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HOW SUBSTITUTABLE ARE THE CLASSICAL AND RADICAL RIGHT?

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ABSTRACT

Over the last two decades, a new generation of right-wing parties and leaders has emerged worldwide. A central question is how substitutable voters perceive these parties to be relative to the classical right. We address this question using a quasi-natural experiment from Spain's 2023 general election. Due to a last-minute candidate withdrawal, the radical right (Vox) could not run in one constituency. This unexpected event, unrelated to economic or ideological fundamentals, allows us to estimate the effects of radical right parties on electoral outcomes. Using a synthetic difference-in-differences design, we find that the classical right captured 82.9% of the radical right vote. The radical right's absence also slightly increased the vote share for left-wing parties and nearly doubled protest voting. These effects are stronger in high-unemployment areas, suggesting that the classical and radical right are less likely to be viewed as substitutes there. Additional analyses using survey data corroborate our findings.

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1 Introduction

The past two decades have seen the rise of a new crop of right-wing parties worldwide, from Argentina and Hungary to Italy and Poland.[1] These parties are driven by issues such as immigration, economic stagnation, political corruption, and anti-elitism. Yet they represent a clear break from the three main right-wing traditions after World War II: classical liberals, Christian democrats, and conservatives (Fernández-Villaverde and Santos, 2017). We refer to these new parties as the "radical right" (henceforth, RR) and the older ones as the "classical right" (henceforth, CR).[2]

The rise of the RR has attracted significant scholarly attention for several reasons (see Guriev and Papaioannou, 2022 for a review). Funke et al. (2023) show that populist policies have large economic effects, while Abou-Chadi and Krause (2020) find that RR representation shifts mainstream parties' policy positions. A central question is how substitutable voters perceive these parties to be relative to the classical right. Existing studies have addressed this using survey data or by linking vote shares to local characteristics or events (Dal Bó et al., 2023; Dehdari, 2022).

In this paper, we take a different approach: we study how voters behave when the RR is not on the ballot. How many RR supporters would shift their vote to the CR in the absence of a viable RR option? How many would cast a protest vote or even support a party on the left?

This last possibility is intriguing. RR parties have drawn support in areas that traditionally voted for the left, for example, the National Rally in northern France and the AfD in East Germany. Whether left-wing parties can win back some of those voters when the RR is absent remains an open question.

Also, while it may seem intuitive that most RR voters would migrate to the CR, aggregate electoral outcomes could vary greatly depending on whether that share is 90% or just 60%. In the former case, the RR simply splits the right-wing vote; in the latter, it expands it. This is a setting where knowing the precise magnitude of the effect —not just its sign— is essential to understanding the evolution of political equilibria.

Answering the questions above is challenging for two main reasons. First, polls and

[1] In countries with first-past-the-post systems, like the U.S., a similar shift has occurred within established parties.

[2] By RR we refer to parties in families 10 (right-wing) and 11 (extreme right-wing), according to the Representative Democracy Data Archive, which classifies European parties into 12 families. Others refer to them as the new right, far right, or populist right. By CR, we mean parties in the Agrarian, Liberal, Christian Democratic, and Conservative families.

surveys are often unreliable, as many voters hesitate to reveal their beliefs or behavior (Guriev and Papaioannou, 2022). Second, a party's or candidate's presence in an election is rarely exogenous. Parties choose strategically where and when to run, and their presence may reflect voter demand.[3]

Our design overcomes these challenges by exploiting a quasi-natural experiment. In the Spanish general election of July 23, 2023, Spain's RR party (Vox) was unable to run in one constituency —Santa Cruz de Tenerife— because several of its candidates withdrew just before the filing deadline.[4] The withdrawal was unexpected by Vox and other parties, leaving no time to adjust the remaining candidate lists. It stemmed from a personal power struggle within the local Vox branch, unrelated to ideological, strategic, or sociological factors. The dispute affected only Tenerife; Vox contested the other 51 constituencies in Spain.

Our approach offers seven advantages. First, Tenerife is close to the median Spanish constituency: the right's vote share is similar to the national average, and local parties attract substantial but not dominant support. Second, the RR's absence is unrelated to any variable of interest. Third, we use data from an actual high-stakes election —a general election forecasted as a toss-up— rather than from surveys. Fourth, we observe voting at the census-tract level, allowing us to match treated tracts in Tenerife with similar tracts elsewhere that followed parallel voting paths, working with a large sample of 579 tracts in Tenerife and 31,700 in the rest of Spain. Fifth, Tenerife elects seven deputies under proportional representation, close to the Spanish median of five, reducing incentives for strategic voting and helping us capture voters' "sincere" preferences. Sixth, Vox's absence in only one constituency allows a clean estimate of RR voters' second preferences; a nationwide absence might have changed other voters' behavior. Seventh, Spain's centralized campaign structure meant that Vox's absence in one constituency barely affected national strategies. By limiting strategic reactions, our design provides a clearer view of second preferences than if Vox had been excluded nationwide.

We estimate the effects of the RR's absence on electoral outcomes using a synthetic difference-in-differences model. The identifying assumption is that, aside from Vox's ab-

[3] A partial exception occurred in the early 2000s, when a pro-independence leftist party in the Basque Country and Navarre was banned from local elections due to its ties to a terrorist group. Arenas (2021) exploits the quasi-exogenous variation in the ban's duration across municipalities to study its effects. Our case, however, has the advantage of being unexpected, unlike the Basque and Navarre case, which followed a lengthy legal process. Another exception is Pons and Tricaud (2018), discussed below.

[4] To avoid repetition, we use Tenerife as shorthand for Santa Cruz de Tenerife. Tenerife is also an island within the constituency; we will specify the island explicitly when referring to it instead of the constituency as a whole.

sence, no other shock affected electoral behavior in the treated (Tenerife) census tracts relative to the control group. We validate this in three ways. First, pre-trend analyses show that treated and control tracts followed parallel voting paths before 2023. Second, we use the May 2023 local elections —held nationwide two months earlier— for robustness checks matching on those results and capturing any recent economic or demographic changes. Third, although Vox did not run for Congress in Tenerife, it *did* run for the Senate, elected the same day. Because voting in Spain follows party lines, with a roughly 95% correlation between Congress and Senate votes, this allows a triple-difference estimation using Senate votes in Tenerife as a counterfactual.

Our results imply that the right bloc would have gained an additional 2.21 percentage points over the electoral roll had the RR run. This follows because the CR only captured a fraction of the RR vote: assuming no cross-bloc transfers, our estimates indicate that the main CR party in Spain, the Popular Party (PP), attracted 82.9% of the Vox vote.

A second finding is that the RR's absence from the ballot increases protest voting (i.e., blank and null votes). The effect is very large: protest votes rise by 67.0% (from 0.91% to 1.52% of the census) in our baseline specification. While some of these votes might reflect dissatisfaction with the electoral commission or with Vox's internal disarray—not genuine second-choice expression—this suggests a substantial share of expressive, rather than strategic, voting.

A third finding is that left-wing parties capture a portion of the RR vote. The vote shares for the two main left-wing parties increase by 0.96 and 0.42 percentage points, respectively. This result indicates that RR voters sometimes favor a left-wing party as their second preference, rather than a mainstream conservative one, reflecting patterns observed in the geographical distribution of RR support in countries like France.

We conduct a heterogeneity analysis and find that the decrease in the right bloc's vote and the increase in protest votes caused by the RR's absence are significantly stronger in high-unemployment census tracts. This suggests that in those areas, the CR and RR are less likely to be seen as substitutes, supporting the view that many RR voters are driven by concerns like immigration, nationalism, cultural change, and economic hardship rather than the CR's traditional focus on balanced budgets, low taxes, and market-friendly policies. By contrast, we find no heterogeneous effects by age, education, or income of the census tract.

Next, we simulate counterfactual election outcomes in which Vox did not contest any constituencies in Spain. A naive approach, often postulated in the public debate and the media, assumes all Vox votes transfer to the PP and ignores the possibility

that some new-right voters may not support the CR. Our analysis shows that while the right secures more votes when the RR is on the ballot, splitting these votes across two lists imposes costs in systems with less-than-proportional seat allocation. Overall, these opposing forces nearly offset each other, leaving a net change in the right-wing bloc's parliamentary seats of only one or two deputies.

Still, electoral dynamics could have been fundamentally different without Vox's nationwide presence. Thus, our counterfactuals offer a first approximation of how likely new-right voters are to switch to the traditional right. They do not capture broader "general equilibrium" effects, such as shifts in campaign strategy or messaging.

As an external validation, we use survey data, which complements our analysis in two ways. First, it covers all of Spain, allowing us to generalize beyond Tenerife. Second, it lets us test whether our findings also hold at the individual level. We examine how respondents who identify Vox as their preferred party grade the main parties on a 0–10 scale, where 0 means strong disapproval and 10 strong approval. We find that 13.5% of Vox sympathizers rate the PP a 0, and 27% give it a score between 0 and 3. Moreover, 90.2% list the PP as their weakly preferred second party, and 75.4% as their strictly preferred second party.[5] Finally, we conduct a heterogeneity analysis of how Vox sympathizers' preferences correlate with socioeconomic characteristics. The results show that unemployed Vox supporters grade the main CR and left parties far more negatively than non-unemployed sympathizers. These findings are consistent with our vote data estimates, suggesting similar patterns across Spain.

While we focus on the right side of the political divide, our investigation of these political views is not one-sided. A similar research design could be applied to the role of some of the new left-wing parties that have appeared in Europe, such as Podemos in Spain. However, our quasi-natural experiment cannot answer whether left-wing voters respond in similar ways to the presence or absence of new parties on the ballot.

We contribute to three strands of the literature. First, a key aspect of the rise of RR parties is understanding who votes for them. The work most closely related to ours is Dal Bó et al. (2023), who use precinct-level data to analyze how support for the Sweden Democrats varies with precinct characteristics. They find higher electoral support in precincts with larger shares of marginalized groups. The authors also show that the Sweden Democrats over-represent labor-market outsiders, while this was not the case for other new parties. Dehdari (2022) shows that self-reported unemployment risk is positively associated with voting for the Sweden Democrats among low-skilled

[5]The former definition includes cases where the party is tied for second place.

respondents, while the opposite holds for high-skilled respondents. They also find that layoff notices among low-skilled native-born workers increases support for the Sweden Democrats, and decreases votes for the Left Party. Anelli et al. (2021), using survey data from European elections, demonstrate that vulnerability to the negative consequences of automation increases RR support.

While survey data are valuable, stated intentions may not translate into actual behavior. For instance, a respondent might claim they would support party X if party Y were unavailable, yet act differently when faced with that choice at the ballot box. These concerns are especially relevant for RR supporters. As Guriev and Papaioannou (2022) emphasize, the same forces that drive voters toward populist parties also foster distrust of pollsters (see also Valentim, 2021). Our setup allows us to estimate how RR voters behave in the absence of their preferred party using actual voting outcomes from a high-stakes election, not surveys.

Second, a related strand of the literature examines the determinants of RR voting. Inglehart and Norris (2016) advance two hypotheses: the economic insecurity hypothesis, which highlights workforce dislocation and broader transformations in post-industrial economies, and the cultural backlash hypothesis, which attributes RR support to reactions against progressive values. Both mechanisms have received empirical support.

On the economic side, evidence points to the role of adverse economic shocks (Guiso et al., 2024), regional economic decline (Rodríguez-Pose et al., 2023), rising unemployment (Algan et al., 2017), fiscal consolidations (Gabriel et al., 2023), exposure to import competition (Dippel et al., 2022; Colantone and Stanig, 2018), as well as economic and demographic shocks linked to refugee inflows (Dustmann et al., 2019).

Regarding cultural factors, Danieli et al. (2022) show that the main driver of RR parties' recent success is voters relying less on economic and more on nativist cultural positions. Other studies emphasizing non-economic aspects include Guriev et al. (2021), who find that the spread of 3G internet weakened confidence in government and increased RR support by exposing corruption, and Giuliano and Wacziarg (2020), who show that weaker social capital predicted stronger support for Donald Trump in 2016.[6]

Our results suggest that the socio-economic context, such as unemployment, not only shapes support for the RR, as previous studies have shown, but also correlates with RR supporters' second preferences. Specifically, RR voters in high-unemployment areas are less likely to support the CR and more likely to cast protest votes in the RR's absence.

[6] Additional drivers of RR voting include perceptions of unfairness (Kim and Hall, 2023) and negative emotions or life dissatisfaction (Ali et al., 2024).

Survey evidence further shows that unemployed Vox sympathizers feel more distant from the CR than employed ones.

Third, we contribute to the literature by examining whether voters act expressively or strategically. Existing studies often rely on surveys to infer preferences or assume a direct link between preferences and votes. Kawai and Watanabe (2013) analyze Japan's general election using a structural model and find that 63–85% of voters behave strategically. Spenkuch (2015) exploit a flaw in Germany's electoral system that allowed a party to gain seats by losing votes in a by-election, finding that 9% of voters were non-expressive. Spenkuch (2018) compare German party-list votes under proportional representation with candidate votes under plurality, showing that about one-third are strategic. Pons and Tricaud (2018) use France's two-round elections to show that a third candidate in the second round disproportionately hurts the closest ideological competitor, a pattern consistent with our findings. Because Spain's multi-member proportional representation system weakens the strategic incentives found in systems like France's single-member districts, we can better capture voters' true ideological preferences.

Additionally, we estimate the share of the RR vote that shifts to blank or null ballots. These votes, often interpreted as protest votes, can also occur accidentally and are usually insufficient to measure expressive voting. However, since, as we explain below, there is no reason for accidental votes to change disproportionately in Tenerife in 2023, we interpret the blank and null votes caused by Vox's absence as protest behavior. Our results show that around 11% of RR voters cast a protest vote when unable to support their preferred party.

Finally, we contribute to the discussion on the impact of the RR on government formation. When the electoral system is not fully proportional, splitting the right vote into two (or more) parties means that the same number of votes translates into fewer seats. This argument is frequently invoked in public debate as a reason for parties on the right to unite and run under a single electoral list.[7] For example, the recent rise of the Reform UK party has sparked a public debate on whether it should join forces with the Conservative Party.[8] A similar debate exists in Spain, where it has been argued that the electoral system of seat allocation "penalizes the ideological bloc that goes to the polls more fragmented," and many believe that had the right run as one party instead of two, it would have obtained a majority of seats in the 2023 election.[9]

[7] A similar argument applies to left parties.

[8] https://www.ft.com/content/61c86b56-389b-4fc8-aa88-55f0dcaa3e8b?utm

[9] See https://www.larazon.es/opinion/editorial/la-division-castiga-al-centro-derecha-GF23409197. 86.7% of right-leaning individuals (and 72.7% of Vox supporters) believe that PP

Our analysis highlights that these arguments miss a crucial ingredient: what share of RR voters would be willing to support a CR party in the absence of an RR party? Our counterfactual framework, which can be applied to other Spanish elections as well as to other countries, identifies the minimum share of party A's voters who must shift to party B for party A's withdrawal to increase the combined seat share of A and B. In other words, we estimate the threshold of voter reallocation required for party A's exit to be electorally advantageous for its ideological bloc. This framework clarifies the strategic incentives parties face and contributes to broader debates on electoral coordination.

The rest of the paper is organized as follows. Section 2 provides institutional background. Section 3 outlines our research design. Section 4 presents the results. Section 5 discusses the interpretation of our findings. Section 6 offers supporting evidence from survey data. Section 7 concludes. An Online Appendix provides additional results.

2 Institutional Background and Data

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

The Spanish electoral system. Spain is a parliamentary monarchy with a multi-party system. Its bicameral legislature ("Cortes Generales") is composed 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 limited.

General elections are held at least once every four years. However, early elections are often called, either by the prime minister or when certain 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 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.[10]

Political parties submit closed constituency-wide lists of candidates to the electorate.

and Vox running separately benefits the left: https://www.larazon.es/espana/encuesta-report-aval-votante-vox-derecha-radical_2025021167aaa5cde95c0600018d0c50.html. The PP leader has repeatedly argued that the right "loses" if it is divided, e.g., https://www.economiadigital.es/politica/feijoo-voto-derecha-pp-vox.html.

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

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. The candidates are elected according to the order in which they appear on the party list and without any compensation across constituencies.[11]

The closed-list rule has two implications. First, party leaders are almost always listed first. Second, list positions often cause bitter internal disputes: being third rather than fourth can decide whether one is elected. While Spanish parties have recently adopted primaries to select national or regional leaders (not mandated by law but increasingly common), lower positions are set by electoral committees or through internal bargaining.

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

The Spanish party system. 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, in the 2008 general election, these two parties gathered 82% of all votes cast. In all 14 general elections from 1982 to 2023, PSOE and PP have captured the top two positions in votes and deputies. There was also a small United Left coalition ("Izquierda Unida"), the centrist party "Centro Democrático y Social" (which became irrelevant by the early 1990s), and many nationalist and regional parties. These parties are strong in Catalonia and the Basque Country and moderately strong in Galicia, Navarre, Valencia, and the Canary Islands.[12]

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, fueled by public discontent over political corruption and the contractionary fiscal measures adopted in response to the economic crisis. In the 2015 election, Podemos nearly overtook the PSOE as the main party on the left, obtaining a 19% vote share (vs. 22% for 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

[11] Coalitions, federations of parties, and voters' associations can also submit lists of candidates. Nearly all electoral rules apply equally to them, so we simply refer to "parties."

[12] We use 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 may be less familiar to non-Spanish readers.

and 13% in November 2019. Despite these losses, Podemos and the United Left joined a coalition government with the PSOE after the latter election.

Second, Ciudadanos ("Citizens"), a center/center-right party created in 2006 in Catalonia primarily as an anti-independence party, expanded to the rest of Spain, obtaining a 14% vote share in the 2015 election. It received 13% in 2016, grew to 16% in April 2019, and fell to 7% in November 2019.

The last new national party to break through —and our focus— is Vox. This right-wing party ran in the 2015 and 2016 elections but obtained a meager 0.2% vote share. However, Vox grew dramatically in subsequent elections, securing 10% of the vote in April 2019 and 15% in November 2019.

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 center-right 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.[13]

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 Sánchez called for a snap election to be held on July 23, 2023 —six months ahead of the end of the four-year legislative period.

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 that Vox was not running in the constituency of Tenerife. Due to infighting about the order of the candidates within the list, several of Vox's candidates informed the Provincial Electoral Commission that they were no longer running a few hours before the filing deadline. This 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

[13]In these elections, CC ran in a coalition with New Canaries ("Nueva Canarias," a center-left regionalist party, hereafter NC). We include NC in CC votes to facilitate comparisons over time. Doing so 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.

Commission and filed criminal charges against the renegade candidates, the Provincial Electoral Commission turned the appeal down, and the criminal charges were dismissed.

Importantly, Vox's infighting was unrelated to Tenerife's economic or social context, or to differences in ideology or political agendas. According to media reports, the dispute centered on who would secure a higher position on the list. This last-minute development surprised both Vox and the other parties running in Tenerife, who had assumed Vox would field candidates when finalizing their own lists. Notably, Vox still ran Senate candidates in Tenerife, as those were unaffected by the power struggle. Thus, we can consider Vox's failure to file a candidate list for Tenerife as a quasi-natural experiment caused by internal power clashes. In this framework, Tenerife serves as the treatment group, with the rest of Spain as the control group.

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

Vox's platform. Vox's platform for the 2023 election emphasized proposals favoring a return of power to the central government and away from regional governments, opposing immigration (in particular from non-Spanish speaking countries and outside the European Union), and reversing recent changes to legislation on social issues (e.g., gender violence, and transgender and euthanasia rights).

On the economic side, Vox advocated a major tax overhaul, with only two personal income tax brackets (15% and 25%), a lower VAT, and the elimination of many other taxes. It supported removing VAT for Spaniards purchasing their first home, reducing public spending, liberalizing labor laws, and promoting reindustrialization with protections for national industries over multinationals. At the same time, Vox's program called for higher spending on health care, education, elderly and dependent care, and infrastructure.

We can quantify Vox's position and place it in international perspective using data from the Chapel Hill Expert Surveys.[14] On social and cultural values, the survey placed

[14]Specifically, we use data from the Special Edition Chapel Hill Expert Survey on Ukraine, conducted in June 2023, one month before the 2023 election. Completed by 217 political scientists specializing in political parties and European integration, the survey covers political parties in 30 countries, including all European Union member states except Luxembourg and Cyprus, plus Iceland, Norway, Switzerland, Turkey, and the United Kingdom.

Vox at 9.9 on a 0–10 scale, where 0 stands for libertarian/postmaterialist and 10 for traditional/authoritarian.[15] For comparison, the mean value for parties in Vox's RR family was 8.8. On economic issues, the survey placed Vox at 8.7 on a 0–10 scale, where 0 is extreme left and 10 is extreme right.[16] The mean value for parties in Vox's RR family was 5.9.

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 —Vox, PP, PSOE, and Sumar— and a group that we will call territorial parties.[17] Among the territorial parties, we highlight CC in Tenerife and Las Palmas, but there are many territorial parties in other regions.[18] We also perform some analysis for the right bloc as a whole, which includes the sum of the CR (PP, Ciudadanos, and CC) and the RR (Vox). Finally, we add blank and null votes as protest votes. The Appendix shows the results when we do not do so.[19]

All shares are defined relative to the census, as is standard in the literature (Pons and Tricaud, 2018). 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

[15]The question reads: Parties can be classified in terms of their views on social and cultural values. Libertarian or postmaterialist parties favor expanded personal freedoms, for example, abortion rights, divorce, and same-sex marriage. Traditional or authoritarian parties reject these ideas in favor of order, tradition, and stability, believing that the government should be a firm moral authority on social and cultural issues. Where did political parties stand on libertarian/traditional issues in the last three months?

[16]The question reads: Parties can be classified in terms of their stance on economic issues such as privatization, taxes, regulation, government spending, and the welfare state. Parties on the economic left want government to play an active role in the economy. Those on the economic right want a reduced role for government. Where did political parties stand on economic issues in the last three months?

[17]To facilitate comparisons over time, Sumar votes include those that the United Left, Podemos, and Más País (a breakaway from Podemos) obtained in previous elections; all these parties and coalitions ran together under the collective umbrella Sumar in 2023. Similarly, given that Ciudadanos did not run in 2011 or 2023, we add its votes to PP's. We do the same for Unión, Progreso y Democracia, a centrist party that only ran until the 2016 election. In all these cases, results are very similar if we treat the parties separately.

[18] See Appendix A for a list of territorial parties.

[19]Blank 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 ballots 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 in Tenerife in 2023: 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.

shares instead as relative to turnout or valid votes would create an endogeneity problem, given that these variables may have 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 2,688 census tracts (56 in Tenerife) with changes in boundaries since 2011. We define a change in boundaries as the centroid of a census tract moving by more than 250 meters. We verified that all results remain unchanged when including these observations in the analysis. Electoral constituencies have remained unchanged since 1977 (but not the seats assigned to each constituency, which adjust to changes in population).

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 mean net household income (in euros)— and three sociodemographic variables: the share of foreign population, the share with higher education, and mean age.[20] Unemployment, foreign population, and education data are obtained from the 2021 census. Income and mean age are obtained from the Atlas de Distribución de Renta de los Hogares, published 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 census tracts. We do not weight the moments by 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), voting in Tenerife is close to being representative of Spain. In 2023, the mean census tract in Tenerife had a 22.35% vote share for PP, while it was 24.17% in the rest of the country. For PSOE, these figures are 21.72% and 22.33%, while for Sumar, they are 6.88% and 8.21%. CC is different, as it only runs in the Canary Islands, but there is a non-negligible share of territorial votes in Spain ("Terr" in our figures and tables throughout the paper: 11.14%

[20]Higher education includes university undergraduate and graduate degrees and advanced professional or vocational training.

Table 1: Sample Characteristics

	(1)			(2)			(3)
	Tenerife			Rest of Spain			Diff.
	mean	sd	N	mean	sd	N	
Election 2023							
% Right	33.50	7.60	579	35.09	12.61	31713	1.60***
% Vox	0.00	0.00	579	8.66	4.53	31700	8.66***
% PP	22.35	6.66	579	24.17	12.33	31700	1.82***
% PSOE	21.72	4.24	579	22.33	6.68	31700	0.61***
% Sumar	6.88	2.71	579	8.21	4.27	31700	1.32***
% Terr	11.14	4.84	579	5.57	10.83	31700	-5.57***
% Protest	1.46	0.62	579	1.32	0.93	31700	-0.14***
% Abstention	35.26	7.18	579	28.73	8.41	31700	-6.53***
Election 2019							
% Right	32.74	7.38	579	33.59	11.48	31713	0.85**
% Vox	6.83	1.97	579	10.20	5.66	31700	3.38***
% PP	12.62	4.71	579	16.14	9.65	31700	3.53***
% PSOE	17.73	3.74	579	19.64	7.11	31700	1.91***
% Sumar	9.35	3.50	579	9.93	5.04	31700	0.58***
% Terr	10.36	4.49	579	7.45	14.65	31700	-2.91***
% Protest	1.04	0.43	579	1.35	0.94	31700	0.31***
% Abstention	37.77	7.23	579	29.73	7.97	31700	-8.04***
Economics and Sociodemographics							
% Foreign Nationality	9.38	9.45	579	10.28	8.74	30349	0.90*
% Higher Education	25.76	11.08	579	26.61	12.50	30349	0.85
Mean Age	44.52	2.83	579	45.80	5.48	31700	1.28***
% Unemployed	25.06	6.51	579	17.11	8.16	30349	-7.95***
Mean Income	30563.88	8259.27	579	33012.61	10543.46	31686	2448.73***
Population of Mun	95682.87	83713.79	579	404231.13	870186.11	31700	308548.26***

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

in Tenerife vs. 5.57% in the rest of Spain).[21] On the other hand, abstention is higher (35.26% in Tenerife vs. 28.73% in the rest of Spain).

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. It also has a higher unemployment rate (25% vs. 17%) and is somewhat poorer.[22]

[21]The 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.

[22]We 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

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 each got three seats, and CC won one.

3 Research Design

Synthetic difference-in-differences (SDID). We use a SDID design. This method combines difference-in-differences (DID) and synthetic controls (SC), relaxing the strong parallel trends assumption in DID and addressing SC's bias when the pre-treatment fit is imperfect or treatment correlates with unobserved confounders. Intuitively, SDID gives more weight to comparison units and time periods that resemble the treated ones, yielding more robust estimates than DID or SC alone (Arkhangelsky et al., 2021).[23]

The first step is to find unit weights $\hat{\omega}_i^{\text{sdid}}$ that align pre-treatment trends in the outcome of control units with those of treated units, and time weights $\hat{\lambda}_t^{\text{sdid}}$ that balance pre- and post-treatment periods. These weights are then used in a standard DID regression. In our case, we fit:

$$(\hat{\tau}_{\text{sdid}}, \mu, \hat{\alpha}, \hat{\beta}) = \arg\min_{\tau,\mu,\alpha,\beta} \sum_{i=1}^{N}\sum_{t=1}^{T} \left(Y_{ct} - \mu - \alpha_c - \beta_t - \text{NoVox}_{ct}\tau\right)^2 \hat{\omega}_c^{\text{sdid}} \hat{\lambda}_t^{\text{sdid}}, \quad (1)$$

where Y_{ct} is the dependent variable, e.g., vote share for a given party, in census tract c and election year t; α_c are census tract fixed effects; β_t are election-year fixed effects; and NoVox_{ct} is the treatment variable, equal to 1 for census tracts in Tenerife in 2023 and 0 otherwise. Our estimate of the effect of Vox's absence on the dependent variable is τ. We use bootstrap standard errors for inference.[24] We also show the results when

unemployment rates has not translated in the past into differences in electoral behavior.

[23] SDID can also improve precision by implicitly removing systematic (predictable) components of the outcome. Also, both unit and time weights are chosen solely from observed outcome data, reducing researcher discretion.

[24] Arkhangelsky et al. (2021) propose two alternatives: placebo and jackknife inference. The placebo approach assumes equal error variance in treatment and control groups. The jackknife assumes that the time weights that would be chosen for the treated unit (absent treatment) resemble those chosen for the control group. Bootstrap standard errors do not require these assumptions but are more computationally demanding.

estimating a traditional DID.

Sample selection. Our main working sample is based on a subset of matched census tracts. Specifically, we match each census tract where Vox did not run in 2023 (treatment group) with one where Vox did participate (control group), using the Mahalanobis distance between covariates.[25] Our preferred approach matches on electoral outcomes —vote shares for the main parties (Vox, PP, PSOE, Sumar, territorial), protest votes, and abstention— from the previous general elections used in our analysis (2011–2019). Past electoral behavior is an excellent predictor of voter behavior at the census-tract level.[26] As a robustness check, we also show results based on matches using sociodemographic and economic controls, May 2023 local election results, or matching CC using only the right-wing territorial vote, which —as discussed in Section 2— reflects both territorial and right-wing components.

We focus on elections from 2011 onward, covering five pre-treatment general elections: 2011, 2015, 2016, April 2019, and November 2019. While we could go further back in time, this is not advisable for two reasons. First, including earlier elections may improve long-term similarity between treatment and control groups but reduces similarity in recent elections. Since recent voting patterns better predict current behavior (see Table D.1), we prioritize recent electoral alignment. Second, a structural break in voter behavior in our treatment district (Tenerife) and our main control (Las Palmas) occurred between the 2008 and 2011 elections.[27]

In our baseline sample, we impose a caliper that limits the distance between treated and control units on matched variables. A smaller caliper reduces bias by ensuring greater similarity but also decreases the number of observations. We choose a baseline caliper that is sufficiently low to allow for good pre-trends in the outcomes of interest while still keeping our estimates precise. We show the robustness of the results when using larger calipers or no caliper. When matching on additional variables (e.g., sociodemographics and economic factors) or performing additional analyses that require larger sample sizes (e.g., heterogeneity analyses), we omit the caliper to maximize observations.

[25] Mahalanobis matching is effective at balancing covariates across their full distribution and performs well under various settings.

[26] Columns (1) and (3) of Table D.1 show regressions of PP and PSOE vote shares on past elections, with R^2 values of 0.92 and 0.76, respectively. Columns (2) and (4) show that the May 2023 local election results also help predict the July 2023 vote.

[27] More specifically, there was a party split in 2005 in the main territorial party, CC, that affected the two provinces differently. While the split had an "ideological" dimension —i.e., whether CC should move further left— it was driven by a few island-level CC organizations. The electoral impact of this split was felt after 2008.

Table D.2 in the Appendix shows the number of census tracts by province in the different samples used for estimation. Most control tracts come from Las Palmas, which is not surprising: it is the other province in the Canary Islands and shares many cultural and socioeconomic features with Tenerife.

Identification. Our identification assumption is that, aside from Vox's absence, no shock affected voting behavior in the 2023 election in treated census tracts relative to those in the matched control sample. While this assumption is not directly testable, it is likely to hold. First, the pre-trend analysis shows that treated and control tracts followed parallel voting paths in the elections prior to 2023. While this does not rule out changes between the last election (November 2019) and the treatment election (July 2023), it is reassuring. Second, we are not aware of any event during this period that would have affected Tenerife census tracts relative to their matched controls.[28] Third, the results are robust to matching on the May 2023 local elections —held just two months before the general election. While local elections have an idiosyncratic component, they correlate with general election outcomes (see Table D.1). Thus, if some economic or political fundamentals changed between 2019 and 2023, this approach would capture them. Fourth, we also use the Senate election results in Tenerife, as explained next.

Triple difference design. As an alternative research design, we use the outcome of the 2023 Senate election in Tenerife. Vox's difficulties filling its list of candidates for Congress did not spill over to the Senate. While parties must submit a list for Congress, Senate candidates run as individuals (though parties can endorse them and candidates may coordinate campaigns). In practice, parties usually "ask" individuals to run. Vox did not face any last-minute withdrawals among the Senate candidates it had endorsed in Tenerife.

Thus, we can examine Vox's performance in the Senate races in Tenerife and use it as a counterfactual for how the party would have performed in the Congress election. The Senate constitutes an excellent counterfactual for Congress elections because the two chambers are elected on the same date, and voting in Spanish general elections is usually along "party lines." There is roughly a 95% correlation between votes in both houses.

[28] There was a change in the Canary Islands' regional government following the 2023 regional elections, but this also affected Las Palmas, which contains most of our control tracts. A more significant shock was the 2021 Cumbre Vieja volcanic eruption on La Palma, in Santa Cruz de Tenerife. Its effects were localized to a small area on an island with only 83,875 residents. Dropping La Palma from the sample leaves results unchanged.

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 about how to aggregate votes into parties. We discuss this point in Appendix B.

Consider a triple-difference estimation of the form:

$$\begin{aligned} Y_{cth} = \alpha &+ \beta_1 \text{Tenerife}_c + \beta_2 \text{Congress}_h \\ &+ \beta_3(\text{Tenerife}_c \times \text{Congress}_h) + \beta_4(\text{Tenerife}_c \times \text{Post}_t) + \beta_5(\text{Congress}_h \times \text{Post}_t) \\ &+ \beta_6(\text{Tenerife}_c \times \text{Post}_t \times \text{Congress}_h) + \gamma_t + \epsilon_{cth}, \end{aligned} \tag{2}$$

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, and for election type $h \in \{\text{Congress}, \text{Senate}\}$; Tenerife_c is a dummy for census tracts in Tenerife province; Congress_h is a dummy for Congress elections; and γ_t are election-year fixed effects. Our estimate of Vox's absence is given by β_6, which captures the differential effect in Congress relative to Senate elections. As in our main analysis, we use an SDID approach to estimate equation 2.[29]

Equation (2) takes three differences. The first is how the vote share for a given party, let us say the PP, changed in the Tenerife province in the 2023 Congress election: $(\%PP_{\text{Tenerife=1,Congress=1,Post=1}} - \%PP_{\text{Tenerife=1,Congress=1,Post=0}})$. 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:

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

This approach controls for changes in electoral behavior from past elections 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. In the SDID, 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:

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

The identification assumption is weaker than in our main design, as it requires only

[29] Results are very similar if we perform a traditional DID design.

that from 2019 to 2023, there was no electoral shock in Tenerife (other than Vox's absence from the Congress ballot) *specific to the Senate election*.

One possible violation of the assumption would be if Vox's candidates for Senate in the Tenerife province were comparatively strong (or weak) in 2023. However, as explained above, voting in Spanish general elections is strongly along party lines, and voters are often not aware of who is running in their Senate constituency (recall that the upper house's role is very limited). As in our main analysis, we examine pre-trends in the outcomes of interest to assess the plausibility of the identification assumption.

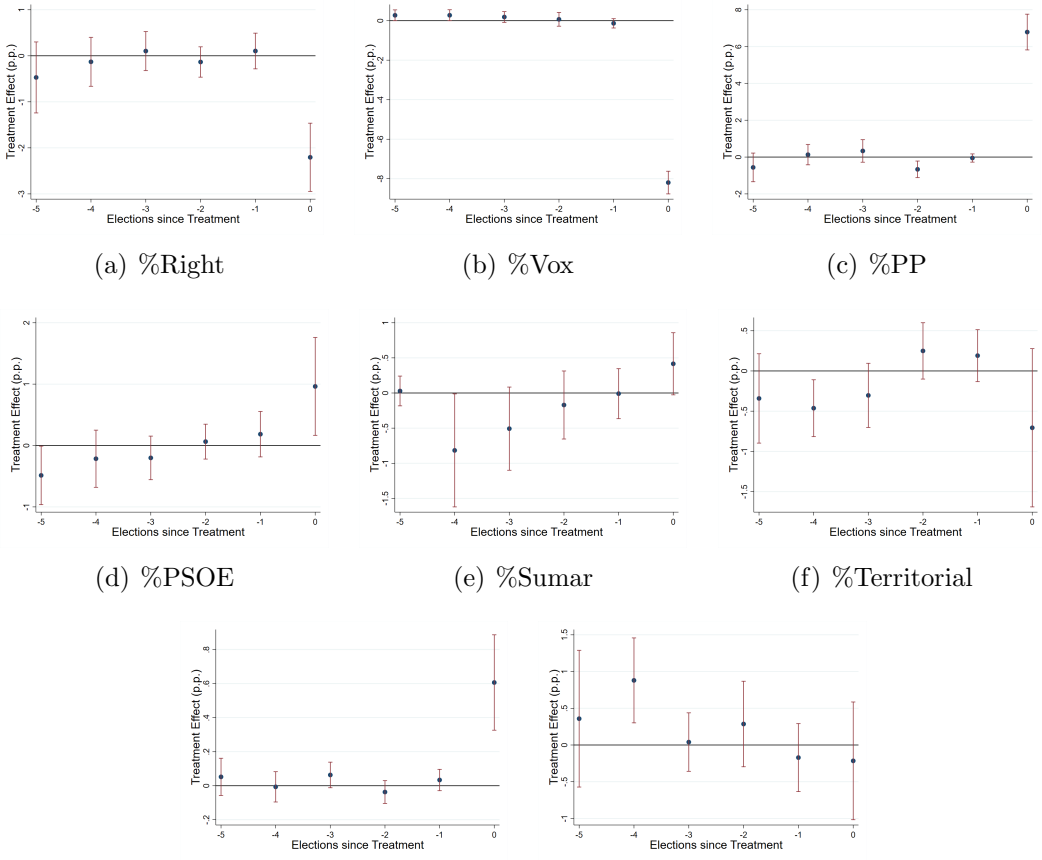
A second possible violation would arise if Vox's absence from the Congress ballot affected Senate voting through "coattail effects," for example, by lowering Vox voters' motivation to turn out (either because the Senate vote is less important or due to disappointment with the party's infighting). To assess this possibility, we conduct placebo tests using our main SDID, with Senate rather than Congress as the dependent variable. The results, reported in Table D.3 in the Appendix, show that while some effects are statistically significant, their magnitudes are small (below 1 p.p.), indicating that the Tenerife Senate election was largely unaffected by Vox's absence. We do, however, find a modest rise in protest votes (0.38 p.p. vs. 0.61 p.p. in the Congress election), suggesting limited spillover effects.

4 Results

Figure 1 presents the results for our preferred specification. The lines before the last election ($t = 0$) serve as a pre-trend check. The figure shows that pre-trends are well aligned across most outcomes, although slightly less so for the vote for Sumar and the territorial parties.

Table 2 shows the treatment effects corresponding to the previous figure, i.e., for the 2023 election ($t = 0$). Column (1) shows that the right (CR + RR) lost 2.21 p.p. in vote share due to Vox's absence, a 6.7% drop relative to the control group's mean vote share for the right (33.05%). Column (2) estimates that Vox would have obtained 8.19% of the vote had it presented a slate in Tenerife. Column (3) indicates that Vox's absence increased the PP's vote share by 6.79 p.p., a 36.2% rise relative to the PP's control group mean (18.76%). Assuming no cross-bloc transfers, the estimates imply that 82.9% of

Figure 1: Effects of Vox's Absence on the Election Results



(a) %Right (b) %Vox (c) %PP

(d) %PSOE (e) %Sumar (f) %Territorial

(g) %Protest (h) %Abstention

Note: Results from SDID estimations at the census tract-election level. Dependent variables: votes for the right (panel a), votes for the indicated parties (panels b-f), protest votes (blank plus null votes, panel g), and abstention (panel h), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 election. Dots show point estimates. Lines represent 95% confidence intervals based on 50 bootstrap replications. The sample is derived from a matching estimation (see main text for details).

Vox voters switched to the PP.[30]

The other national parties, PSOE and Sumar, saw slight increases in vote share — 0.96 p.p. for PSOE (column 4) and 0.42 p.p. for Sumar (column 5). One might have expected smaller —or even negative— effects if left-wing voters had been demobilized in Tenerife, feeling less need to counterbalance the RR. However, as noted above, since Vox

[30]This holds if voters satisfy the classic axiom of decision theory: independence of irrelevant alternatives. For instance, a voter who prefers PP over PSOE when Vox is on the ballot should not switch to PSOE if Vox is absent. We already argued that strategic considerations that could overrule this axiom were limited, since Tenerife elects seven members of Congress under proportional representation.

Table 2: Effects of Vox's Absence on the Election Results

	(1) % Right	(2) % Vox	(3) % PP	(4) % PSOE	(5) % Sumar	(6) % Terr	(7) % Protest	(8) % Abs
No Vox	-2.21***	-8.19***	6.79***	0.96***	0.42**	-0.71*	0.61***	-0.22
	(0.38)	(0.29)	(0.50)	(0.41)	(0.23)	(0.50)	(0.14)	(0.41)
$Mean_Y$	33.05	7.97	18.76	17.34	9.99	6.72	0.91	36.94
N Units	110	110	110	110	110	110	110	110
N Elections	6	6	6	6	6	6	6	6
N Obs	660	660	660	660	660	660	660	660

Note: Results from SDID estimations at the census tract-election level. Dependent variables: votes for the right (column 1), votes for the indicated parties (columns 2-6), protest votes (blank plus null votes, column 7), and abstention (column 8), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 election. The sample is derived from a matching estimation (see main text for details). $Mean_Y$ indicates the mean of the dependent variable for observations in the control group in the last election before 2023. Bootstrap standard errors (N = 50) in parentheses. *p<0.1; **p<0.05; ***p<0.01.

did not run in only one constituency, national campaign dynamics were likely unaffected, limiting such strategic responses.

These transfers toward the left are small but not implausible. Voters are motivated by multiple issues, and their preferences often do not align in a single-peaked manner along a left-right spectrum. For example, as explained in Section 2, Vox has often supported increased social spending and stronger worker protections, which may have appealed to voters whose second preferences lean left rather than toward the more traditionally business-friendly PP. Vox also has its own affiliated trade union, Solidaridad, unlike the PP, which does not have its own affiliated trade union.

We do not find a significant effect for the territorial party, CC (column 6). While CC shares some right-wing positions, notably on immigration, it supports strong regional autonomy and opposes Vox's centralizing agenda. CC has also publicly ruled out any coalition with Vox. The small negative impact could be related to a demobilization effect of CC voters or small sample noise.

We estimate that many of the votes lost by the right shifted to protest votes, which rose by 0.61 p.p. – a substantial increase. Given a baseline of 0.91% of the census, this implies a 67.0% surge in protest voting. Our estimates suggest that 7.5% of Vox voters cast a protest vote. Some of these votes might reflect dissatisfaction with the electoral commission or with Vox's internal disarray —not genuine second-choice expression. Since protest votes are not instrumental, this points to a sizable share of expressive voting.

Finally, we do not detect a significant effect on abstention. One likely reason is that

Vox voters could still participate in the Senate election. Another is that many saw PP as close enough to Vox to justify voting. While some may not have realized that Vox was absent from the ballot, this effect was likely minor, as the party's failure to register a list was widely reported by the media three weeks before election day.

Based on Table 2, the counterfactual seat allocation in Tenerife, had Vox run, would have been: PSOE (3), PP (2), CC (1), and Vox (1). Our point estimates indicate that Vox would have retained its seat at the expense of the PP, which would have lost its third seat.

Robustness. Figure D.1 reports the results from estimating a "traditional" (non-synthetic) DID model. The findings closely mirror those from our preferred SDID design.

Tables D.4 and D.5 in the Appendix show the robustness of our results to alternative sample definitions. Column (1) reports the baseline. Columns (2) and (3) show results with a larger caliper and with no caliper, respectively. Column (4) shows results using the whole sample, i.e., without matching. Columns (5)-(7) report estimates when matching additionally on the sociodemographic and economic variables described in Section 2, in the May 2019 and May 2023 local elections, or when matching on territorial right-wing parties rather than all territorial parties,[31] respectively. Column (8) restricts the sample to regions with strong regional parties —Catalonia, the Basque Country, Navarre, Galicia, and the Canary Islands. Column (9) further narrows the sample to Tenerife and Las Palmas, the province arguably most similar to Tenerife. Column (10) does the opposite and drops Las Palmas census tracts.

All results confirm that the right loses support when the RR is absent, consistent with our baseline estimates. The magnitude is even larger in some specifications, ranging from 2 p.p. in the baseline up to 4 p.p. Other outcomes remain similarly stable: Vox's absence slightly boosts the left vote, increases protest votes, and, in some cases, raises abstention. Results for the territorial vote (CC), the far left vote (Sumar), and abstention are less stable.[32] In panels 3 and 4 of Table D.5, protest votes are disaggregated into blank and

[31] We classify CC, NC, CiU/Junts, and PNV as territorial right-wing parties.

[32] Results from columns (9) and (10) are interesting. Placebo estimations for Las Palmas (available upon request) suggest that Vox grew more there than in the rest of Spain in 2023, while the PP and the territorial party performed worse. Two interpretations are possible. First, regional media may have amplified Vox's withdrawal in Tenerife, creating spillovers. Second, another regional shock, such as immigration becoming a salient issue in Canarias, may have affected Las Palmas differently. The implications for our estimates differ across these cases: under spillovers, removing Las Palmas from the control group is preferable; under a regional shock, keeping it provides a better counterfactual. Reassuringly, results with or without Las Palmas census tracts are very similar, see columns (9) and (10) of Tables D.4 and D.5.

null votes. Both rise following Vox's absence, with a particularly sharp increase in blank votes. This is consistent with blank votes being less likely to occur by accident than null votes. In the baseline, blank votes almost double, increasing from 0.43% to 0.82% of the electoral census, while null votes increase from 0.48% to 0.72%.

Triple difference. Next, we turn to the results using the Senate as an additional counterfactual. Figure D.2 in the Appendix presents these results graphically. As in our main design, they are generally well-behaved, but less so for the vote on Sumar and the territorial party.

Table 3 reports the estimates for $t = 0$. Column (1) shows that Vox's absence reduced the right's vote share by 2.36 p.p., close to the SDID estimate. Column (2) provides the counterfactual for Vox: it would have obtained a 6.89% vote share. Column (3) reports that the PP's vote share increased by 4.64 p.p., implying it captured 67.3% of Vox's support, not far from our baseline estimate of 82.9%.

Columns (4) and (5) show a null effect for PSOE and a 0.32 p.p. effect for Sumar. Contrary to our SDID estimates, we obtain a significant effect for the territorial party, CC (see column 6). However, the point estimate (-0.49) is close to that found using the SDID. This result shows that shifts in voter turnout due to Vox's absence from the Congress ballot, and their potential effect on left-wing parties, are small.

The effect on protest votes is positive and significant at the 5% level, though smaller in magnitude than the SDID estimate. Finally, we find a positive effect on abstention. Overall, the results closely mirror those obtained with the SDID.[33]

Heterogeneity. Next, we study the heterogeneity of the effects documented so far. We employ a triple-difference design (using only Congress elections) in which we regress:

$$\begin{aligned} Y_{ct} = \alpha &+ \beta_1 \text{Tenerife}_c + \beta_2 \text{High Un.}_c \\ &+ \beta_3(\text{Tenerife}_c \times \text{High Un.}_c) + \beta_4(\text{Tenerife}_c \times \text{Post}_t) + \beta_5(\text{High Un.}_c \times \text{Post}_t) \\ &+ \beta_6(\text{Tenerife}_c \times \text{Post}_t \times \text{HighUnemployment}_c) + \gamma_t + \epsilon_{ct}, \end{aligned} \tag{3}$$

where all variables are defined as in equation (2), and $\text{HighUnemployment}_c$ is a dummy indicating whether the unemployment rate of census tract c was above the median

[33] In the November 2019 election, Vox did not run for the Senate on the islands of La Gomera and El Hierro. Dropping these islands does not affect the results, which is unsurprising given that they contain only nine census tracts.

Table 3: Triple Difference Using the Senate Election: Effects of Vox Presence on Election Outcomes

	(1) % Right	(2) % Vox	(3) % PP	(4) % PSOE	(5) % Sumar	(6) % Terr	(7) % Protest	(8) % Abs
No Vox	-2.36***	-6.89***	4.64***	-0.07	0.32**	-0.49***	0.15**	0.19***
	(0.11)	(0.09)	(0.17)	(0.17)	(0.16)	(0.17)	(0.08)	(0.08)
$Mean_Y$	29.77	7.29	12.70	19.32	9.18	8.30	1.12	37.89
N Units	629	629	629	629	629	629	629	629
N Elections	6	6	6	6	6	6	6	6
N Obs	3774	3774	3774	3774	3774	3774	3774	3774

Note: Results from synthetic DDD estimations at the census tract-election year-election type (Congress or Senate) level. Dependent variables: votes for the right (column 1), votes for the indicated parties (columns 2-6), protest votes (blank plus null votes, column 7), and abstention (column 8), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 Congress election. The sample is derived from a matching estimation (see main text for details). $Mean_Y$ indicates the mean of the dependent variable for observations in the control group in the last election before 2023. Bootstrap standard errors (N = 50) in parentheses. *p<0.1; **p<0.05; ***p<0.01.

unemployment rate in 2021.[34] Hence, β_5 captures the change in the dependent variable in census tracts with high (as opposed to low) unemployment, and β_6 captures the differential effect of Vox's absence in census tracts with high unemployment, relative to those with low unemployment.

Table 4 shows the results of estimating equation (3).[35] First and foremost, the table suggests that in areas with higher unemployment, RR voters are less likely to switch to the CR. The triple interaction coefficient indicates that, in high-unemployment census tracts, the absence of the RR reduces the right bloc's vote share by 3.62 p.p. relative to low-unemployment tracts. The results further show that the effect on protest votes is more pronounced in census tracts with higher unemployment, with the triple interaction coefficient being 0.26 p.p. and statistically significant at the 1% level. That is, the estimates suggest that, absent the CR, RR voters are more likely to cast a protest vote in areas with high unemployment than in areas with low unemployment.

The same results also point to some heterogeneity in the vote share for the radical left party, Sumar. In particular, the coefficient indicates that the radical left captures some of the RR vote in high-unemployment areas. This finding aligns with evidence from other European countries —such as the National Rally in France attracting voters

[34]We define the median relative to the census tracts in our estimation sample (not in the whole of Spain), and separately for census tracts in Tenerife and in the control groups.

[35]Table D.6 reports results where, instead of using a triple-difference approach, we run separate difference-in-differences estimations for high- and low-unemployment census tracts.

Table 4: Heterogeneous Effects by Unemployment Rate

	(1) % Right	(2) % Vox	(3) % PP	(4) % PSOE	(5) % Sumar	(6) % Terr	(7) % Protest	(8) % Abs
Tenerife	3.77**	-0.090	0.51	-0.30	-0.31	-0.78	-0.021	0.67
	(1.70)	(0.29)	(3.01)	(0.89)	(0.48)	(3.97)	(0.061)	(0.51)
HU	-4.23***	0.078	-2.03	1.65*	-0.50	-5.85	0.10**	6.49***
	(1.34)	(0.41)	(2.97)	(0.97)	(0.46)	(4.00)	(0.044)	(0.70)
HU x Post	1.22	1.77***	-2.96***	0.40	-1.63***	2.65*	-0.21***	0.011
	(1.02)	(0.33)	(0.58)	(0.62)	(0.32)	(1.34)	(0.070)	(0.91)
Tenerife x HU	0.80	-0.43	-2.61	-1.26	-1.58***	7.41*	-0.13***	-1.16
	(1.34)	(0.41)	(2.97)	(0.97)	(0.46)	(4.00)	(0.044)	(0.70)
Tenerife x Post	-0.92	-6.80***	4.36***	1.00	0.17	1.90	0.35***	-1.00
	(1.38)	(0.65)	(1.08)	(0.60)	(0.48)	(2.06)	(0.052)	(1.16)
Tenerife x HU x Post	-3.62***	-1.42***	2.05***	0.39	1.59***	-4.50***	0.26***	1.27
	(1.02)	(0.33)	(0.58)	(0.62)	(0.32)	(1.34)	(0.070)	(0.91)
Mean_Y	35.2	2.47	26.1	16.0	11.1	10.8	1.29	30.8
N Units	836	836	836	836	836	836	836	836
N Elections	6	6	6	6	6	6	6	6
N Obs	5016	5016	5016	5016	5016	5016	5016	5016

Note: Results from estimations of equation (3) at the census tract-election level. Dependent variables: votes for the right (column 1), votes for the indicated parties (columns 2-6), protest votes (blank plus null votes, column 7), and abstention (column 8), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 Congress election. The sample is derived from a matching estimation (see main text for details). $Mean_Y$ indicates the mean of the dependent variable for observations in the control group in the last election before 2023. Standard errors clustered by province are reported in parentheses. **p<0.05; ***p<0.01.

from the Communist Party, as noted in the introduction. Figure D.3 presents the event study figures for these estimations. For some variables, pre-trends are less stable than in our main specification but remain reassuring, particularly for the main results on votes for the right and protest votes.

5 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 for the PP in the rest of Spain, following our counterfactuals in Tenerife, either in Table 2 or in Table 3. Second, we increase the votes of PSOE and Sumar, also as in Tables 2 or 3. Third, we assume that the votes of territorial parties remain unchanged.[36]

[36]We also leave protest votes unchanged, since they are irrelevant to the allocation of seats in the Spanish Congress.

This assumption aligns with Table 2, where the change in the territorial vote is insignificant at the 5% level, but not with Table 3, where CC's vote share decline is small but statistically significant. This discrepancy has little practical impact. The allocation of Congress seats remains unchanged in all provinces, whether we assume the territorial vote is constant or falls by the point estimates in Table 2 or Table 3, except in Tarragona. There, two territorial parties —ERC and Junts— each won a seat. If we assign Junts the entire estimated loss (it won the last of six seats), that seat would shift to the PP. Thus, readers preferring the point estimates from Table 2 or Table 3, even if not statistically significant, need only add one seat to the PP and subtract one from Junts in the counterfactuals below.

Table 5 reports the results of our exercise. The first row of Table 5 shows the actual results. The right bloc obtained 171 deputies (33 for Vox and 138 for the PP), PSOE 121, Sumar 31, and all territorial parties 27.[37]

Table 5: 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	172	0	172	122	30	26
Counterfactual III	170	0	170	122	32	26

Note: Number of seats obtained by each party or group of parties in the 2023 general election under different scenarios. **Counterfactual I** assumes all Vox voters switch to the PP. **Counterfactual II** extrapolates the SDID estimates to the rest of Spain. **Counterfactual III** is based on the triple-difference estimates.

The second row of Table 5 reports the counterfactual election in which Vox does not run and all its votes transfer to the PP. This case serves as a benchmark for the two more realistic counterfactuals below. The PP would obtain 181 deputies, surpassing the 176-seat majority threshold in Spain's lower house and thus forming a majority government. This scenario, however, is not credible, as it assumes all Vox voters shift to the PP, contrary to our estimates.

The third row of Table 5 reports the counterfactual where Vox does not run and, following the SDID estimates, the PP absorbs 82.9% of Vox's votes (see Table 2). Here,

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

the right-wing bloc wins 172 seats (all PP), compared to 171 in the actual results. PSOE gains one seat, Sumar loses one, and the territorial parties lose one. Although the D'Hondt rule penalizes party fragmentation, the extra votes the right gains through Vox's participation largely offset this penalty.

The fourth row of Table 5 presents the counterfactual in which Vox does not run and, based on the triple-difference estimates, the PP gains 67.3% of Vox's actual votes (see Table 3). In this case, the right-wing bloc secures 170 seats (all from the PP), one fewer than in the actual election. PSOE and Sumar gain one seat each, and the territorial parties lose one seat. Overall, Counterfactuals II and III yield broadly similar outcomes.

In both counterfactuals, the election outcome would remain unchanged: the right bloc would still fall short of a majority and need at least the external support of smaller nationalist parties, such as PNV. To reach 176 deputies, the PP would have to capture 82% of Vox's votes and prevent any transfer of Vox votes to the left.

We also ran additional counterfactuals, conditioning the share of Vox votes transferred to the PP on socio-economic factors (e.g., unemployment). All results fall within the narrow bounds of Counterfactuals II and III in Table 5. Because most Spanish constituencies are small (five members or fewer), few seats change when we alter the counterfactual assumptions.

Our counterfactuals face several limitations. First, Vox's absence in Tenerife changed the election in that constituency but did not alter national strategies. For example, PSOE repeatedly warned voters that Vox would likely join a coalition with the PP (or at least provide external support) if PSOE underperformed. Had Vox not run anywhere, PSOE would have pursued a different national strategy.

Second, Vox's internal infighting may have turned some voters against the party, and results could differ if its absence stemmed from other causes. For instance, if Vox had been prevented from running by a systemic action —in the extreme, if declared illegal— the share of voters switching to the CR would likely be smaller. Conversely, if Vox had voluntarily withdrawn in favor of right-wing unity, the shift to the CR might have been larger than in our estimates.

Third, voters may have seen Vox's internal conflict as a sign of dysfunction in potential coalition partners, which could have reduced support for the PP. In that case, the observed PP vote share may reflect both second-preference switches and negative spillovers from the episode.

Estimating such "general equilibrium effects" is beyond the scope of this paper. Still, we conjecture that our estimates for the left parties' gains represent an upper bound in

the scenario where Vox was absent from the ballot nationwide.

Finally, as explained earlier, Vox's absence was announced three weeks before the election and widely reported in the press, so most voters were aware of it. Still, if some voters only learned of the absence upon arriving at the polling station, they may have ended up voting for the CR or casting a protest vote, having already incurred the cost of going to vote. We hypothesize that a counterfactual with perfect information would lead to a higher share of Vox voters abstaining and a lower share switching to protest votes or the CR.

6 Survey Data

As an external validation analysis, we examine voters' preferences using survey data from across Spain. We use an online survey conducted in July 2023, just before the general election. This survey is ideal for our purposes because it includes a large sample size (around 4,000 respondents) and asks participants to rate all major political parties in Spain. This allows us to assess how voters of a given party perceive other parties.

Here, we focus on individuals who report that their preferred party is Vox, whom we refer to as "Vox sympathizers."[38] We study how these voters rate other parties on a 0–10 scale.[39] See Appendix C for details.

The results are displayed in Figure D.4 in the Appendix. Vox sympathizers rate Vox the highest: 49% give the party a 10 out of 10, and 14% give it a 9 out of 10. The PSOE is rated poorly, with 64% giving it a 0 out of 10 and 10% a 1 out of 10. What is especially interesting is the rating given by Vox sympathizers to the PP. The median is 5 out of 10, but a considerable share (13.5%) of Vox sympathizers give the PP a 0 out of 10. Furthermore, 27% assign the PP a grade from 0 to 3 —a figure even higher than the share of Vox voters that we estimate do not switch to the PP in Tenerife (17.3%). As we noted earlier, Vox and the PP have maintained a bitter relationship since Vox's creation, and many media commentators sympathetic to Vox have repeatedly argued that they see few substantive differences between the PP and PSOE.

As an alternative way to examine the preferences of Vox's sympathizers, we calculate the share who rate the PP as their second most preferred party. We find that 90.2% of Vox sympathizers list the PP as their weakly preferred second party, and 75.4% as their

[38]The question asks: "Please, indicate which party you feel more sympathy for" (in Spanish: "Por favor, indica por qué partido sientes más simpatía").

[39]The question asks: "On a scale of 0 to 10, where 0 is 'you do not like it' and 10 is 'you like it,' how would you rate the following parties?" ("Utilizando una escala de 0 a 10, en la que 0 significa que no te gusta y 10 que te gusta, ¿qué sentimiento te generan los siguientes partidos?")

strictly preferred second party. For the PSOE, the corresponding figures are 16.6% and 2.9%.[40]

Finally, we conduct a heterogeneity analysis to examine whether Vox sympathizers' evaluations of other parties correlate with economic insecurity. Recall that, in Vox's absence, we found a higher share of protest votes and a smaller vote share for the CR in high-unemployment census tracts. Here, we investigate whether the grades given by Vox's sympathizers to the PP or the PSOE vary with unemployment, income, and education. Specifically, we run:

$$\text{NetGrade}_{ij} = \beta_0 + \beta_1 \text{Unemployed}_i + \beta_2 \text{LowEducation}_i + \beta_3 \text{LowIncome}_i + \mathbf{X}_i + \epsilon_{ij},$$

where i denotes a respondent and $j \in \{PP, PSOE\}$ denotes a party. The variable NetGrade_{ij} is defined as $\text{NetGrade}_{ij} = \text{Grade}_{ij} - \text{Grade}_{i,Vox}$, that is, the difference between how a Vox sympathizer grades the PP or the PSOE versus their preferred party (Vox). The variables Unemployed_i, LowEducation_i, and LowIncome_i are dummies indicating whether the respondent has no employment, a low level of education, or low income, respectively.[41] Finally, $\mathbf{X}_i$ is a vector of individual-level controls (gender, age, and region-of-residence dummies), and ϵ_{ij} is an idiosyncratic error term.

The results are reported in Table D.7 in the Appendix. Odd (even) columns present estimates without (with) controls. Unemployed individuals grade both PP and PSOE much more negatively than the rest of the population. The magnitudes are large (around 1–1.5 points on a 0–10 scale) and statistically significant at the 1 or 5% level, depending on the specification. These patterns cannot be explained by unemployed respondents being generally more negative toward parties, as the dependent variable is the grade for PP or PSOE net of Vox. Coefficients for income and education are smaller and mostly insignificant, though low-income respondents tend to assign higher grades to PSOE. The finding that unemployed Vox sympathizers evaluate the PP more negatively is consistent with our quasi-natural experiment in Tenerife, which showed that Vox supporters were less likely to vote for the CR and more likely to cast protest votes in areas with high unemployment.

[40] The former definition includes cases in which the party is tied for the second position with another party. Note that this may include ties at a 0 grade, i.e., respondents giving all parties a 0. In fact, these 0-ties account for 62% of ties.

[41] *Unemployed = 1* if the respondent is without employment, i.e., students and pensioners are not considered unemployed. *Low Education = 1* if the highest completed grade obtained by the respondent was no formal education, basic school education, secondary school education, or school graduate. *Low Income = 1* if the respondent had an average monthly gross income (including all sources of income such as salaries, pensions, or capital income) during the previous year (2022) of less than 900 euros.

The analysis of survey data aligns with our estimates from actual vote data, providing suggestive evidence that the results may generalize to the rest of the country.[42]

7 Conclusion

The party system in many countries has shifted over the past two decades with the rise of RR parties and candidates. Yet, estimating their effect on electoral and political outcomes remains an open question. In this paper, we exploited an internal conflict within the RR party in Spain that prevented it from running in one (fairly representative) Spanish constituency to estimate how the absence of the RR affects voter behavior. Our results imply that the absence of the RR reduces the vote share for the right bloc and increases protest votes. These effects are more pronounced in high-unemployment areas. Tentative survey evidence from the rest of Spain suggests that these patterns may generalize across the whole country.

However, much more research is needed in this area. In particular, we need a better understanding of party strategies as the party system evolves, the dynamic effects over time, and the "general equilibrium" effects that our research design cannot fully capture. We leave these questions for future research.

[42] Additionally, in the working paper version of this article, we found that other continental European countries exhibited behavior similar to what we documented for Tenerife. On average, the presence of RR parties correlates with a 3.70 p.p. increase in the right bloc's vote share and a 3.48 p.p. decrease in the left bloc's share (the 0.22 p.p. difference reflects variation in minor regional party votes). This aligns with our Tenerife analysis, which implied a gain of 2.21 p.p. in the baseline result. These results suggest that more right-wing options translate into more votes for the right.

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Online Appendix

A Regional Parties

We include as territorial votes those cast for the following parties or coalitions (under their various names over time): CC, NC, Convergència i Unió/Junts, Esquerra Republicana de Catalunya, Partido Nacionalista Vasco (PNV), Herri Batusuna/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 the PP. In most general elections (though not in 2023), both parties run jointly. Given the small size of Unión del Pueblo Navarro, this adjustment has no meaningful impact on our quantitative results.

B The Electoral System for the Senate

An oddity of the Spanish electoral system is that senators are elected at the provincial level in the 47 mainland provinces, but at the island level in the Balearic and Canary Islands (each of which comprises several islands per province). Additional senators are appointed directly by regional parliaments and by the autonomous cities of Ceuta and Melilla.

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

Given the different electoral systems between the two chambers, some differences in voting behavior arise. For example, Tenerife elects seven seats to Congress, meaning that voters of mid-size parties are less concerned about wasting their votes. If their preferred party receives at least around 11% of the votes cast (not of the electoral roll — with 63% turnout, this is about 6.9% of the roll), it is likely to secure one seat.[43]

[43]The exact threshold depends on other parties' performance. A vote share of 14.29% (100 divided by 7, the number of seats) guarantees one seat. In practice, due to votes going to small parties, being blank or null, and remainder effects in apportionment, the effective threshold is closer to 11%. For example, Vox won one seat in November 2019 with 11.53% of the vote (6.96% of the electoral roll).

For the Senate, however, voting for any candidate not endorsed by one of the two largest parties is rarely effective. In Tenerife, the three elected candidates are almost always the top two from the party that won the Congressional vote and one from the runner-up, as roughly 95% of voters follow party lines. This pattern is even more pronounced in La Gomera, El Hierro, and La Palma, where senators are elected via a first-past-the-post system.

C 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 conducted online in June and July 2023 (before the general election) on a representative sample of the Spanish population. YouGov, an analytics firm, carried out the fieldwork. The sampling framework was designed to ensure representativeness by age, gender, region of residence, and education level.

The questionnaire was completed by 4,620 individuals. Following the pre-analysis plan, we drop respondents who failed the attention check (555 observations) or completed the survey in 11 minutes or less —the bottom 5% of response times (207 observations). We then retain respondents who identified Vox as the party they sympathize with most (399 observations).

D Additional Tables and Figures

Table D.1: Predictors of Voting

	(1) % Vote PP	(2) % Vote PP	(3) % Vote PSOE	(4) % Vote PSOE
% Vote Nov 2019	0.56***	0.49***	0.32***	0.24***
	(0.015)	(0.015)	(0.017)	(0.018)
% Vote Apr 2019	0.22***	0.18***	0.44***	0.45***
	(0.016)	(0.016)	(0.017)	(0.017)
% Vote 2016	0.26***	0.24***	-0.14***	-0.14***
	(0.018)	(0.017)	(0.021)	(0.021)
% Vote 2015	-0.11***	-0.083***	-0.083***	-0.13***
	(0.016)	(0.016)	(0.016)	(0.016)
% Vote 2011	0.084***	0.059***	0.26***	0.28***
	(0.0069)	(0.0067)	(0.0099)	(0.0099)
% Vote Mun 2023		0.12***		0.085***
		(0.0035)		(0.0031)
Constant	-1.21***	-0.65***	4.92***	5.00***
	(0.049)	(0.050)	(0.080)	(0.079)
Observations	31700	31263	31700	31263
R^2	0.92	0.93	0.76	0.78

Note: The unit of observation is a census tract. Each column reports the results of an OLS regression. The dependent variable is the vote share for the PP (columns (1) and (2)) or the PSOE (columns (3) and (4)) in the 2023 general election. Independent variables are the votes for the same party in the indicated election. Robust standard errors are reported in parentheses. ***p<0.01.

Table D.2: Number of Census Tracts by Province

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Araba/Álava		1	1	210	2					3
Albacete		1	1	257						1
Alicante/Alacant		1	3	1070	7	3	2			7
Almería		1	1	351	2	3				1
Ávila				286						
Badajoz		1	1	352	1	1	1			
Illes Balears		2	4	582	1	3	2			12
Barcelona	1	3	20	3290	12	16	1	62		49
Burgos				551			2			2
Cáceres				388		1				
Cádiz	2	6	9	806	4	7	2			17
Castellón/Castelló	1	2	2	389	3	1				6
Ciudad Real		1	2	395	1	2				2
Córdoba			1	553	1					2
A Coruña		3	5	781	6	6		18		22
Cuenca				306						1
Girona	1	6	10	479	10	2	4	12		13
Granada		1	1	560	3	5				2
Guadalajara				361		1				
Gipuzkoa			2	503	2		3	3		6
Huelva				299		2				1
Huesca				260						
Jaén				464						
León				390	1	1				
Lérida			2	366	2	1		1		8
La Rioja				322	1					1
Lugo		1	2	224	2	1		4		7
Madrid	2	12	14	3962	10	6	5			33
Málaga	2	4	5	897	3	10	2			15
Murcia			2	1121	4	3	1			4
Navarra				550			1	2		
Ourense	1	1	3	214		2		4		5
Asturias		1	3	737	5	3	1			4
Palencia				258						
Las Palmas	32	81	139	644	153	152	167	151	164	
Pontevedra	1	2	4	643	4	6		25		20
Salamanca				507	1	2				1
Tenerife	66	276	579	579	579	579	579	579	579	579
Cantabria				407		1				7
Segovia				254						
Sevilla			1	1114	2	7	2			4
Soria				206			1			
Tarragona		1	2	454	3	3		5		6
Teruel				262						
Toledo		1	1	403		3				2
Valencia/València		4	4	1661	3	4	4			8
Valladolid				495	1	1				
Bizkaia		2	10	880	10	11	36	9		23
Zamora				313	1					1
Zaragoza	1	1	2	839	3	1	1			3
Ceuta				46						
Melilla				38						
N Units	110	416	836	32279	843	850	817	875	743	878
Caliper	10	15	No	No	No	No	No	No	No	No
Matched Var.	Base.	Base.	Base.	None	Mun.	Cov.	Terr. Right	Base.	Base.	Base.
Regions	All	All	All	All	All	All	All	W/ Reg. Parties	Canarias	W/O Las Palmas

Note: Number of matched census tracts by province in each specification. The number of census tracts in the treated province (Tenerife) does not equal the sum of control census tracts because matching is performed with replacement —a single control tract may be matched to multiple treated tracts.

Table D.3: Effects of Vox's Absence on the Senate Election

	(1) % Right	(2) % Vox	(3) % PP	(4) % PSOE	(5) % Sumar	(6) % Terr	(7) % Protest	(8) % Abs
No Vox	-0.86*	-0.80***	-0.36	0.04	0.40**	0.48	0.38***	-1.02**
	(0.56)	(0.28)	(0.48)	(0.50)	(0.22)	(0.65)	(0.15)	(0.60)
$Mean_Y$	34.53	6.78	21.48	17.74	8.81	6.44	2.37	37.11
N Units	110	110	110	110	110	110	110	110
N Elections	6	6	6	6	6	6	6	6
N Obs	660	660	660	660	660	660	660	660

Note: Results from SDID estimations at the census tract-election level, using Senate (instead of Congress) elections. Dependent variables: votes for the right (column 1), votes for the indicated parties (columns 2-6), protest votes (blank plus null votes, column 7), and abstention (column 8), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 election. The sample is derived from a matching estimation (see main text for details). $Mean_Y$ indicates the mean of the dependent variable for observations in the control group in the last election before 2023. Bootstrap standard errors (N = 50) in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table D.4: Synthetic Difference in Differences: Robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dep. V.: % Right										
No Vox	-2.21***	-2.42***	-3.43***	-3.25***	-3.45***	-3.40***	-3.20***	-3.97***	-3.77***	-2.35***
	(0.38)	(0.28)	(0.23)	(0.13)	(0.21)	(0.18)	(0.30)	(0.25)	(0.27)	(0.39)
$Mean_Y$	33.05	32.11	31.62	33.57	31.55	31.86	32.02	31.03	32.15	31.33
Dep. V.: % Vox										
No Vox	-8.19***	-7.61***	-7.40***	-6.17***	-7.35***	-7.39***	-7.55***	-7.50***	-8.06***	-5.93***
	(0.29)	(0.17)	(0.10)	(0.06)	(0.14)	(0.12)	(0.13)	(0.12)	(0.12)	(0.15)
$Mean_Y$	7.97	7.43	7.02	10.14	7.06	7.21	6.84	6.58	7.00	6.92
Dep. V.: % PP										
No Vox	6.79***	5.72***	5.56***	3.02***	5.45***	5.46***	6.01***	5.57***	6.30***	2.32***
	(0.50)	(0.31)	(0.24)	(0.11)	(0.30)	(0.25)	(0.19)	(0.29)	(0.25)	(0.28)
$Mean_Y$	18.76	17.29	15.82	20.49	15.69	16.06	15.60	15.50	15.88	16.01
Dep. V.: % PSOE										
No Vox	0.96***	0.93***	1.36***	2.71***	1.00***	1.23***	1.23***	1.35***	1.00***	2.18***
	(0.41)	(0.25)	(0.24)	(0.11)	(0.22)	(0.22)	(0.18)	(0.21)	(0.18)	(0.29)
$Mean_Y$	17.34	17.68	17.83	19.60	17.94	17.87	17.65	17.63	17.72	17.86
N Units	110	416	836	32279	843	850	817	875	743	878
N Elections	6	6	6	6	6	6	6	6	6	6
N Obs	660	2496	5016	193674	5058	5100	4902	5250	4458	5268
Caliper	10	15	No	No	No	No	No	No	No	No
Matched Var.	Base.	Base.	Base.	None	Mun.	Cov.	Terr. Right	Base.	Base.	Base.
Regions	All	All	All	All	All	All	All	W/ Reg. Parties	Canarias	W/O Las Palmas

Note: Each panel and column reports SDID estimates for the indicated dependent variable. Treatment variable: 1 for observations in Tenerife in the 2023 election. Column (1) reports the baseline. Columns (2) and (3) use a larger caliper and with no caliper, respectively. Column (4) uses the whole sample, i.e., without matching. Columns (5)-(7) use matching based on sociodemographic and economic variables (Section 2), May 2023 local election results, or territorial right-wing parties. Column (8) restricts the sample to Catalonia, the Basque Country, Navarre, Galicia, and the Canary Islands. Column (9) restricts it to the Canary Islands. Column (10) drops Las Palmas. The unit of observation is a census tract-election. The sample is derived from the matching estimation (see text). $Mean_Y$ denotes the control group mean of the dependent variable. Bootstrap standard errors ($N = 50$) are shown in parentheses. **p<0.05; ***p<0.01.

Table D.5: Synthetic Difference in Differences: Robustness (Continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dep. V.: % Sumar										
No Vox	0.42**	0.34**	0.28***	-0.36***	0.28**	0.23**	0.54***	0.33***	0.59***	-0.46***
	(0.23)	(0.18)	(0.11)	(0.05)	(0.12)	(0.13)	(0.10)	(0.13)	(0.14)	(0.11)
$Mean_Y$	9.99	9.89	9.49	9.92	9.50	9.56	9.63	9.52	9.53	9.47
Dep. V.: % Terr										
No Vox	-0.71*	-0.43	-1.05***	0.21	-1.13***	-1.30***	-2.16***	-1.37***	-2.65***	1.98***
	(0.50)	(0.40)	(0.42)	(0.27)	(0.36)	(0.33)	(0.30)	(0.29)	(0.39)	(0.26)
$Mean_Y$	6.72	7.94	9.74	7.50	9.67	9.33	10.02	11.09	9.28	10.74
Dep. V.: % Blank										
No Vox	0.39***	0.33***	0.32***	0.34***	0.33***	0.30***	0.34***	0.34***	0.35***	0.27***
	(0.12)	(0.04)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.03)
$Mean_Y$	0.43	0.44	0.46	0.63	0.46	0.47	0.46	0.46	0.45	0.48
Dep. V.: % Null										
No Vox	0.24***	0.17***	0.16***	0.15***	0.15***	0.17***	0.20***	0.17***	0.19***	0.06**
	(0.09)	(0.04)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
$Mean_Y$	0.48	0.56	0.60	0.72	0.59	0.61	0.60	0.58	0.59	0.59
Dep. V.: % Abs										
No Vox	-0.22	-0.23	0.23	1.54***	0.52***	0.51***	0.42**	0.68***	0.93***	0.44
	(0.41)	(0.40)	(0.26)	(0.11)	(0.20)	(0.19)	(0.21)	(0.22)	(0.19)	(0.34)
$Mean_Y$	36.94	37.39	37.71	29.88	37.77	37.55	37.88	37.33	38.18	36.67
N Units	110	416	836	32279	843	850	817	875	743	878
N Elections	6	6	6	6	6	6	6	6	6	6
N Obs	660	2496	5016	193674	5058	5100	4902	5250	4458	5268
Caliper	10	15	No	No	No	No	No	No	No	No
Matched Var.	Base.	Base.	Base.	None	Mun.	Cov.	Terr. Right	Base.	Base.	Base.
Regions	All	All	All	All	All	All	All	W/ Reg. Parties	Canarias	W/O Las Palmas

Table D.6: Heterogeneous Effects by Unemployment Rate: Split Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	% Right	% Right	% Vox	% Vox	% PP	% PP	% PSOE	% PSOE	% Sumar	% Sumar	% Terr	% Terr	% Protest	% Protest	% Abs	% Abs
Tenerife x Post	-4.55***	-0.92	-8.22***	-6.80***	6.41***	4.36***	1.40***	1.00	1.76***	0.17	-2.60**	1.90	0.61***	0.35***	0.27	-1.00
	(0.42)	(1.39)	(0.44)	(0.66)	(0.92)	(1.08)	(0.24)	(0.60)	(0.34)	(0.49)	(0.97)	(2.07)	(0.097)	(0.052)	(0.33)	(1.16)
Mean_Y	31.0	35.2	2.54	2.47	24.1	26.1	17.6	16.0	10.6	11.1	4.91	10.8	1.39	1.29	37.3	30.8
N Units	419	417	419	417	419	417	419	417	419	417	419	417	419	417	419	417
N Elections	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
N Obs	2514	2502	2514	2502	2514	2502	2514	2502	2514	2502	2514	2502	2514	2502	2514	2502
Sample	HU	LU	HU	LU	HU	LU	HU	LU	HU	LU	HU	LU	HU	LU	HU	LU

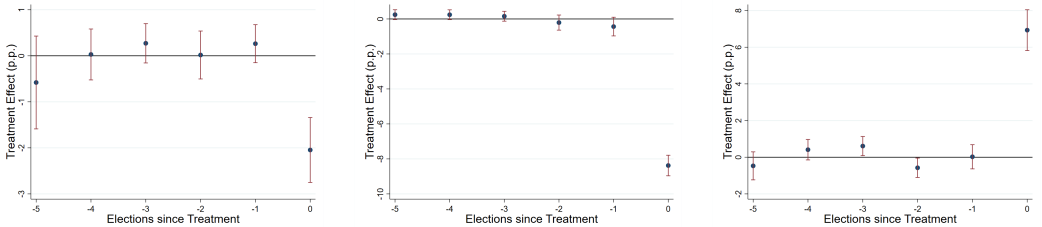
Note: Results from DID estimations at the census tract-election level. Odd (even) columns restrict the sample to census tracts with above (below) the median unemployment rate in 2021. Dependent variables: votes for the right (columns 1-2), votes for the indicated parties (columns 3-12), protest votes (blank plus null votes, columns 13-14), and abstention (columns 15-16), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 Congress election. The sample is derived from a matching estimation (see main text for details). $Mean_Y$ indicates the mean of the dependent variable for observations in the control group in the last election before 2023. Standard errors clustered by province are reported in parentheses. ***p<0.01.

Table D.7: Vox's Sympathizers' Preferences by Socio-economic Status

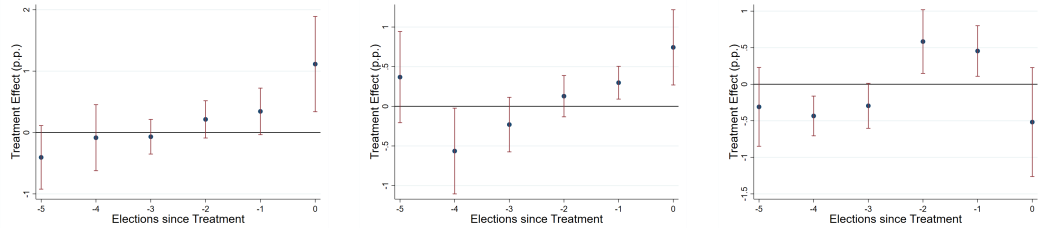
	(1) Net Grade PP	(2) Net Grade PP	(3) Net Grade PSOE	(4) Net Grade PSOE
Low Income	0.52	0.69	0.88*	0.88*
	(0.57)	(0.58)	(0.45)	(0.45)
Low Education	-0.54	-0.48	0.24	0.18
	(0.49)	(0.49)	(0.40)	(0.40)
Unemployed	-1.36**	-1.52**	-1.23***	-1.04**
	(0.69)	(0.72)	(0.45)	(0.46)
Constant	-3.68***	-3.69***	-7.63***	-7.64***
	(0.20)	(0.20)	(0.16)	(0.16)
Observations	343	343	343	343
Controls	NO	YES	NO	YES

Note: Results from OLS estimations at the individual level of equation (4). The dependent variable is the grade given by the respondent to PP (columns 1 and 2) or PSOE (columns 3 and 4), minus the grade given by the respondent to Vox. Grades are on a 0-10 scale. Independent variables are: *Low Employment = 1* if the respondent is without employment, *Low Education = 1* if the respondent has no formal education, basic school education, secundary school education or school graduate, *Low Income = 1* if the respondent had an average monthly gross income during the previous year (2022) of less than 900 €. Even columns include controls for gender, age, and region of residence. Sample: Vox sympathizers, defined as individuals who report that their preferred party is Vox. See Appendix C for details on the survey. Robust standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.

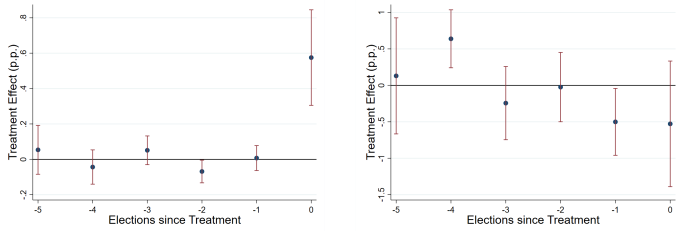
Figure D.1: Effects of Vox's Absence on the Election Results: Difference-in-Differences



(a) %Right (b) %Vox (c) %PP



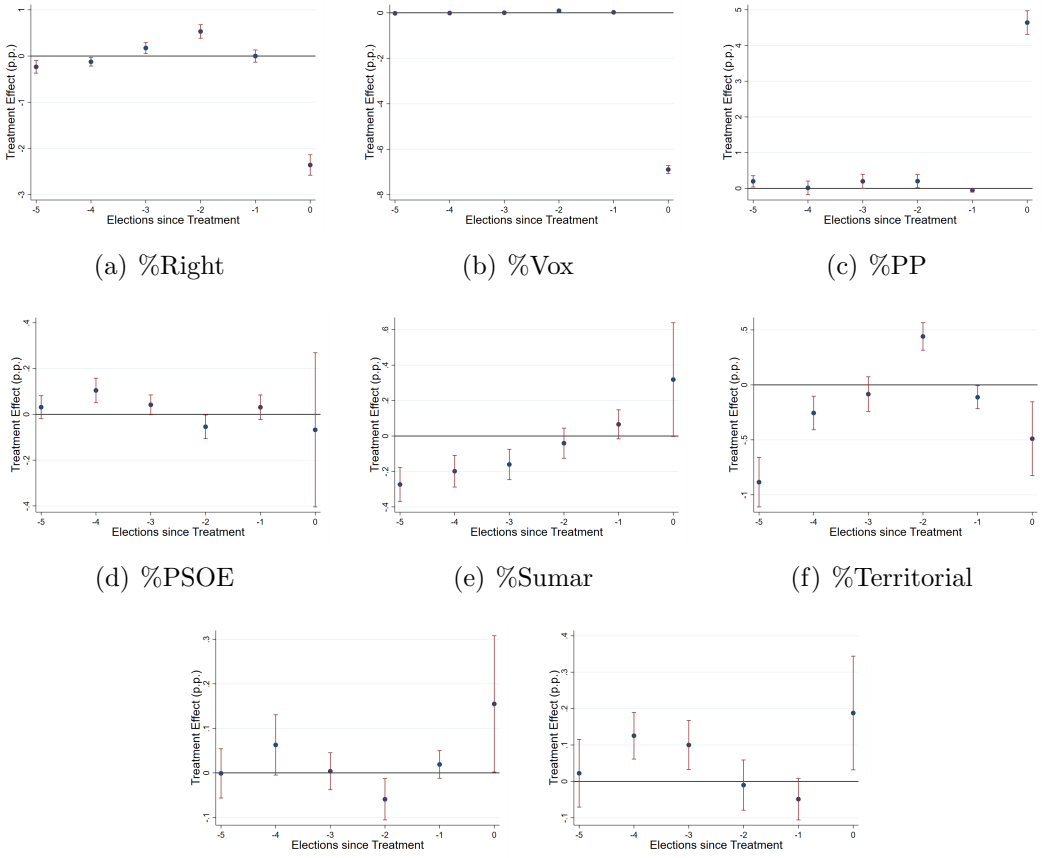
(d) %PSOE (e) %Sumar (f) %Territorial



(g) %Protest (h) %Abstention

Note: Results from (non-synthetic) DID estimations at the census tract-election level. Dependent variables: votes for the right (panel a), votes for the indicated parties (panels b-f), protest votes (blank plus null votes, panel g), and abstention (panel h), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 election. Dots show point estimates. Lines represent 95% confidence intervals based on 50 bootstrap replications. The sample is derived from a matching estimation (see main text for details).

Figure D.2: Triple Difference Using the Senate Election: Effects of Vox Presence on Election Outcomes



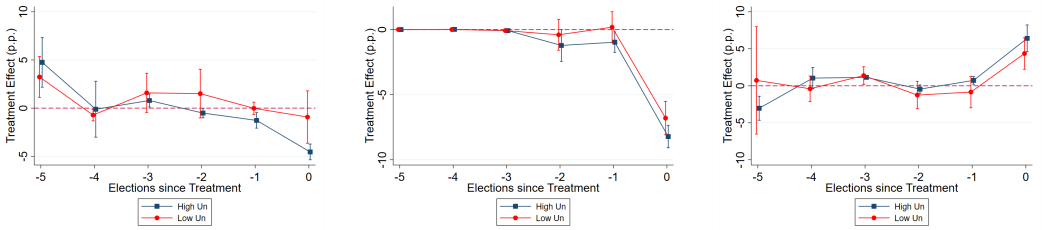
(a) %Right (b) %Vox (c) %PP

(d) %PSOE (e) %Sumar (f) %Territorial

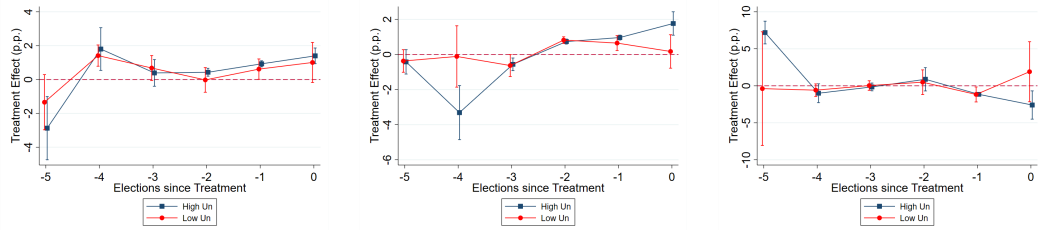
(g) %Protest (h) %Abstention

Note: Results from DDD estimations at the census tract-election year-election type (Congress or Senate) level. Dependent variables: votes for the indicated parties (panels a-f), protest votes (blank plus null votes, panel g), and abstention (panel h), all expressed as a percent of the census. Treatment variable: 1 for observations in Tenerife in the 2023 Congress election. Dots show point estimates. Lines represent 95% confidence intervals based on 50 bootstrap replications. The sample is derived from a matching estimation (see main text for details).

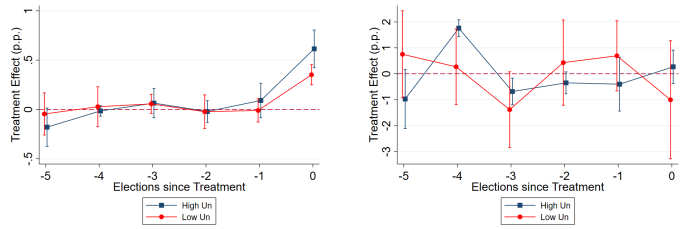
Figure D.3: Heterogeneous Effects by Unemployment Rate



(a) %Right (b) %Vox (c) %PP



(d) %PSOE (e) %Sumar (f) %Territorial



(g) %Protest (h) %Abstention

Note: Dots show point estimates from a (non-synthetic) DID estimation of the indicated dependent variable. Lines represent 95% confidence intervals based on 50 bootstrap replications. The sample is derived from a matched estimation (see main text for details).

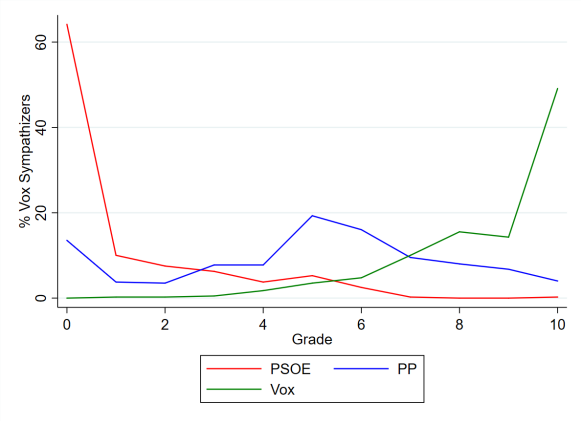


Figure D.4: Vox Sympathizers' Preferences

Notes: Percent of Vox sympathizers grading the PSOE (red line), PP (blue line), and Vox (green line) on a 0–10 scale, where 0 means "I do not like the party" and 10 means "I like the party." Vox sympathizers are individuals who report that their preferred party is Vox. $N = 399$. See Appendix C for details on the survey.