

# Opinion Polls, Turnout and the Demand for Safe Seats

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# Opinion Polls, Turnout and the Demand for Safe Seats

## Abstract

Do opinion polls sway turnout and shape political competition in majoritarian systems? Can they strengthen the persistence of safe seats? Analysing national opinion polls during UK general elections and the perceived safeness of constituencies, we find that pre-election polls significantly affect voter turnout. Non-competitive elections predicted by national polls suppress turnout, especially in areas with low perceived electoral competition. This reinforces the advantage of trailing parties in their strongholds, potentially fuelling party demand for safe seats that may give rise to demands for gerrymandering. This can exacerbate spatial polarization of the electoral landscape, with implications for governance regarding opinion polling.

JEL-Codes: D720, P160.

Keywords: opinion polls, closeness, voters' behaviour, first-past-the-post, UK general elections.

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# 1 Introduction

Understanding voters' participation in electoral contests – even when the likelihood of any one vote being pivotal is high (see [Coate et al., 2008](#); [Farber, 2010](#)) – is a challenge that social scientists have been studying for decades ([Blais, 2006](#)). There is growing evidence that erratic and unpredictable turnout, by creating surprise election outcomes, may have a notable impact on the economic cycle (see e.g. [Fetzer and Yotzov, 2023](#); [Baker et al., 2020](#); [Guiso et al., 2018](#)), giving rise to political business cycles.

Numerous factors contribute to understanding voter turnout.<sup>1</sup> Among these factors, the impact that pre-election polls may have on turnout remains a subject of debate, particularly following the surprising outcomes of both the Brexit vote in the UK and Donald Trump's electoral victory in the US. Discussions around pre-election polls have revolved around their predictive accuracy and potential to directly shape voter behaviour. The debate extends to whether there should be restrictions on opinion polling near elections, with varying bans across EU countries<sup>2</sup> and unrestricted polling in the US and the UK. [Figure 1](#) presents some motivating evidence. It suggests that in the UK – where we have good data on pre-election polling – Conservative-party vote shares estimated from opinion polls published in Conservative leaning newspapers systematically understate the expected vote share relative to opinion polls published in non-Conservative leaning news sources published around the same time. Fur-

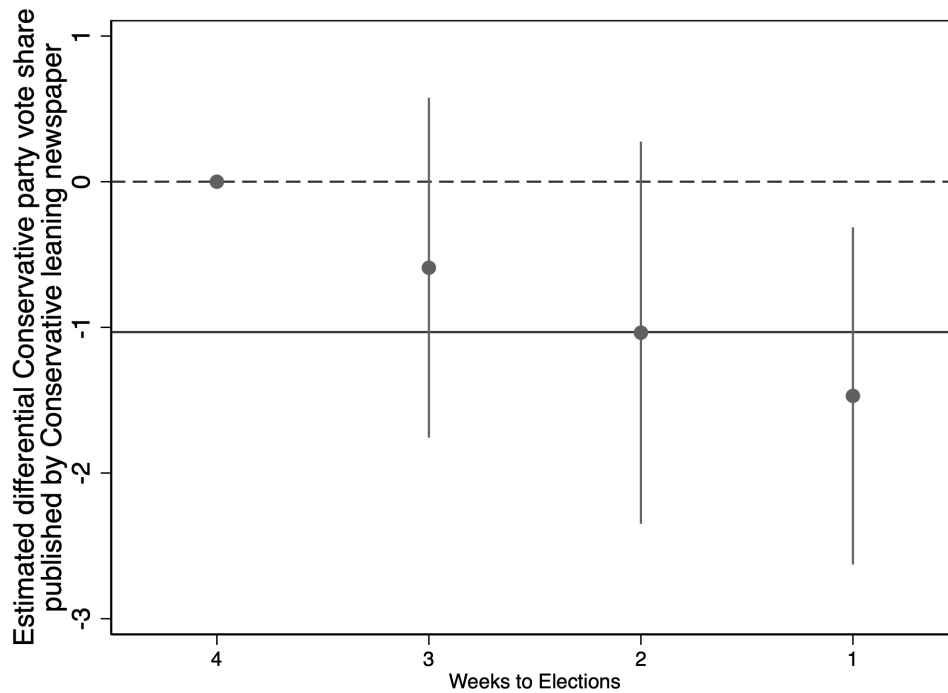
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<sup>1</sup>Among the factors explored are habits ([Fujiwara et al., 2016](#)), personality traits ([Ortolova and Snowberg, 2015](#)), social considerations ([Gerber et al., 2015](#); [Funk, 2010](#); [Dellavigna et al., 2017](#)), political movements ([Madestam et al., 2013](#)), media content ([Strömberg, 2004](#); [DellaVigna and Kaplan, 2007](#); [Gentzkow, 2006](#); [Enikolopov et al., 2011](#); [Gentzkow et al., 2011](#)), and compulsory voting laws ([León, 2017](#); [Hoffman et al., 2017](#)).

<sup>2</sup>In 16 of 27 EU countries, poll reporting bans exist, varying from a month to 24 hours pre-election. Italy, Slovakia, and Luxembourg exceed seven-day bans.

ther, it suggests that this estimated Conservative party *underperformance* is more pronounced the closer the election date. This could suggest that opinion polling may be utilized for *turnout engineering* whereby aligned voters may be mobilized by a perceived worse expected performance in the run up to an election.

Figure 1: Conservative leaning news sources report a notably lower predicted Conservative party vote share close to an election



**Note:** Figure provides estimates of the differential reported Conservative party vote share published by Conservative leaning newspaper in the run up to the election. Results suggest that Conservative leaning news sources report notably lower Conservative party vote share in the week prior to the election (1.47 p.p., p-value 0.013) relative to the Conservative party vote share that is published by non Conservative leaning news sources. Estimates are obtained from a regression with week-by-year fixed effects and robust standard errors. The solid line represent the average of the coefficients. Further details in Appendix C.

National pre-election polls offer insight into the expected tightness of an election (Palfrey and Rosenthal, 1985), potentially influencing voter de-

cisions to participate. Canonical rational choice models (see the seminal contribution by [Downs, 1957](#)) predict higher turnout when the expected margin of victory is smaller, driven by the perceived importance of an individual's voting decision in a competitive race.<sup>3</sup> This hypothesis finds abundant anecdotal support, such as the exceptionally low turnout during the UK's 2001 general election with an anticipated high margin of victory for Labour.<sup>4</sup>

However, in majoritarian electoral systems like the US and the UK, national polling margins may be noisy proxy measures of likely local voting patterns. This paper then asks: *How do national opinion polls impact participation in different electoral contests? Does the interaction between national information and local conditions impact election results?*

Understanding how national opinion polls affect electoral participation and interact with local conditions to impact election results is crucial, especially in single-member district plurality systems where the perception of the prevalence of "safe seats" can significantly influence voter mobilization (see, for example [Cox, 1999](#); [Selb, 2009](#); [Herrera et al., 2014](#)).<sup>5</sup> Naturally, the extent to which the perception of an individual seat is "safe" or "contested" may vary with the perceived competitiveness of an election nationally.

The United Kingdom provides a unique setting to explore this dynamic within the same electoral system and across diverse competitive scenarios. The stable general election system of 650 constituencies and the long

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<sup>3</sup>Alternative mechanisms may induce increases in turnout: for instance, election closeness may interact with social preferences (e.g., [Dellavigna et al., 2017](#)) or with the intrinsic utility from voting (e.g., [Riker and Ordeshook, 1968](#); [Brennan and Buchanan, 1984](#); [Schuessler, 2000](#); [Feddersen and Sardonì, 2006](#); [Ali and Lin, 2013](#)).

<sup>4</sup>Source: [BBC - "Turnout at 80-year low"](#).

<sup>5</sup>Endogenous spatial sorting ([Eeckhout et al., 2014](#)), often arising from unequal access to public goods ([Trounstein, 2020](#)), status-seeking incentives ([Imas and Madarasz, 2022](#)) or restrictive zoning laws ([Kulka, 2019](#); [Fetzer, 2023](#)) may worsen this.

tradition of frequent national polling offer both high variation and comparability over time, allowing to study the interaction between national pre-election polls — *national competition* — and past constituency margins — *local safeness* of a seat. This exploration sheds light on the influence of opinion polls on (a) voter turnout, (b) local competition (realised concentration in party vote shares), and (c) party performances locally (chances of victory for local incumbent and runner-up) across seats which are more or less *safe*. By leveraging the UK setting, we can assess the aggregate impact of opinion polls exploiting within-election, cross-constituency variation in local safeness of seats from past elections, which may or may not be aligned with national competition from polls, while controlling for time-invariant constituency-level characteristics.

The impact of local safeness is straightforward. [Franklin et al. \(2004\)](#) suggests that citizens are inclined to vote when elections matter — when potential benefits are tied to a party, and uncertainty exists regarding constituency or majority wins. Considering safe districts where the incumbent party trails nationally, voters care about elections as their votes could impact access to regular funds if their party wins. However, in contested seats, there are two margins (as opposed to one) on which voting counts, the probability of winning the election and their candidate winning, which may result in broader participation and heightened campaigning. Hence, in safe seats, additional information from opinion polls matters.

Furthermore, similar to [Bordignon et al. \(2016, 2017\)](#) where differences map from distinct electoral systems (single round versus runoff), variations in competitive environments within the same plurality rule system (safe or contested) are significant. Safe seats limit minor party influence, fostering concentrated competition among major parties. Pre-election poll informa-

tion acts as a mediator, influencing smaller parties differently based on the predicted national competition. Close national poll margins increase smaller parties threat, while large national poll margins diminish it, possibly leading to voter compromise or abstention, with parties reallocating efforts accordingly.

*What implications does this hold for local results?* Duverger's law suggests two serious candidates in first-past-the-post (FPTP) systems, usually attributed to strategic voting (see [Feddersen, 1992](#)), though [Fey \(1997\)](#) challenges this.<sup>6,7</sup> Pre-election polls can facilitate voters strategic coordination, influencing their behaviour based on congruence between the predicted national competition and the local safeness.

Voters' behaviour indeed shapes constituency-level outcomes. Non-competitive national opinion polls depress turnout, but the misalignment with the direction of local safeness of seats mitigates this effect. Meaning that in safe seats, when large predicted national opinion poll margins match previous local results (the party of the local incumbent leads nationally) strategic voting and abstention emerge, reducing participation and intensifying local competition. Conversely, a marked national advantage in opinion polls for a local opposition party results in concentrated support for the local incumbent and potentially fragmented vote shares for smaller opposition parties, ultimately favouring incumbency.

These dynamics are analysed exploiting a panel of UK constituencies spanning general elections from 1983 to 2017. Our findings confirm that national opinion polls significantly impact voter participation, local com-

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<sup>6</sup>When small parties receive similar votes, supporters are unwilling to abandon their preferred candidate.

<sup>7</sup>There is extensive theoretical literature on strategic behaviour in single-ballot elections under different electoral rules ([Myerson and Weber, 1993](#); [Fey, 1997](#)).



petition – as proxied through vote share concentration – and the local electoral performance of a party. Non-competitive national polls decrease turnout, with the effect growing closer to the election date and with the degree of safety of a seat.

Moreover, national polls exhibit diverse effects on local parties based on alignment with a constituency’s past electoral results. When national opinion poll predictions favour the local incumbent party (i.e. the two competitive margins align), it concentrates the local race, benefiting the runner-up. Conversely, if the national polls favour the local opposition (i.e. the two competitive margins do not align), the local incumbent gains due to a less concentrated local race, especially in the safest seats.

Further substantiating these findings, we utilized quasi-random variation in national opinion poll exposure among individuals surveyed in *Understanding Society* (USOC). The comprehensive UK representative household panel includes political engagement queries and provides monthly representative population samples.<sup>8</sup> Our analysis uses the fact that individuals are interviewed at a random date to corroborate that the interaction between national competition and local safeness impacts voter engagement, particularly when poll information is salient — before general elections.

Our contribution builds on previous studies in four significant ways. First, we uncover how anticipated election closeness from national polls interacts with a constituency’s past competitiveness. Second, we demonstrate how opinion polls influence voter participation, shaping local competition

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<sup>8</sup>USOC rolling data collection over the year, providing monthly representative samples, makes it preferable to address our question with respect to alternatives such as the British Election Survey.

and party performances at the constituency level. Third, leveraging recent UK elections spanning 35 years allows for clearer interpretation and comparisons, enabling us to control for reverse causality and confounders at the constituency, election and region-by-election levels. Fourth, we validate our findings using quasi-random individual-level variation from the Understanding Society panel, allowing us to further address the identification issues above.

This work builds on previous empirical efforts to measure the causal effect of anticipated election closeness, which can be categorised into three broad groups providing mixed evidence. A first group of contributions, reviewed in the meta-analysis by [Cancela and Geys \(2016\)](#), exploits observational data and finds suggestive evidence that turnout tends to increase in measures of actual (e.g., [Barzel and Silberberg, 1973](#); [Cox and Munger, 1989](#); [Matsusaka, 1993](#)) or predicted closeness (e.g., [Shachar and Nalebuff, 1999](#)) across elections. However, these efforts have been plagued by reverse causality (realised closeness) and omitted variables bias (predicted closeness). On the one hand, ex-post electoral results could endogenously depend on the realised turnout. On the other hand, turnout could be affected by factors that may also make the electoral race more competitive, such as the importance of a particular election, the intensity of the campaign and campaign advertisement, or news coverage. For instance, tight races are correlated with more campaign spending ([Cox and Munger, 1989](#); [Matsusaka, 1993](#); [Ashworth and Clinton, 2006](#)), more party contact ([Shachar and Nalebuff, 1999](#); [Gimpel et al., 2007](#)), more campaign appearances ([Althaus et al., 2002](#)), and more news coverage ([Banducci and Hanretty, 2014](#)). Furthermore, social pressure to vote may be enhanced by elites as a result of close elections ([Cox et al., 1998](#)).

Recent contributions started addressing these concerns seriously. [Morton et al. \(2015\)](#) show that the availability of exit poll results in French elections reduces turnout in late-voting constituencies, though these are far from pivotal. [Bursztyn et al. \(2023\)](#) rigorously analyse the impact of the ex-ante closeness of a race by exploiting naturally occurring variation in the closeness and dissemination of Swiss pre-election polls, finding that anticipated election closeness increases turnout significantly more in areas where newspapers report on them most. Yet, the referenda setting is not the best suited to exploit naturally occurring variation in local competition (*safeness* of a constituency), which we believe to be a decisive factor interacting with the polls and thus determining voters' behaviour.

A second stream of literature uses lab experiments (see [Levine and Palfrey, 2007](#); [Duffy and Tavits, 2008](#); [Großer and Schram, 2010](#); [Agranov et al., 2018](#)) to provide strong evidence that increased predicted tightness of an electoral race is associated with enhanced voters' participation.<sup>9</sup> However, external validity remains an unresolved issue as lab experiments are, by definition, unable to capture the context of real-life elections. Thus, one would ideally like to identify similar results in the field.

A third group of scholars implemented field experiments providing information treatments to potential voters ([Gerber and Green, 2000](#); [Bennion, 2005](#); [Dale and Strauss, 2009](#); [Enos and Fowler, 2014](#); [Gerber et al., 2020](#)), eventually finding little or no evidence of a link between closeness and turnout. Yet, controlling voters' access to outside information is difficult in such settings. The weak relationship may result in voters recovering additional common information outside the experiment.

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<sup>9</sup>Nonetheless, participants' behaviour is not always consistent with the complete set of predictions arising from the pivotal voter model.

The remaining of the paper is structured as follows: Section 2 describes the institutional settings and the data at hand and discusses the empirical design; Section 3 reports the results of the aggregate level analysis; Section 4 describes the individual-level analysis; Section 5 provides conclusive remarks.

## 2 Background, data and empirical approach

This work focuses on the UK's general elections for two reasons. First, despite the national nature of the election, voters express electoral preferences for their local Member of Parliament (MP). This makes it possible to set up an empirical design that exploits the tension between the *national-level* information from pre-election polls and the expected electoral competition at the *constituency-level* based on the previous election. Second, the stability of the UK's electoral system and the long tradition disseminating high frequency opinion polls allow us to study the evolution of the impact of opinion polls in a wide range of elections.

### 2.1 UK general elections

General elections allow UK citizens to elect MPs, forming the House of Commons of the UK Parliament. Each MP is the winner of the electoral race at the constituency level. A key feature is that every constituency elects its MP via an FPTP system (i.e. voters can only name one candidate, and the one who obtains the most votes becomes MP). Upon election, MPs will represent their local area for up to five years. Regarding party membership, local candidates can either belong to a political party or stand as

independents. Historically, few independent MPs ever got elected.

At the national level, the party that obtains more seats than all the other parties combined (i.e. the one with the overall parliamentary majority) is appointed to form the government. Without an outright majority, parties usually seek to form coalitions.

An additional remark concerns the rules governing the shape and formation of parliamentary constituencies. The UK is currently divided into 650 constituencies (corresponding to 650 MPs), but the number and boundaries changed repeatedly. Following the Parliamentary Constituencies Act of 1986, boundaries have been subject to periodic reviews by four Boundary Commissions (one per country). These Commissions update boundaries following rules which set out the number of constituencies and the extent to which the size of the electorate in each constituency can differ from the electoral quota (i.e., the average size of a constituency).

Under the assumption that constituencies retaining the same name over time have been subject to little or no change in boundaries, the analysis is based on a panel of *constituency names* over time.<sup>10</sup>

This work considers all general elections between 1983 and 2017, with electoral outcomes reported at the constituency level.<sup>11</sup> Figure A.1 illustrates that considering seats in each general election as a distinct observation, roughly 88 percent were won by either a Conservative or a Labour candidate (over 90 percent when excluding Northern Ireland), with slight dominance of Conservative seats. Given the widespread prevalence of vic-

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<sup>10</sup>For example, consider the constituency of Basildon, which in 2010 was divided into the two constituencies of Basildon and Billericay and South Basildon and East Thurrock. In this case, the three uniquely named areas figure in the data as separate observations in different general elections.

<sup>11</sup>General election years are the following: 1983; 1987; 1992; 1997; 2001; 2005; 2010; 2015; 2017.

tories by these two major parties, we restrict the attention to constituencies where both a Conservative and a Labour candidate competed at least once.<sup>12</sup>

Despite a similar proportion of constituencies held by the two main parties over time, electoral results vary considerably across time and space, which is fundamental for the analysis. To exploit such variation, we build a measure of local electoral competitiveness which is the absolute adjusted margin between vote shares of the two main parties:

$$LocalSafeness_{c,t} = \frac{|Con_{c,t} - Lab_{c,t}|}{Con_{c,t} + Lab_{c,t}}$$

where *Con* and *Lab* are the proportion of votes  $\in (0,1)$  obtained by either the Conservative or Labour party in constituency *c* and general election *t*. Note that the margin is adjusted to the local combined relevance of the two parties (i.e. the denominator).

Figure 2 depicts *LocalSafeness* across the UK for three different elections: the furthest in time, the most recent, and the mid-2001 election. Variation in Local Safeness is evident across both space and time. The figure helps visualise the presence of constituencies with solid and persistent support for one of the two parties (often named safe seats, in darker shades), as opposed to those generally more contested (in lighter shades). Taking advantage of this variation, which may contrast or reinforce predictions from opinion polls, our regression analysis uses the most salient of the *LocalSafeness* margin: the one right from the previous general election.

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<sup>12</sup>This cleaning process eliminates the constituencies of Northern Ireland (60 percent of the dropped observations, i.e. 17 or 18 yearly seats) and a few additional ones.

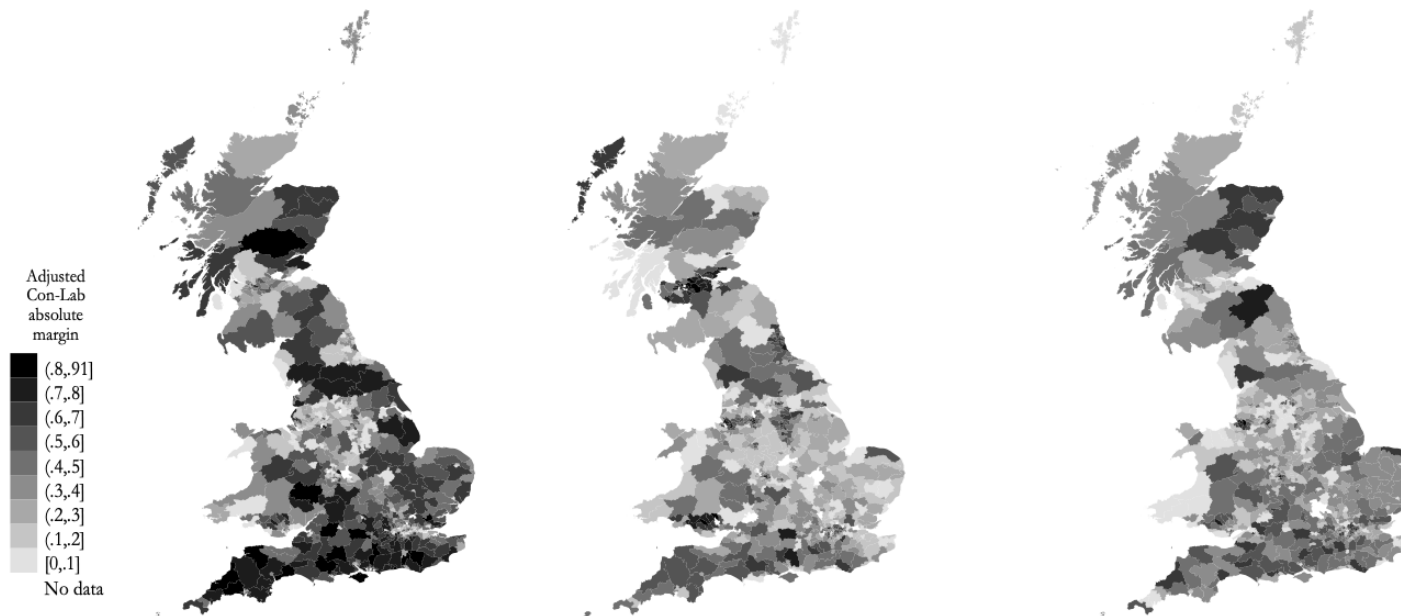
Figure 2: Local safeness of a constituency varies significantly both spatially and across different general elections

Panel A: 1983 General Election

Panel B: 2001 General Election

Panel C: 2017 General Election

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**Note:** Shades map the variation in the absolute difference between Conservative and Labour vote shares for general elections at the constituency level. The absolute margin between the two parties is adjusted dividing by the sum of the two vote shares:  $LocalSafeness_{c,t} = \frac{|Con_{c,t} - Lab_{c,t}|}{Con_{c,t} + Lab_{c,t}}$ . Darker shades represent "safe seats" while lighter seats represent contested seats. The sided version of *LocalSafeness* is shown in the Appendix Figure A.3.

## 2.2 Opinion polls in the UK

Great Britain has a long history of surveys on voting intentions. First was Gallup in 1937, just two years after its American counterpart. However, at the dawn of their diffusion, politicians largely ignored the polls. This attitude changed in the 1950s when the appearance of new pollsters led party members to pay greater attention to this tool. The following years witnessed a rapid rise in the number of commissioned opinion polls by parties. New companies entered the market, and traditional media paid more attention to pre-election polls. In the 1970s, following the abandonment of exclusive publication, opinion polls became accessible to an enormously enhanced audience. Not surprisingly, both Conservative and Labour parties initiated substantial private polling programs during this period. Since then, pre-election polls have dominated campaign reporting ([Worcester, 1980](#)). Nowadays, various organisations carry out opinion polls to gauge voting intention, and most of the polling companies are members of the British Polling Council (BPC) and abide by its disclosure rules. Predicted support for political parties during the electoral campaign is frequently and widely reported in the news.

For the analysis, we focus on national polls produced within four weeks from the day of a general election. Our data aggregate polling information by week and year, averaging across the existing pollsters active during the 2017 general election campaign.<sup>13</sup> The number of observed pollsters ranged from a minimum of 5 in 1997 to a maximum of 11 in 2015. Since we are interested in studying the impact of anticipated closeness on realized electoral outcomes and given that Conservative and Labour parties were

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<sup>13</sup>For the survey-based analysis, we use data on all opinion polls produced within four weeks from the start of respondents' interview dates (see section 2.3).



the top competing forces during all the general elections in our sample (see Figure A.1), we measure pre-election closeness of the national race as follow:

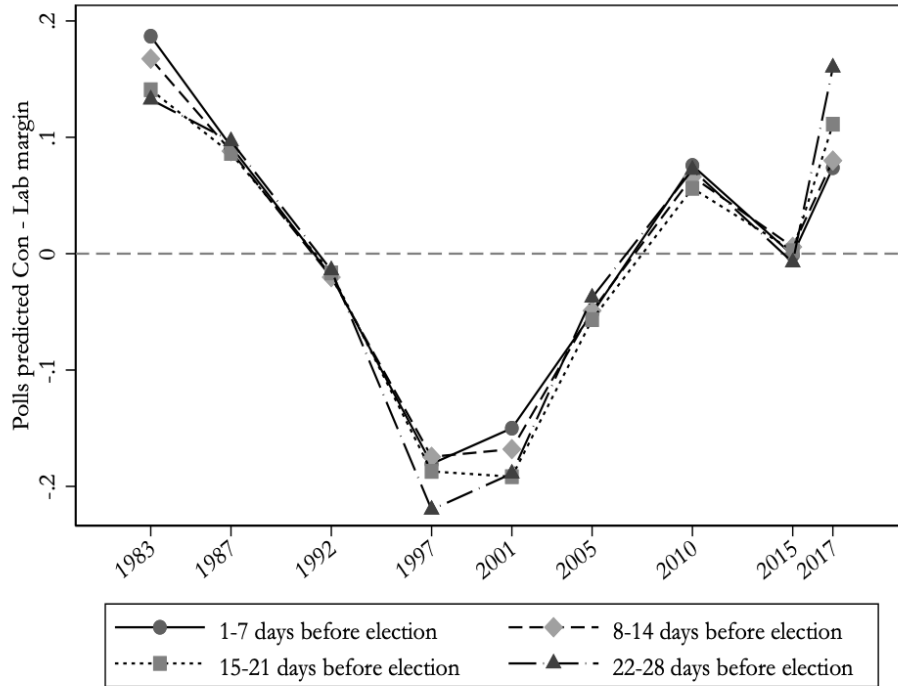
$$NationalPollmargin_w = |\widehat{Con}_w - \widehat{Lab}_w| \text{ with } w = 1, 2, 3, 4$$

where  $\widehat{Party}_w = \frac{1}{N_j} \sum_j \widehat{Party}_{jw}$  and  $\widehat{Party}_{jw}$  is the vote share of either the Conservative or Labour party predicted by pollster  $j$  in the  $w$  week preceding the election day.

Figure 3 displays trends in the predicted national poll margins across all general elections between 1983 and 2017. For illustrative purposes, positive margins represent a Conservative lead and negative otherwise. Two features emerge from this graph. First, *NationalPollmargin* varies considerably across years. The sample contains competitive and noncompetitive elections, with either party leading the national opinion polls at least three times.

Second, variation is also observed in the margins reported at different points along the electoral campaign (the different symbols). For instance, in 1983, as the election day became closer, pollsters predicted a larger Conservative victory. Conversely, in 1997 or 2017, approaching the election day, the margins reported by the pollsters became increasingly small. This variation is also evident in Figure A.2, which displays the residual distribution of all national opinion polls published within each week preceding the election, after accounting for year fixed effects. Densities are all bell-shaped and their dispersion reduces across weeks, i.e. opinion poll predictions generally converge the closer the election. After confirming that the predicted opinion poll margins are especially relevant right before the

Figure 3: National opinion poll margins vary significantly across both general elections and weeks within an election



**Note:** Estimates illustrate the variation in the national poll margin between the Conservative and the Labour vote shares as predicted by the average opinion poll within one of four weeks prior a general election. The margin is calculated averaging the difference in party vote shares across national opinion polls released by all pollsters in a given week before the election date:  $NationalPollmargin_w = \widehat{Con}_w - \widehat{Lab}_w$ . Positive margins refer to a predicted Conservative lead and vice versa.

election, we focus the analysis on the predicted polls from the last week prior the election day.

Finally, Appendix C further examines the variation in opinion polls by across the different pollsters and/or publishers ahead of elections. It identifies consistent trends where specific polling houses predict higher Conservative and lower Labour vote shares, suggesting a bias in news reporting. Specifically, an exploratory regression analysis suggests the potential in-

fluence of publishers’ political leaning on reported party vote shares from opinion polls (see Figure 1 and Table A.11). Further investigation is crucial to understand the underlying causes of these systematic differences and their potential connection to media bias and political endorsement from news sources.

## 2.3 Data

**Aggregate level data** Data come from different sources. Electoral results at the constituency level are extracted from the [Electoral commission](#) website and from Richard Kimber’s [www.politicsresources.net](#). Corresponding opinion polling data covering the electoral campaign of each general election since 1983 were collected from [ukpollingreport.co.uk](#).<sup>14</sup>

The sample is restricted to those constituencies where candidates from both the Conservative and Labour parties competed at least once in the period considered. In addition, constituencies changing names over time are treated as different observations, given the underlining change in boundary.

Data include variables such as turnout, party vote shares and predicted vote shares from opinion polls, necessary to create *LocalSafeness* and *NationalPollmargin* described above. To understand the voting behaviour locally, we also study the realized competition at the constituency-level. Specifically, we use a common measure of concentration, the Herfindahl-Hirschman Index (HHI) over party vote shares:

$$LocalConcentration_{c,t} = \sum_p share_{p,c,t}^2$$

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<sup>14</sup>Historical opinion polls are in turn extracted from Mark Pack’s online [archive](#).

where  $share_{p,c,t}$  is the realized vote share of party  $p$  in a given constituency  $c$  and general election year  $t$ . By construction, *LocalConcentration* can take values between zero and one. A value of one indicates a scenario where a single party captures all cast votes, while a value of zero refers to a scenario with infinitely many parties competing for the seat, each obtaining an equal share of votes. Therefore, lower values of *LocalConcentration* represent a more competitive environment, and vice versa. Analyzing *LocalConcentration* allows us to study the general influence of opinion polls on the politics of a constituency. Despite the primary focus on the two major parties, this index is computed taking every competing party into account, enabling us to draw more general conclusions regarding the impact on the realized local competition.

**Aggregate level selected statistics** Following the trends depicted in Figures 3 and A.2, Panel A of Table A.1 illustrates significant variability in opinion polls throughout the electoral campaign. As the election approaches, the frequency of predictions intensifies, accompanied by a notable shift towards more competitive and precise estimations. Specifically, the average margin decreases while the standard deviation reaches its lowest point in the week preceding the election. This pattern is consistent with a surge in salience as the election draws nearer. Consequently, we anticipate and demonstrate that opinion polls wield greater influence closer to the election, and focus our subsequent analysis on opinion polls generated in the final week of the electoral campaign.

Examining constituency-level variables in Panel B of Table A.1, we observe that participation tends to be higher, on average, when the party of the local incumbent trails in national polls, accompanied by lower *LocalConcentration*.

Notably, our setting predominantly comprises safe seats, with *LocalSaferness* registering a large average, albeit to a lesser degree in constituencies where opinion poll predictions deviate from past local results. Looking at party-level outcomes in Panel C of Table A.1, additional differences emerge in the two sub-samples. Incumbent vote shares probability of regaining the seat are larger when their party is leading the national race. Conversely, in the same constituencies, follower vote shares and the likelihood of winning are smaller.

Hence, to thoroughly explore the role of opinion polls amidst tension between two levels of competition, it is imperative for us to investigate the heterogeneity between aligned or misaligned local versus national information.

**Survey data** The last part of the analysis uses individual-level data from *Understanding society*.<sup>15</sup> The UK's largest panel of representative households covering a wide range of topics, among which the following questions on political engagement:

1. *Generally speaking, do you think of yourself as a supporter of any one political party?*
2. *Do you think of yourself as a little closer to one particular party than the others?*
3. *If there were to be a general election tomorrow, which political party do you think you would be more likely to support?*

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<sup>15</sup>Access documentation [here](#).

All respondents are asked the first question.<sup>16</sup> Those who respond negatively are then asked the second, then the third if they keep providing a negative answer. Lastly, individuals can reply that they would vote for no party in the final question. We use negative replies to proxy for respondents' willingness to vote in general elections.

At the time of analysis, interviews were conducted in eight semi-overlapping waves, each of 24 months, covering the 2009-2017 period. The first and last year were dropped given the negligible number of respondents interviewed. Consequently, our focus narrows to individuals starting their questionnaire in either 2010, 2015 or both years, corresponding to years with general elections.

The data integrate the individual-level responses described above with Turnout and *LocalSafeness* of the constituency where respondents reside, as well as *NationalPollmargin* and the corresponding number of polls. *NationalPollmargin* is constructed differently for the individual-level analysis. It is now computed by averaging all opinion polls to which a respondent was exposed during the week preceding the interview date ( $w_1$ ) — our focus — up to the fourth-to-last week preceding their interview date ( $w_4$ ).

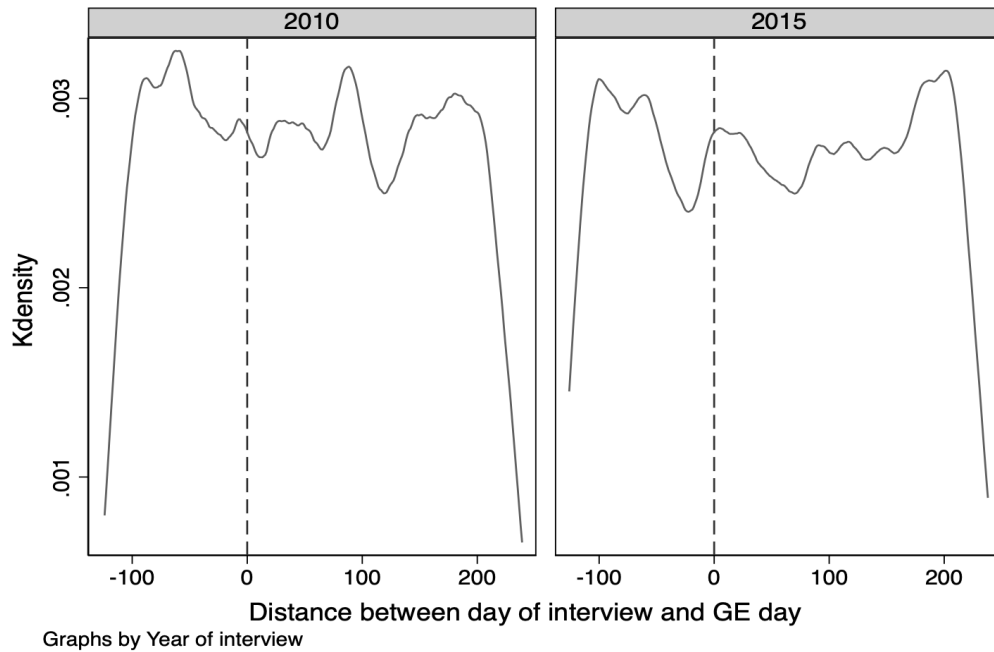
**Individual level selected statistics** Figure 4 depicts that the frequency of data collection remains consistent within each year. The continuous recruitment of survey participants warrant us to distinguish between individuals interviewed before and after the election. This demarcation enables a placebo test, allowing us to verify whether opinion polls influence voter

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<sup>16</sup>We exclude respondents for whom the data is inapplicable, includes missing answers, or who refuse to reply to the first question. To examine heterogeneity before and after the day of the election, we progressively exclude individuals for whom the opinion poll week  $w$  overlaps with the general election date.

behavior solely when the information becomes salient for the election.

Figure 4: Daily frequency of survey responses relative to the day of the general election



**Note:** The figure illustrates the daily density of respondents beginning the USOC questionnaire relative to the day of the general election. The x-axis, measured in days, is negative for respondents interviewed before elections, zero for the day of the election, and positive for respondents interviewed after the election. The day of the election is indicated by the dashed vertical line.

For the analysis, individual responses are aggregated at the interview date by constituency level. On average, each constituency and year yields approximately 86 responses, with about 2.5 responses recorded per constituency and interview date. Table A.2 presents selected summary statistics. Notably, respondents exhibit a significant level of political disengagement, which is more pronounced before elections (for example, 68% of respondents do not support any party before elections compared to 64%

after elections). It is also observed that before elections, national opinion poll margins are, on average, smaller, display higher variability, and are more numerous than afterward. The analysis will delve into the precise association between disengagement and national opinion poll margins for individuals interviewed before versus after the elections.

## 2.4 Empirical approach

**Constituency level analysis** We aim to investigate how national opinion poll information interacts with voters' perceived Local Safeness, inferred from past elections, and its significant impact on electoral outcomes. We examine this relationship using the following specification:

$$y_{c,t} = \beta \text{NationalPollmargin}_{w,t} * \text{LocalSafeness}_{c,t-1} + \delta \text{LocalSafeness}_{c,t-1} + \gamma' X_{c,t} + \epsilon_{c,t} \quad (1)$$

The dependent variable  $y$  represents either turnout or *LocalConcentration* in constituency  $c$  and general election  $t$ . The coefficient  $\beta$  captures the mechanism under investigation, which is the interaction between national competitiveness as inferred by *NationalPollmargin* (one to four weeks  $w$  before the election day) and *LocalSafeness* inferred from realized electoral margins of constituency  $c$  in the past general election  $t - 1$ . Notably, since both national and local margins are measured before the vote is realized, issues of reverse causality are excluded. The vector  $X_{c,t}$  includes controls that vary by specification, such as constituency, year, or region-by-year fixed effects. These fixed effects rule out: (a) time-invariant constituency-specific factors (e.g. geographic factors); (b) election-specific effects (e.g.



intensity of national campaign or perceived importance of the election); and (c) relevant circumstances specific to a certain region during a given election (e.g. strength of local parties).<sup>17</sup> The specification may not entirely rule out the possibility that aggregate results are driven by factors specific to certain constituencies in a given election. However, the coherent party-level analysis and survey-based evidence described below validate our core findings.

**Party level analysis** Within a constituency, we test whether national opinion polls and whether a seat can be considered safe based on the previous election have a joint impact on local party performance. We estimate the following model:

$$y_{p,c,t} = \beta \text{NationalPollmargin}_{w,t} * \text{LocalSafeness}_{c,t-1} + \delta \text{LocalSafeness}_{c,t-1} + \gamma' X_{p,c,t} + \epsilon_{p,c,t} \quad (2)$$

Equation 2 mirrors the previous equation, but  $y$  now represents the winning probabilities of local parties, indicating whether either the Conservative or Labour candidate  $p$  became the new MP (party vote shares are also analyzed in the appendix). The coefficient  $\beta$  captures the interaction effect between  $\text{NationalPollmargin}_{w,t}$  and  $\text{LocalSafeness}_{c,t-1}$ . We will separate the effect on either the local incumbent party or the local follower party within two different subsamples. These subsamples distinguish between (a) constituencies where the party of the local incumbent MP coincides

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<sup>17</sup>Note that year fixed effects are collinear with covariates varying at the national level over time, therefore  $\text{NationalPollmargin}$  alone cannot be included in the current specification. Nonetheless, for completeness, estimates that exclude year-effects and include  $\text{NationalPollmargin}$  are provided in Appendix 5, Table A.4. Subsequent individual level analysis allows to separately identify  $\text{NationalPollmargin}$ .

with the party leading the national opinion polls and (b) constituencies where the party of the local incumbent MP is trailing in the national polls.  $X_{p,c,t}$  includes previous level effects along with party-level fixed effects. Additionally, Appendix D provides party-level evidence complementing this core model, allowing for the inclusion of constituency-by-year fixed effects. This ensures that the results are not influenced by factors specific to a constituency in a particular general election, such as the strength of the local campaign. With these factors held constant, it becomes challenging to argue that all outcomes at different levels of analysis are affected by determinants other than the inferred competition arising from national opinion polls and mediated by the degree of electoral Local Safeness of a constituency.

**Survey level analysis** We corroborate our main results by conducting a similar analysis that leverages variation in individual-level exposure to national opinion poll information at the time respondents were interviewed. After aggregating individual responses at the constituency-by-date-of-interview level, we analyze the following model:

$$y_{d,c,t} = \beta \text{NationalPollmargin}_{d,w,t} * \text{LocalSafeness}_{c,t-1} + \lambda \text{NationalPollmargin}_{d,w,t} + \delta \text{LocalSafeness}_{c,t-1} + \gamma' X_{c,t} + \epsilon_{d,c,t} \quad (3)$$

The outcome variable  $y$  represents the share of respondents interviewed on date  $d$ , from constituency  $c$ , in the general election year  $t$ , who indicated that they 'do not support any party' or reported that they 'neither support, nor feel close to, nor would vote for any party tomorrow'. These outcomes serve as proxies for individuals' willingness to participate in the election.

Vector  $X_{c,t}$  includes fixed effects that vary across specifications, such as constituency effects and year effects, capturing time-invariant constituency-specific factors as well as election-specific features. *NationalPollmargin* is the average of national opinion polls released from the last week ( $w = 1$ ) up to the fourth-to-last week ( $w = 4$ ) preceding the date of respondents' interviews. This specification leverages the quasi-random exposure of each individual to opinion poll information at the time of their interview, which is exogenous to their political engagement.<sup>18</sup> *LocalSafeness* once again proxies the degree of safety of the constituency where a respondent resides. Notably, the individual-level variation further allows us to identify the impact of the two margins separately. We progressively exclude interview dates for which the opinion poll week  $w$  overlaps with the general election date.

### 3 Results

This section presents detailed results of the analysis. We begin by examining the impact of national pre-election polls interacted with a constituency's degree of safeness on voter turnout. Subsequently, we investigate how the interplay between national and local closeness information influences overall party competition within a constituency, focusing on the realized concentration of vote shares. Additionally, we provide evidence of the relationship between local party performances and the variables of interest, distinguishing between the incumbent MP and the follower. Finally, the subsequent section will present individual-level findings that reinforce

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<sup>18</sup>It is important to note that for the USOC survey, each monthly sample is representative of the total population.

the main effect on participation.

### 3.1 Voters' Participation

We begin by presenting evidence that the two distinct margins — the national competitiveness predicted from the opinion polls *and* the local competitiveness from the previous general election — capture significant variation in voters' participation.

Columns 1 to 4 of Table 1 display correlations between voter turnout and national opinion poll margins at different time (e.g.,  $w_1$  representing the week preceding the election,  $w_2$  the second-to-last week, and so on). Since opinion polls vary at the national level, the models can only account for time-invariant constituency characteristics; therefore, interpretation of the coefficients should be cautious. Estimates indicate that as national opinion polls increasingly forecast a non-competitive election, voter participation decreases.<sup>19</sup> Columns 5 and 6 explore the relationship between turnout and the degree of safeness of a constituency in previous elections. The safeness margins vary locally, allowing to absorb year and region-by-year fixed effects. Coefficients reveal that constituencies perceived as safer seats (i.e., those with a larger margin in the previous election) experience lower turnout.<sup>20</sup>

While the findings presented thus far provide plausible effects of both nationally and locally inferred competitiveness, their conclusions are only

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<sup>19</sup>The observed changes in turnout associated with a one standard deviation wider predicted margin range from 0.11 percentage points to 0.97 percentage points. These results align in both direction and magnitude with findings in the literature, e.g. [Bursztyn et al. \(2023\)](#).

<sup>20</sup>An increase of one standard deviation in the safeness of a constituency is associated with a decrease in turnout ranging from 9.4 percentage points to 10.7 percentage points.

Table 1: The separate effect of national opinion poll margins and local safety of a constituency on turnout

|                                  | Dep. var.: Turnout    |                        |                        |                        |                        |                        |
|----------------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                                  | (1)                   | (2)                    | (3)                    | (4)                    | (5)                    | (6)                    |
| NationalPollmargin <sub>w1</sub> | -0.0178**<br>(0.0071) |                        |                        |                        |                        |                        |
| NationalPollmargin <sub>w2</sub> |                       | -0.0849***<br>(0.0073) |                        |                        |                        |                        |
| NationalPollmargin <sub>w3</sub> |                       |                        | -0.1503***<br>(0.0070) |                        |                        |                        |
| NationalPollmargin <sub>w4</sub> |                       |                        |                        | -0.0571***<br>(0.0060) |                        |                        |
| LocalSafety <sub>t-1</sub>       |                       |                        |                        |                        | -0.0484***<br>(0.0040) | -0.0425***<br>(0.0043) |
| Constituency FE                  | X                     | X                      | X                      | X                      | X                      | X                      |
| Year FE                          |                       |                        |                        |                        | X                      |                        |
| Region*Year FE                   |                       |                        |                        |                        |                        | X                      |
| Observations                     | 5,599                 | 5,599                  | 5,599                  | 5,599                  | 4,676                  | 4,676                  |
| R-squared                        | 0.4286                | 0.4323                 | 0.4423                 | 0.4310                 | 0.9240                 | 0.9458                 |

Notes: *Turnout* is the ratio between the total number of votes and the number of eligible voters of a constituency. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in a certain time frame, subscripts indicate a specific week before the election date (1=last, ..., 4=fourth to last). *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

partial. In the context of UK general elections, where local MPs are elected through a first-past-the-post system, it is plausible that the effect of national opinion polls varies with the degree to which a constituency is considered safe. To explore this further, our focus shifts to examining the combined influence of local and national information.

Table 2 presents the results for Equation 1, with constituency-level turnout as the dependent variable. In the odd-numbered columns, we account for constituency and year-fixed effects, while the even-numbered columns replace year dummies with region-by-year fixed effects.<sup>21</sup> Across all our

<sup>21</sup>Note that *NationalPollmargin* alone cannot be included in the main specification due

models, we consistently find negative and statistically significant interaction coefficients. This suggests that as the predicted national competitiveness of an election decreases, voter turnout is lower, and participation is even lower in safer constituencies. Moreover, the influence of the polls appears stronger as the election date approaches, underlining the importance of timing when it comes to participation decisions. Importantly, the coefficient of *LocalSafeness* remains negative and significant in all our models, indicating that even if opinion polls predict closely contested national races, safe seats see, on average, lower voter participation. Reassuringly, coefficients remain largely unchanged when different fixed effects are considered. Additional insights from Table A.5 reveal that this interaction effect is far more pronounced in constituencies where the local incumbent party also leads in the national opinion polls, i.e., when both national and local margins suggest a non-competitive race.

Examining magnitudes, a 10-percentage-point increase in the previous local election margin (which is less than a third of the sample average) is associated with a loss in turnout ranging between 0.4 and 0.5 percentage points, conditional on opinion polls indicating a 10-percentage-point difference between Conservative and Labour (corresponding to the average poll margin one month before elections). Conversely, a 10-percentage-point increase in the national opinion poll margin within the most fiercely contested constituency in the prior election has a negligible effect on voter participation. However, the same variation in national poll margin within the safest constituency leads to a reduction in turnout, ranging between 1.6 percentage points in close proximity to the election and 0.6 percentage

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to collinearity with time effects. For completeness, estimates that exclude year effects and include *NationalPollmargin* are provided in Appendix 5, Table A.4.

Table 2: The effect of national opinion poll margins interacted with local safety of a constituency on voter turnout

|   | Dep. var.: Turnout     |                        |                        |                        |                        |                        |                        |                        |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|   | (1)                    | (2)                    | (3)                    | (4)                    | (5)                    | (6)                    | (7)                    | (8)                    |
| NationalPollmargin <sub>it</sub> <sup>w1</sup> * LocalSafety <sub>t-1</sub> | -0.1775***<br>(0.0291) | -0.1763***<br>(0.0275) |                        |                        |                        |                        |                        |                        |
| NationalPollmargin <sub>it</sub> <sup>w2</sup> * LocalSafety <sub>t-1</sub> |                        |                        | -0.1585***<br>(0.0291) | -0.1716***<br>(0.0273) |                        |                        |                        |                        |
| NationalPollmargin <sub>it</sub> <sup>w3</sup> * LocalSafety <sub>t-1</sub> |                        |                        |                        |                        | -0.1112***<br>(0.0244) | -0.1281***<br>(0.0226) |                        |                        |
| NationalPollmargin <sub>it</sub> <sup>w4</sup> * LocalSafety <sub>t-1</sub> |                        |                        |                        |                        |                        |                        | -0.0641***<br>(0.0187) | -0.0708***<br>(0.0173) |
| LocalSafety <sub>t-1</sub>  | -0.0343***<br>(0.0050) | -0.0287***<br>(0.0051) | -0.0354***<br>(0.0050) | -0.0288***<br>(0.0051) | -0.0386***<br>(0.0048) | -0.0314***<br>(0.0050) | -0.0422***<br>(0.0046) | -0.0357***<br>(0.0047) |
| Constituency FE   | X                      | X                      | X                      | X                      | X                      | X                      | X                      | X                      |
| Year FE   | X                      |                        | X                      |                        | X                      |                        | X                      |                        |
| Region*Year FE  |                        | X                      |                        | X                      |                        | X                      |                        | X                      |
| Observations  | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  |
| R-squared   | 0.9247                 | 0.9463                 | 0.9246                 | 0.9463                 | 0.9244                 | 0.9461                 | 0.9242                 | 0.9459                 |

Notes: *Turnout* is the ratio between the total number of votes and the number of eligible voters of a constituency. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in a certain time frame, subscripts indicate a specific week before the election date (1=last, ..., 4=fourth to last). *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

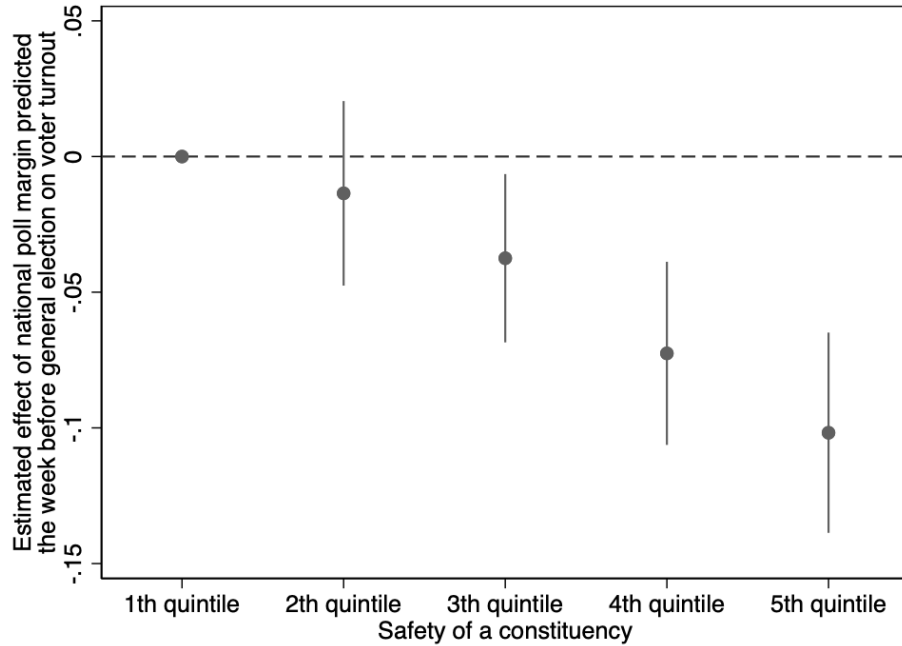
points one month ahead of the election.<sup>22</sup> Moving forward, we will narrow our focus to the most salient opinion poll margins, those released in the week just before the election.

The following figure illustrates that the electorate's decision to vote significantly varies based on the degree to which a constituency is considered safe. Specifically, Figure 5 dissects the coefficient of the interaction term previously detailed in Column 2 of Table 2. The influence of wider national opinion polls exhibits an (almost) linear relationship within quintiles of the local safeness distribution. More precisely, the effect observed in constituencies situated in the highest quintiles (safest seats) is notably more pronounced when contrasted with constituencies in the lowest quin-

<sup>22</sup>In a model that includes both the interaction in the last week together with either that of the second, third, or fourth week before the election, results suggest that effects are particularly relevant to the information revealed by polls near the election date, as the most proximate interaction coefficient remains negative and significant (available on request).

tile.

Figure 5: Safer seats experience a much larger reduction in voter participation for a given national poll margin lead



**Note:** Figure documents that the impact of a given national poll margin lead on reducing turnout is notably stronger in constituencies that are much safer. The graph displays estimated coefficients for the interaction between the national poll  $NationalPollmargin_{w1}$  and the quintiles of  $LocalSafeness_{t-1}$  capturing the safeness of the local seat for the incumbent. This is equivalent to the specification in Column 2 of Table 2. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017.

These findings on voter participation underscore the significance of the information derived from national opinion polls, particularly in safe seats. The significant loss in turnout in less competitive scenarios aligns with the notion that voters in safe seats may be additionally influenced by the information from national polls, shaping their decision to participate.



### 3.2 Vote shares concentration

This section shifts focus to the dynamics of local competition by examining the concentration of party vote shares. The *LocalConcentration* index considers the distribution of vote shares among all competing parties within a constituency. By incorporating data from all participating parties, this index enables us to draw broader conclusions regarding the composition of voters who turn out based on the perceived competitiveness of the race, inferred from the combined information of pre-electoral national polls and past local results.

Table 3 presents estimates derived from Equation 1, with *LocalConcentration* as the dependent variable. Note that *LocalConcentration* represents the sum of squares of local party vote shares; hence, lower values indicate a more competitive environment, while higher values suggest a less competitive one. Across the entire sample, Columns 1 and 2 display coefficients indicating that safe seats exhibit, on average, a higher concentration of votes, with fewer parties holding substantial vote shares. However, this effect notably reduces as the predicted opinion poll margin widens, indicating that the less competitive the national race, the more fragmented the local electorate becomes. However, this counter intuitive interaction effect masks evident heterogeneity.

Breaking down estimates across various sub-samples unveils a more intricate scenario. Specifically, in constituencies where the local incumbent party leads in the national polls (Columns 3 and 4), safer seats show a more concentrated competition, amplified when the national polls predict non competitive elections. The rising concentration aligns with the loss of participation, where national predictions may especially discourage sup-

Table 3: The effect of national opinion poll margins interacted with local safety of a constituency on the concentration of local party vote shares

|   | Dep. var.: <i>LocalConcentration</i> |                        |                                  |                       |                                   |                        |                                 |                        |
|---|--------------------------------------|------------------------|----------------------------------|-----------------------|-----------------------------------|------------------------|---------------------------------|------------------------|
|   | All sample                           |                        | Incumbent party is leading polls |                       | Incumbent party is trailing polls |                        | Follower party is leading polls |                        |
|   | (1)                                  | (2)                    | (3)                              | (4)                   | (5)                               | (6)                    | (7)                             | (8)                    |
| NationalPollmargin <sub>wt</sub> * LocalSafety <sub>t-1</sub> | -0.2651***<br>(0.0514)               | -0.1602***<br>(0.0503) | 0.2829***<br>(0.0710)            | 0.3549***<br>(0.0747) | -0.5428***<br>(0.0562)            | -0.5498***<br>(0.0629) | -0.8185***<br>(0.1248)          | -0.6905***<br>(0.1361) |
| LocalSafety <sub>t-1</sub>                                    | 0.0606***<br>(0.0065)                | 0.0474***<br>(0.0067)  | 0.0649***<br>(0.0121)            | 0.0296**<br>(0.0116)  | 0.0908***<br>(0.0133)             | 0.0896***<br>(0.0123)  | 0.0900***<br>(0.0219)           | 0.1071***<br>(0.0227)  |
| Constituency FE   | X                                    | X                      | X                                | X                     | X                                 | X                      | X                               | X                      |
| Year FE   | X                                    |                        | X                                |                       | X                                 |                        | X                               |                        |
| Region*Year FE  |                                      | X                      |                                  | X                     |                                   | X                      |                                 | X                      |
| Observations  | 4,676                                | 4,676                  | 2,306                            | 2,306                 | 2,370                             | 2,370                  | 1,239                           | 1,239                  |
| R-squared   | 0.6747                               | 0.7801                 | 0.8285                           | 0.8831                | 0.7424                            | 0.8456                 | 0.8920                          | 0.9200                 |

Notes: *LocalConcentration* is the sum of squares of party vote shares for all parties in a constituency and takes values between zero and one. One indicates the case of a single party capturing all cast votes, and zero refers to a scenario with infinitely many parties competing for a seat, each with the same share of votes i.e. lower values represent a more competitive environment and vice versa. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the last week before the election date. *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Incumbent parties are defined at the constituency level. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

porters of parties opposing the local incumbent.

In contrast, when the party of the local incumbent is trailing in national polls (Columns 5 and 6), the interaction term exhibits the opposite effect and of larger magnitude compared to the previous scenario. This suggests a lower concentration of vote shares in safer seats (i.e., a more competitive environment with more numerous parties gaining votes) when national polls report a larger advantage for one of the local opposition parties, which could be explained by a scenario where the votes cast in favor of local opposition parties become more fragmented. It is worth noting that in Columns 7 and 8, where specifically the local runner-up party is ahead in the national polls, less competitive national polls also produce a more fragmented local competition, balancing out the otherwise highly concentrated race in safe seats.<sup>23</sup>

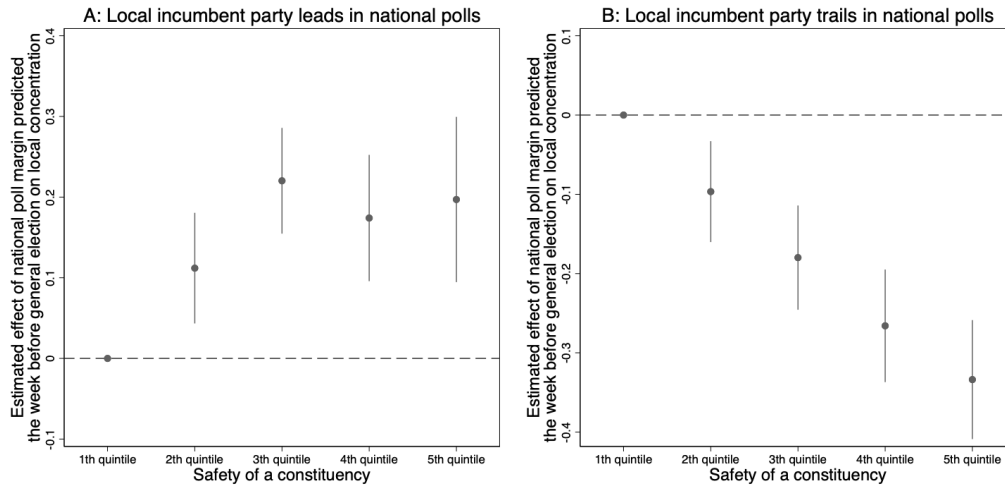
<sup>23</sup>Magnitudes are now larger than Columns 5-6 (one of the opposition parties leads the polls), but the reduced sample impacts the precision of estimates. Therefore, we cannot reject the hypothesis that the interaction effect is invariant across the two sub-samples.

In terms of magnitude, for constituencies where the local incumbent party leads the national race (Columns 3 and 4) by an average margin, a one standard deviation increase in safeness results in a 3.2 to 4.9 percent more concentrated local competition relative to its mean. Conversely, a one standard deviation rise in the national polls margin, in a constituency with an average level of safeness of a seat, leads to a 1.4 to 1.8 percent rise in concentration relative to its mean. Moving to constituencies where the party of the incumbent trails in national polls (Columns 5 and 6) by an average margin, an additional standard deviation in safeness makes the local race 3 percent more concentrated relative to the mean. In contrast, a one standard deviation increase in the national polls margin, considering an average level of safeness, is associated with a 3 percent more fragmented competition relative to its mean.

Overall, the evidence suggests that vote concentration is consistently higher in safe seats (i.e., fewer bigger parties competing), and a large national poll lead enhances this effect when it aligns with a constituency's electoral past, while significantly dampening it (or even reverse it) when it does not align.

Figure 6 dissects the effect of the interaction between national poll margins and Local Safeness across quintiles of the empirical distribution of the safeness-of-seat distribution, aligning with the estimates in Columns 4 and 6 of Table 3. When the local incumbent party leads in national polls, different constituencies experience a similarly positive impact of larger national poll margins on vote share concentration (Panel A). However, in the opposite scenario, the negative effect of wider national polls on local concentration is notably stronger in safer seats (Panel B).

Figure 6: Safer seats experience a larger impact on local vote share concentration for a given national poll lead, with opposing effects in situations where national polls favour the local incumbent or the local opposition



**Note:** This figure illustrates that the impact of a given national poll lead on local vote share concentration is notably stronger in constituencies that are much safer. *LocalConcentration* represents the sum of squares of party vote shares for all parties in a constituency and takes values between zero and one. Lower values indicate an environment with numerous small parties, while higher values represent an environment with fewer, larger parties. Predicted national leads favoring the local incumbent further raise local concentration in safer seats, and vice versa if national polls favor the local opposition. The graph displays estimated coefficients for the interaction between the national poll  $NationalPollmargin_{w1}$  and the quintiles of  $LocalSafeness_{t-1}$ , capturing the safeness of the local seat for the incumbent. This is equivalent to the specification in Columns 4 and 6 of Table 3. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017.

The investigation into vote share concentration solidly supports the initial argument that in safe seats, party competition tends to be concentrated, and the information inferred from national opinion polls acts as a mediator shaping the local competitive environment. The observed heterogeneity aligns with the notion that close opinion polls intensify threats from smaller parties at the local level, reflected in the negative interaction (Figure 6, Panel B), while larger poll margins further diminish these threats

and contribute to even higher concentration, as evident in the positive interaction (Figure 6, Panel A).

### 3.3 Local incumbency advantage

The examination of turnout and *LocalConcentration* partially explains how the *ex-ante* information on both national and local competition changes voter behavior and the redistribution of votes among political forces. This section further investigates how national polls, combined with a constituency's recent electoral history, influence the actual performances of local parties.

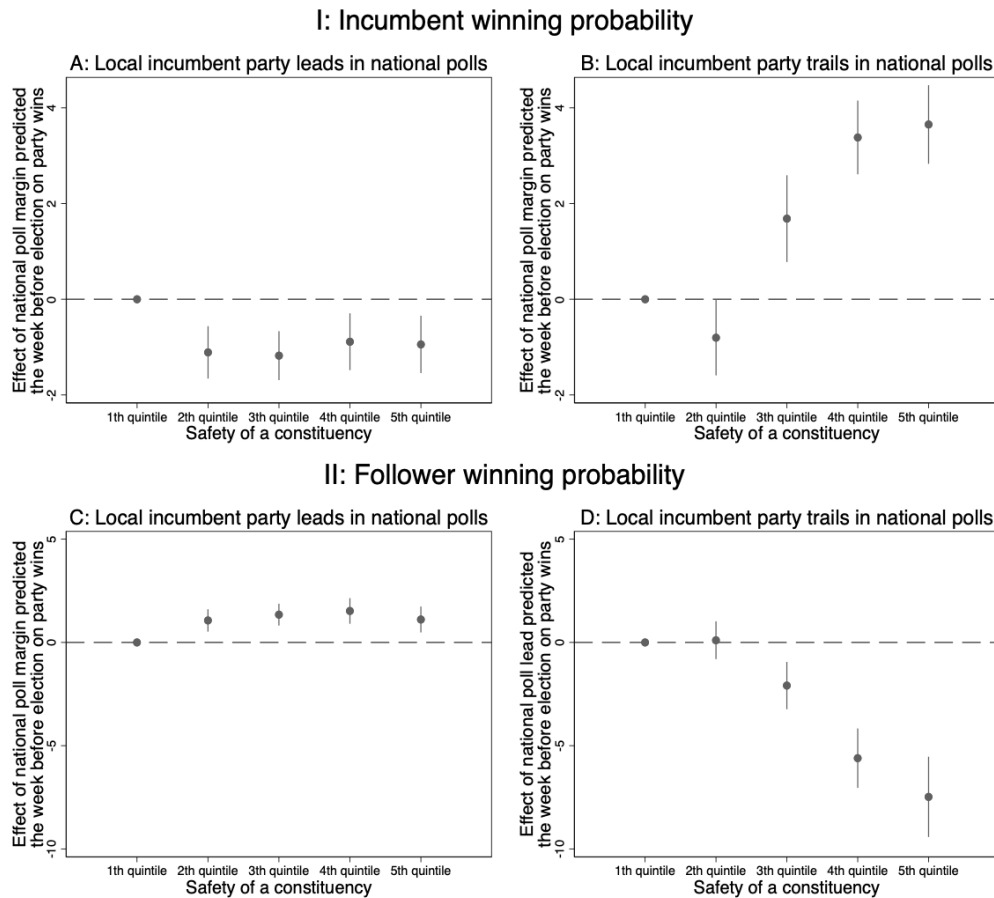
Figure 7 visually demonstrates the influence of national opinion polls on local party performances. Through graphical analysis, we illustrate how larger national poll leads affect the chances of victory for both local incumbent and local follower parties, across quintiles of the local safeness distribution. Detailed aggregate estimates are also provided in table format in Appendix Table A.7.

In Panels A and C, we observe scenarios where the party of the local MP leads the national opinion polls. The lower turnout associated with a more favorable national lead proves detrimental for the local incumbent but advantageous for the local follower.<sup>24</sup> This aligns with previous results indicating lower participation alongside enhanced vote share concentration, reflecting a more concentrated competition around the local incumbent and the local runner-up.

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<sup>24</sup>Also, vote shares for local incumbents are statistically unaffected by variations in poll lead with no differences across local safeness, while an unfavourably wider poll benefit vote shares of local followers (see Figure A.4 and Table A.7, Columns 1 and 3).

Figure 7: Larger national poll lead favors the local follower if the incumbent party leads the national race, while it increasingly favors the local incumbent in safer seats if the incumbent party trails in the national race.



**Note:** This figure illustrates the impact of national poll leads on local party performances across different levels of constituency safeness. Predicted national leads favoring the local incumbent result in a realized advantage for the local follower, stable across local safeness distribution (Panel A and C). Predicted national leads favoring the local opposition result in a realized advantage for the local incumbent, stronger in safer seats (Panel B and D). The graph displays estimated coefficients for the interaction between the national poll  $NationalPollmargin_{w1}$  and the quintiles of  $LocalSafeness_{t-1}$ , capturing the safeness of the local seat for the incumbent. This is equivalent to the specification in Columns 5 to 8 of Table A.7. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017.

Conversely, Panels B and D examine cases where the party of the local MP faces a significant disadvantage in the national opinion polls. It consistently emerges that incumbent MPs gain higher chances of victory, particularly in safer seats, while local follower parties face diminishing prospects. This can be attributed to two factors: firstly, supporters of the local incumbent may exhibit relatively higher turnout in response to the rising success of the opposition (as evidenced by a more contained reduction in turnout in Table A.5, Columns 5 and 6). Secondly, votes in favor of opposing parties may become more fragmented. In safer seats with a wide national poll margin, the second fragmentation effect offsets the first, resulting in a lower concentration of vote shares, as demonstrated in the previous section.

Summarizing our findings, it becomes apparent that a non-competitive election depresses participation, particularly in safe seats. However, the impact differs based on the alignment or opposition of local versus national information. When the two competitive margins are aligned (i.e., the party of the local MP has a large national lead), the lower participation unequivocally produces a more concentrated local competition, offering improved prospects for the local runner-up. Conversely, conflicting information, indicating a significant national disadvantage for the party of the local MP, leads to a more fragmented local competition in her stronghold, ultimately favouring her. In general, noncompetitive opinion polls depress turnout, and the in-congruent direction of the advantage, mitigates this effect. Particularly in safe seats, the alignment or misalignment with national poll margins significantly shapes voter behaviour, consequently influencing local outcomes.<sup>25</sup>

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<sup>25</sup>The toy example in Appendix E parallels the empirical findings, emphasizing the im-

## 4 Survey based evidence

Up to this point, our analysis relied on aggregate data to elucidate on the tension between local and national information about the competitiveness of the electoral race and how this impact voters behaviour. In this final section, we test how these factors influence the self-reported political engagement of survey respondents from *Understanding Society*, serving as a proxy for the willingness to participate in general elections.

Table 4 Panel A presents the estimates derived from Equation 3, where the dependent variable is the proportion of respondents indicating that they do not support any political party. The coefficient of interest in this analysis is the interaction between the margin of victory in the previous election for the respondent's local MP and the average national poll margin reported one week before the respondent interview. It is important to note that the estimates are sensitive to the inclusion of fixed effects and controls, implying the need for caution in interpreting the magnitudes.

Columns 1 to 4 display the results for individuals interviewed before the general election. The positive and often statistically significant interaction coefficients suggest that as national polls predict a less competitive election, there is a higher likelihood of individuals not supporting any party, particularly pronounced in safer constituencies. Conversely, Columns 5 to 8 present estimates for individuals interviewed after the elections, where the interaction term appears either negative or insignificant. This discrepancy aligns with the intuitive notion that the influence of opin-

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pact of poll margins on various aspects of electoral dynamics. The illustrative scenario simulates a constituency where a Labour Party MP is in office, and the national polls indicate a positive margin in favour of the Conservative Party. The example showcases how a larger national poll lead could affect voter turnout, party shares, and the concentration of votes within the constituency.



Table 4: The effect of national opinion poll margins (from the previous week) interacted with local safety of a constituency on voter engagement

| Panel A   |                     |                      |                   |                      |                     |                    |                     |                    |
|---|---------------------|----------------------|-------------------|----------------------|---------------------|--------------------|---------------------|--------------------|
| Dep. var.: <i>Do not support any party</i>                    |                     |                      |                   |                      |                     |                    |                     |                    |
|   | Pre-election        |                      |                   |                      | Post-election       |                    |                     |                    |
|   | (1)                 | (2)                  | (3)               | (4)                  | (5)                 | (6)                | (7)                 | (8)                |
| NationalPollmargin <sub>w1</sub> * LocalSafety <sub>t-1</sub> | 0.907**<br>(0.360)  | 0.951**<br>(0.412)   | 0.755*<br>(0.396) | 0.842*<br>(0.454)    | -0.607**<br>(0.262) | -0.623<br>(0.399)  | -0.536**<br>(0.264) | -0.257<br>(0.412)  |
| NationalPollmargin <sub>w1</sub>                              |                     | -0.700**<br>(0.333)  |                   | -0.654*<br>(0.347)   |                     | 0.117<br>(0.186)   |                     | -0.053<br>(0.193)  |
| LocalSafety <sub>t-1</sub>                                    | -0.048**<br>(0.023) | -0.050**<br>(0.025)  | -0.000<br>(0.044) | -0.003<br>(0.045)    | 0.024<br>(0.022)    | 0.025<br>(0.028)   | 0.008<br>(0.041)    | -0.010<br>(0.046)  |
| No. of Polls <sub>w1</sub>                                    |                     | -0.003***<br>(0.001) |                   | -0.003***<br>(0.001) |                     | 0.004**<br>(0.002) |                     | 0.004**<br>(0.002) |
| R-squared   | 0.001               | 0.001                | 0.061             | 0.062                | 0.000               | 0.001              | 0.043               | 0.043              |

| Panel B   |                      |                      |                   |                      |                      |                     |                      |                      |
|---|----------------------|----------------------|-------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| Dep. var.: <i>Do not support, feel close or vote a party tomorrow</i> |                      |                      |                   |                      |                      |                     |                      |                      |
|   | Pre-election         |                      |                   |                      | Post-election        |                     |                      |                      |
|   | (1)                  | (2)                  | (3)               | (4)                  | (5)                  | (6)                 | (7)                  | (8)                  |
| NationalPollmargin <sub>w1</sub> * LocalSafety <sub>t-1</sub>         | 0.826***<br>(0.292)  | 0.545<br>(0.331)     | 0.584*<br>(0.303) | 0.327<br>(0.346)     | -0.698***<br>(0.200) | -0.181<br>(0.307)   | -0.727***<br>(0.206) | 0.052<br>(0.324)     |
| NationalPollmargin <sub>w1</sub>                                      |                      | -0.415<br>(0.300)    |                   | -0.373<br>(0.298)    |                      | -0.284**<br>(0.139) |                      | -0.418***<br>(0.144) |
| LocalSafety <sub>t-1</sub>  | -0.058***<br>(0.017) | -0.046***<br>(0.017) | -0.015<br>(0.033) | -0.009<br>(0.033)    | 0.036**<br>(0.018)   | 0.006<br>(0.024)    | 0.080**<br>(0.032)   | 0.026<br>(0.036)     |
| No. of Polls <sub>w1</sub>  |                      | -0.004***<br>(0.001) |                   | -0.004***<br>(0.001) |                      | 0.000<br>(0.001)    |                      | 0.001<br>(0.001)     |
| R-squared   | 0.013                | 0.016                | 0.082             | 0.085                | 0.012                | 0.012               | 0.059                | 0.060                |
| Year FE   | X                    | X                    | X                 | X                    | X                    | X                   | X                    | X                    |
| Constituency FE   |                      |                      | X                 | X                    |                      |                     | X                    | X                    |
| Observations  | 14,159               | 14,159               | 14,156            | 14,156               | 22,406               | 22,406              | 22,405               | 22,405               |

Notes: The dependent variable is the share of respondent interviewed at a certain constituency-date that *do not support any party or do not support, feel close or vote a party tomorrow*. We progressively exclude interview dates for which the opinion poll week *w* overlaps with the general election date. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the last week before the respondent interview date. *LocalSafety* is the absolute difference between Conservative and Labour vote shares in the previous general election in the respondent's constituency, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover respondents interviewed the general elections years 2010 and 2015. Constituency-level clustered standard errors are presented in parentheses, and asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

ion polls on participation manifests before elections, when the information provided by national polls is pertinent to the voting decision. The negative coefficient observed after the elections may indicate a form of post-electoral regret stemming from limited political engagement.

Similar results emerge in Table 4 Panel B, which utilizes the share of respondents indicating that they do not support nor feel close to a political party and would not vote for any. Comparable findings are also observed when considering opinion polls in the second, third, or fourth-

to-last weeks before respondents' interviews (see Appendix Tables A.8 to A.10). This evidence corroborates the findings from the aggregate-level analysis presented in Section 3.1.

## 5 Conclusion

The study delves into the intricate dynamics of voter participation and electoral outcomes in UK general elections, focusing on the interplay between perceived national race tightness from opinion polls and local electoral context. Our findings reveal that turnout is influenced by this interplay, with less competitive national elections leading to lower voter participation, particularly in safer seats.

Further analysis of local dynamics shows that the impact of wider poll margins depends on whether the local incumbent party leads or trails in national polls. Larger poll margins reduce turnout that benefit the party that follows when the incumbent leads, enhancing local vote share concentration. Conversely, when trailing, the incumbent gains more in safer seats, possibly due to a non-reduction in support and a fragmented local opposition, reducing vote share concentration. This can help rationalize the demand for safe seats in first-past-the-post electoral settings.

We corroborate these findings with analysis of individual-level survey data. We find a positive relationship between anticipated non-competitiveness and the likelihood of individuals abstaining from supporting any party.

In conclusion, our study enhances understanding of voter behavior and electoral outcomes while highlighting broader implications for the democratic process. The influence of safe seats and opinion polls can shape electoral landscapes, potentially leading to divergent outcomes and impacting

the quality of elected representatives. Recognizing the interconnected role of national polls and local electoral history is crucial for navigating electoral complexities and understanding their influence on political outcomes.

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# Online Appendix

## Turnout, Polls and the Demand for Safe Seats

Eleonora Alabrese

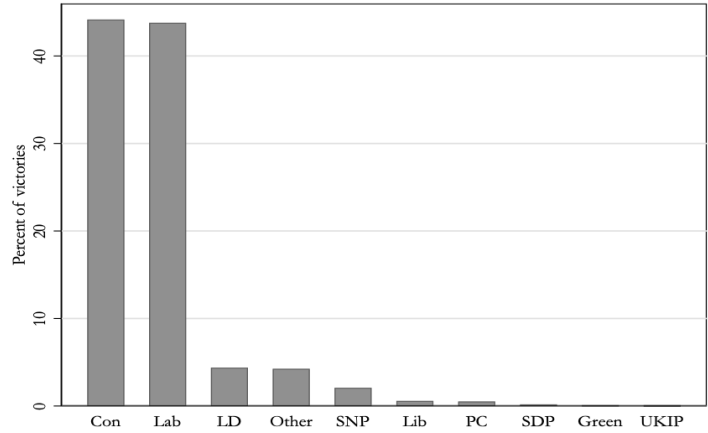
University of Bath

Thiemo Fetzer

University of Warwick

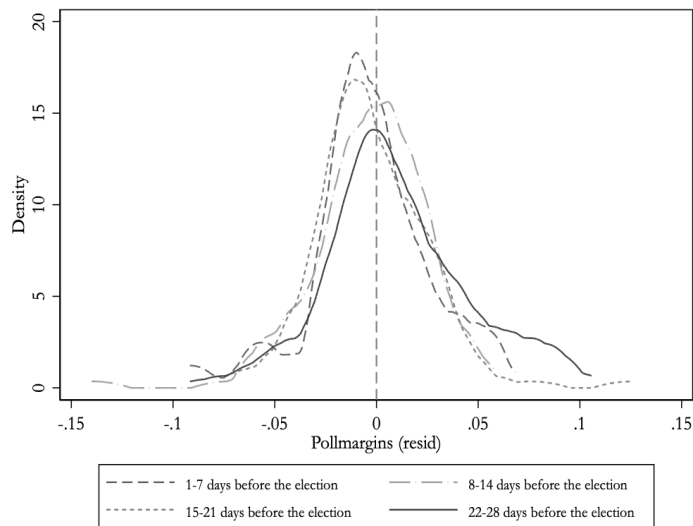
# A Figures

Figure A.1: Party victories across all seats in 1983-2017 general elections



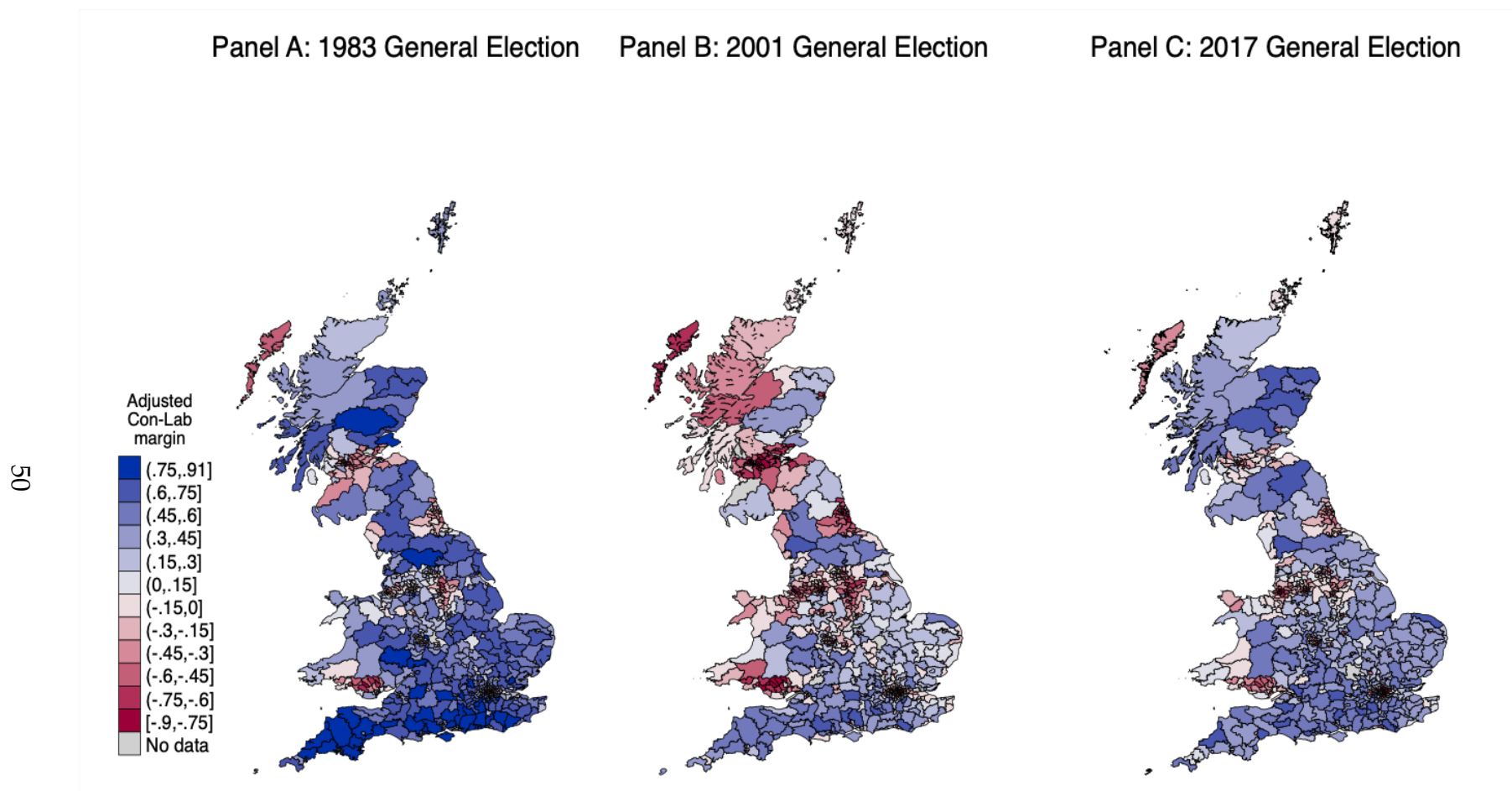
Note: Bars represent the share of winning candidates associated to each party across the full sample of constituencies (seats) across all general elections from 1983 to 2017.

Figure A.2: Variation in national opinion poll margins in different weeks preceding the elections



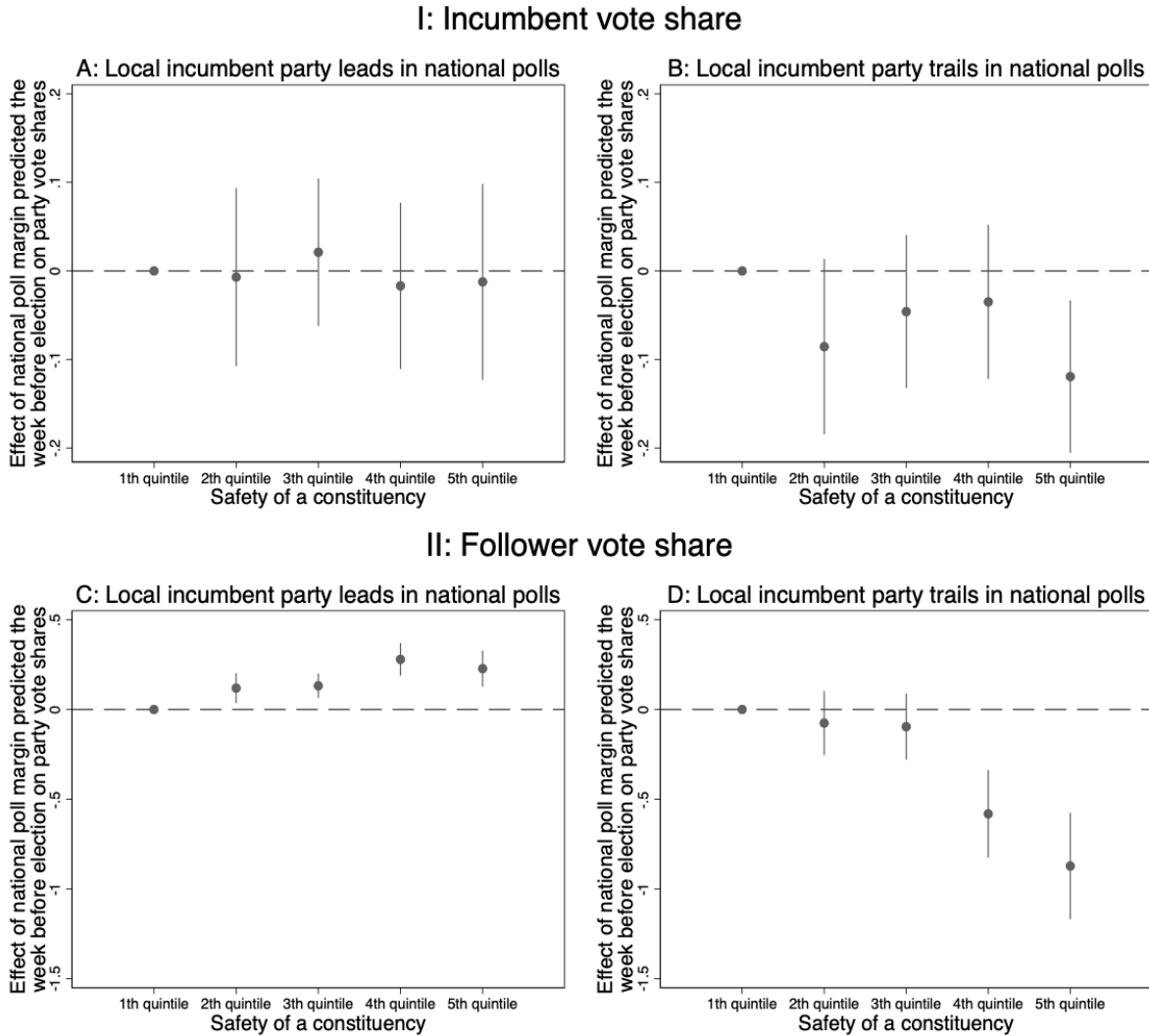
Note: Residual variation after controlling for election fixed effects. Margins are in absolute terms.

Figure A.3: Local Safeness of a constituency varies significantly both spatially and across different general elections



Note: Shades map the variation in the difference between Conservative and Labour vote shares for general elections at the constituency level. The margin between the two parties is adjusted dividing by the sum of the two vote shares:  $LocalSafeness_{c,t} = \frac{Con_{c,t} - Lab_{c,t}}{Con_{c,t} + Lab_{c,t}}$ . Darker shades represent "safe seats" while lighter seats represent contested seats. Blue shades refer to seats favouring the Conservative candidate, red shades refer to seats favouring the Labour candidate.

Figure A.4: Larger national poll lead favors the local follower if the incumbent party leads the national race, while it increasingly hurts the local follower in safer seats if the incumbent party trails in the national race



**Note:** This figure illustrates the impact of national poll leads on local party performances across different levels of constituency safeness. Predicted national leads favoring the local incumbent result in higher realized vote share for the local follower, stable across the local safeness distribution (Panel A and C). Predicted national leads favoring the local opposition result in a lower realized vote share for the local follower, stronger in safer seats (Panel B and D). The graph displays estimated coefficients for the interaction between the national poll  $NationalPollmargin_{w1}$  and the quintiles of  $LocalSafeness_{t-1}$ , capturing the safety of the local seat for the incumbent. This is equivalent to the specification in Columns 1 to 4 of Table A.7. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017.

## B Tables

Table A.1: Summary statistics (aggregate level analysis)

|                                   | Panel A: National Polls               |                              |                              |                     |
|-----------------------------------|---------------------------------------|------------------------------|------------------------------|---------------------|
|                                   | 1 week to GE                          | 2 weeks to GE                | 3 weeks to GE                | 4 weeks to GE       |
| <i>NationalPollmargin</i>         | 0.0776<br>(0.0556)                    | 0.0790<br>(0.0571)           | 0.0861<br>(0.0659)           | 0.0970<br>(0.0749)  |
| No. of Polls                      | 16.6236<br>(5.2212)                   | 12.2864<br>(5.0888)          | 12.2162<br>(4.5047)          | 12.0505<br>(3.8292) |
|                                   | Panel B: Constituency Level Variables |                              |                              |                     |
|                                   | Whole sample                          | Incumbent = poll leader      | Incumbent $\neq$ poll leader |                     |
| Turnout                           | 0.6814<br>(0.0824)                    | 0.6667<br>(0.0866)           | 0.6987<br>(0.0736)           |                     |
| <i>LocalConcentration</i>         | 0.3870<br>(0.0634)                    | 0.3937<br>(0.0632)           | 0.3790<br>(0.0627)           |                     |
| <i>LocalSafety</i> <sub>t-1</sub> | 0.3704<br>(0.2221)<br>[4676]          | 0.3797<br>(0.2217)<br>[2530] | 0.3594<br>(0.2221)<br>[2146] |                     |
|                                   | Panel C: Party Level Variables        |                              |                              |                     |
|                                   | Whole sample                          | Incumbent = poll leader      | Incumbent $\neq$ poll leader |                     |
| Incumbent vote share              | 0.5100<br>(0.0936)                    | 0.5258<br>(0.0911)           | 0.4917<br>(0.0932)           |                     |
| Incumbent prop. victories         | 0.8938<br>(0.3082)<br>[4293]          | 0.9289<br>(0.2571)<br>[2306] | 0.8530<br>(0.3542)<br>[1987] |                     |
| Follower vote share               | 0.3115<br>(0.0967)                    | 0.2915<br>(0.0933)           | 0.3402<br>(0.0944)           |                     |
| Follower prop. victories          | 0.1367<br>(0.3436)<br>[3014]          | 0.0800<br>(0.2714)<br>[1775] | 0.2179<br>(0.4130)<br>[1239] |                     |

Notes: *NationalPollmargin* and *LocalSafety* are in absolute terms and range from 0 to 1. The data cover all general elections between 1983 and 2017. Table reports variable means, with standard deviations in parenthesis and number of observations in square brackets.

Table A.2: Summary statistics (survey based analysis)

|   | Before general election |        |        |       |        | After general election |        |        |       |         |
|---|-------------------------|--------|--------|-------|--------|------------------------|--------|--------|-------|---------|
|   | N                       | Mean   | Sd     | Max   | Min    | N                      | Mean   | Sd     | Max   | Min     |
| Do not support any party                | 16,201                  | 0.683  | 0.404  | 1     | 0      | 30,212                 | 0.635  | 0.419  | 1     | 0       |
| Do not feel close to any party          | 12,768                  | 0.707  | 0.410  | 1     | 0      | 22,616                 | 0.676  | 0.425  | 1     | 0       |
| Would vote for no party tomorrow        | 8,566                   | 0.386  | 0.456  | 1     | 0      | 15,152                 | 0.381  | 0.455  | 1     | 0       |
| <i>NationalPollmargin</i> <sub>w1</sub> | 16,163                  | 0.0468 | 0.0374 | 0.120 | 0      | 26,738                 | 0.0547 | 0.0326 | 0.140 | 0       |
| <i>NationalPollmargin</i> <sub>w2</sub> | 15,858                  | 0.0494 | 0.0384 | 0.120 | 0      | 26,688                 | 0.0547 | 0.0329 | 0.140 | 0       |
| <i>NationalPollmargin</i> <sub>w3</sub> | 15,941                  | 0.0506 | 0.0383 | 0.128 | 0.0006 | 26,624                 | 0.0545 | 0.0332 | 0.140 | 0       |
| <i>NationalPollmargin</i> <sub>w4</sub> | 15,864                  | 0.0524 | 0.0394 | 0.133 | 0.0008 | 27,011                 | 0.0546 | 0.0324 | 0.140 | 0       |
| No. of Polls <sub>w1</sub>              | 16,201                  | 10.73  | 5.203  | 23    | 0      | 30,212                 | 4.161  | 3.352  | 23    | 0       |
| No. of Polls <sub>w2</sub>              | 16,201                  | 9.591  | 5.066  | 23    | 0      | 30,212                 | 4.632  | 4.386  | 25    | 0       |
| No. of Polls <sub>w3</sub>              | 16,201                  | 8.740  | 4.554  | 22    | 0      | 30,212                 | 5.128  | 5.198  | 25    | 0       |
| No. of Polls <sub>w4</sub>              | 16,201                  | 8.086  | 4.169  | 22    | 0      | 30,212                 | 5.527  | 5.570  | 25    | 0       |
| <i>LocalSafety</i> <sub>t-1</sub>       | 14,195                  | 0.371  | 0.225  | 0.883 | 0.0011 | 26,417                 | 0.364  | 0.223  | 0.883 | 0.00113 |

Notes: *NationalPollmargin* and *LocalSafety* are in absolute terms and range from 0 to 1. Data are collapsed at the constituency by the date of the interview level cover general elections in 2010 and 2015. Approximately 86 responses are recorded per constituency and year (Min: 6, Max: 310, SD: 47.8) and about 2.5 responses are registered per constituency and interview date (Min: 1, Max: 20, SD: 1.6).

Table A.3: The effect of national opinion poll margins and local safety of a constituency on voter turnout

|   | Dep. var.: Turnout    |                       |                        |                        |                        |                        |                        |                        |                        |                        |
|---|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|   | (1)                   | (2)                   | (3)                    | (4)                    | (5)                    | (6)                    | (7)                    | (8)                    | (9)                    | (10)                   |
| <i>NationalPollmargin</i> <sub>w1</sub> | -0.0178**<br>(0.0071) | -0.0024<br>(0.0070)   |                        |                        |                        |                        |                        |                        |                        |                        |
| No. of Polls <sub>w1</sub>              |                       | 0.0006***<br>(0.0001) |                        |                        |                        |                        |                        |                        |                        |                        |
| <i>NationalPollmargin</i> <sub>w2</sub> |                       |                       | -0.0849***<br>(0.0073) | -0.0522***<br>(0.0074) |                        |                        |                        |                        |                        |                        |
| No. of Polls <sub>w2</sub>              |                       |                       |                        | 0.0008***<br>(0.0001)  |                        |                        |                        |                        |                        |                        |
| <i>NationalPollmargin</i> <sub>w3</sub> |                       |                       |                        |                        | -0.1503***<br>(0.0070) | -0.1600***<br>(0.0078) |                        |                        |                        |                        |
| No. of Polls <sub>w3</sub>              |                       |                       |                        |                        |                        | -0.0003**<br>(0.0001)  |                        |                        |                        |                        |
| <i>NationalPollmargin</i> <sub>w4</sub> |                       |                       |                        |                        |                        |                        | -0.0571***<br>(0.0060) | -0.0893***<br>(0.0067) |                        |                        |
| No. of Polls <sub>w4</sub>              |                       |                       |                        |                        |                        |                        |                        | -0.0022***<br>(0.0002) |                        |                        |
| <i>LocalSafety</i> <sub>t-1</sub>       |                       |                       |                        |                        |                        |                        |                        |                        | -0.0484***<br>(0.0040) | -0.0425***<br>(0.0043) |
| Constituency FE                         | X                     | X                     | X                      | X                      | X                      | X                      | X                      | X                      | X                      | X                      |
| Year FE                                 |                       |                       |                        |                        |                        |                        |                        |                        | X                      |                        |
| Region*Year FE                          |                       |                       |                        |                        |                        |                        |                        |                        |                        | X                      |
| Observations                            | 5,599                 | 5,599                 | 5,599                  | 5,599                  | 5,599                  | 5,599                  | 5,599                  | 5,599                  | 4,676                  | 4,676                  |
| R-squared                               | 0.4286                | 0.4295                | 0.4323                 | 0.4341                 | 0.4423                 | 0.4424                 | 0.4310                 | 0.4400                 | 0.9240                 | 0.9458                 |

Notes: *Turnout* is the ratio between the total number of votes and the number of eligible voters of a constituency. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in a certain time frame, subscripts indicate a specific week before the election date (1=last, ..., 4=fourth to last). *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A.4: The effect of national opinion poll margins interacted with local safety of a constituency on voter turnout

|   | Dep. var.: Turnout     |                        |                        |                        |
|---|------------------------|------------------------|------------------------|------------------------|
|   | (1)                    | (2)                    | (3)                    | (4)                    |
| NationalPollmargin <sub>w1</sub>                              | -0.0955***<br>(0.0168) |                        |                        |                        |
| NationalPollmargin <sub>w1</sub> * LocalSafety <sub>t-1</sub> | -0.3035***<br>(0.0484) |                        |                        |                        |
| NationalPollmargin <sub>w2</sub>                              |                        | -0.1506***<br>(0.0165) |                        |                        |
| NationalPollmargin <sub>w2</sub> * LocalSafety <sub>t-1</sub> |                        | -0.2876***<br>(0.0477) |                        |                        |
| NationalPollmargin <sub>w3</sub>                              |                        |                        | -0.1711***<br>(0.0141) |                        |
| NationalPollmargin <sub>w3</sub> * LocalSafety <sub>t-1</sub> |                        |                        | -0.2056***<br>(0.0399) |                        |
| NationalPollmargin <sub>w4</sub>                              |                        |                        |                        | -0.0651***<br>(0.0113) |
| NationalPollmargin <sub>w4</sub> * LocalSafety <sub>t-1</sub> |                        |                        |                        | -0.1481***<br>(0.0301) |
| LocalSafety <sub>t-1</sub>                                    | -0.0003<br>(0.0133)    | -0.0021<br>(0.0132)    | -0.0071<br>(0.0134)    | -0.0062<br>(0.0147)    |
| Constituency FE   | X                      | X                      | X                      | X                      |
| Observations  | 4,676                  | 4,676                  | 4,676                  | 4,676                  |
| R-squared   | 0.4681                 | 0.4789                 | 0.4856                 | 0.4604                 |

Notes: *Turnout* is the ratio between the total number of votes and the number of eligible voters of a constituency. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in a certain time frame; subscripts indicate a specific week before the election date (1=last, ..., 4=fourth to last). *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Constituency-level clustered standard errors are presented in parentheses; asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



Table A.5: The effect of national opinion poll margins interacted with local safety of a constituency on voter turnout (sub-samples)

|   | Dep. var.: Turnout     |                        |                                  |                        |                                      |                       |
|---|------------------------|------------------------|----------------------------------|------------------------|--------------------------------------|-----------------------|
|   | All sample             |                        | Incumbent party is leading polls |                        | Incumbent party is not leading polls |                       |
|   | (1)                    | (2)                    | (3)                              | (4)                    | (5)                                  | (6)                   |
| NationalPollmargin <sub>w1</sub> * LocalSafety <sub>t-1</sub> | -0.1775***<br>(0.0291) | -0.1763***<br>(0.0275) | -0.2392***<br>(0.0615)           | -0.2945***<br>(0.0563) | -0.0534*<br>(0.0302)                 | -0.0717**<br>(0.0285) |
| LocalSafety <sub>t-1</sub>                                    | -0.0343***<br>(0.0050) | -0.0287***<br>(0.0051) | -0.0347***<br>(0.0102)           | -0.0476***<br>(0.0089) | -0.0087<br>(0.0085)                  | -0.0014<br>(0.0072)   |
| Constituency FE   | X                      | X                      | X                                | X                      | X                                    | X                     |
| Year FE   | X                      |                        | X                                |                        | X                                    |                       |
| Region*Year FE  |                        | X                      |                                  | X                      |                                      | X                     |
| Observations  | 4,676                  | 4,676                  | 2,306                            | 2,306                  | 2,370                                | 2,370                 |
| R-squared   | 0.9247                 | 0.9463                 | 0.9498                           | 0.9655                 | 0.9313                               | 0.9537                |

Notes: *Turnout* is the ratio between the total number of votes and the number of eligible voters of a constituency. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the last week before the election date. *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Incumbent parties are defined at the constituency level. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A.6: The effect of national opinion poll margins interacted with local safety of a constituency on the concentration of local party vote shares

|   | Dep. var.: LocalConcentration |                        |                        |                        |                        |                        |                        |                        |
|---|-------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|   | (1)                           | (2)                    | (3)                    | (4)                    | (5)                    | (6)                    | (7)                    | (8)                    |
| NationalPollmargin <sub>w1</sub> * LocalSafety <sub>t-1</sub> | -0.2651***<br>(0.0514)        | -0.1602***<br>(0.0503) |                        |                        |                        |                        |                        |                        |
| NationalPollmargin <sub>w2</sub> * LocalSafety <sub>t-1</sub> |                               |                        | -0.2491***<br>(0.0522) | -0.1517***<br>(0.0504) |                        |                        |                        |                        |
| NationalPollmargin <sub>w3</sub> * LocalSafety <sub>t-1</sub> |                               |                        |                        |                        | -0.2494***<br>(0.0476) | -0.1536***<br>(0.0449) |                        |                        |
| NationalPollmargin <sub>w4</sub> * LocalSafety <sub>t-1</sub> |                               |                        |                        |                        |                        |                        | -0.2495***<br>(0.0410) | -0.1519***<br>(0.0388) |
| LocalSafety <sub>t-1</sub>                                    | 0.0606***<br>(0.0065)         | 0.0474***<br>(0.0067)  | 0.0599***<br>(0.0066)  | 0.0470***<br>(0.0067)  | 0.0615***<br>(0.0064)  | 0.0482***<br>(0.0064)  | 0.0636***<br>(0.0060)  | 0.0495***<br>(0.0060)  |
| Constituency FE   | X                             | X                      | X                      | X                      | X                      | X                      | X                      | X                      |
| Year FE   | X                             |                        | X                      |                        | X                      |                        | X                      |                        |
| Region*Year FE  |                               | X                      |                        | X                      |                        | X                      |                        | X                      |
| Observations  | 4,676                         | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  | 4,676                  |
| R-squared   | 0.6747                        | 0.7801                 | 0.6744                 | 0.7800                 | 0.6752                 | 0.7803                 | 0.6762                 | 0.7806                 |

Notes: *LocalConcentration* is the sum of squares of party vote shares for all parties in a constituency and takes values between zero and one. One indicates the case of a single party capturing all cast votes, and zero refers to a scenario with infinitely many parties competing for a seat, each with the same share of votes i.e. lower values represent a more competitive environment and vice versa. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in a certain time frame, subscripts indicate a specific week before the election date (1=last, ..., 4=fourth to last). *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A.7: The effect of national opinion poll margins interacted with local safety of a constituency on local party shares and pr. of winning

|  | Dep. var.:            |                       |                        |                        |                        |                       |                        |                         |
|--|-----------------------|-----------------------|------------------------|------------------------|------------------------|-----------------------|------------------------|-------------------------|
|  | Vote Share            |                       |                        |                        | Pr. of Winning         |                       |                        |                         |
|  | Incumbent             |                       | Follower               |                        | Incumbent              |                       | Follower               |                         |
|  | <i>I = P</i>          | <i>I ≠ P</i>          | <i>I = P</i>           | <i>I ≠ P</i>           | <i>I = P</i>           | <i>I ≠ P</i>          | <i>I = P</i>           | <i>I ≠ P</i>            |
|  | (1)                   | (2)                   | (3)                    | (4)                    | (5)                    | (6)                   | (7)                    | (8)                     |
| NationalPollmargin <sub>tw1</sub> * LocalSafety <sub>t-1</sub> | -0.0634<br>(0.0821)   | -0.0984<br>(0.0623)   | 0.5588***<br>(0.0719)  | -1.3001***<br>(0.1808) | -1.6799***<br>(0.5166) | 7.5263***<br>(0.6207) | 3.2762***<br>(0.6366)  | -12.0562***<br>(1.1657) |
| LocalSafety <sub>t-1</sub>                                     | 0.2458***<br>(0.0142) | 0.2418***<br>(0.0188) | -0.4210***<br>(0.0174) | -0.0623*<br>(0.0320)   | 0.8579***<br>(0.1072)  | 0.2531*<br>(0.1381)   | -1.3200***<br>(0.1427) | 0.2641<br>(0.1760)      |
| Party FE   | X                     | X                     | X                      | X                      | X                      | X                     | X                      | X                       |
| Constituency FE  | X                     | X                     | X                      | X                      | X                      | X                     | X                      | X                       |
| Region*Year FE   | X                     | X                     | X                      | X                      | X                      | X                     | X                      | X                       |
| Observations   | 2,026                 | 1,706                 | 1,337                  | 1,252                  | 2,026                  | 1,706                 | 1,337                  | 1,252                   |
| R-squared  | 0.9046                | 0.9217                | 0.9389                 | 0.8028                 | 0.5018                 | 0.6745                | 0.5168                 | 0.6270                  |

Notes: Dependent variables are: constituency-level party vote shares, and an indicator for whether the party won the constituency race. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the last week before the election date. *LocalSafety* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover all general elections between 1983 and 2017. Incumbent and follower parties are defined at the constituency level. Odd columns refer to constituencies where the party of the local incumbent is leading national polls, even columns the opposite. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table A.8: The effect of national opinion poll margins (from second week before interview) interacted with local safety of a constituency on voter engagement

| <b>Panel A</b>  |              |           |         |           |               |          |         |          |
|---|--------------|-----------|---------|-----------|---------------|----------|---------|----------|
| Dep. var.: <i>Do not support any party</i>                    |              |           |         |           |               |          |         |          |
|   | Pre-election |           |         |           | Post-election |          |         |          |
|   | (1)          | (2)       | (3)     | (4)       | (5)           | (6)      | (7)     | (8)      |
| NationalPollmargin <sub>w2</sub> * LocalSafety <sub>t-1</sub> | 0.650*       | 0.814**   | 0.414   | 0.683     | -0.443        | 0.295    | -0.432  | 0.483    |
|   | (0.363)      | (0.398)   | (0.395) | (0.430)   | (0.274)       | (0.439)  | (0.288) | (0.480)  |
| NationalPollmargin <sub>w2</sub>                              |              | -0.916*** |         | -0.905*** |               | -0.281   |         | -0.360*  |
|   |              | (0.321)   |         | (0.329)   |               | (0.201)  |         | (0.217)  |
| LocalSafety <sub>t-1</sub>                                    | -0.038       | -0.046*   | 0.007   | -0.001    | 0.030         | -0.013   | 0.062   | -0.002   |
|   | (0.023)      | (0.025)   | (0.044) | (0.044)   | (0.023)       | (0.030)  | (0.042) | (0.050)  |
| No. of Polls <sub>w2</sub>                                    |              | -0.003*** |         | -0.003*** |               | 0.005*** |         | 0.006*** |
|   |              | (0.001)   |         | (0.001)   |               | (0.002)  |         | (0.002)  |
| R-squared   | 0.000        | 0.002     | 0.062   | 0.063     | 0.000         | 0.001    | 0.046   | 0.047    |

| <b>Panel B</b>  |              |           |         |           |               |         |          |           |
|---|--------------|-----------|---------|-----------|---------------|---------|----------|-----------|
| Dep. var.: <i>Do not support, feel close or vote a party tomorrow</i> |              |           |         |           |               |         |          |           |
|   | Pre-election |           |         |           | Post-election |         |          |           |
|   | (1)          | (2)       | (3)     | (4)       | (5)           | (6)     | (7)      | (8)       |
| NationalPollmargin <sub>w2</sub> * LocalSafety <sub>t-1</sub>         | 0.880***     | 0.570*    | 0.668** | 0.383     | -0.461**      | 0.139   | -0.436** | 0.504     |
|   | (0.278)      | (0.320)   | (0.289) | (0.343)   | (0.202)       | (0.309) | (0.205)  | (0.313)   |
| NationalPollmargin <sub>w2</sub>                                      |              | -0.235    |         | -0.197    |               | -0.245* |          | -0.410*** |
|   |              | (0.271)   |         | (0.282)   |               | (0.146) |          | (0.146)   |
| LocalSafety <sub>t-1</sub>  | -0.063***    | -0.049*** | -0.026  | -0.018    | 0.016         | -0.019  | 0.035    | -0.030    |
|   | (0.017)      | (0.017)   | (0.034) | (0.034)   | (0.018)       | (0.024) | (0.030)  | (0.034)   |
| No. of Polls <sub>w2</sub>  |              | -0.004*** |         | -0.003*** |               | 0.004** |          | 0.004***  |
|   |              | (0.001)   |         | (0.001)   |               | (0.001) |          | (0.001)   |
| R-squared   | 0.013        | 0.016     | 0.082   | 0.084     | 0.012         | 0.013   | 0.063    | 0.064     |
| Year FE   | X            | X         | X       | X         | X             | X       | X        | X         |
| Constituency FE   |              |           | X       | X         |               |         | X        | X         |
| Observations  | 13,872       | 13,872    | 13,869  | 13,869    | 21,388        | 21,388  | 21,388   | 21,388    |

Notes: The dependent variable is the share of respondent interviewed at a certain constituency-date that *do not support any party or do not support, feel close or vote a party tomorrow*. We progressively exclude interview dates for which the opinion poll week  $w$  overlaps with the general election date. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the second to last week before the respondent interview date. *LocalSafety* is the absolute difference between Conservative and Labour vote shares in the previous general election in the respondent's constituency, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover respondents interviewed the general elections years 2010 and 2015. Constituency-level clustered standard errors are presented in parentheses, and asterisks indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A.9: The effect of national opinion poll margins (from third week before interview) interacted with local safety of a constituency on voter engagement

| Panel A   |                     |                     |                    |                    |                     |                    |                    |                   |
|---|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|--------------------|-------------------|
| Dep. var.: <i>Do not support any party</i>                    |                     |                     |                    |                    |                     |                    |                    |                   |
|   | Pre-election        |                     |                    |                    | Post-election       |                    |                    |                   |
|   | (1)                 | (2)                 | (3)                | (4)                | (5)                 | (6)                | (7)                | (8)               |
| NationalPollmargin <sub>w3</sub> * Adj. margin <sub>t-1</sub> | 1.055***<br>(0.347) | 0.977**<br>(0.401)  | 0.897**<br>(0.384) | 0.859**<br>(0.437) | -0.541**<br>(0.256) | -0.672<br>(0.414)  | -0.493*<br>(0.263) | -0.351<br>(0.443) |
| NationalPollmargin <sub>w3</sub>                              |                     | -0.103<br>(0.305)   |                    | -0.093<br>(0.308)  |                     | 0.174<br>(0.194)   |                    | 0.001<br>(0.207)  |
| LocalSafety <sub>t-1</sub>                                    | -0.059**<br>(0.024) | -0.055**<br>(0.026) | -0.013<br>(0.045)  | -0.012<br>(0.045)  | 0.034<br>(0.022)    | 0.042<br>(0.029)   | 0.014<br>(0.042)   | 0.004<br>(0.049)  |
| No. of Polls <sub>w3</sub>                                    |                     | -0.001<br>(0.001)   |                    | -0.001<br>(0.001)  |                     | 0.004**<br>(0.002) |                    | 0.003*<br>(0.002) |
| R-squared   | 0.001               | 0.001               | 0.061              | 0.061              | 0.000               | 0.001              | 0.046              | 0.046             |

| Panel B   |                      |                      |                    |                      |                     |                   |                     |                    |
|---|----------------------|----------------------|--------------------|----------------------|---------------------|-------------------|---------------------|--------------------|
| Dep. var.: <i>Do not support, feel close or vote a party tomorrow</i> |                      |                      |                    |                      |                     |                   |                     |                    |
|   | Pre-election         |                      |                    |                      | Post-election       |                   |                     |                    |
|   | (1)                  | (2)                  | (3)                | (4)                  | (5)                 | (6)               | (7)                 | (8)                |
| NationalPollmargin <sub>w3</sub> * LocalSafety <sub>t-1</sub>         | 0.891***<br>(0.288)  | 0.594*<br>(0.332)    | 0.697**<br>(0.298) | 0.397<br>(0.357)     | -0.452**<br>(0.198) | -0.097<br>(0.317) | -0.400**<br>(0.200) | 0.146<br>(0.318)   |
| NationalPollmargin <sub>w3</sub>                                      |                      | -0.122<br>(0.273)    |                    | -0.028<br>(0.276)    |                     | -0.139<br>(0.148) |                     | -0.249*<br>(0.151) |
| LocalSafety <sub>t-1</sub>  | -0.064***<br>(0.016) | -0.050***<br>(0.018) | -0.024<br>(0.034)  | -0.015<br>(0.034)    | 0.020<br>(0.019)    | -0.001<br>(0.025) | 0.044<br>(0.032)    | 0.006<br>(0.036)   |
| No. of Polls <sub>w3</sub>  |                      | -0.004***<br>(0.001) |                    | -0.003***<br>(0.001) |                     | 0.003*<br>(0.001) |                     | 0.002*<br>(0.001)  |
| R-squared   | 0.012                | 0.015                | 0.083              | 0.084                | 0.014               | 0.014             | 0.064               | 0.064              |
| Year FE   | X                    | X                    | X                  | X                    | X                   | X                 | X                   | X                  |
| Constituency FE   |                      |                      | X                  | X                    |                     |                   | X                   | X                  |
| Observations  | 13,943               | 13,943               | 13,941             | 13,941               | 20,519              | 20,519            | 20,519              | 20,519             |

Notes: The dependent variable is the share of respondent interviewed at a certain constituency-date that *do not support any party or do not support, feel close or vote a party tomorrow*. We progressively exclude interview dates for which the opinion poll week  $w$  overlaps with the general election date. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the third to last week before the respondent interview date. *LocalSafety* is the absolute difference between Conservative and Labour vote shares in the previous general election in the respondent's constituency, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover respondents interviewed the general elections years 2010 and 2015. Constituency-level clustered standard errors are presented in parentheses, and asterisks indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A.10: The effect of national opinion poll margins (from fourth week before interview) interacted with local safety of a constituency on voter engagement

| <b>Panel A</b>  |                     |                     |                    |                   |                     |                   |                    |                   |
|---|---------------------|---------------------|--------------------|-------------------|---------------------|-------------------|--------------------|-------------------|
| Dep. var.: <i>Do not support any party</i>                    |                     |                     |                    |                   |                     |                   |                    |                   |
|   | Pre-election        |                     |                    |                   | Post-election       |                   |                    |                   |
|   | (1)                 | (2)                 | (3)                | (4)               | (5)                 | (6)               | (7)                | (8)               |
| NationalPollmargin <sub>w4</sub> * LocalSafety <sub>t-1</sub> | 1.004***<br>(0.348) | 0.958**<br>(0.408)  | 0.848**<br>(0.388) | 0.828*<br>(0.444) | -0.528**<br>(0.259) | -0.430<br>(0.409) | -0.454*<br>(0.265) | -0.031<br>(0.429) |
| NationalPollmargin <sub>w4</sub>                              |                     | -0.044<br>(0.310)   |                    | -0.028<br>(0.315) |                     | -0.037<br>(0.192) |                    | -0.220<br>(0.198) |
| LocalSafety <sub>t-1</sub>                                    | -0.058**<br>(0.024) | -0.055**<br>(0.026) | -0.006<br>(0.045)  | -0.005<br>(0.046) | 0.024<br>(0.023)    | 0.019<br>(0.030)  | 0.035<br>(0.043)   | 0.005<br>(0.049)  |
| No. of Polls <sub>w4</sub>                                    |                     | -0.001<br>(0.001)   |                    | -0.001<br>(0.001) |                     | 0.001<br>(0.002)  |                    | 0.001<br>(0.002)  |
| R-squared   | 0.001               | 0.001               | 0.063              | 0.063             | 0.000               | 0.000             | 0.047              | 0.047             |

| <b>Panel B</b>  |                      |                      |                    |                     |                     |                      |                     |                      |
|---|----------------------|----------------------|--------------------|---------------------|---------------------|----------------------|---------------------|----------------------|
| Dep. var.: <i>Do not support, feel close or vote a party tomorrow</i> |                      |                      |                    |                     |                     |                      |                     |                      |
|   | Pre-election         |                      |                    |                     | Post-election       |                      |                     |                      |
|   | (1)                  | (2)                  | (3)                | (4)                 | (5)                 | (6)                  | (7)                 | (8)                  |
| NationalPollmargin <sub>w4</sub> * LocalSafety <sub>t-1</sub>         | 0.940***<br>(0.290)  | 0.510<br>(0.323)     | 0.681**<br>(0.295) | 0.301<br>(0.339)    | -0.503**<br>(0.197) | 0.324<br>(0.308)     | -0.478**<br>(0.202) | 0.758**<br>(0.312)   |
| NationalPollmargin <sub>w4</sub>                                      |                      | 0.304<br>(0.254)     |                    | 0.248<br>(0.256)    |                     | -0.418***<br>(0.145) |                     | -0.645***<br>(0.146) |
| LocalSafety <sub>t-1</sub>  | -0.068***<br>(0.017) | -0.047***<br>(0.018) | -0.019<br>(0.033)  | -0.006<br>(0.034)   | 0.023<br>(0.018)    | -0.026<br>(0.025)    | 0.053*<br>(0.031)   | -0.033<br>(0.036)    |
| No. of Polls <sub>w4</sub>  |                      | -0.003***<br>(0.001) |                    | -0.002**<br>(0.001) |                     | 0.002<br>(0.001)     |                     | 0.002<br>(0.002)     |
| R-squared   | 0.013                | 0.014                | 0.083              | 0.083               | 0.012               | 0.012                | 0.065               | 0.066                |
| Year FE   | X                    | X                    | X                  | X                   | X                   | X                    | X                   | X                    |
| Constituency FE   |                      |                      | X                  | X                   |                     |                      | X                   | X                    |
| Observations  | 13,873               | 13,873               | 13,869             | 13,869              | 20,262              | 20,262               | 20,262              | 20,262               |

Notes: The dependent variable is the share of respondent interviewed at a certain constituency-date that *do not support any party or do not support, feel close or vote a party tomorrow*. We progressively exclude interview dates for which the opinion poll week  $w$  overlaps with the general election date. *NationalPollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the fourth to last week before the respondent interview date. *LocalSafety* is the absolute difference between Conservative and Labour vote shares in the previous general election in the respondent's constituency, adjusted by the sum of those vote shares. Margins range from 0 to 1, and the data cover respondents interviewed the general elections years 2010 and 2015. Constituency-level clustered standard errors are presented in parentheses, and asterisks indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## C Variation in Opinion Polls by Pollsters and Publishers

Polls margins vary depending on the polling institution which produce them (Panel A of Figure A.5 and A.6) and, as a consequence, on the related publisher (Panel B of Figure A.5 and A.6).<sup>26</sup> Looking at reported minimum and maximum margins by pollsters, one can notice some interesting features. First, while in 1983 the difference between the minimum and the maximum remains almost constant across the four weeks preceding the elections, the gap seems to widen in 2017, indicating that variance of the polls differs across years (the same emerges from the graphs in Figure A.5 (Panel B)). Second, in 2001 it is notable that the margin closest to zero is always reported by the same pollster, i.e. Rasmussen, suggesting the presence of a systematic prediction bias by some polling companies. Related to this second point, the graphs in Figure A.5 (Panel B) show an almost equal picture, with some minor differences. For instance, looking at the 2001 general elections, one can see that the Sunday Telegraph chose to report polls from different firms, which however both coincide with those that predicted the largest margin in favour of the Labour party, suggesting the presence of a publication bias.

Motivated by the features just described, I dug more deeply into the opinion polling panel looking for regularities. For each reported opinion poll in the last four weeks preceding elections, the panel lists: the predicted party shares, the margin, the end date of poll, the associated polling house and the (first) publisher.<sup>27</sup> The following tables suggest systematic differences in reported opinion polls. Table A.12 displays results of a simple pollsters fixed effects regression:

$$y_{j,t,w} = \sum_j \beta_j \text{Pollster}_j + \gamma' X_{t,w} + \epsilon_{j,t,w} \quad \text{with } w = 1, 2, 3, 4 \quad (1)$$

where  $y$  are either the Conservative or Labour share or the absolute difference between the two, as reported by pollster  $j$  in week  $w$  preceding general election  $t$ .  $X$  represents week-by-year fixed effects.

Assuming that the sampling methodologies used and the analysis performed by the different polling houses are comparable, there should be no systematic difference across polls. However, the fact that some of the pollsters fixed effects in Table A.12 are significantly different from zero suggests otherwise. Take the example of Rasmussen, results suggest this polling house systematically reports higher Conservative shares and lower Labour shares thus lower poll margins than the excluded pollster MORI.

One interesting avenue for future research is to explore causes behind these differences. One possibility is that since media outlets select their pollsters, they may release pre-election poll estimates that are distorted based on their political leaning.<sup>28</sup> The awareness of a feedback between opinion polling and turnout may be the reason for this

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<sup>26</sup>Panel B of Figure A.6 focuses on the top ten publishers across the period under study.

<sup>27</sup>There are very few cases where two publishers are listed, I ignore those second publishers for simplicity.

<sup>28</sup>In the context of the Brexit referendum, [Cipullo and Reslow \(2019\)](#) find evidence of bias in macroeconomic forecasts released by institutions with stakes and influence.

behaviour, possibly aimed at mobilising (or discouraging) readers' participation. Table A.11 displays results for a preliminary test for this assumption. More specifically, I perform the following regression:

$$y_{j,t,w} = \beta I_{j,t} + \gamma' X_{t,w} + \epsilon_{j,t,w} \text{ with } w = 1, 2, 3, 4 \quad (2)$$

where  $y$  are again either party shares or poll margins, as reported by pollster  $j$  in week  $w$  preceding general election  $t$ .

The variable of interest is now  $I$  which is either an indicator for whether the publisher (newspaper) associated to pollster  $j$  is perceived as right or centre-right leaning (Panel A)<sup>29</sup> or alternatively an indicator for whether the newspaper associated to pollster  $j$  has endorsed the Conservative party or a Conservative candidate in general election  $t$  (Panel B).<sup>30</sup>  $X$  represents either week and year or week-by-year fixed effects. These indicators are only an approximation of the political position of a newspaper which may well vary across time and voters' readership. However, results across specifications suggest that right-leaning newspapers have a tendency to overstate the Labour poll share relative to the Conservative poll share. Although suggestive, there seems to be a publisher bias in line with priors.

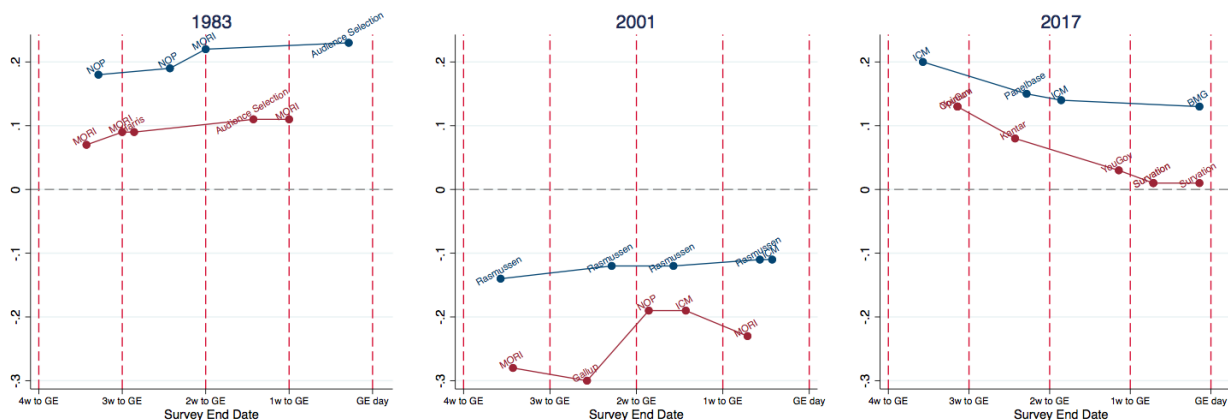
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<sup>29</sup>Source: YouGov survey on perceived newspaper ideology.

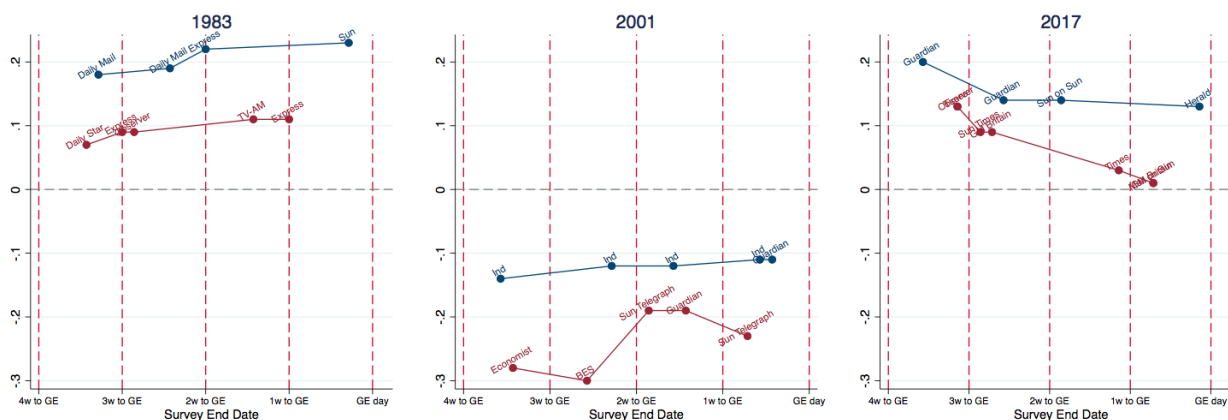
<sup>30</sup>Sources: Guardian (a); Guardian (b); Wikipedia (a); Wikipedia (b); Wikipedia (c).

Figure A.5: Weekly variation in national opinion polls with the minimum and maximum margins

**Panel A: Variation by pollster**



**Panel B: Variation by publisher**

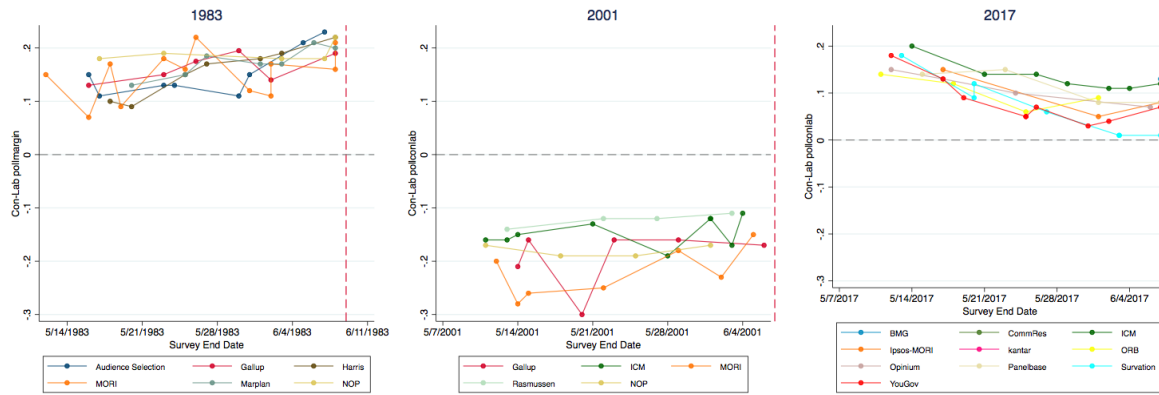


Note: Estimates show the maximum (blue) and the minimum (red) opinion poll margin between Conservative and Labour parties in a given week before the general election date and across general elections. Color labels name the pollster associated to each estimated margin (Panel A) or its publisher (Panel B).

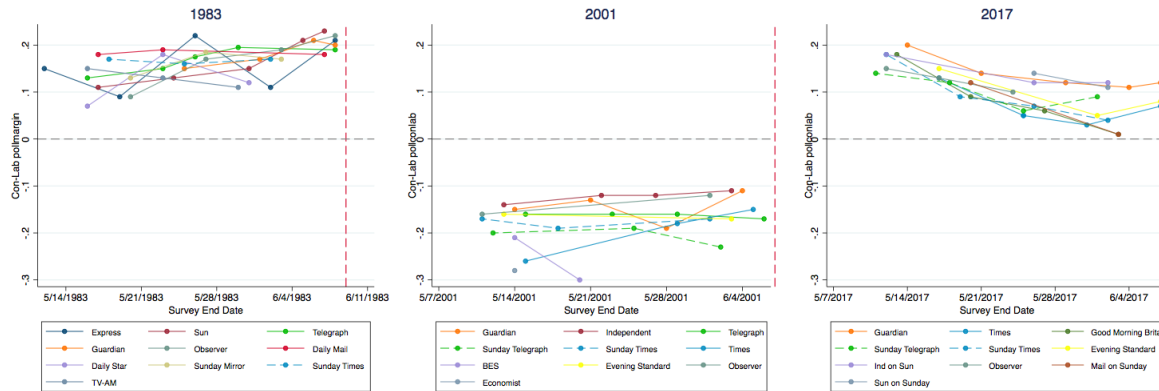


Figure A.6: Weekly variation in national opinion polls margins

**Panel A: Variation by pollster**



**Panel B: Variation by publisher**



Note: Estimates show opinion poll margins between Conservative and Labour parties in a given week before the general election date and across general elections. Colors represent pollsters (Panel A) or publishers (Panel B) associated to each estimated margin.

Table A.11: Reported opinion poll shares and opinion poll margins by publisher orientation

| <b>Panel A</b> |                    |          |              |          |                    |          |
|----------------|--------------------|----------|--------------|----------|--------------------|----------|
| Dep. var.:     |                    |          |              |          |                    |          |
|                | share Conservative |          | share Labour |          | NationalPollmargin |          |
|                | (1)                | (2)      | (3)          | (4)      | (5)                | (6)      |
| Right          | -0.0037*           | -0.0033* | 0.0059**     | 0.0053** | -0.0002            | 0.0012   |
|                | (0.0020)           | (0.0020) | (0.0026)     | (0.0022) | (0.0037)           | (0.0035) |
| Week FE        | X                  |          | X            |          | X                  |          |
| Year FE        | X                  |          | X            |          | X                  |          |
| Week*Year FE   |                    | X        |              | X        |                    | X        |
| Observations   | 345                | 345      | 345          | 345      | 345                | 345      |
| R-squared      | 0.9065             | 0.9272   | 0.9217       | 0.9467   | 0.8231             | 0.8583   |

| <b>Panel B</b>            |                    |          |              |          |            |          |
|---------------------------|--------------------|----------|--------------|----------|------------|----------|
| Dep. var.:                |                    |          |              |          |            |          |
|                           | share Conservative |          | share Labour |          | Pollmargin |          |
|                           | (7)                | (8)      | (9)          | (10)     | (11)       | (12)     |
| Endorsing<br>Conservative | -0.0027            | -0.0022  | 0.0054*      | 0.0054** | -0.0044    | -0.0035  |
|                           | (0.0022)           | (0.0021) | (0.0028)     | (0.0024) | (0.0039)   | (0.0038) |
| Week FE                   | X                  |          | X            |          | X          |          |
| Year FE                   | X                  |          | X            |          | X          |          |
| Week*Year FE              |                    | X        |              | X        |            | X        |
| Observations              | 343                | 343      | 343          | 343      | 343        | 343      |
| R-squared                 | 0.9039             | 0.9258   | 0.9177       | 0.9428   | 0.8194     | 0.8548   |

Notes: *NationalPollmargin* is the absolute difference between Conservative and Labour parties' vote shares and  $\in (0,1)$ . *Right* is an indicator for whether a publisher (newspaper) is perceived as right or centre-right leaning. *Endorsing conservative* is an indicator for whether a publisher (newspaper) has endorsed the conservative party/candidate in that general election. Robust standard errors are presented in parentheses, asterisks indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A.12: Pollster differences in reported opinion poll shares and opinion poll margins

| Pollsters:         | Dep. var.:             |                        |                        |
|--------------------|------------------------|------------------------|------------------------|
|                    | share Conservative     | share Labour           | NationalPollmargin     |
| Angus Reid         | 0.0024<br>(0.0050)     | -0.0479***<br>(0.0074) | 0.0142<br>(0.0114)     |
| Ashcroft           | 0.0011<br>(0.0058)     | -0.0318***<br>(0.0068) | -0.0175<br>(0.0129)    |
| Audience Selection | -0.0177***<br>(0.0032) | -0.0178***<br>(0.0021) | -0.0085**<br>(0.0038)  |
| BMG                | 0.0145**<br>(0.0062)   | -0.0216***<br>(0.0058) | -0.0056<br>(0.0143)    |
| BPIX               | 0.0112**<br>(0.0046)   | -0.0184**<br>(0.0069)  | -0.0382***<br>(0.0104) |
| ComRes             | 0.0113**<br>(0.0047)   | -0.0082<br>(0.0064)    | -0.0148<br>(0.0120)    |
| Gallup             | 0.0062*<br>(0.0035)    | 0.0016<br>(0.0040)     | -0.0071<br>(0.0098)    |
| Harris             | 0.0007<br>(0.0022)     | -0.0066**<br>(0.0024)  | -0.0074<br>(0.0058)    |
| ICM                | 0.0089**<br>(0.0038)   | -0.0160***<br>(0.0022) | -0.0191**<br>(0.0074)  |
| Kantar             | -0.0122<br>(0.0077)    | -0.0166**<br>(0.0072)  | -0.0283<br>(0.0185)    |
| Marplan            | 0.0029<br>(0.0031)     | -0.0046<br>(0.0050)    | -0.0008<br>(0.0064)    |
| NMR                | -0.0071<br>(0.0065)    | -0.0211***<br>(0.0036) | -0.0222***<br>(0.0064) |
| NOP                | -0.0005<br>(0.0031)    | -0.0026***<br>(0.0008) | 0.0018<br>(0.0052)     |
| Neilsen            | 0.0244***<br>(0.0056)  | -0.0066*<br>(0.0032)   | -0.0318***<br>(0.0077) |
| ORB                | 0.0028<br>(0.0077)     | -0.0016<br>(0.0072)    | -0.0283<br>(0.0185)    |
| Opinium            | 0.0039<br>(0.0053)     | -0.0100<br>(0.0061)    | -0.0255*<br>(0.0131)   |
| Panelbase          | -0.0071<br>(0.0061)    | -0.0034<br>(0.0058)    | -0.0142<br>(0.0148)    |
| Populus            | -0.0028<br>(0.0048)    | -0.0022<br>(0.0064)    | -0.0248**<br>(0.0119)  |
| Rasmussen          | 0.0264***<br>(0.0058)  | -0.0441***<br>(0.0060) | -0.0686***<br>(0.0143) |
| Survation          | -0.0130*<br>(0.0063)   | -0.0069<br>(0.0060)    | -0.0349**<br>(0.0149)  |
| TNS BMRB           | -0.0019<br>(0.0048)    | -0.0071<br>(0.0072)    | -0.0334***<br>(0.0118) |
| YouGov             | 0.0041<br>(0.0046)     | -0.0043<br>(0.0061)    | -0.0317**<br>(0.0120)  |
| Observations       | 474                    | 474                    | 474                    |
| R-squared          | 0.9322                 | 0.9503                 | 0.8727                 |

Notes: Polls margins are in absolute terms. All dependent variables are  $\in (0,1)$ . Covariates represent pollsters' fixed effects. The excluded pollster house is MORI (Ipsos-MORI after 2005 GE) as it covers all general elections considered. All regressions include week-by-year fixed effects. Pollster-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## D Additional findings at party level

To further test the joint effect of polls and previous electoral results have on party-specific outcomes, we estimate the following model:

$$y_{p,c,t} = \sum_{i \in \{0,1\}} \sum_{j \in \{0,1\}} \beta_{ij} * LocalSafeness_{c,t-1} * I_{p,c,t,i,j} + \gamma' X_{p,c,t} + \epsilon_{p,c,t} \quad (3)$$

where  $y$  are party vote shares and probability of winning (i.e. an indicator for whether that party candidate becomes the new MP), and subscript  $p$  indicates either Labour or Conservative party.  $I_{p,c,t,i,j}$  is an indicator for the group a party can belong to (in some constituency for some election). Specifically: (a)  $I_{p,c,t,0,0}$  takes value one if the party is neither the incumbent at the local level nor is leading national polls; (b)  $I_{p,c,t,0,1}$  takes value one if the party is not the incumbent at the local level but is leading national polls; (c)  $I_{p,c,t,1,0}$  takes value one if the party is the incumbent at the local level but is predicted to lose at the national level; finally (d)  $I_{p,c,t,1,1}$  takes value one if the party is the incumbent at the local level and is also predicted to win at the national level. The coefficients of interest are  $\beta_{ij}$ .  $X_{p,c,t}$  is a vector of controls that includes: an indicator for whether the party is the local incumbent, an indicator for whether the party is leading national polls, and an indicator for whether the party is both the local incumbent and the national polls leader. In addition,  $X_{p,c,t}$  can here include two more sets of fixed effects than equation (1): party-level indicators and constituency-by-year fixed effects. The most demanding specification rules out that results are driven by factors specific to a constituency in a certain general election, e.g. the strength of the local campaign (more on this in section 3.3). Holding all these factors fixed, it is difficult to argue that other factors are affecting all outcomes at different levels of analysis, in a similar way. Hence, the coefficients of interest should capture a causal impact of the interaction between polls and local preferences.

The table reports estimates of Equation 3, where the dependent variables are either party vote shares or an indicator for the winning party. Given the additional party-level variation, we can now include constituency-by-year fixed effects, which allow to control for potential confounders, such as constituency-specific intensity of the campaign in a given election, or the presence of a specific candidate for local MP (Columns 3 and 6). Note that the incumbent party is the one associated with the constituency MP elected in the previous general election, while either Conservative or Labour are the only parties leading national opinion polls as in Figure 3.

What consistently emerges across specifications is the following. First, local non-incumbent parties that are behind in the polls get increasingly lower vote shares and probability of victory, the safer the constituency. Second, a similar effect is reported for local non-incumbents who are leading the national polls. It appears that no matter the national trends if the local incumbent party was strongly favoured in the past, local opponents will revert the order with difficulty. Third, if local incumbents obtained a solid victory in the previous election, their vote shares and chances of victory will increase independently of whether their party is leading the national polls. Note that the increase in chances of victory induced by an equal increase in safeness is systematically higher for

Table A.13: Previous election margin, vote share and winning probability

|   | Vote Share             |                        | Dep. var.:             |                        |                        |                        |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|   | (1)                    | (2)                    | (3)                    | (4)                    | Pr. of Winning         | (6)                    |
| LocalSafety <sub>t-1</sub> * I <sub>Inc</sub> * I <sub>Pl</sub> |                        |                        |                        |                        |                        |                        |
| Incumbent=0 & Pollleader=0                                      | -0.2958***<br>(0.0096) | -0.2806***<br>(0.0105) |                        | -0.1579***<br>(0.0267) | -0.1360***<br>(0.0288) |                        |
| Incumbent=0 & Pollleader=1                                      | -0.3522***<br>(0.0090) | -0.3588***<br>(0.0099) | -0.2555***<br>(0.0452) | -0.5241***<br>(0.0334) | -0.5514***<br>(0.0348) | -0.6334***<br>(0.1274) |
| Incumbent=1 & Pollleader=0                                      | 0.2509***<br>(0.0090)  | 0.2484***<br>(0.0097)  | 0.3724***<br>(0.0465)  | 0.5301***<br>(0.0386)  | 0.5141***<br>(0.0408)  | 0.4757***<br>(0.1433)  |
| Incumbent=1 & Pollleader=1                                      | 0.2353***<br>(0.0090)  | 0.2579***<br>(0.0086)  | 0.5887***<br>(0.0112)  | 0.1623***<br>(0.0321)  | 0.2023***<br>(0.0322)  | 0.4134***<br>(0.0509)  |
| Controls  | X                      | X                      | X                      | X                      | X                      | X                      |
| Party FE  | X                      | X                      | X                      | X                      | X                      | X                      |
| Constituency FE   | X                      | X                      |                        | X                      | X                      |                        |
| Year FE   | X                      |                        |                        | X                      |                        |                        |
| Region*Year FE  |                        | X                      |                        |                        | X                      |                        |
| Constituency*Year FE  |                        |                        | X                      |                        |                        | X                      |
| Observations  | 9,352                  | 9,352                  | 9,352                  | 9,352                  | 9,352                  | 9,352                  |
| R-squared   | 0.8212                 | 0.8299                 | 0.8674                 | 0.6922                 | 0.6997                 | 0.7308                 |

Notes: Dependent variables are: constituency-level party vote shares, and an indicator for whether the party won the constituency race. *Pollmargin* is the absolute difference between Conservative and Labour vote shares averaged across all national pollsters in the last week before the election date. *Adj.margin* is the absolute difference between Conservative and Labour constituency-level vote shares in the previous general election, adjusted by the sum of those vote shares. All margins are  $\in (0,1)$ . *I<sub>Inc</sub>*=indicator for whether a party is the constituency-level incumbent and *I<sub>Pl</sub>*=indicator for whether a party is leading the polls. Controls include: *I<sub>Inc</sub>*; *I<sub>Pl</sub>*; and their interaction. Constituency-level clustered standard errors are presented in parentheses, asterisks indicate \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

incumbent parties that are behind in the polls. Fourth, the enhanced model in Columns 3 and 6 does not have a significant impact on the estimated coefficients of interest.

The results just described provide further insights. Cases where the incumbent party and the party leading the polls do not coincide constitute examples of possible upset victories, as poll predictions may not be met at the constituency level. A possible explanation is that voters in a constituency which is safe could fear that another party may win the local race due to the predicted scenario at the national level; the uncertainty may motivate higher relative participation by the supporters of the local incumbent. In addition, results from Table 3 suggest this would go hand in hand with a more fragmented opposition. Conversely, when results appear to be quite certain (i.e. incumbent and poll leading party coincide), part of the electorate may think their vote would not make much of a difference and eventually not turn out at the ballots. This may be especially true for supporters of minor parties, consistently with Table 3. These results are also aligned with finding a negative effect on turnout in Table 2, which is even stronger when analysing this same sub-sample (see Table A.5).

## E Summarizing example

The scenario in Table A.14 emphasises the importance of poll margins in influencing electoral outcomes while providing a practical example supporting the empirical findings. The hypothetical case in Column 1 details a constituency where the incumbent Member of Parliament was previously securely elected from the Labour Party, while the current national polls suggest a positive margin in favour of the Conservative Party.

Table A.14: Numerical example

| Case:              | <b>Local Incumbent = Lab &amp; National Poll Leader = Con</b> |  |
|--------------------|---|--|
|                    | (1) <i>NationalPollmargin (Con &gt; Lab)</i>                  | (2) <i>NationalPollmargin (Con &gt;&gt; Lab)</i> |
| Turnout            | 71%   | 68%  |
| Share Lab          | 52%   | 53%  |
| Share Con          | 27%   | 21%  |
| Share LD           | 20%   | 21%  |
| Share UKIP         | 1%  | 5%   |
| LocalConcentration | 0.38  | 0.37   |

Notes: The table illustrates a hypothetical scenario which assumes a constituency with a previously elected Labour MP (constituency-level incumbent) and national polls favouring the Conservative party. The opinion poll margin is more competitive in Column 1 and less competitive in Column 2. Coherent with the evidence presented above, Column 2 thus shows possible changes in the outcome variables listed for an increase in *NationalPollmargin*.

Column 2 demonstrates how changes in poll margins could affect electoral outcomes. An increase in national opinion poll lead for the Conservative Party results in:

- Reduced voter turnout — as per Table 2.
- Increased vote share for the Labour Party (incumbent) together with decreased vote share for the Conservative Party (runner-up) — as discussed in the party-level analysis of Section 3.3.
- More fragmented opposition and decreased vote concentration — in line with findings reported in Table 3.