})$. This would of course be a very naive estimation of the effect of Vox’s absence. The second difference takes the difference of the previous number with respect to the control census tracts from other provinces where Vox did run in 2023:

$$\begin{aligned} & (\%PP_{\text{Tenerife}=1, \text{Congress}=1, \text{Post}=1} - \%PP_{\text{Tenerife}=1, \text{Congress}=1, \text{Post}=0}) \\ & - (\%PP_{\text{Tenerife}=0, \text{Congress}=1, \text{Post}=1} - \%PP_{\text{Tenerife}=0, \text{Congress}=1, \text{Post}=0}). \end{aligned}$$

This controls for changes in electoral behavior from 2019 to 2023 that were common to the treated and control census tracts, e.g., the leader of a given party losing popularity all across the country. As discussed in Section 3, in the matching and SCM specifications, we cannot fully account for shocks that were specific to the Tenerife province. Taking the difference with the Senate election allows us to do so:

$$\begin{aligned} & [(\%PP_{\text{Tenerife}=1, \text{Congress}=1, \text{Post}=1} - \%PP_{\text{Tenerife}=1, \text{Congress}=1, \text{Post}=0}) \\ & - (\%PP_{\text{Tenerife}=0, \text{Congress}=1, \text{Post}=1} - \%PP_{\text{Tenerife}=0, \text{Congress}=1, \text{Post}=0})] \\ & - [(\%PP_{\text{Tenerife}=1, \text{Congress}=0, \text{Post}=1} - \%PP_{\text{Tenerife}=1, \text{Congress}=0, \text{Post}=0}) \\ & - (\%PP_{\text{Tenerife}=0, \text{Congress}=0, \text{Post}=1} - \%PP_{\text{Tenerife}=0, \text{Congress}=0, \text{Post}=0})]. \end{aligned}$$

The identification assumption requires only that from 2019 to 2023, there was no electoral shock (other than Vox’s absence from the Congress ballot) specific to the Senate election in Tenerife.

One possible violation of that assumption would be if Vox’s candidates for Senate in the Tenerife province were comparatively strong (or weak) in 2023. However, voting in Spanish general elections is usually along “party lines,” with a roughly 95% correlation between votes in both houses, and voters are not aware of who is running for their Senate constituency (even if just because the upper house’s political influence is limited). A second possible violation would be if Vox’s absence from the Congress ballot affects the vote in the Senate election, for example, by lowering the motivation of Vox voters to go to the polling station (either because voting for the Senate is not very important or because potential Vox voters were disappointed with the party’s infighting). Thus, we can think of our results from the Senate as a conservative lower bound on the potential votes Vox could have obtained in Tenerife.

5.2 Results

Table 6 reports the results. Column (1) shows that Vox’s absence reduced the vote share of the right by 2.05 p.p. This is very similar to the point estimate from the SCM. Column (2) gives our counterfactual for Vox, which is that it would have obtained a 7.46% vote share. Column (3) shows the estimates for the PP. We estimate that its vote share increased by 5.55 p.p. due to Vox’s absence and that it captured 74.4% of the Vox vote share, almost the same as our SCM estimate. Columns (4) to (6) show close to zero and insignificant effects for the left parties, PSOE and Sumar, for the territorial party, CC, and other parties.

Table 6: Using the Senate Election: Effects of Vox Presence on Election Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	% Right	% Vox	% PP	% PSOE	% Sumar	% Terr	% Other	% Protest	% Abs
Post	1.07 (0.93)	-0.061 (0.58)	4.93*** (1.19)	4.02*** (0.66)	-2.46*** (0.64)	-0.85 (2.17)	0.77 (0.90)	0.020 (0.28)	-2.58 (1.52)
Congress	-0.37 (0.53)	1.43*** (0.20)	-1.53*** (0.21)	0.0072 (0.15)	0.98** (0.39)	-1.31*** (0.23)	2.81** (1.04)	-1.71*** (0.056)	-0.40*** (0.11)
Congress x Post	1.54** (0.61)	0.16 (0.17)	1.11** (0.52)	-0.045 (0.48)	-0.11 (0.16)	0.16 (0.32)	-1.16 (0.78)	-0.14 (0.27)	-0.24 (0.18)
Tenerife	-0.54 (1.24)	-0.11 (0.27)	0.19 (1.14)	0.17 (0.55)	-0.29 (0.65)	-1.42 (0.97)	1.99* (1.13)	-0.24* (0.14)	0.32 (1.51)
Tenerife x Post	-0.67 (0.93)	0.39 (0.58)	-1.68 (1.19)	-0.48 (0.66)	-0.36 (0.64)	2.01 (2.17)	-0.70 (0.90)	0.19 (0.28)	0.0065 (1.52)
Tenerife x Congress	-0.38 (0.53)	-0.026 (0.20)	-0.49** (0.21)	-0.43*** (0.15)	0.35 (0.39)	1.82*** (0.23)	-1.66 (1.04)	0.022 (0.056)	0.27** (0.11)
Tenerife x Congress x Post	-2.05*** (0.61)	-7.46*** (0.17)	5.55*** (0.52)	0.52 (0.48)	0.15 (0.16)	-0.55 (0.32)	0.90 (0.78)	0.38 (0.27)	0.64*** (0.18)
Observations	2592	2592	2592	2592	2592	2592	2592	2592	2592
R^2	0.030	0.60	0.25	0.23	0.25	0.019	0.29	0.49	0.032
$Mean_Y$	23.2	5.67	13.7	18.0	8.93	10.2	-1.64	2.94	38.4
Transfers	-27.4	-100	74.4	7.04	2.03	-7.32	12.0	5.10	8.55

Notes: Each column shows the estimation of equation (5) for the indicated dependent variable. Sample restricted to census tracts from our baseline matching estimation. $Mean_Y$ indicates the mean of the dependent variable for the control group (Treatment=0). Transfers are calculated as $-100\beta_i/\beta_{Vox}$, i.e., they indicate the estimated share of Vox votes that switch to each option. Standard errors clustered by province in parentheses. *p<0.1; **p<0.05; ***p<0.01.

The effect for protest votes is also insignificant, although its magnitude is very similar to the one obtained with either matching or SCM. Finally, we estimate that Vox’s absence increased abstention by 0.64 p.p. Overall, the results are strikingly similar to the ones obtained with the two previous empirical designs.³³

³³In the November 2019 election, Vox did not run for the Senate on the islands of La Gomera and El Hierro. The results are unchanged if we drop those islands, which is not surprising given that there are only nine census tracts in those islands.

6 Counterfactuals and Interpretation

What would have been the result of a counterfactual election on July 23, 2023, in the whole of Spain without Vox? We can use the results from the previous sections to answer this question as follows. First, we assume that the absence of Vox leads to an increase in the votes of PP in the rest of Spain, which follows our counterfactuals in Tenerife, either in Table 3 or in Table 5. Second, we leave the votes of PSOE and Sumar unchanged: in both the matching and the SCM, the point estimates for the change in votes of these two parties are close to zero and statistically insignificant. Third, we assume that none of the Vox’s votes go to territorial parties.

This last assumption agrees with Table 5, where the territorial vote remains unchanged, but not with Table 3, where CC increases its votes by roughly 25% of Vox votes. In the 2023 general elections, territorial parties obtained seats in the Basque Country, Catalonia, the Canary Islands, Galicia, and Navarre. There are 14 electoral constituencies in these regions. In one, Tenerife, Vox did not run. In nine of the other 13 constituencies, Vox is so small that even if 100% of its votes had gone to the territorial parties (in any possible combination among them), the seat assignment would not have changed. In two constituencies (Lleida and Tarragona), using the results in Table 3 would not have changed the seat assignment. Thus, transferring 25% of Vox’s votes to territorial parties only has a potential effect on the last seat assignment in Las Palmas and Barcelona. In these two constituencies, however, several territorial parties ran. Vox’s absence would have only mattered if this 25% would have moved to either NC (in Las Palmas) or Candidatura d’Unitat Popular (in Barcelona). Given that both parties are on the left side of the political spectrum (and in the case of Candidatura d’Unitat Popular, very much so; also, it is vehemently pro-Catalan independence), we find it unlikely that 25% of Vox’s voters would have preferred them ahead of other more right-leaning territorial parties, PP, blank, null votes, or abstention.

Table 7 reports the results of our exercise. The first column of Table 7 reports the actual results. The right bloc got 171 deputies (33 for Vox and 138 for PP), PSOE 121, Sumar 31, and all territorial parties 28.³⁴

The second row of Table 7 reports the counterfactual election where Vox does not run and all its votes are transferred to PP. This row gives us a benchmark to compare the two more realistic counterfactuals below. In this case, PP obtains 181 deputies. This is relevant because the majority in the Spanish lower house is 176 votes. Hence, in this counterfactual, PP is able to form a majority government.

³⁴We include in the PP the one deputy of Unión del Pueblo Navarro. This small party ran in previous elections in a coalition with PP, and we used the total votes of both parties for our research designs above as part of PP. This deputy is not affected by any counterfactual.

Table 7: Counterfactual General Elections: Effects of Vox Presence on Election Outcomes

	Right	Vox	PP	PSOE	Sumar	Terr
Actual	171	33	138	121	31	27
Counterfactual I	181	0	181	114	29	26
Counterfactual II, Matching	169	0	169	124	31	26
Counterfactual III, SCM	173	0	173	121	30	26

Notes: Number of seats obtained by each party or group of parties in the 2023 general election.

The third row of Table 7 reports the counterfactual election where Vox does not run and, as in the matching design, PP increases its votes by around 53% of Vox’s actual votes (see Table 3). Now, the right loses two seats, falling to 168 deputies (all from PP). Even if PP only increases its votes by around 53% of Vox’s actual votes, this does not translate into large losses in the number of seats by the right: the D’Hondt rule penalizes fragmentation among parties, in particular when applied to the many electoral constituencies in Spain that elect few deputies. What the right loses in terms of total votes is nearly fully compensated by the gains in terms of seat assignment derived from vote concentration. PSOE gains the two seats lost by the right, while Sumar and the territorial parties remain unchanged.

The fourth row of Table 7 reports the counterfactual election where Vox does not run and, as in the SCM design, PP increases its votes by around 75% of Vox’s actual votes (see Table 5). Now, the right gains two seats (173 deputies vs. 171 in the actual vote), one from Sumar and one from the territorial parties. In other words, counterfactuals II and III imply roughly the same result.

Interestingly, in both these counterfactuals, the basic outcome of the election would have remained unchanged: the right bloc would have failed to gain a majority. Indeed, for the right to gain 176 deputies, PP would have needed to capture 86% of Vox’s votes, more than any of the specifications that we explore.

We ran several additional counterfactuals, such as conditioning the share of Vox’s votes transferred to PP on socio-economic factors (e.g., unemployment level). All these counterfactuals fall within the tight bounds of counterfactuals II and III in Table 7. Since most constituencies in Spain are small (five members or less), few seats change when we modify the details of the counterfactual. Thus, we skip details in the interest of space.

We need to acknowledge, however, the limitations of our counterfactuals. The absence of Vox from Tenerife changed the election in that constituency but not the national electoral strategies of the parties. For instance, PSOE repeatedly warned its potential voters that Vox was likely to enter into a coalition government with PP (or at least to provide external support) if PSOE did not perform well enough in the election. If Vox had not run in any

constituency, PSOE would have adopted a different national electoral strategy. Estimating those “general equilibrium effects” is beyond the scope of our paper.

Nonetheless, the absence of Vox in Tenerife did not significantly change the left’s vote in this constituency. If, as many commentators argued, Vox’s presence mobilized the left’s vote, one would have expected that less-motivated voters in Tenerife would have had a lower incentive to vote for PSOE or Sumar. And yet, we estimate that PSOE and Sumar performed exactly as one would have forecast without Vox.

Another issue to ponder is the reason for Vox’s absence, which was infighting within the party. One may wonder whether this turned some voters against the party and what the results would have been if Vox had been absent for other reasons. For example, we conjecture that if Vox were to be prevented from running by some element that could more easily be blamed on the system—the more extreme case would be the party being made illegal—the share of voters switching to the classical right would be lower than what we find. On the other hand, if Vox voluntarily decided not to run arguing for the unity of the right, then the switch might have been larger than in our estimates.

Finally, Vox’s absence was announced three weeks before the election and was widely reported in the press, so there are reasons to believe most voters were aware of it. Still, if some voters were unaware until getting to the polling station, they might have ended up voting for the classical right or casting a protest vote, given that they had already paid the cost of going to the station. Hence, we hypothesize that a counterfactual with perfect information would lead to a higher share of the Vox vote switching to abstention and a lower share switching to protest votes and the classical right.

7 Local Elections

How generalizable are the effects documented so far? Next, we provide additional evidence by exploiting the fact that Vox did not run in the local elections of 2019 or 2023 in many municipalities across Spain, even if the party had already become a relevant political actor. More concretely, we rely on this staggered expansion to provide evidence of Vox’s decisions to run and of the effects of Vox’s presence on other parties’ vote shares.³⁵ But let us first provide some institutional background.

³⁵Notice that this exercise is different from some of our previous robustness analyses. There, we use the results of local elections to match census tracts and compute the effect of Vox’s absence from the general election. Here, we will see the effect of Vox’s presence or absence in local elections on the results of the local elections themselves.

7.1 Local Elections in Spain

Local elections take place every four years on a fixed schedule in all municipalities in Spain. Municipalities with a population size of over 250 inhabitants elect a city council in a single-district election. Elections are closed-list, with each party presenting a list of candidates and citizens voting for one of the party lists (basically, this is the same system as for Congress but at the local level instead of the provincial level). The number of city councilors to be elected increases with population. In the last election of 2023, it ranges from seven (in municipalities with a population close to 250 inhabitants) to 57 (in the municipality of Madrid). The conversion from votes to seats is done with the D’Hondt rule with an electoral threshold of 5%.³⁶ As in our previous analyses, we use election data from the Spanish home office, covering all local elections since 1987. See Appendix C for details about the availability of data and its description.

As we explain below, in our analysis, we focus on the sample of municipalities with fewer than 5,000 inhabitants. Table E.10 in the Appendix reports the descriptive statistics for local election results for such a sample. Table E.11 shows statistics for all municipalities for comparison. We separate the results in municipalities where Vox ran and where it did not. We can see that Vox’s presence is smaller in the sample of small municipalities. In 2023, Vox ran in 1341 census tracts in such municipalities, or 17.8% of census tracts. In all municipalities, Vox ran in 26,963, or 76.2% of census tracts. In 2015, Vox only ran in 11 census tracts of the small municipalities sample. Finally, small municipalities are overall more right-wing than the whole sample.

7.2 Empirical Strategy

To evaluate the effect of Vox’s presence on other parties, we consider event studies of the form:

$$Y_{c,t} = \gamma_c + \gamma_t + \sum_{r \neq 0} 1[R_{c,t} = r] \beta_r + \epsilon_{c,t} \quad (2)$$

where c denotes a census tract, $t \in \{1987, 1991, \dots, 2015, 2019, 2023\}$ denotes an election-year, $Y_{c,t}$ measures the vote share for a given party (or the share of protest votes or abstention), γ_c and γ_t are census tract and election-year fixed effects and $R_{c,t}$ is the time relative to treatment (e.g., $R_{c,t} = 1$ in the first election-year in which Vox runs in census tract c). The summation runs over all possible values of $R_{c,t}$. We follow Callaway and Sant’Anna (2021), who allows treatment effects to be heterogeneous. We also show the robustness of the results

³⁶Municipalities from 100 to 250 inhabitants use an open-list system similar to the one used for the Senate (Sanz, 2017). Municipalities below 100 inhabitants elect the mayor directly in a first-past-the-post election (Sanz, 2020). In both cases, candidates still run in party lists.

to the approach by [De Chaisemartin and d’Haultfoeuille \(2024\)](#) and to the traditional OLS two-way fixed effect estimation. We cluster the standard errors at the municipality level.

Figure E.2 in the Appendix shows the results from estimating equation 2. We find that Vox is more likely to run for the first time in municipalities where the PP and the PSOE are becoming weaker and Ciudadanos is becoming stronger (e.g., see the statistically significant negative estimate for PP in the previous election in the center panel of the second row). This evolution suggests that Vox understands that there is more to gain electorally by running in municipalities where the demand for new parties is stronger. At the same time, this finding also makes it clear that, unlike in our Tenerife quasi-natural experiment, in which Vox’s absence was due to an arguably random event, Vox’s decision to run in local elections could be endogenous to the party’s forecast for the upcoming election or to other municipal characteristics.

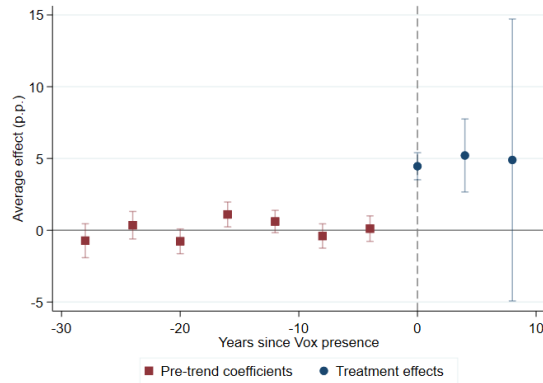
We can control for much of this endogeneity by focusing only on small municipalities. In small towns or villages, the presence on the ballot of a party other than PP or PSOE (or, in regions like Catalonia and the Basque Country, the large nationalist parties) often depends on highly idiosyncratic, quasi-random factors. For example, the presence of a committed or pro-active member might be all the party needs to run in a village. There is often quite little to gain from being elected councilperson in a small locality, as the (low) wages rarely compensate for the effort and work unless one is elected major or deputy major, an unlikely event for a Vox candidate, given the electoral weight of the party.³⁷ Thus, whether Vox runs in a small locality, while not fully random, is reasonably close to a random assignment.

Motivated by this fact, we repeat the event study given by equation (2), but now we restrict the sample to municipalities with fewer than 5,000 inhabitants (in the robustness section, we alternatively consider municipalities with up to 10,000 inhabitants). We also control for the contemporaneous and lagged population size of the municipality, as we find that this control further increases the quality of the pre-trends (without changing the results, as we will also show).

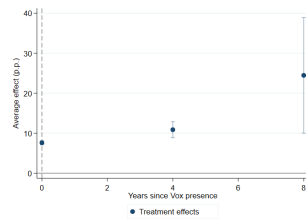
Figure 5 shows the event study figures. Consistent with our hypothesis that Vox’s presence in the local elections is close to random in small localities, we do not observe any differential pre-trends for census tracts with and without Vox’s presence. While this does not preclude the possibility that other factors may be varying post-treatment non-parallel trends, this finding greatly bolsters our confidence in the estimation strategy ([Roth et al., 2023](#)).

³⁷There are only 33 mayors from Vox in Spain out of a total of 8,122. Regarding monetary payments, in the ancestral town of one of the authors of the paper (Lena, around 10,000 inhabitants), the total annual compensation of councilpersons who are not the mayor or deputy mayor ranges between 960 and 2,600 euros. In comparison, the minimum wage in Spain in 2024 is 15,876 euros.

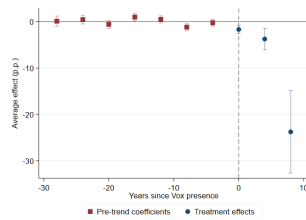
Figure 5: Local Elections: Effects of Vox’s Presence on Election Outcomes



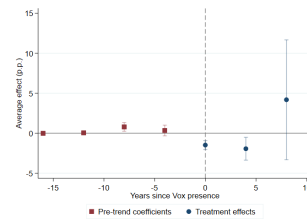
(a) Right



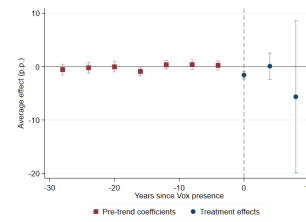
(b) Vox



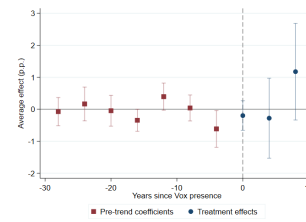
(c) PP



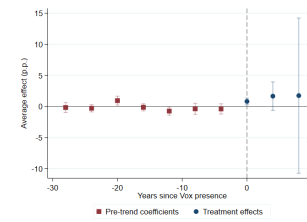
(d) Ciudadanos



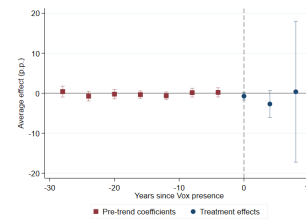
(e) PSOE



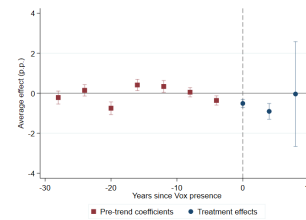
(f) Sumar



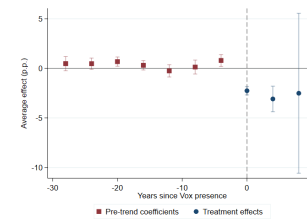
(g) Territorial



(h) Other Parties



(i) Protest



(j) Abstention

Notes: Each figure shows the point estimates and 95% confidence intervals for the $R_{c,t}$ coefficients in equation 2, estimated following Callaway and Sant’Anna (2021). The unit of observation is a census-tract election. Sample restricted to census tracts in municipalities with fewer than 5,000 inhabitants. Standard errors clustered by municipality. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

7.3 Results

Table 8 shows the numerical results corresponding to Figure 5. We focus on the contemporary effect, i.e., the first election in which Vox runs. The reason is twofold. First, estimates for the second and, especially, third election after Vox’s first runs are imprecisely estimated.³⁸ Second, this allows us to compare our results with those from the Tenerife experiment.

Table 8: Local Elections: Effects of Vox’s Presence on Election Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	% Right	% Vox	% PP	% Cs	% PSOE	% Sumar	% Terr	% Other	% Pro	% Abs
Vox Runs	4.46*** (0.48)	7.62*** (0.28)	-1.68*** (0.44)	-1.48*** (0.28)	-1.59*** (0.37)	-0.20 (0.24)	0.82*** (0.28)	-0.72 (0.50)	-0.51*** (0.10)	-2.26*** (0.22)
<i>Mean_Y</i>	37.3	7.95	28.1	1.31	24.9	1.85	3.23	6.92	2.61	23.2
Transfers	58.6	100	-22.0	-19.4	-20.9	-2.59	10.7	-9.44	-6.69	-29.7
NObs	57879	57879	57879	57879	57879	57879	57879	57879	57879	57879
NClusters	6390	6390	6390	6390	6390	6390	6390	6390	6390	6390

Notes: The unit of observation is a census-tract election. Sample restricted to census tracts in municipalities with fewer than 5,000 inhabitants. Each column shows the contemporaneous effect from equation 2, estimated following Callaway and Sant’Anna (2021). *Mean_Y* indicates the mean of the dependent variable for the control group (Treatment=0). Transfers are calculated as $-100\beta_i/\beta_{Vox}$, i.e., they indicate the estimated share of Vox votes that switch to each option. Standard errors clustered by municipality in parentheses. *p<0.1; **p<0.05; ***p<0.01.

The results indicate that the right also benefits from Vox’s presence in local elections. The effect is larger than for Congress elections, 4.46 p.p. vs. 3.44 p.p., but in the same order of magnitude. Vox’s presence lowers PP’s vote share by 1.68 p.p. and the other party of the classical right, Ciudadanos, by 1.48 p.p. Unlike in our estimates for general elections, here we find that Vox’s presence also harms the PSOE, whose vote share is reduced by 1.59 p.p. This is not totally surprising since local elections are less ideological. Hence, the presence of a new party on one side of the ideological spectrum may have a higher chance of attracting voters from the other side. Protest votes and abstention are reduced by 0.51 p.p. and 2.26 p.p., respectively. These effects are very large quantitatively—around 19.5% and 9.7%. Again, this suggests that Vox is filling an electoral niche that was previously empty.

Overall, we are surprised by how much the results in Table 8 agree with the results from Tables 3 and 5 despite the differences in research design and elections covered.

7.4 Robustness

Tables E.12 and E.13 in the Appendix presents the robustness of our results. Column (1) presents the baseline results for comparison. Column (2) shows the results when we do

³⁸As can be seen in Table E.10, in our sample Vox ran in 11 census tracts in 2015 and in 184 in 2019. This implies that we will be underpowered in estimating the effects of Vox’s running for the first time in election-year t on the election outcomes in election-year $t + 1$ and, especially, $t + 2$.

not control for population. Column (3) expands the analysis to municipalities below 10,000 inhabitants. Column (4) uses [De Chaisemartin and d’Haultfoeuille’s \(2024\)](#) method. Column (5) shows the results with traditional OLS estimation. As in previous research designs, the main conclusion is that our results are fairly robust.

8 Survey Data

As another external validation analysis, we look at voters’ preferences gathered from survey data from the whole of Spain. For this, we use an online survey run in July 2023, right before the general election. This survey is ideal for our purposes because it has a large sample size (around 4,000 respondents) and because it asks respondents to grade all main parties in Spain, allowing us to have a sense of how voters of a given party perceive other parties. See [Appendix D](#) for more details on the survey.

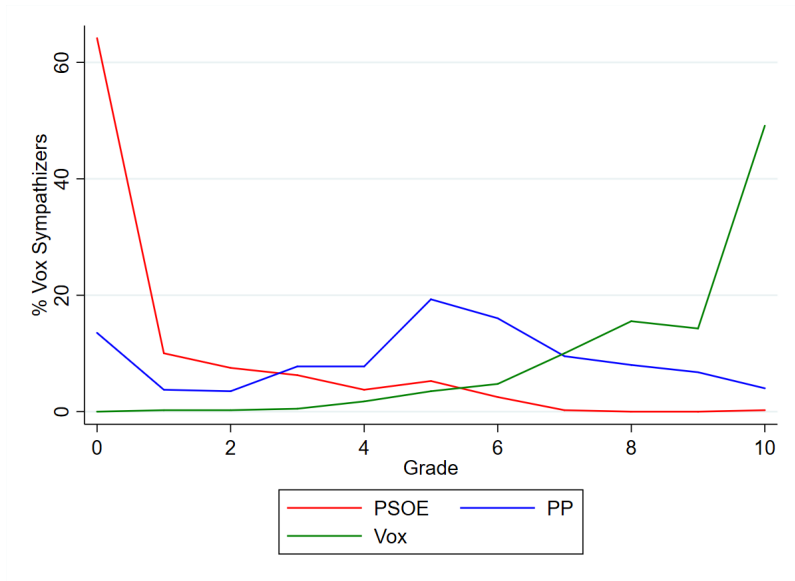


Figure 6: Vox Sympathizers’ Preferences

Notes: Percent of Vox sympathizers giving the PSOE (red line), PP (blue line) and Vox (green line) each grade, on a 0-10 scale, where 0 means “I do not like the party” and 10 means “I like the party.” N=399.

The results are displayed in [Figure 6](#). Vox sympathizers grade Vox the best: 49% give that party a 10 out of 10, and 14% a 9 out of 10. The PSOE is rated poorly, with 64% giving the PSOE a 0 out of 10 and 10% a 1 out of 10. What is especially interesting is the grade given by Vox sympathizers to the PP. The median is a 5 out of 10, but there is a considerable mass (13.5%) of Vox sympathizers giving the PP a 0 out of 10. Furthermore, 27% give the PP a grade from 0 to 3, which is approximately the share of Vox voters that we estimate do not

switch to the PP in Tenerife. As we described before, Vox and PP have maintained a bitter relationship since Vox’s creation, and many media commentators who are Vox sympathizers have repeatedly argued that they see few actual differences between PP and PSOE.

The analysis from survey data is consistent with our estimates from actual vote data. It suggests that our findings would not be specific to Tenerife but similar to those of the whole country. What would happen in other European countries? We tackle this issue next.

9 Other European Countries

Do we see behavior in other continental European countries similar to the behavior we documented for Tenerife in the previous sections? Unfortunately, to the best of our knowledge, there is no systematic exploration of the question or quasi-natural experiments like the one we exploit for a wide range of countries.

Thus, we look at evidence that, while suggestive, is not tightly identified. More concretely, we gather information from general elections across 12 European countries since World War II (Nordsieck, 2024).³⁹ We include all major Western European countries beyond Spain, except Switzerland, Ireland, and the United Kingdom. The Swiss People’s Party, the closest party in Switzerland to the class of parties we are studying, and its predecessor farmers’ parties have had a large electoral presence since the 1910s. Ireland does not have a new right-wing party. Thus, there is no electoral variation to exploit in either Switzerland or Ireland. The United Kingdom has a first-past-the-post system that implies, as we discussed in the introduction, that much of the impact of the new right is within the Conservative Party (UKIP only had a significant amount of votes in the 2015 general election). Finally, we exclude former communist countries because the time series of elections is shorter, and their party system was convulsive during the first decades of democracy.

We divide the general elections in our sample into two blocs. First, we have elections in which parties that we code as radical or new right gather less than 5% of the votes.⁴⁰ Second, we have elections in which parties that we code as radical or new right gather more than 5% of the votes. We consider this threshold as representing a situation where there are viable electoral options at the right end of the political spectrum beyond the “classical” right.⁴¹

Then, we compare the share of votes of the right in these two blocs. Figure 7 reports the results, showing the evolution of the vote share for the right as a whole (classical and radical)

³⁹In the case of Greece, Spain, and Portugal, since the return of democratic elections in the 1970s. Greece had elections before the Regime of the Colonels, but left-wing parties only partially participated in them.

⁴⁰In many European countries there are minimum thresholds to enter into the distribution of seats in proportional representation, usually between 3% and 5%.

⁴¹Here we use the terminology “radical” and “new” because some of the parties are old. For example, in Germany, the German Right Party had some electoral success in 1946.

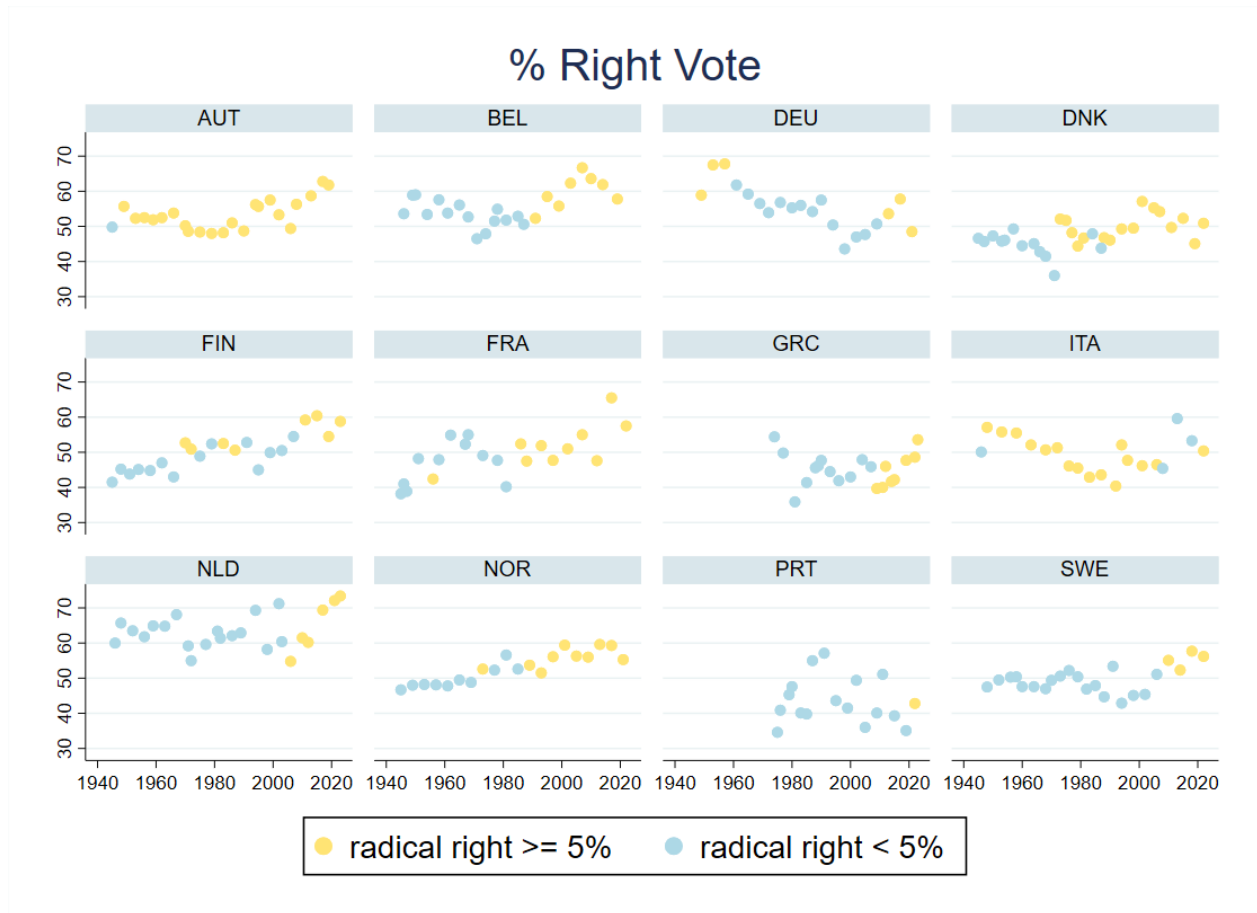


Figure 7: Elections in Western Europe: Presence of New/Radical Right Parties

Notes: Vote share for the right as a whole (classical and new/radical) by country, election, and vote share for the new/radical right: above 5% (yellow) or below (blue). AUT=Austria, BEL=Belgium, DEU=Germany, DNK=Denmark, FIN=Finland, FRA=France, GRC=Greece, ITA=Italy, NLD=Netherlands, NOR=Norway, PRT=Portugal, SWE=Sweden.

by country and by vote share for the radical right: above 5% (yellow) or below (blue).⁴² Appendix Table E.14 shows the p.p. differences in the vote shares of left- and right-wing parties between elections where radical or new right parties gathered more than 5% of the votes and less than 5%. On average, the presence of new/radical right parties is correlated with increases in the share of votes of the right bloc by 3.70 p.p. and with a decrease in the share of votes of the left bloc by 3.48 p.p. (the difference of 0.52 p.p. is accounted for by the variation in the votes of minor regional parties). Interestingly, this is roughly the same number as in our analysis for Tenerife (recall, between 1.89 and 3.44 additional p.p. depending on the specification). Hence, there is some suggestive evidence that more

⁴²Vote shares are defined as a percent of valid votes. Results are similar if we consider votes as a percent of the electoral roll instead.

right-wing choices translate into more votes for the right.

This is not a mechanical result: we are adding the votes of all right-wing parties. The arrival of electorally successful new parties on the right could mean fewer total votes for the right as a whole. What is more mechanical is that a higher share of votes for the right lowers the share of votes for the left. This is not incompatible with our results from Spain: we estimated that the total votes for the left were unchanged by Vox’s absence, but since abstention increased, the share of votes of the left increased in Tenerife.

We are cautious in interpreting these results. For instance, the arrival of new right-wing parties is an endogenous response to shocks, like higher immigration or the aftermath of the 2007 financial crisis, that would have changed the vote share of the right even without new parties. Also, we might be picking long-run trends of changes in the share of voters opting for right-wing parties, for instance, due to the aging of the population. Nonetheless, [Table E.14](#) shows that our results for Spain are compatible with *prima facie* evidence from Europe.

10 Conclusion

The party system in many countries has changed dramatically over the last two decades with the arrival of new right-wing parties and candidates. However, estimating the effect of these political actors on electoral and political outcomes is still an open question.

In this paper, we have taken advantage of an internal fight in Vox that prevented the party from running in one (fairly representative) Spanish electoral constituency to estimate that the arrival of new right parties substantially increases the votes of the right, although not always with much impact in terms of overall electoral victories. On the other hand, the effect of the new right parties on votes for the left is essentially zero. Some tentative evidence from other European countries points out that these results might hold for a wide set of party systems.

However, much more research in this area is required. In particular, we need to understand better the strategies of different parties as the party system evolves, the dynamic effects over time, and the “general equilibrium” effects that our research design cannot fully incorporate. We leave these issues for future research.

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Appendix

A Naming Convention

Choosing a terminology to group political parties is never easy, even if just because of the large heterogeneity among different parties in similar positions on the political spectrum across countries. For example, there is no consensus about the best label for the parties we are focusing on. Different observers call them far-right, extreme right, national-conservative, or populist right. Similarly, there is no consensus on what to call the traditional center-right parties in Europe to encompass all of their diversity.

The Representative Democracy Data Archive (REPDEM) proposes a taxonomy of 12 different party families for Europe:⁴³

1. Communist parties.
2. Left-socialist parties.
3. Social Democratic parties.
4. Green parties.
5. Agrarian parties.
6. Regional/Separatist parties and Ethno-Nationalist parties.
7. Liberal parties.
8. Christian Democratic parties.
9. Conservative parties.
10. Right-wing parties.
11. Extreme right-wing parties.
12. Special interest parties and Others.

We will call Agrarian, Liberal, Christian Democratic, and Conservative the “classical right,” as they have been electorally successful for generations. Adding or not adding the Agrarian parties to our definition of classical right does not change any of our main arguments.

⁴³See <https://repdem.org/>.

The parties we investigate in this paper belong to families 10 (right-wing) and 11 (extreme right-wing), and we will call them “new right” or “radical right” (if the party is older).

Finally, note that “new right” can denote another type of party. [Bazzi et al. \(2023\)](#) study the effects of Southern white migration across the U.S. during the twentieth century on the “new right” vote shares. By “new right,” they refer to a “coalition of economic, racial, and religious conservatives that began to emerge in the 1960s.” While there are similarities between the parties we study and the U.S. “new right,” we focus on Europe, where the issues at hand are slightly different.

B The Electoral System for the Senate

An oddity of the Spanish electoral system is Senators are elected at the provincial level for the 47 provinces in the Iberian Peninsula, but in the Balearic and Canary Islands, senators are elected at the island level (each province in the Balearic and Canary Islands comprises several islands).⁴⁴

Tenerife (the island proper, not the province of Santa Cruz de Tenerife, which includes other islands) elects three senators, and the less populated islands of La Gomera, El Hierro, and La Palma one each, for a total of six senators. In Tenerife, each voter can select up to two candidates, and the three candidates with the most votes are elected. In La Gomera, El Hierro, and La Palma, each voter picks one candidate, and the most-voted-for candidate is elected (first-past-the-post).

Given the different electoral systems between the two houses, there are some differences in voting behavior. For example, Tenerife elects seven seats in Congress. That means that voters of mid-size parties do not worry too much about spoiling their ballot: if their favorite party gets at least around 11% of the votes cast (not of the electoral roll; with a 63% participation rate, this corresponds to around 6.9% of the electoral roll), it would be apportioned at least one seat.⁴⁵

But, for the Senate, voting for any candidate not endorsed by one of the two largest parties is unlikely to be of much use. Nearly always, the two candidates in Tenerife who win are those endorsed by the party that came first in the Congressional election and one candidate from the second-most-for voted party for Congress, as around 95% of voters vote

⁴⁴Some additional senators are elected directly by the regional parliaments and the autonomous cities of Ceuta and Melilla.

⁴⁵The exact threshold depends on the performance of other parties. A vote share of 14.29% (100 divided by seven, the number of seats) ensures the apportionment of one seat. In practice, since some votes will go to small parties, be blank or null, and the other large parties will have remainder votes in the apportionment, the effective threshold is around 11%. For instance, Vox got one seat in November 2019 with 11.53% of the votes (or 6.96% of the electoral roll).

along party-lines. This feature is even clearer in La Gomera, El Hierro, and La Palma, since they elect their senator with a first-past-the-post system.

C Details on the Data on Local Elections

Data for the first two local election years after Franco’s death, 1979 and 1983, are not available at the census-tract level. Out of an initial sample of 343,296 census-tract elections, we drop 1,415 (0.4%) observations with erroneous or suspicious data (aggregate votes for parties adding up to more than the census, or an abstention rate of 100% or higher) and 32,059 (9.3%) observations belonging to census tracts in which boundaries were re-drawn. As in our Tenerife analysis, we exclude those tracts whose centroid changed by more than 250 meters. The number of census tracts dropped is higher than that for the Tenerife analysis because our analysis goes back further in time, and, hence, more census tracts have been re-drawn. We checked that our results were unchanged when these observations were included in the analysis. For our analysis using [Callaway and Sant’Anna \(2021\)](#), we also drop 4,281 (1.3%) observations belonging to municipalities in which Vox did not run in a given year after having run before. This is because [Callaway and Sant’Anna \(2021\)](#) require the treatment to be an absorbing state. We show the results are very similar when using the approach by [De Chaisemartin and d’Haultfoeuille \(2024\)](#), which can accommodate such cases.

D Details on the Survey Data

The survey data were collected for another project; see [Martínez-Bravo et al. \(2023\)](#) for the pre-analysis plan. The survey was online and fielded in June and July 2023 (before the general election) to a representative sample of the Spanish population. YouGov, an analytics firm, implemented the fieldwork. The sampling framework was designed to be representative of the Spanish adult population according to age, gender, region of residence, and education level.

The questionnaire was completed by 4,620 individuals. We follow the pre-analysis plan and drop respondents who failed the attention-check question (555 observations) or finished the questionnaire in 11 minutes or less, which corresponds to the bottom 5% of response times (207 observations). We then keep respondents who responded that Vox is the party with which they sympathize the most (399 observations).

E Additional Tables and Figures

Table E.1: Predictors of Voting

	(1)	(2)	(3)	(4)
	% Right	% Right	% Right	% Right
% Vox Nov 2019	1.05*** (0.0078)	0.94*** (0.0061)	0.86*** (0.0072)	0.81*** (0.015)
% PP Nov 2019	1.04*** (0.0048)	0.88*** (0.0056)	0.75*** (0.0065)	0.76*** (0.013)
% PSOE Nov 2019	-0.025*** (0.0058)	-0.077*** (0.0051)	-0.12*** (0.0059)	-0.11*** (0.014)
% Sumar Nov 2019	-0.072*** (0.0058)	-0.24*** (0.0058)	-0.24*** (0.0055)	-0.044*** (0.015)
% Territorial Nov 2019	-0.084*** (0.0039)	-0.22*** (0.0041)	-0.22*** (0.0039)	0.033*** (0.012)
% Foreign Nationality		-0.079*** (0.0024)	-0.070*** (0.0023)	-0.073*** (0.0024)
% Higher Education		0.046*** (0.0026)	0.052*** (0.0024)	0.046*** (0.0026)
Mean Age		-0.0058 (0.0056)	-0.012** (0.0053)	-0.011** (0.0054)
% Unemployed		-0.13*** (0.0033)	-0.12*** (0.0032)	-0.12*** (0.0032)
Mean Income		0.000045*** (0.0000028)	0.000053*** (0.0000027)	0.000052*** (0.0000028)
Population of Mun		-0.00000036*** (0.000000019)	-0.00000046*** (0.000000019)	-0.00000057*** (0.000000019)
% Vox Mun			0.021*** (0.0072)	0.058 (0.0072)
% PP Mun			0.12*** (0.0031)	0.11*** (0.0031)
% PSOE Mun			0.032*** (0.0026)	0.029*** (0.0026)
% Sumar Mun			0.0078** (0.0034)	0.0034 (0.0035)
% Vox Ap 2019				0.039** (0.017)
% PP Ap 2019				-0.024* (0.012)
% PSOE Ap 2019				-0.037*** (0.013)
% Sumar Ap 2019				-0.20*** (0.014)
% Territorial Ap 2019				-0.27*** (0.012)
Constant	7.27*** (0.27)	15.3*** (0.37)	15.5*** (0.35)	17.2*** (0.39)
Observations	34938	33574	33169	33154
R^2	0.94	0.96	0.96	0.96

Notes: The unit of observation is a census tract. Each column shows the result of an OLS regression where the dependent variable is the vote share for the right in the 2023 general election and the independent variables are the ones listed in each column. Territorial parties include the ones listed in footnote 17. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table E.2: Diagnostics: Comparison of Matched and Unmatched Samples

Variable	Unmatched Matched	Mean			% Reduct <i>bias</i> (4)	t-test		$V(T)/$ $V(C)$ (7)
		Treated (1)	Control (2)	bias (3)		t (5)	$p > t $ (6)	
% Vox	U	6.96	10.38	-79.30	-15.31	0.00	0.13	
	M	6.97	7.06	-2.30	97.10	-0.74	0.46	0.96
% PP	U	12.31	15.99	-49.00	-9.91	0.00	0.24	
	M	11.85	12.04	-2.50	95.00	-0.56	0.57	0.95
% PSOE	U	17.53	19.62	-36.80	-7.53	0.00	0.28	
	M	17.73	17.89	-2.90	92.10	-0.73	0.47	1.02
% Sumar	U	9.31	9.90	-13.80	-3.03	0.00	0.46	
	M	9.97	9.96	0.30	97.60	0.07	0.94	1.01
% Terr	U	10.14	7.37	25.60	4.88	0.00	0.10	
	M	9.29	8.82	4.30	83.00	1.52	0.13	0.79
% Foreign Nationality	U	10.79	10.19	5.90	1.74	0.08	1.71	
	M	10.99	11.41	-4.10	30.60	-0.53	0.60	1.53
% Higher Education	U	25.34	26.47	-9.70	-2.33	0.02	0.77	
	M	26.01	23.60	20.60	-112.80	3.53	0.00	1.30
% Unemployed	U	25.06	17.08	108.70	25.10	0.00	0.63	
	M	24.90	20.26	63.30	41.70	9.43	0.00	0.63
Mean Income	U	30282	33074	-29.50	-6.73	0.00	0.59	
	M	30204	30707	-5.30	82.00	-1.03	0.31	1.38
Mean Age	U	44.07	45.45	-30.30	-6.28	0.00	0.31	
	M	43.96	43.05	20.00	33.90	3.46	0.00	0.67
Population of Mun	U	93358	380000	-47.80	-8.74	0.00	0.01	
	M	110000	160000	-8.30	82.60	-2.69	0.01	0.06

Notes: Diagnostic tests for the baseline matching estimation (Table 3). Columns (1) and (2) show the mean for the treated and control census tracts for both the unmatched and the matched samples. Column (3) shows the standardized bias, defined as the % difference of the sample means in the treated and non-treated sub-samples as a percentage of the square root of the average of the sample variances in the treated and non-treated groups (Rosenbaum and Rubin, 1985). Column (4) shows the % reduction in bias in the matched relative to the unmatched sample. Columns (5) and (6) show t-tests and p-values for equality of means in the two samples. Column (7) shows the variance ratio of treated over the controls (hence, it is equal to one if there is perfect balance).

Table E.3: Matching: Matched Census Tracts by Province

Province	Number of Matched Census Tracts			
	1	2	3	4
Araba/Álava	1			
Alicante	1			
Balearic Islands	2			
Barcelona	32	6	2	
A Coruña	38	3	2	
Gipuzkoa	1			
Girona	2			
León	1			
Lleida	2			
Lugo	4			
Madrid	1			
Málaga	1			
Navarre	6			
Ourense	2			
Las Palmas	89	20	8	1
Pontevedra	14	3		
Tenerife	357			
Cantabria	28	2	1	
Tarragona	9		1	
Teruel	7	1		

Notes: Number of matched census tracts by province in the baseline matching estimation (Table 3). For example, in the province of Barcelona, 32 census section tracts get matched once, six census tracts get matched twice, and two census tracts get matched three times.

Table E.4: Matching: Robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Base.	All	Cov.	Reg.	LP	Terr. R	PSM
Dep. Variable: % Right							
No Vox	-3.44***	-3.81***	-5.24***	-3.00***	-1.77***	-2.30***	-2.76***
	0.80	0.20	0.23	0.25	0.29	0.24	0.62
<i>Mean_Y</i>	33.0	33.0	32.3	18.7	25.0	32.3	32.3
Transfers	-47.2	-52.4	-65.2	-40.6	-21.0	-29.8	-42.5
Dep. Variable: % Vox							
No Vox	-7.28***	-7.28***	-8.04***	-7.38***	-8.42***	-7.72***	-6.51***
	0.18	0.086	0.091	0.088	0.11	0.090	0.16
<i>Mean_Y</i>	8.78	8.78	8.72	4.27	9.01	8.72	8.72
Transfers	-100	-100	-100	-100	-100	-100	-100
Dep. Variable: % PP							
No Vox	3.85***	3.47***	2.80***	4.38***	6.65***	5.42***	3.74***
	0.73	0.21	0.20	0.24	0.25	0.23	0.56
<i>Mean_Y</i>	24.2	24.2	23.6	14.4	16.0	23.6	23.6
Transfers	52.8	47.6	34.8	59.4	79.0	70.2	57.5
Dep. Variable: % PSOE							
No Vox	-0.21	-0.47***	-0.92***	-0.30*	0.46**	-0.27	0.68**
	0.71	0.16	0.17	0.16	0.19	0.19	0.31
<i>Mean_Y</i>	22.3	22.3	22.3	20.8	20.9	22.3	22.3
Transfers	-2.82	-6.40	-11.5	-4.12	5.46	-3.53	10.4
Dep. Variable: % Sumar							
No Vox	-0.13	-0.22**	-0.16*	-0.18*	0.18*	0.043	-0.79***
	0.25	0.087	0.091	0.097	0.11	0.11	0.20
<i>Mean_Y</i>	8.17	8.17	8.32	8.20	6.34	8.32	8.32
Transfers	-1.72	-2.96	-1.98	-2.49	2.16	0.56	-12.1
Dep. Variable: % Terr							
No Vox	1.84***	2.96***	4.75***	2.04***	0.55**	0.43**	1.67***
	0.41	0.25	0.16	0.18	0.26	0.22	0.59
<i>Mean_Y</i>	5.48	5.48	5.47	17.8	8.98	5.47	5.47
Transfers	25.2	40.7	59.1	27.6	6.51	5.59	25.7
Obs	714	1324	1324	1324	1324	1324	1324

Notes: The unit of observation is a census tract. Each column shows the results of a Mahalanobis matching estimation of the indicated dependent variable on a dummy, indicating whether Vox did or did not run in the census tract. Column (1) shows the baseline results (same as Table 3). Column (2) shows the results with the whole sample (unrestricted caliper). Column (3) matches also on our set of sociodemographic and economic variables described in Section 2.4 and on the vote shares of Vox, PP, PSOE, and Sumar in the local elections of May 2023. Column (4) restricts the sample to regions with strong regional parties: Catalonia, the Basque Country, Navarre, Galicia, and the Canary Islands. Column (5) restricts the sample to Tenerife and Las Palmas. Column (6) matches on territorial right-wing parties (CC, NC, Junts, and Partido Nacionalista Vasco) rather than all territorial parties. Column (7) uses PSM rather than direct matching. $Mean_Y$ indicates the mean of the dependent variable for the control group (Treatment=0). Transfers are calculated as $-100\beta_i/\beta_{Vox}$, i.e., they indicate the estimated share of Vox votes that switch to each option. Standard errors following Abadie and Imbens (2006) in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table E.5: Matching: Robustness (Continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Base.	All	Cov.	Reg.	LP	Terr. R	PSM
Dep. Variable: % Other Parties							
No Vox	0.52***	0.43***	0.37***	0.49***	0.52***	0.45***	0.15**
	0.046	0.024	0.033	0.027	0.029	0.026	0.068
<i>Mean_Y</i>	1.01	1.01	0.99	0.78	0.71	0.99	0.99
Transfers	7.15	5.88	4.62	6.63	6.17	5.78	2.26
Dep. Variable: % Protest							
No Vox	0.37***	0.33***	0.30***	0.39***	0.41***	0.35***	0.29***
	0.059	0.035	0.036	0.037	0.055	0.037	0.035
<i>Mean_Y</i>	1.33	1.33	1.31	1.11	1.02	1.31	1.31
Transfers	5.02	4.52	3.78	5.33	4.86	4.49	4.43
Dep. Variable: % Abstention							
No Vox	1.05	0.78***	0.89***	0.56***	-0.35	1.31***	0.76
	1.12	0.21	0.20	0.21	0.30	0.23	0.56
<i>Mean_Y</i>	28.8	28.8	29.2	32.7	37.0	29.2	29.2
Transfers	14.4	10.7	11.1	7.60	-4.18	16.9	11.8
Dep. Variable: % Blank							
No Vox	0.22***	0.21***	0.22***	0.25***	0.28***	0.24***	0.15***
	0.032	0.021	0.024	0.023	0.026	0.024	0.024
<i>Mean_Y</i>	0.58	0.58	0.56	0.50	0.36	0.56	0.56
Transfers	3.01	2.82	2.71	3.44	3.31	3.10	2.37
Dep. Variable: % Null							
No Vox	0.15***	0.12***	0.086***	0.14***	0.13***	0.11***	0.13***
	0.037	0.024	0.027	0.025	0.043	0.030	0.023
<i>Mean_Y</i>	0.76	0.76	0.75	0.61	0.66	0.75	0.75
Transfers	2.01	1.69	1.07	1.89	1.56	1.39	2.07
Obs	714	1324	1324	1324	1324	1324	1324

Notes: See notes to Table E.4.

Table E.6: Synthetic Controls: Sample Characteristics

	(1)			(2)			(3)
	Tenerife			Rest of Spain			Difference
	mean	sd	N	mean	sd	N	
Election 2023							
% Right	22.38	.	1	34.22	10.13	51	11.84
% Vox	0.00	.	1	8.99	3.49	51	8.99
% PP	22.38	.	1	25.23	8.01	51	2.85
% PSOE	21.26	.	1	22.30	3.27	51	1.04
% Sumar	6.89	.	1	6.67	2.59	51	-0.22
% Territorial	10.92	.	1	5.15	9.22	51	-5.77
% Other	0.40	.	1	0.61	0.46	51	0.20
% Protest	1.46	.	1	1.36	0.27	51	-0.10
% Abstention	35.90	.	1	29.33	5.46	51	-6.58
Election 2019							
% Right	22.41	.	1	31.67	9.62	51	9.25
% Vox	7.06	.	1	10.65	4.54	51	3.59
% PP	12.33	.	1	16.79	5.93	51	4.46
% PSOE	17.49	.	1	19.96	4.32	51	2.47
% Sumar	9.39	.	1	8.17	3.16	51	-1.22
% Territorial	10.06	.	1	6.61	12.36	51	-3.45
% Other	0.55	.	1	0.56	0.47	51	0.02
% Protest	1.03	.	1	1.45	0.40	51	0.41
% Abstention	38.25	.	1	31.06	4.19	51	-7.19
Economics and Sociodemographics							
% Foreign Nationality	13.87	.	1	9.73	5.21	51	-4.14
% Higher Education	25.09	.	1	25.12	4.43	51	0.03
Mean Age	43.45	.	1	44.40	2.95	51	0.96
% Unemployed	24.75	.	1	17.35	5.08	51	-7.40
Mean Income	29855.33	.	1	32091.90	4225.31	51	2236.57

Notes: The unit of observation is a province. Vote shares are expressed in terms of the census, not as a share of valid votes. Territorial parties include the ones listed in footnote 17. *p<0.1; **p<0.05; ***p<0.01.

Table E.7: Synthetic Controls: Weights

	% Right	% Vox	% PP	% PSOE	% Sumar	% Terr	% Other	% Pro	% Abs
Araba/Álava	0	0	0	0	0	0	0	0	0
Albacete	0	0	0	0	0	0	0	0	0
Alicante/Alacant	0	0	0	0	0	0	0	0	0
Almería	0	0	0	0	0	0	0	0	0
Ávila	0	0	0	0	0	0	0	0	0
Badajoz	.093	.095	.094	.093	.084	.08	.084	.083	.088
Balears(Illes)	0	0	0	0	0	0	0	0	0
Barcelona	0	0	0	0	0	0	0	0	0
Burgos	0	0	0	0	0	0	0	0	0
Cáceres	0	0	0	0	0	0	0	0	0
Cádiz	0	0	0	0	0	0	0	0	0
Castellón/Castelló	0	0	0	0	0	0	0	0	0
CiudadReal	0	0	0	0	0	0	0	0	0
Córdoba	0	0	0	0	0	0	0	0	0
Coruña(A)	0	0	0	0	0	0	0	0	0
Cuenca	0	0	0	0	0	0	0	0	0
Girona	0	0	0	0	0	0	0	0	0
Granada	0	0	0	0	0	0	0	0	0
Guadalajara	0	0	0	0	0	0	0	0	0
Gipuzkoa	.156	.151	.157	.153	.154	.152	.155	.155	.153
Huelva	0	0	0	0	0	0	0	0	0
Huesca	0	0	0	0	0	0	0	0	0
Jaén	0	0	0	0	0	0	0	0	0
León	0	0	0	0	0	0	0	0	0
Lleida	0	0	0	0	0	0	0	0	0
Rioja(La)	0	0	0	0	0	0	0	0	0
Lugo	0	0	0	0	0	0	0	0	0
Madrid	0	0	0	0	0	0	0	0	0
Málaga	0	0	0	0	0	0	0	0	0
Murcia	0	0	0	0	0	0	0	0	0
Navarra	0	0	0	0	0	0	0	0	0
Ourense	.038	.045	.039	.044	.037	.03	.02	.02	.035
Asturias	0	0	0	0	0	0	0	0	0
Palencia	0	0	0	0	0	0	0	0	0
Palmas(Las)	.694	.703	.692	.695	.691	.7	.692	.693	.696
Pontevedra	0	.006	0	0	0	0	0	0	0
Salamanca	0	0	0	0	0	0	0	0	0
Cantabria	0	0	0	0	0	0	0	0	0
Segovia	0	0	0	0	0	0	0	0	0
Sevilla	0	0	0	0	0	0	0	0	0
Soria	.019	0	.018	.014	.035	.037	.049	.049	.028
Tarragona	0	0	0	0	0	0	0	0	0
Teruel	0	0	0	0	0	0	0	0	0
Toledo	0	0	0	0	0	0	0	0	0
Valencia/València	0	0	0	0	0	0	0	0	0
Valladolid	0	0	0	0	0	0	0	0	0
Bizkaia	0	0	0	0	0	0	0	0	0
Zamora	0	0	0	0	0	0	0	0	0
Zaragoza	0	0	0	0	0	0	0	0	0
Ceuta	0	0	0	0	0	0	0	0	0
Melilla	0	0	0	0	0	0	0	0	0

Notes: Weights of each province in the synthetic control analysis in Table 5.

Table E.8: Synthetic Controls: Robustness

	(1)	(2)	(3)	(4)	(5)	(6)
	Base.	Cov.	Mun.	Past	Reg.	Terr. Right
Dep. Variable: % Right						
No Vox	-1.89	-2.26	-1.58	-2.21	-2.22	-2.04
	0.33	0.29	0.33	0.22	0.54	0.27
<i>Mean_Y</i>	34.2	34.2	34.2	34.2	21.5	34.2
Transfers	-24.4	-28.6	-20.5	-27.3	-27.8	-33.5
Dep. Variable: % Vox						
No Vox	-7.74***	-7.89***	-7.67***	-8.10***	-7.99***	-6.09***
	0	0	0	0	0	
<i>Mean_Y</i>	8.99	8.99	8.99	8.99	4.03	8.99
Transfers	-100	-100	-100	-100	-100	-100
Dep. Variable: % PP						
No Vox	5.84**	5.18*	5.78**	5.85***	5.84*	4.11*
	0.039	0.059	0.020	0	0.077	0.061
<i>Mean_Y</i>	25.2	25.2	25.2	25.2	17.5	25.2
Transfers	75.4	65.7	75.4	72.2	73.0	67.4
Dep. Variable: % PSOE						
No Vox	0.57	-0.11	0.55	-0.0027	0.11	0.87
	0.69	0.94	0.65	1	1	0.46
<i>Mean_Y</i>	22.3	22.3	22.3	22.3	19.9	22.3
Transfers	7.32	-1.41	7.15	-0.033	1.36	14.3
Dep. Variable: % Sumar						
No Vox	0.73	0.42	0.71	0.68	0.39	-0.13
	0.39	0.47	0.37	0.45	0.69	0.90
<i>Mean_Y</i>	6.67	6.67	6.67	6.67	7.16	6.67
Transfers	9.40	5.32	9.23	8.41	4.93	-2.21
Dep. Variable: % Terr						
No Vox	-1.55	0.22	-1.14	0.33	0.68	-4.23*
	0.24	0.61	0.24	0.45	0.62	0.080
<i>Mean_Y</i>	5.15	5.15	5.15	5.15	17.5	5.15
Transfers	-20.0	2.76	-14.8	4.13	8.47	-69.4

Notes: Column (1) shows the baseline results (same as Table 5). Column (2) also minimizes the distance to our set of sociodemographic and economic variables described in Section 2.4. Column (3) does so for the vote shares of Vox, PP, PSOE, and Sumar in the local elections of May 2023. Column (4) does so for the vote shares of Vox, PP, PSOE, and Sumar in the April 2019 general election. Column (5) restricts the sample to regions with strong regional parties: Catalonia, the Basque Country, Navarre, Galicia, and the Canary Islands. Column (6) matches on territorial right-wing parties (CC, NC, Junts, and Partido Nacionalista Vasco) rather than all territorial parties. *Mean_Y* indicates the mean of the dependent variable for the control group (Treatment=0). Transfers are calculated as $-100\beta_i/\beta_{Vox}$, i.e., they indicate the estimated share of Vox votes that switch to each option. Permutation-tests p-values in brackets. *p<0.1; **p<0.05; ***p<0.01.

Table E.9: Synthetic Controls: Robustness (Continued)

	(1)	(2)	(3)	(4)	(5)	(6)
	Base.	Cov.	Mun.	Past	Reg.	Terr. Right
Dep. Variable: % Other Parties						
No Vox	0.48	0.40	0.47	0.39	0.47***	0.32
	0.24	0.29	0.24	0.33	0	0.35
<i>Mean_y</i>	0.97	0.97	0.97	0.97	0.70	0.97
Transfers	6.14	5.11	6.12	4.86	5.86	5.27
Dep. Variable: % Protest						
No Vox	0.42*	0.29	0.38*	0.42*	0.43***	0.23***
	0.078	0.22	0.059	0.059	0	0.26
<i>Mean_y</i>	1.36	1.36	1.36	1.36	1.13	1.36
Transfers	5.37	3.64	4.92	5.23	5.33	3.81
Dep. Variable: % Abstention						
No Vox	1.21	0.69	1.97	0.97	0.58	5.29
	0.45	0.73	0.25	0.47	0.85	0.10
<i>Mean_y</i>	29.3	29.3	29.3	29.3	32.1	29.3
Transfers	15.7	8.79	25.7	12.0	7.23	86.7
Dep. Variable: % Blank						
No Vox	0.27***	0.22*	0.26***	0.27***	0.25***	0.16*
	0	0.098	0	0	0	0.082
<i>Mean_y</i>	0.56	0.56	0.56	0.56	0.48	0.56
Transfers	3.50	2.75	3.38	3.29	3.17	2.57
Dep. Variable: % Null						
No Vox	0.15	0.076	0.13	0.17	0.18*	0.081
	0.28	0.67	0.33	0.20	0.077	0.77
<i>Mean_y</i>	0.80	0.80	0.80	0.80	0.65	0.80
Transfers	1.89	0.96	1.68	2.13	2.21	1.34
NObs	57879	64629	74440	73309	71955	
NClusters	6390	6420	6892		6936	

Notes: See notes to Table E.8.

Table E.10: Local Elections: Sample Characteristics (< 5000 Inhabitants)

	(1)			(2)			(3)
	No Vox			Vox Runs			Difference
	mean	sd	N	mean	sd	N	
Election 2023							
% Right	29.61	22.21	6173	37.51	17.92	1341	7.90***
% Vox	0.00	0.00	6173	7.76	8.81	1341	7.76***
% PP	28.76	21.70	6173	28.97	15.33	1341	0.20
% Cs	0.84	5.38	6173	0.78	4.00	1341	-0.07
% PSOE	23.75	19.40	6173	24.81	14.41	1341	1.06*
% IU	1.22	5.79	6173	1.76	5.78	1341	0.54**
% Terr	10.89	20.89	6173	3.33	9.26	1341	-7.56***
% Other	8.02	16.30	6173	7.04	13.26	1341	-0.98*
% Protest	3.79	3.46	6173	2.67	1.85	1341	-1.12***
% Abs	22.72	10.35	6173	22.89	8.21	1341	0.17
Election 2019							
% Right	29.41	22.04	7655	35.85	17.17	184	6.43***
% Vox	0.00	0.00	7655	8.90	10.15	184	8.90***
% PP	26.86	20.75	7655	22.01	12.44	184	-4.86***
% Cs	2.55	7.98	7655	4.94	6.51	184	2.39***
% PSOE	25.55	19.27	7655	25.89	13.59	184	0.34
% IU	1.74	6.73	7655	2.44	3.81	184	0.70*
% Terr	11.38	22.28	7655	2.72	9.75	184	-8.66***
% Other	6.77	15.16	7655	6.01	10.56	184	-0.76
% Protest	3.87	4.22	7655	2.08	1.46	184	-1.79***
% Abs	21.28	8.86	7655	25.02	8.75	184	3.74***
Election 2015							
% Right	29.10	20.10	7702	42.69	22.02	11	13.59
% Vox	0.00	0.00	7702	14.57	18.90	11	14.57*
% PP	27.93	19.23	7702	22.45	12.58	11	-5.48
% Cs	1.18	5.55	7702	5.67	13.42	11	4.49
% PSOE	23.84	18.31	7702	14.75	6.74	11	-9.09**
% IU	2.52	7.89	7702	2.88	3.65	11	0.36
% Terr	10.95	20.51	7702	0.00	0.00	11	-10.95***
% Other	6.18	14.00	7702	7.96	7.75	11	1.78
% Protest	4.45	4.15	7702	4.91	3.44	11	0.47
% Abs	22.97	9.73	7702	26.81	9.69	11	3.84

Notes: The unit of observation is a census tract. Sample restricted to census tracts in municipalities with fewer than 5,000 inhabitants in the election year. Vote shares are expressed in terms of the census, not as a share of valid votes. Territorial parties include the ones listed in footnote 17. *p<0.1; **p<0.05; ***p<0.01.

Table E.11: Local Elections: Sample Characteristics (All Municipalities)

	(1)			(2)			(3)
	No Vox			Vox Runs			Difference
	mean	sd	N	mean	sd	N	
Election 2023							
% Right	25.91	21.37	8429	27.22	14.59	26963	1.31***
% Vox	0.00	0.00	8429	5.58	3.66	26963	5.58***
% PP	25.24	20.91	8429	20.67	12.66	26963	-4.57***
% Cs	0.67	4.64	8429	0.98	1.86	26963	0.31***
% PSOE	21.52	18.07	8429	17.44	8.77	26963	-4.08***
% IU	1.62	6.08	8429	3.59	4.34	26963	1.98***
% Terr	13.40	20.52	8429	5.96	9.53	26963	-7.44***
% Other	7.97	15.07	8429	6.94	8.01	26963	-1.03***
% Protest	3.35	3.09	8429	1.59	0.83	26963	-1.76***
% Abs	26.23	11.59	8429	37.26	10.38	26963	11.03***
Election 2019							
% Right	23.96	19.48	13842	25.06	13.28	21316	1.10***
% Vox	0.00	0.00	13842	3.50	2.70	21316	3.50***
% PP	20.94	18.69	13842	14.35	9.94	21316	-6.59***
% Cs	3.03	6.50	13842	7.21	4.64	21316	4.19***
% PSOE	22.64	16.58	13842	17.77	8.44	21316	-4.87***
% IU	2.61	6.86	13842	7.39	7.55	21316	4.77***
% Terr	13.11	20.55	13842	6.80	11.34	21316	-6.31***
% Other	7.74	13.52	13842	4.84	6.12	21316	-2.90***
% Protest	2.76	3.41	13842	0.81	0.52	21316	-1.95***
% Abs	27.17	11.07	13842	37.34	9.27	21316	10.16***
Election 2015							
% Right	22.09	15.40	24726	29.28	12.13	9794	7.19***
% Vox	0.00	0.00	24726	0.57	1.06	9794	0.57***
% PP	18.95	15.13	24726	20.75	9.76	9794	1.80***
% Cs	3.14	4.67	24726	7.95	4.22	9794	4.81***
% PSOE	18.11	13.43	24726	13.38	6.18	9794	-4.73***
% IU	4.69	7.05	24726	9.13	9.04	9794	4.45***
% Terr	11.78	16.18	24726	2.93	6.10	9794	-8.85***
% Other	7.76	10.43	24726	7.68	6.54	9794	-0.09
% Protest	2.71	2.73	24726	1.53	0.82	9794	-1.18***
% Abs	32.86	11.27	24726	36.07	8.73	9794	3.21***

Notes: The unit of observation is a census tract. Vote shares are expressed in terms of the census, not as a share of valid votes. Territorial parties include the ones listed in footnote 17. *p<0.1; **p<0.05; ***p<0.01.

Table E.12: Local Elections Results: Robustness

	(1)	(2)	(3)	(4)	(5)
	Base.	No Control	10,000 Inh.	CD(2024)	Trad.
Dep. Variable: % Right					
Vox Runs	4.46*** (0.48)	4.72*** (0.47)	2.90*** (0.37)	4.44*** (0.46)	4.69*** (0.46)
<i>Mean_Y</i>	29.9	29.9	28.2	29.9	29.9
Transfers	58.6	61.7	50.8	58.4	60.5
Dep. Variable: % Vox					
Vox Runs	7.62*** (0.28)	7.65*** (0.28)	5.72*** (0.17)	7.61*** (0.55)	7.75*** (0.29)
<i>Mean_Y</i>	0	0	0	0	0
Transfers	100	100	100	100	100
Dep. Variable: % PP					
Vox Runs	-1.68*** (0.44)	-1.58*** (0.43)	-1.38*** (0.35)	-1.79*** (0.37)	-1.79*** (0.43)
<i>Mean_Y</i>	28.1	28.1	26.4	28.1	28.1
Transfers	-22.0	-20.6	-24.1	-23.6	-23
Dep. Variable: % Cs					
Vox Runs	-1.48*** (0.28)	-1.35*** (0.28)	-1.43*** (0.22)	-1.29*** (0.23)	-1.26*** (0.28)
<i>Mean_Y</i>	0.48	0.48	0.50	0.48	0.48
Transfers	-19.4	-17.7	-25.1	-16.9	-16.3
Dep. Variable: % PSOE					
Vox Runs	-1.59*** (0.37)	-1.83*** (0.36)	-0.83*** (0.31)	-1.80*** (0.30)	-1.89*** (0.37)
<i>Mean_Y</i>	24.8	24.8	24.5	24.8	24.8
Transfers	-20.9	-24.0	-14.6	-23.6	-24.4
Dep. Variable: % Sumar					
Vox Runs	-0.20 (0.24)	-0.44** (0.21)	-0.48** (0.22)	-0.41** (0.17)	-0.45** (0.21)
<i>Mean_Y</i>	2.02	2.02	2.67	2.02	2.01
Transfers	-2.59	-5.72	-8.36	-5.38	-5.82
NObs	57879	64629	74440	73309	71955
NClusters	6390	6420	6892		6936

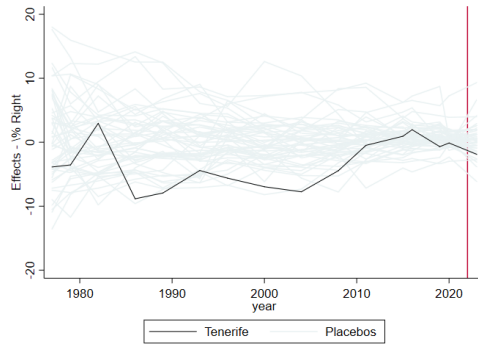
Notes: Column (1) shows the baseline results (same as Table 8). Column (2) drops the population control. Column (3) expands the sample to municipalities below 10,000 inhabitants. Column (4) uses [De Chaisemartin and d'Haultfoeuille's \(2024\)](#) method. Column (5) uses OLS.

Table E.13: Local Elections Results: Robustness (Continued)

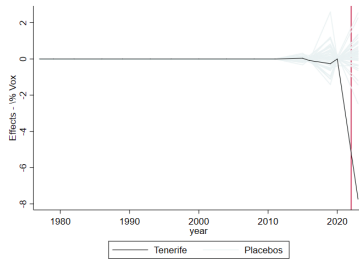
	(1)	(2)	(3)	(4)	(5)
	Base.	No Control	10,000 Inh.	CD(2024)	Trad.
Dep. Variable: % Territorial					
Vox Runs	0.82*** (0.28)	0.75*** (0.24)	1.14*** (0.32)	0.70*** (0.22)	0.73*** (0.24)
<i>Meany</i>	10.1	10.1	10.5	10.1	10.1
Transfers	10.7	9.83	19.9	9.19	9.38
Dep. Variable: % Other Parties					
Vox Runs	-0.72 (0.50)	-0.86* (0.46)	-0.67 (0.47)	-0.67* (0.37)	-0.84* (0.46)
<i>Meany</i>	7.89	7.89	7.95	7.89	7.86
Transfers	-9.44	-11.3	-11.7	-8.77	-10.8
Dep. Variable: % Protest					
Vox Runs	-0.51*** (0.10)	-0.31*** (0.11)	-0.40*** (0.061)	-0.35*** (0.097)	-0.27*** (0.10)
<i>Meany</i>	3.80	3.80	3.42	3.79	3.81
Transfers	-6.69	-4.04	-6.98	-4.59	-3.46
Dep. Variable: % Abstention					
Vox Runs	-2.26*** (0.22)	-2.03*** (0.21)	-1.66*** (0.21)	-2.01*** (0.29)	-1.98*** (0.21)
<i>Meany</i>	22.9	22.9	24.0	22.9	22.8
Transfers	-29.7	-26.5	-29.1	-26.4	-25.6
Dep. Variable: % Blank					
Vox Runs	-0.20*** (0.070)	-0.079 (0.075)	-0.15*** (0.040)	-0.12 (0.080)	-0.062 (0.073)
<i>Meany</i>	2.03	2.03	1.82	2.03	2.04
Transfers	-2.66	-1.04	-2.68	-1.61	-0.80
Dep. Variable: % Null					
Vox Runs	-0.31*** (0.066)	-0.23*** (0.067)	-0.25*** (0.039)	-0.23*** (0.058)	-0.21*** (0.065)
<i>Meany</i>	1.77	1.77	1.61	1.76	1.77
Transfers	-4.03	-3.00	-4.30	-2.98	-2.67
NObs	60741	68173	78167	77049	75649
NClusters	6440	6466	6896		6992

Notes: See notes to Table E.12.

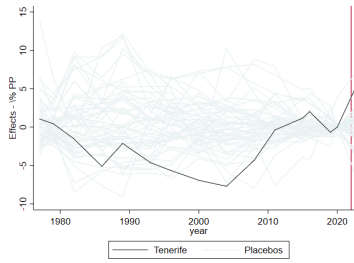
Figure E.1: Synthetic Controls: Placebo Effects



(a) Right



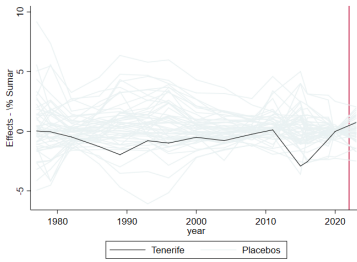
(b) Vox



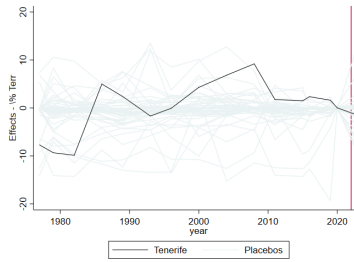
(c) PP



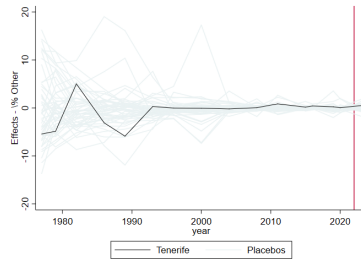
(d) PSOE



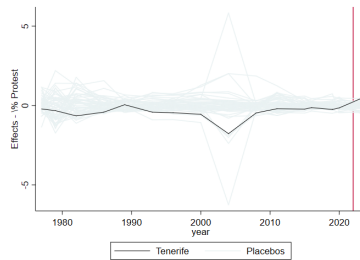
(e) Sumar



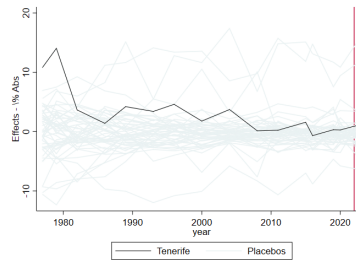
(f) Territorial



(g) Other Parties



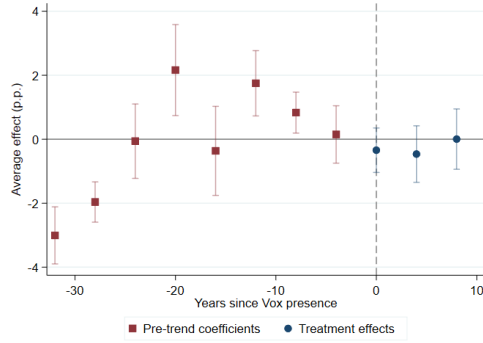
(h) Protest



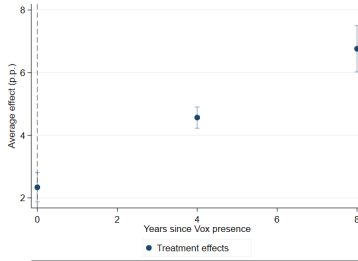
(i) Abstention

Notes: For each dependent variable, each figure shows the estimated effect from our baseline synthetic control specification (Table 5), for the “true” treated province (Tenerife, in black) and placebo treated provinces (in light blue).

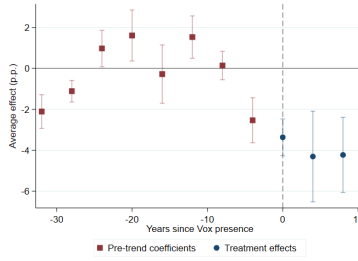
Figure E.2: Local Elections: Whole Sample



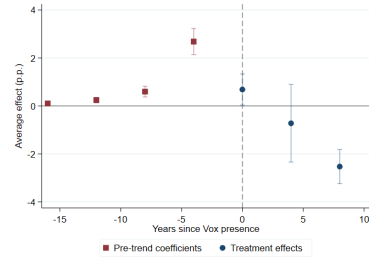
(a) Right



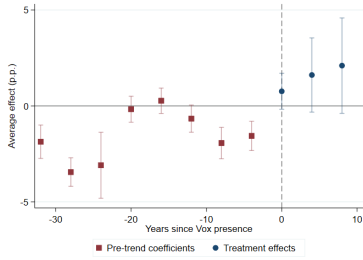
(b) Vox



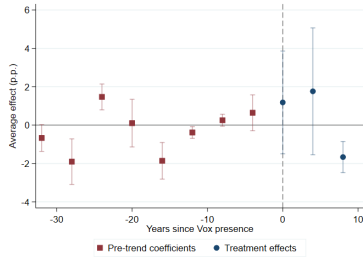
(c) PP



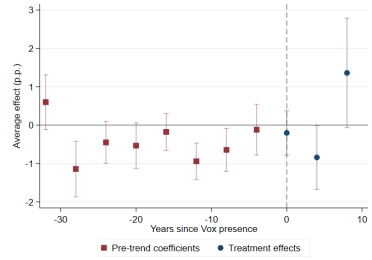
(d) Cs



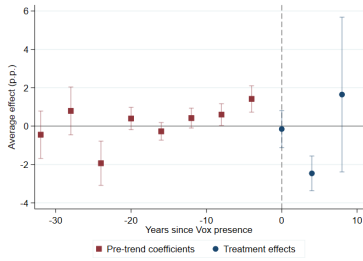
(e) PSOE



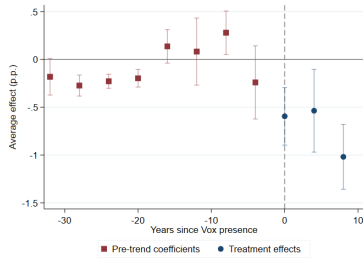
(f) Sumar



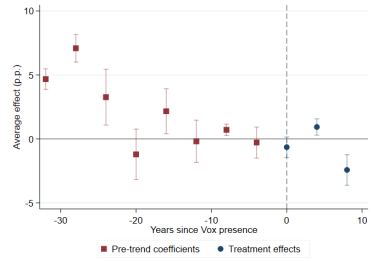
(g) Territorial



(h) Other Parties



(i) Protest



(j) Abstention

Notes: Each figure shows the point estimates and 95% confidence intervals for the $R_{c,t}$ coefficients in equation (2), estimated following Callaway and Sant'Anna (2021). The unit of observation is a census tract-election. Standard errors clustered by municipality. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table E.14: Elections in Western Europe: Presence of New/Radical Right Parties

	Left Bloc	Right Bloc
Austria	-4.24	3.54
Belgium	-1.26	6.45
Denmark	-5.35	5.16
France	-9.99	5.18
Finland	-6.57	7.49
Germany	-6.86	5.40
Greece	-2.55	-0.41
Italy	9.48	-3.11
Netherlands	-2.23	2.37
Norway	-7.30	6.12
Portugal	2.22	-0.73
Sweden	-7.17	6.91
Average	-3.48	3.70

Notes: p.p. differences in the vote shares of left- and right-wing parties between elections where the radical or new right gathered more than 5% of the votes and less than 5%.