

Polls and the Vote in Britain

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Little is known about the evolution of electoral sentiment over British election cycles. How does party support converge on the eventual election outcome? Do preferences evolve in a patterned and understandable way? What role does the official election campaign period play? In this article, we begin to address these issues. We outline an empirical analysis relating poll results over the course of the election cycle and the final vote for the three main political parties. Then we examine the relationship relying on vote intention polls for the seventeen British general elections between 1950 and 2010. Predictably, polls become increasingly informative about the vote over the election cycle. More surprisingly, early polls contain substantial information about the final outcome, much more than we see in presidential and congressional elections in the US. The final outcome in Britain comes into focus over the long campaign and is to a large extent in place well before the official election campaign begins. The findings are understandable, we think, but raise other questions, which we begin to consider in a concluding section.

Keywords: election; forecasting; campaigns; parliamentary systems; presidential systems

Previous research shows that opinion polls are informative about upcoming general election outcomes in Britain. This is especially true on election eve, though even then their performance has been uneven – with particularly poor performances in 1992 and 2010 (Jowell *et al.*, 1993; Market Research Society, 1994; Pickup *et al.*, 2011). Naturally we expect polls closer to the election to correspond more closely to the eventual outcome than those further away, but the particular course that polls follow as an election nears can provide us with important insights about how this happens. We want to know how much more informative polls become over the course of the election cycle.

It may be that polls have little information content before the formal election campaign begins, but rapidly become informative during the campaign as the public focuses on the election and views of the parties and candidates become more settled. Alternatively, it may be that polls have high information content from much earlier in the political cycle, suggesting that public opinion takes shape long before voters and parties formally focus on the election itself. Further, the pattern could vary by party.

The extent to which preferences coalesce before the official campaign begins has direct implications for the influence of election campaigns. It sheds light on the potential to inform voters and shape preferences and the timing within the electoral cycle when this may occur (Andersen *et al.*, 2005; Arceneaux, 2005; Finkel, 1993; Hillygus and Shields, 2008; Matthews and Johnston, 2010; Stevenson and Vavreck, 2000; for a review of the literature, see Hillygus, 2010). Relatedly, it reveals limits on the voter response to major events and

policy announcements and the extent to which the effects of these remain to impact the final electoral vote (Holbrook, 1996; Shaw, 1999; Erikson and Wlezien, 2012).

The institutions and party system of a country are likely to structure how electoral preferences evolve, by influencing the stability of the choices faced by voters and the level of information they have about choices at different points in the cycle. Examining the predictive power of polling in different countries can thus provide us with important insights about how the evolution of political choice differs in different institutional frameworks and political traditions. In the next section, we consider ways in which the evolution of preferences could be influenced by such factors, and propose the key hypotheses that we examine with our data.

Theory and Hypotheses

Political institutions can structure the evolution of public opinion in several ways. First, in Westminster systems, we expect early polls to be informative about the election outcome. This actually should be true in all parliamentary systems, as national parties predominate – since voters' party preferences tend to be fairly stable over time, early polls should be informative. Now in Westminster systems, the government almost always is controlled by a single party, and voters decide to continue with that party or change course to go with the alternative. This, and the fact that governments in Britain, like most parliamentary systems, can call an election at any point in time, encourages voters to update their evaluations of parties throughout the electoral cycle. That is, the possibility of a new election is always present, at least to some degree. As a result, there is likely to be a greater focus among politicians and the media on the electoral horse race, and British voters are more likely to keep a 'running tally' of party performance. If so, polls would reveal 'enlightened preferences' (Gelman and King, 1993) early in the cycle.

H1. Polling in Britain should be informative about election outcomes from early in the election cycle.

Second, the informativeness of the polling for a particular party may be influenced by the structural position of the different parties in the political system. There are a number of factors that might contribute to party differences in how informative polls are at particular stages in the electoral cycle. When certain parties dominate a system as the only ones likely to feature in government, attention naturally tends to gravitate to these parties. Third and minor parties tend to be marginalised outside election time, receiving less media coverage and possessing a limited ability to set the agenda. In the British context, we might expect that polls a long way from the election should be more informative for the dominant Labour and Conservative Parties, and much less informative for the large, but structurally disadvantaged, third party – the Liberals (including their successors the Alliance and Liberal Democrats). This disadvantage may be much reduced during the formal campaign period, when media organisations are obliged to provide equal coverage of all three large parties (e.g. Fieldhouse and Cutts, 2009; Whiteley and Seyd, 2003). So there is reason to expect that the predictive power of Liberal polls will improve rapidly during formal campaign periods,

as voters acquire new information about the previously under-reported party and adjust preferences accordingly.¹

There are other reasons, too, for expecting party differences in the evolution of electoral preferences more generally. One possibility is that tactical voting might contribute to late movements of support. There could, alternatively, be greater churn between the supporters of certain parties than others (for example, such as the competition between Labour and the Liberals for left-of-centre voters since the days of the SDP–Liberal alliance), leading electoral preferences to come into focus quite late for those parties. For many reasons, then, we expect party differences in the pattern of change in informativeness of polls over the election cycle.

H2. There should be differences among political parties in the degree to which polling is informative about election outcomes, over the course of the election cycle.

Our third expectation is that polls are likely to be informative from much earlier in the electoral cycle in parliamentary systems such as Britain than in presidential systems such as the US. There are two main reasons for this. First, as we have discussed, British elections are substantially centred on national parties. In presidential systems, by contrast, candidates matter more, though especially in the presidential ballot. In the US, for instance, at least one of the presidential candidates is not decided until late in the election cycle. Early polling in parliamentary systems therefore should be more informative than presidential polling, although this differential should rapidly dissipate once the identities of the presidential candidates are known. Second, even to the extent that British party leaders matter (Stewart and Clarke, 1992), they typically are known well in advance of the election. This allows voters to take them into account early on in their electoral preferences. In the US, by contrast, the presidential candidates are the *de facto* party leaders and are not fully known until months before the election. Voters thus cannot take into account the presidential candidates in their congressional election preferences until very late in the election cycle. Early polling in Britain is expected to be more informative than both presidential and congressional polling in the US.

H3. Polling in Britain should be more informative early in the cycle than executive or legislative polling in the US, and the differential should be particularly large before the identities of presidential candidates become known.

In this article we test these hypotheses by examining vote intention polls for the seventeen British general elections between 1950 and 2010. We assess the movement in aggregate poll results over each election cycle. We then analyse the relationship between poll results at different points in time and the final election day vote. Finally, results from the UK are compared with results for presidential and congressional elections in the US. Our results provide supporting evidence for each of our hypotheses.

The Polls, 1945–2010

We have compiled what we believe is the most complete data set of available national polls of the vote division that include the Conservative, Labour and Liberal Parties for the seventeen elections between 1950 and 2010.² Specifically, we have 3,293 opinion polls from

eighteen polling ‘houses’ – that is, companies. (Details are reported in the Appendix.) In the polls, respondents were asked about how they would vote ‘if the election were held tomorrow’ with minor variations in question wording. In analysing these polls, we ignore these differences in wording. For our analyses, we use the published ‘headline figures’ released by polling companies as their current estimate of vote intention in Great Britain.

There are two important points to note about these data. First, we are compelled to work with headline vote intention figures, which do not reflect consistent sampling or weighting strategies by different polling organisations or even by the same organisation over time. Going back in time, most opinion polls in Britain up until the 1990s were conducted using face-to-face quota or random samples, with telephone surveys first used at the 1979 election (Worcester, 1980). Only since the 1990s have pollsters made regular use of telephone polling, with internet panels becoming increasingly widespread since the 2000s, leading to increasing variation in the weighting and filtering strategies used in polling. Today, British polling organisations employ different strategies for weighting their data by likelihood to vote, partisanship and other things, all of which differ between organisations and may change over time. The headline figures may thus reflect different sampling universes. Practices also evolve over time – past vote weights, for example, were mainly introduced after the 1992 election, when the polls performed particularly poorly (Jowell *et al.*, 1993). While ideally we would like to work with consistent data, assembling a time series reflecting consistent weighting and sampling practices would be impossible. We therefore use the ‘headline figures’ vote intentions as the most consistent attainable time series of poll data, one that reflects the survey houses’ best estimate of vote preferences at the time of the survey. Where a survey house changes its sampling or weighting strategies, our poll data will therefore capture this change.³

Second, especially in recent years, survey organisations often report results for overlapping polling periods. This is quite understandable and is as we would expect, for example, where a survey house operates a tracking poll and reports three-day moving averages. Respondents interviewed today would be included in the published poll results for the following two days. Clearly, we do not want to count the same respondents on multiple days, and it is very easy to remove this overlap. For the hypothetical survey house operating a tracking poll and reporting three-day moving averages, we would only use poll results for every third day.

For the period 1950–2010, this leaves 3,033 polls of vote intention. Table 1 summarises the data by election cycle. For instance, in the uppermost row, there were 32 polls conducted after the election of 1945 and before the election of 1950. In the table we can see that around two-thirds of the polls were conducted during the last six election cycles – 1987–2010. During this period, the number of polls averaged 344 per election; beforehand, we only have 87 polls per election on average. The number of polls varies from election to election for other reasons too, and the length of the inter-election period is one of them, that is, when there is less time between elections, there are fewer polls. For example, there were only 36 polls conducted prior to the second 1974 election, which occurred only eight months after the first election of that year, and 48 polls during the seventeen months between the 1964 and 1966 elections.

Table 1: A Summary of the British Poll Data, 1950–2010

<i>Election year</i>	<i>Election called</i>	<i>Election day</i>	<i>Number of polls^a</i>	<i>Number of days^b</i>
1950	11 January	23 February	32	32
1951	19 September	25 October	18	18
1955	15 April	26 May	40	40
1959	8 September	8 October	59	59
1964	15 September	15 October	134	129
1966	28 February	31 March	48	48
1970	18 May	18 June	130	123
1974 (February)	7 February	28 February	89	81
1974 (October)	18 September	10 October	36	29
1979	29 March	3 May	165	158
1983	9 May	9 June	210	180
1987	11 May	11 June	284	254
1992	11 March	9 April	482	406
1997	17 March	1 May	300	266
2001	8 May	7 June	210	190
2005	5 April	5 May	229	179
2010	6 April	6 May	559	448
<i>Total</i>			3,033	2,640

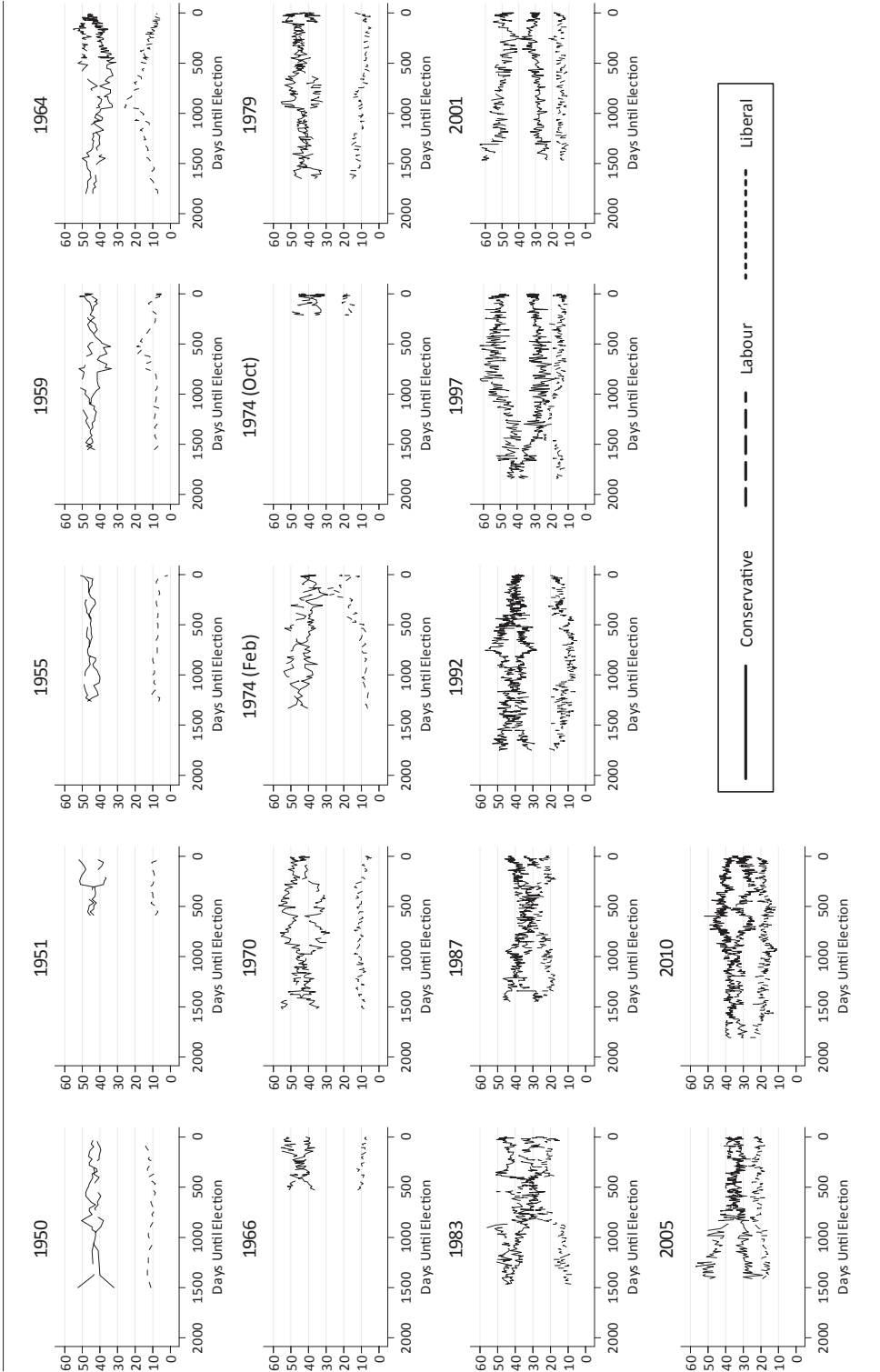
Notes: ^a The number of pre-election polls conducted since the previous election. ^b The number of days since the previous election for which poll readings are available, based on an aggregation of polls by the mid-date of the reported polling period.

Since most polls are conducted over multiple days, we ‘date’ each poll by the middle day of the period the survey is in the field.⁴ Using this method, the 3,033 polls allow readings (sometimes multiple) for 2,640 separate days from 1945 to 2010 (see Table 1). For days when more than one poll result is recorded, we pool the results together into one *poll of polls* by taking the (unweighted) mean. Since the 1987 election, we have readings for 291 days per election on average. During the official election campaign in these years, we have a virtual day-to-day monitoring of preferences, especially since 1992.⁵

Figure 1 presents the daily poll of polls for the full election cycle in each of the seventeen elections between 1950 and 2010.⁶ The figure depicts each of the main three parties’ share of vote intention, ignoring all other parties, aggregated by the mid-date of the reported polling period. We notice a number of things in the figure.

First, we see that the length of the polling period varies quite a lot from election to election. This to a large extent reflects the length of the inter-election period, as noted above. Second, the variance of electoral preferences differs quite a lot from election to election. During the 1983 cycle the polls shifted dramatically for all three parties. In the 1970 and 1997 cycles, we also see substantial churning in support for the Conservatives and Labour. In the early elections (1950, 1951 and 1955), conversely, preferences shifted in a narrow range. Third, just as the variance of the poll time series differs from election to

Figure 1: Vote Intention during the Electoral Cycle, 1945–2010



election, the within-cycle variance of polls appears to differ from one time period to another over the campaign. That is, the volatility of the polls drops noticeably as the election cycle evolves.

Figure 2 zooms in on the official campaign period, and displays the daily poll of polls for the final 30 days prior to election day. Here we can see that preferences shift within a much narrower range. Perhaps more importantly, the party leading at the beginning of the campaign never loses the lead in the polls, though in some years (1959, 1979, 1992 and 2005) it gets very close and in one year (1992) the leader in the polls actually lost the election. Indeed, there appears to be a general tendency for poll leads to shrink during the official campaign. At the same time, perhaps because of the increased media exposure mentioned above and because the coverage tends to be positive (Norris *et al.*, 1999), the Liberals almost always gain – specifically, their share increases in thirteen of the fifteen election cycles for which we have data, by 2.5 percentage points on average.⁷

Tables 2 and 3 present the daily variance in the polls during the seventeen election cycles. Table 2 shows the variance over the full election cycle and Table 3 the variance over the final 30 days. The numbers confirm what we observed in Figures 1 and 2. Poll variance clearly differs a lot across elections, being more pronounced in some years than others. It also differs across the election cycle, being more pronounced earlier in the cycle than later. On average, the variance of poll preferences during the official campaign is only about one-quarter of the variance for observations over the full election cycle. There are some interesting differences across the political parties, however. While the variance of polls declines markedly for all parties, the drop-off is much less pronounced for the Liberals. That is, during the official campaign, polls of Liberal support vary *at least as much* as polls of Labour and Conservative support, while otherwise the Liberal poll variation is lower than that of the two main parties. This is consistent with our hypothesis that the campaign period is of special importance to the Liberal vote. The increased attention media organisations are obliged to give to the party, its candidates, local campaigning and its leader during the campaign seemingly help to offset the structural disadvantages the party suffers outside campaign periods.

The numbers in Table 3 suggest that the patterns have changed somewhat over time, and that poll preferences during recent cycles are more volatile than they were in the 1950s and 1960s. The mean variance (calculated across the three parties) prior to the 1979 election cycle is 2.9 percentage points; since that time, it is 5.2 percentage points.⁸ This may be something of a surprise given the substantial increase in the number of polls during the later period, which has increased the number of respondents and should dampen the variance due to sampling error. The increased volatility of the polls may reflect the greater diversity of polling houses in recent election years, which may have introduced greater house effects and poll variance (see Note 6). There are other possible explanations, including the decline in the strength of British voters' party attachments over time (Clarke *et al.*, 2004; Dalton and Wattenberg, 2000; Schmitt, 2002).

The Methods

Polling tells us how people would vote if the election were held 'tomorrow', not how they will vote when the election actually occurs. Between the date of the poll and election day

Figure 2: Vote Intention during the Official Campaign: The Final 30 Days, 1945–2010

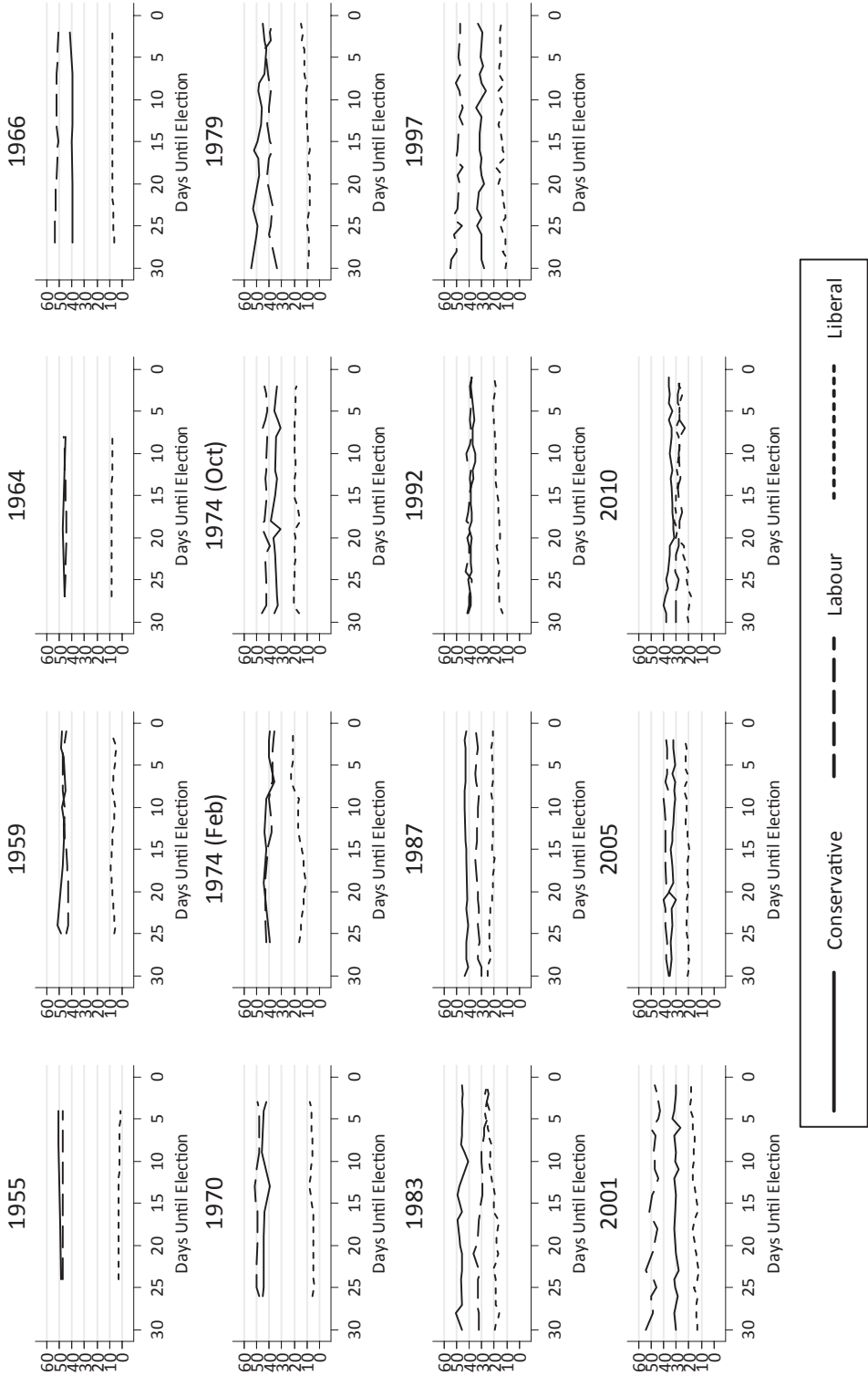


Table 2: Variance of Daily Reports of Vote Intention, 1950–2010

<i>Election year</i>	<i>Conservative</i>	<i>Labour</i>	<i>Liberal</i>
1950	10.0	6.1	2.6
1951	13.7	13.3	1.6
1955	7.6	2.2	4.4
1959	14.0	6.9	10.4
1964	19.8	15.8	20.3
1966	7.3	11.4	3.1
1970	28.6	46.8	4.4
1974 (February)	14.9	20.2	35.8
1974 (October)	3.4	6.5	3.7
1979	17.9	17.0	7.4
1983	39.2	55.3	71.1
1987	21.5	11.5	20.3
1992	22.2	24.4	14.2
1997	25.1	34.1	14.6
2001	12.2	28.1	5.0
2005	9.4	26.7	7.5
2010	14.2	21.9	10.0
<i>Mean</i>	16.5	20.5	13.9
<i>Median</i>	14.2	17.0	7.5

much can happen to change voters' minds, including the short and intense formal campaign period of approximately a month between the announcement of an election and the date on which voters cast their ballots. Some of the change in electoral preferences is impossible to anticipate, as it is due to unique shocks and events.

Some of the change, however, may be driven by systematic and predictable effects. It may be, for instance, that pre-election poll leads tend to fade and gravitate towards some equilibrium preference.⁹ Such 'regression to the mean' is observed in a variety of social and physical phenomena (Barnett *et al.*, 2005). Measurements taken at one point in time that are unusually large or small revert to something closer to the average by the time of the next measurement. This can be due both to measurement error and to underlying processes that produce mean reversion. So it could be with public opinion and elections. If a party is doing unusually well in the polls, it may be expected, based on the experience of past election cycles, that the party will lose support leading up to the election, and for parties that are doing unusually poorly in the polls to gain support. The election day outcome would be the equilibrium plus the effects of late campaign events that do not fully decay before the vote.

It may be that events have more permanent effects. In the extreme, all effects would last to influence the outcome, and the election day result would simply sum the effects of all events over the election cycle.¹⁰ If true, polls would become increasingly informative as the election cycle unfolds and preferences converge on the final result. A more reasonable expectation

Table 3: Daily Variance of Vote Intention during the Last 30 Days of the Cycle, 1950–2010

<i>Election year</i>	<i>Conservative</i>	<i>Labour</i>	<i>Liberal</i>
1950	–	–	–
1951	–	–	–
1955	1.5	0.1	0.6
1959	3.3	2.9	1.9
1964	0.8	1.4	0.1
1966	0.8	1.3	0.3
1970	4.1	1.5	1.6
1974 (February)	6.5	7.2	16.0
1974 (October)	3.8	2.6	2.2
1979	11.8	4.9	4.9
1983	4.0	10.6	13.4
1987	0.9	2.3	2.6
1992	2.4	2.1	3.7
1997	3.6	7.5	5.4
2001	2.6	9.4	4.0
2005	2.1	1.7	1.1
2010	4.6	2.9	15.7
<i>Mean</i>	3.5	3.9	4.9
<i>Median</i>	3.3	2.6	2.6

may be that not all effects persist, but rather some last and others decay. Here, there would be a *moving* equilibrium above or below which preferences may shift in the short run; that is, there would be regression to a moving mean. The election day outcome would be the final value of the moving equilibrium plus the effects of late campaign events that do not fully decay before the vote. Under these circumstances, the polls would increasingly converge on the final result, especially towards the very end of the election cycle.¹¹

In theory, the time-series type could be inferred from standard statistical diagnostics on time series of polls. That is, we could make the determination by estimating the following equation for each party in each election cycle:

$$\text{VOTE INTENTION}_t = \alpha + \beta \text{VOTE INTENTION}_{t-1} + \varepsilon_t, \quad (1)$$

where vote intention is the party's share in the polls at each point in time t and ε is a series of independent shocks drawn from a normal distribution.¹² The parameter β reveals the main time-series characteristic of the series – whether observed changes to preferences persist or decay and, if the latter, the rate of decay. Two problems complicate such an analysis. First, as we noted earlier, a non-trivial portion of the observed variance in party preferences over an election cycle is due to sampling error. Second, as we saw above, we lack anything approaching a regular, daily time series of party preference until the most recent elections, and even then only towards the end of the cycle. One cannot pursue standard time-series tests using series of irregular and unreliable observations.

Our solution is to analyse the data not as a set of time series but as a set of cross-sections (following Wlezien and Erikson, 2002). The units of analysis are party preferences (observed and imputed) for each of the last 750 days of the seventeen elections. Instead of seventeen haphazard time series, we analyse 750 cross-sections, where we predict the actual election result from the polls on dates $t = 1$ to $t = 750$. For each of the many days without polls centred on those dates, we generate values through linear interpolation between the values of the nearest available dates.¹³ Given that our methodology is explicitly cross-sectional, our interpolation does not pose any of the problems that would accompany time-series analysis of such data; indeed, interpolation offers more fine-grained evidence. With the daily readings, we can observe: (1) the slopes (and intercepts) from these regressions; and (2) the R -squared statistic for the model predicting the election day vote from party preferences, which tells us the proportion of the variance in the vote explained by reported preferences on each day.

For the cross-sectional equation predicting the actual vote from the polls on each day, we estimate 750 equations of the following form for each party:

$$\text{ELECTION DAY VOTE}_j = a_t + b_t \text{ VOTE INTENTION}_{jt} + \mathbf{v}_{jt}, \quad (2)$$

over all j = election years, holding t (the date) fixed for each regression. We are interested in the coefficients a and b and the prediction error as we vary t . They describe the general relationship between the polls and the vote. It may be that these regressions suggest no systematic change in the relationship, implying that polls evolve as a random walk over time. Under these circumstances, we would expect a to be 0 and b to be 1 for all values of t . This means that the polls provide the best guess of the election result at each point in time. However, there would still be error in the predictions, presumably more so the earlier vote intention is estimated. As the cycle unfolds and events cause preferences to change, the polls would increasingly converge on the final result. Thus, while the coefficient (b) for the poll variable in Equation 2 would be a constant 1.0, the explained variance (adjusted R -squared) of the equation would increase over the election cycle.

There may not be an identity relationship ($a = 0$ and $b = 1$) between the vote intention estimates and election results, however. If there is regression to the mean, a would be greater than 0 and b would be less than 1. With b less than 1 and with a and b held constant, the equilibrium is equal to $a/(1-b)$. Thus, if the polls were greater (lesser) than $a/(1-b)$, we would expect the election day vote to be lower (higher) than the current polls. Assuming the coefficients remain fairly constant over time, the explained variance will remain fairly constant until late in the cycle, when the effects of events do not fully decay before election day – as they increasingly affect the outcome, the R -squared increases towards the end.¹⁴ Of course, as noted above, the equilibrium could change over time. If this were the case, we would observe a growing adjusted R -squared over time, as a portion of the new shocks to preferences persist to affect the outcome, with an added surge from late-arriving short-term shocks at the end (for more details, see Erikson and Wlezien, 2012; Wlezien and Erikson, 2002; see also Campbell, 2000). Under these circumstances, we would also expect b to increase (and a to decrease) over the cycle, as later polls become a better predictor of the outcome.

The Polls and the Vote in Britain

Consider the scatter plots between poll results at various points of the election cycle and the actual party vote.¹⁵ These are shown in Figures 3–5. In the upper left-hand panel of the figure, using the handful of elections for which polls are available 1,500 days before election day, we see that there is little pattern. As we turn to more current polls, moving horizontally and then vertically through the table, pattern emerges; simply, the later the polls the greater the focus. As we get closer to the election, the polls tell us more about the outcome. This is as one would expect.

R-squareds

In Figure 6, we make a more fine-grained presentation. Here we display the cross-sectional *R*-squareds (across elections) from regressing each party's share of the vote on their share in the polls for each date starting 750 days before the election, when we have polls for 14 of the 17 elections.¹⁶ Specifically, for each of the three main parties we estimate the following equation:

$$\text{ELECTION DAY VOTE}_j = a_t + b_t V_{jt} + v_{jt}, \quad (3)$$

where V is the reported vote intention in the polls at time t and each regression is estimated over all j (election years) for fixed t (the date). Recall that we are interested in the pattern of *R*-squareds and regression coefficients as we vary t .

The series of *R*-squareds in Figure 6 corroborate what we saw in the scatter plots. First, early British polls contain a good amount of information about the vote, as we hypothesised. Polls from two years in advance of election day account for over 33 per cent (on average across the three parties) of the variance in the vote, suggesting that elements of the British political system help to structure choice well in advance of the formal electoral cycle. Second, the predictability of the vote from the polls increases during the election cycle. Polls from one year in advance account for 50 per cent of the party vote variance, on average, and this increases to about 90 per cent using polls from just before election day.¹⁷ These findings are consistent with the first hypothesis that polling in Britain's parliamentary system should be informative early in the cycle.

There are differences across the political parties, however. Most notably, the polls come into focus more quickly for the Conservatives than for the other two parties, particularly Labour. Concentrating on the last year in the cycle, when differences across the parties are evident, we can see that the increase in predictability for the Conservatives is essentially linear through to election day. For the other parties, the improvement comes towards the end of the cycle. Notably, the pattern is not significantly different for Labour and the Liberals during the last 100 days, with the polls becoming increasingly informative at a similar rate near to the election.¹⁸ At the very end, the Liberal poll share predicts its party's vote even better than the Conservative poll standing predicts its party vote. Labour support is a less reliable predictor through most of the final year, and especially in the months leading up to the election, but exhibits a similar dynamic to what we observe for the Liberals – electoral preferences are uncertain until late in the cycle but rapidly come into focus during the final few months.

Figure 3: Scatter Plot of Conservative Party Vote Share by Poll Share for Selected Days of the Electoral Calendar, 1950–2010

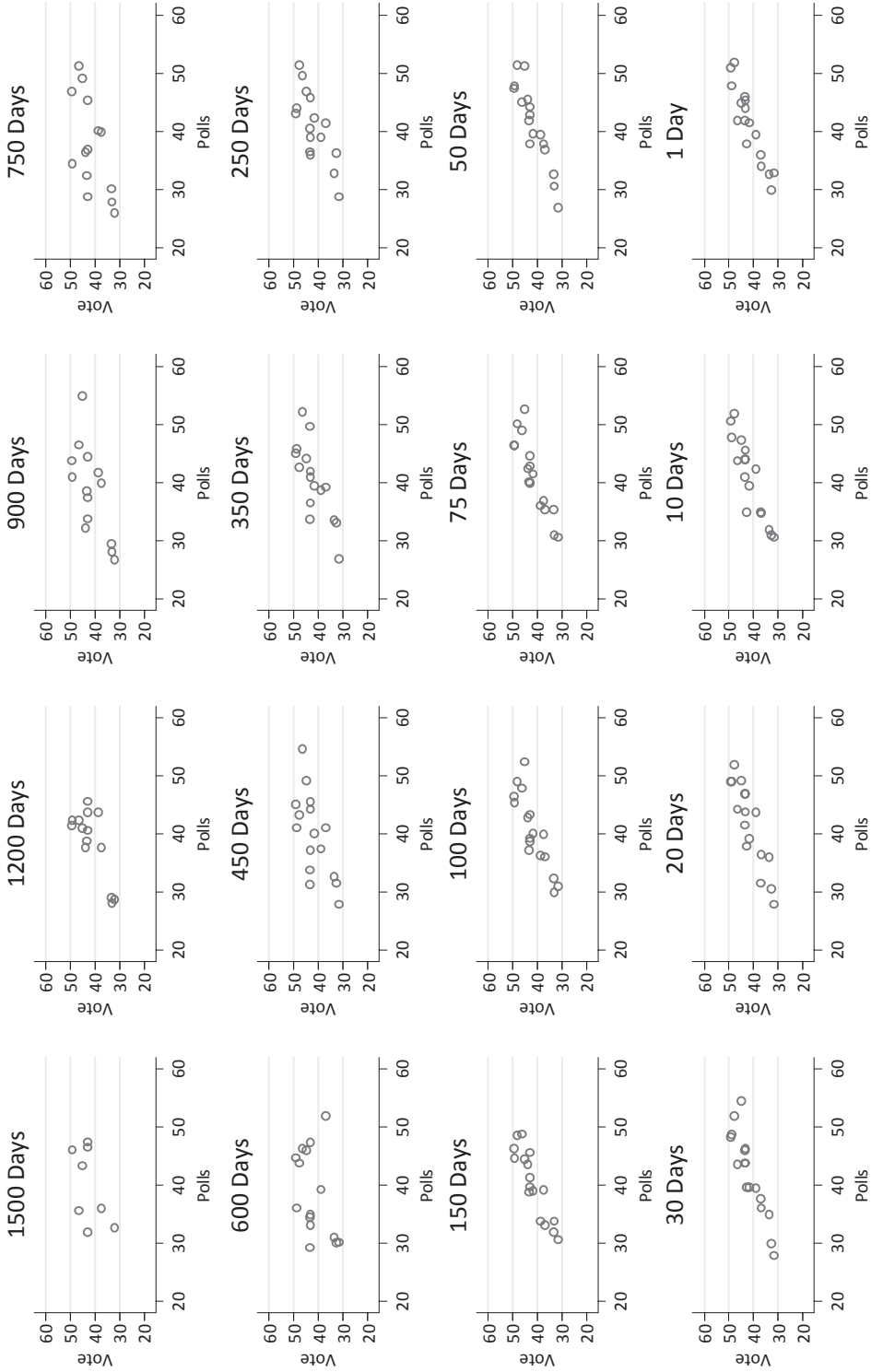


Figure 4: Scatter Plot of Labour Party Vote Share by Poll Share for Selected Days of the Electoral Calendar, 1950–2010

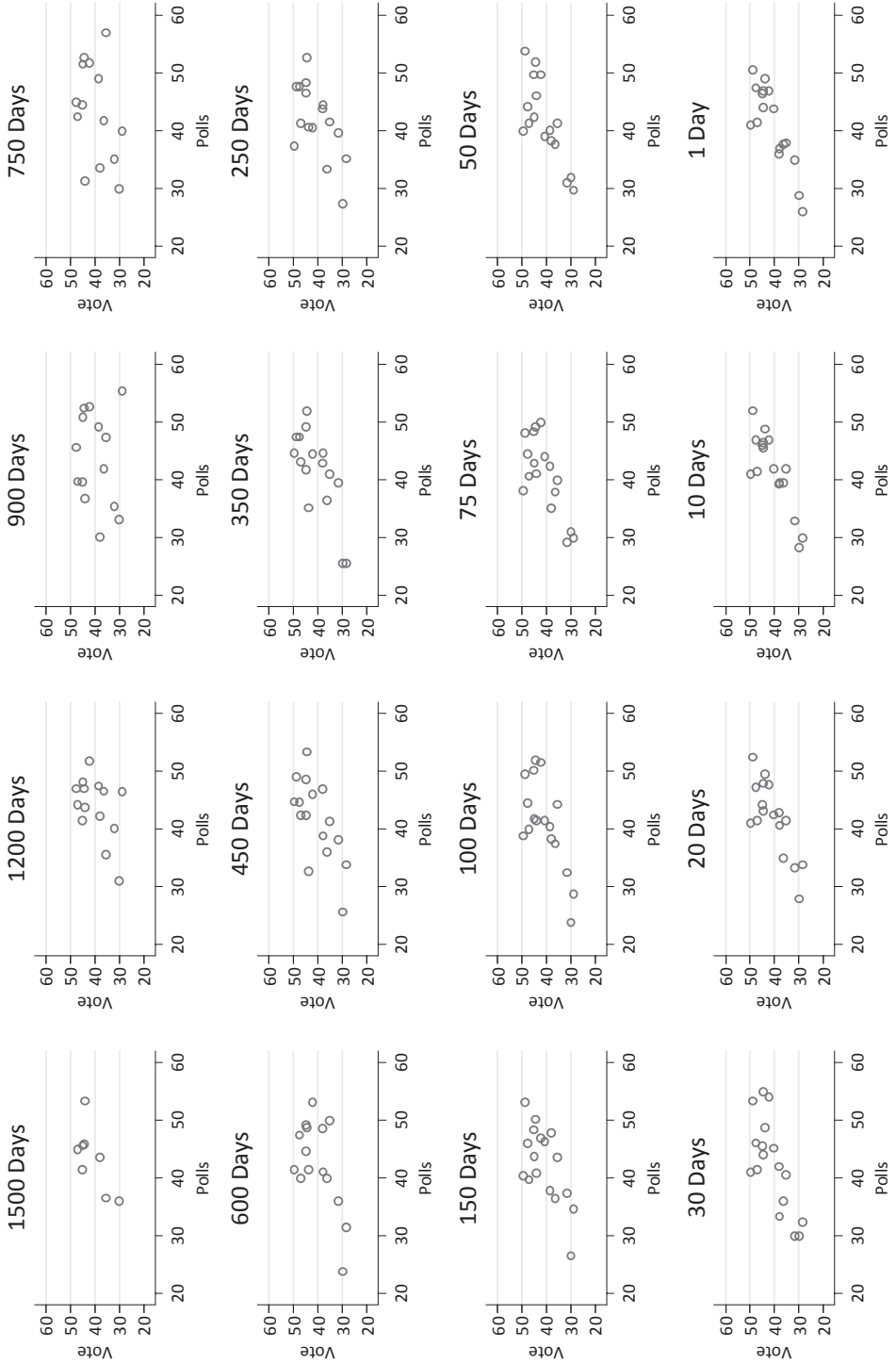


Figure 5: Scatter Plot of Liberal Party Vote Share by Poll Share for Selected Days of the Electoral Calendar, 1950–2010

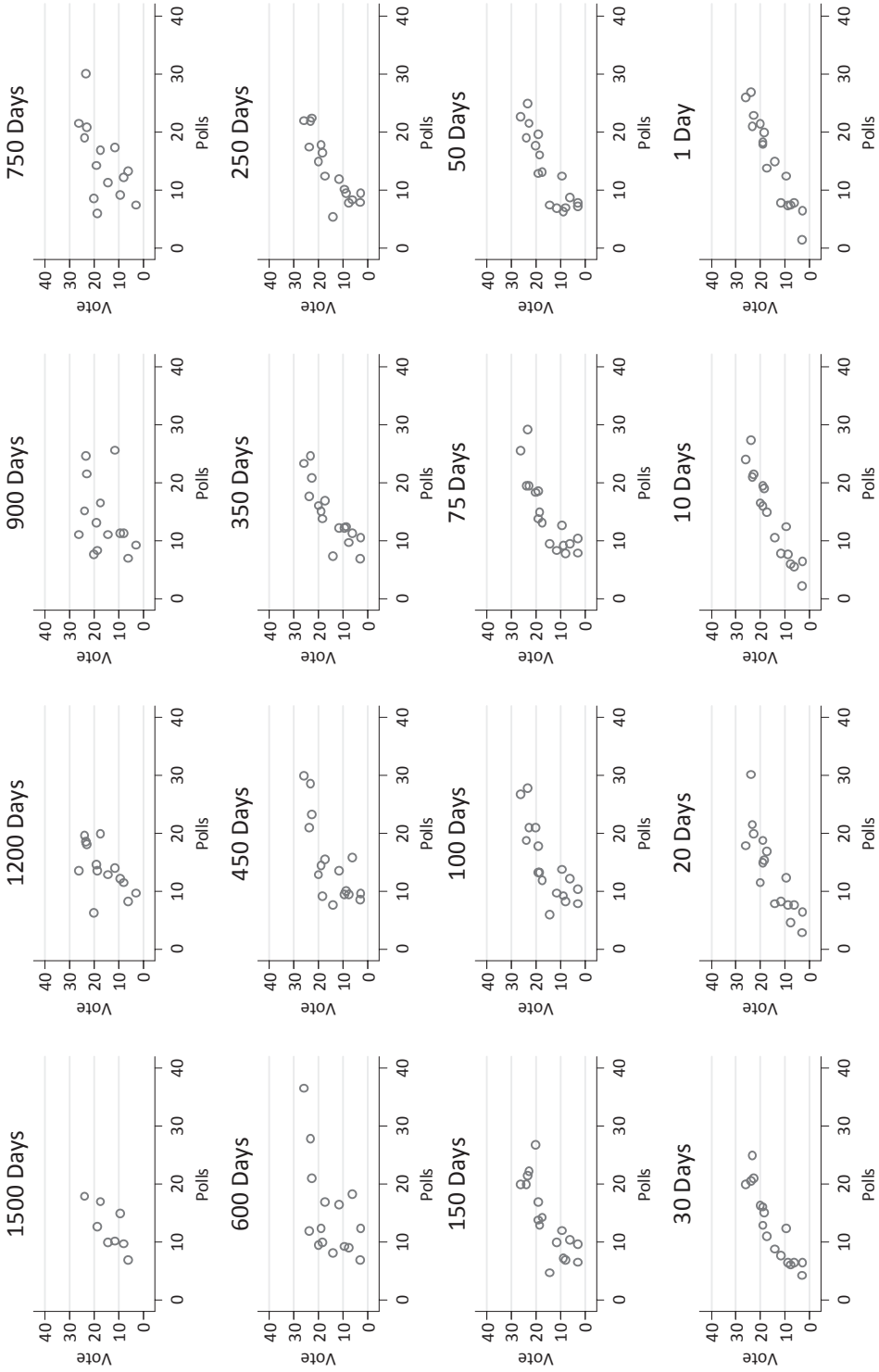
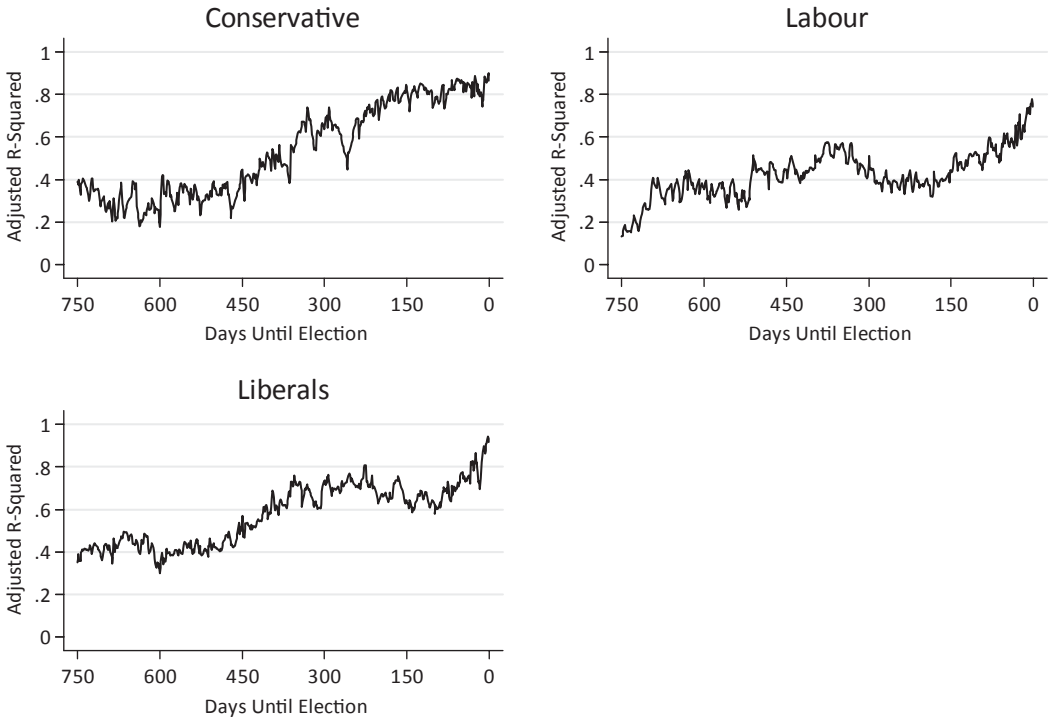


Figure 6: Adjusted *R*-Squared from Predicting each Party’s Vote Share from its Poll Share, by Date, the Final 750 Days

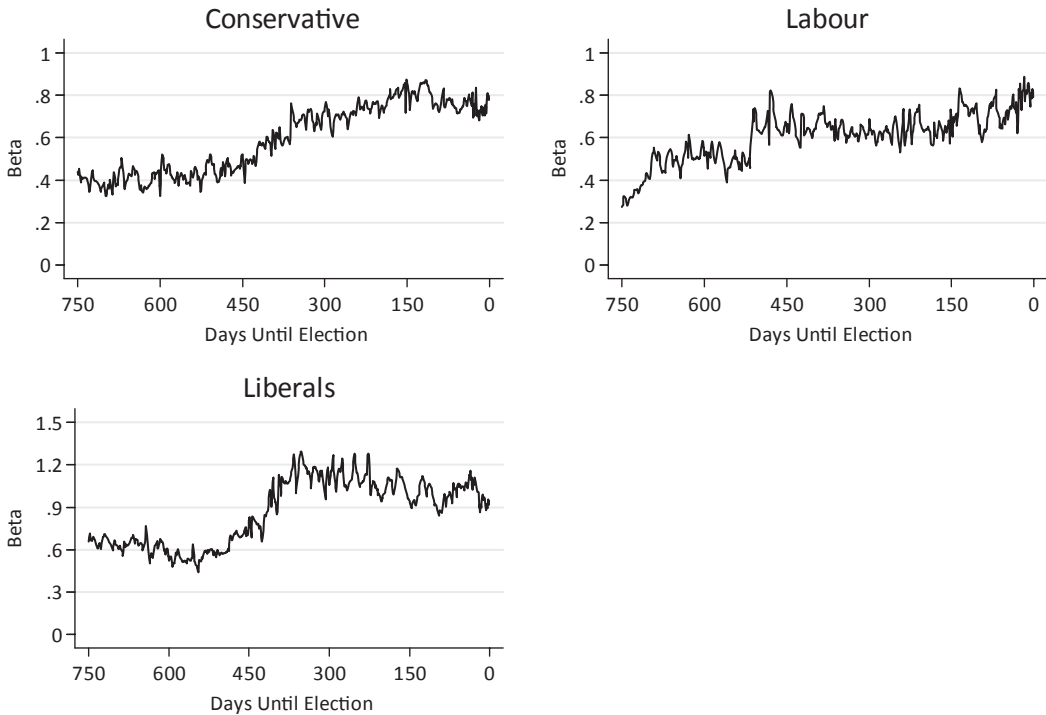


Regression Coefficients

The regression coefficients in Figures 7 and 8 reveal a slightly different pattern to what we saw in Figure 6. Well before election day – 500 or more days in advance – the slope coefficients in Figure 7 are almost constant at about 0.5 on average. As we can also see in Figure 8, the intercepts from the regressions during this period are all positive. This set of results implies an equilibrium vote share for each party towards which its support tends to gravitate. The equilibrium shares look to be fairly constant during this period. We know this because the estimated *a* and *b* coefficients do not fluctuate from 500 to 750 days before election day. In Figure 6 we can see that poll preferences during the period also do not improve the predictability of the vote, that is, the *R*-squareds do not increase.

Over the final year and a half of the cycle, the slope coefficients increase, though differently for the three parties. The growth in coefficients tells us that polls increasingly match the final vote for all parties. Even at the end of the cycle, however, there is an identity relationship – that is, a one-to-one match – between the polls and the vote only for the Liberals. With the slope coefficient less than 1.0 for the Conservative and Labour Parties, there is regression to the mean in the final pre-election polls.¹⁹ When the party’s poll share is above the equilibrium value, the party tends to underperform the polls on election day; when the poll share is below that value, the party tends to do better than the polls suggest.²⁰

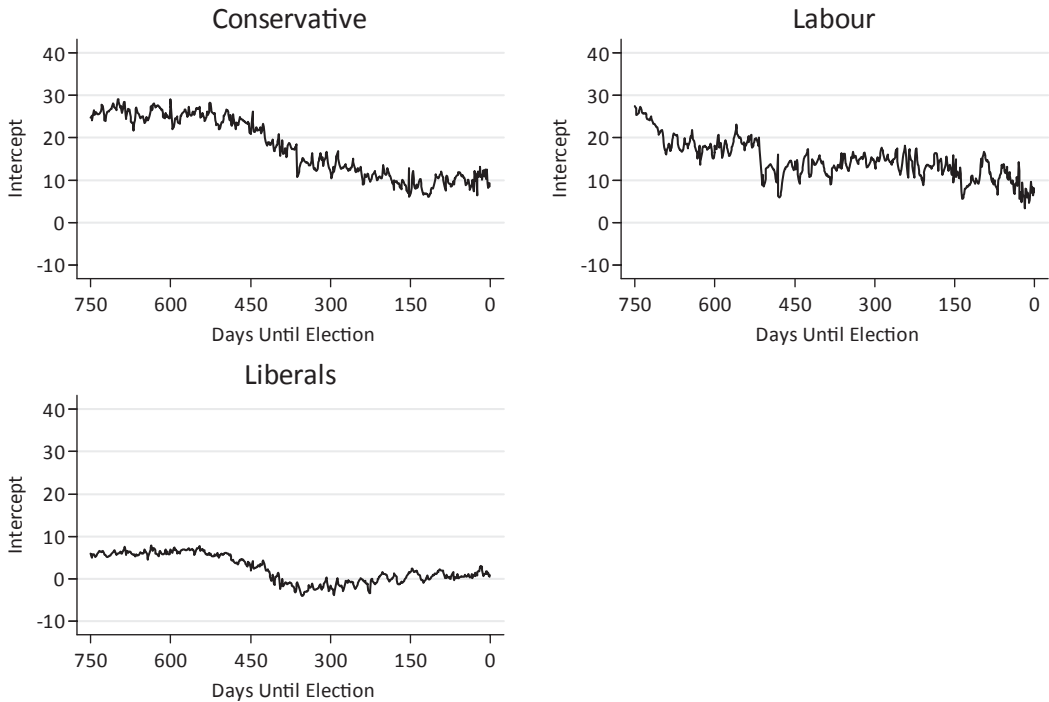
Figure 7: Regression Coefficient Predicting each Party's Vote Share from its Poll Share, by Date, the Final 750 Days



This may provide evidence of a systematic ‘shy voter’ effect whereby some supporters of the less popular of the two big parties claim to be undecided, or supporting another party, in polls but then swing behind the unpopular party on election day. Such a hypothesis was popular after the surprisingly strong performance of the Conservatives in 1992, and some evidence for it can be seen in subsequent elections. Election eve polls consistently overstated Labour’s support during the period from 1997 to 2005 when the party led the Conservatives, but in 2010, when Labour trailed in the polls, all of the election eve polls underestimated Labour support (Kavanagh and Cowley, 2010, p. 252).²¹ There are other possible explanations for the patterns in Figures 7 and 8. For example, it may be that undecided voters split towards the underdog(s) later in the cycle. There are also more prosaic methodological explanations.²²

In sum, our analyses of the polls and the vote in Britain reveal a number of things. First, we learn that polls from early in the election cycle contain a lot of information about the election day vote. Indeed, polls from one year in advance account for, on average, half of the variance in results across the seventeen elections between 1950 and 2010. Second, we also learn that polls become more informative as we approach the election. Party preferences are, in fact, largely formed by the time the official campaign begins. Preferences do still change during the campaign and these changes can impact the actual vote, however. Third,

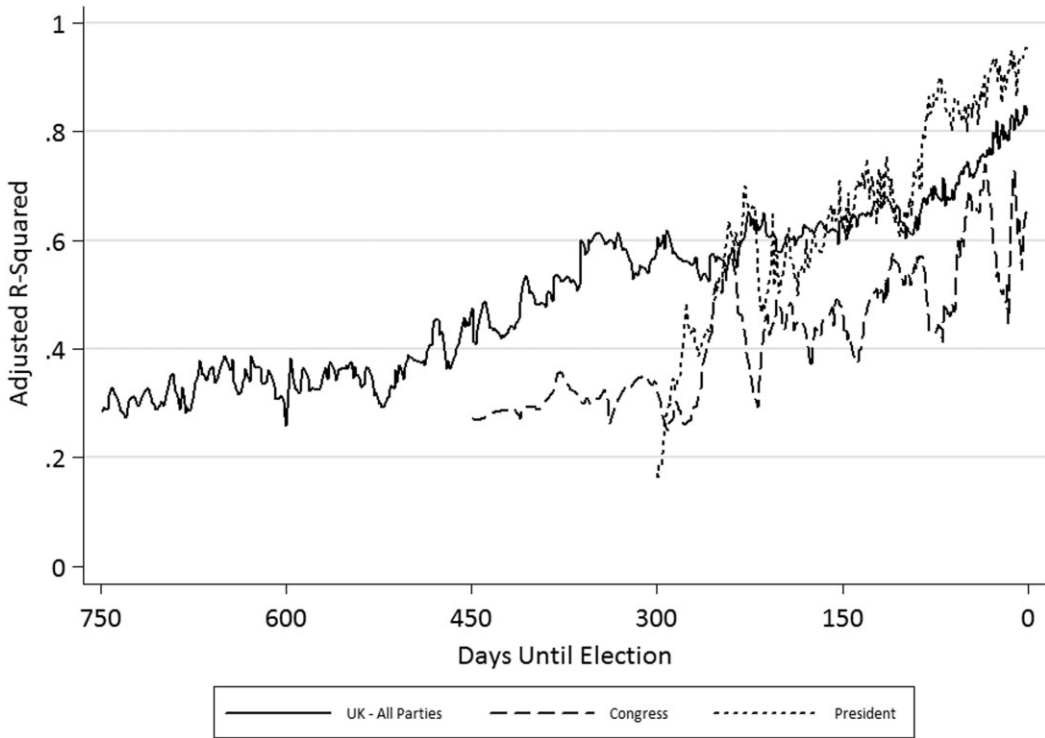
Figure 8: Intercept Predicting each Party’s Vote Share from its Poll Share, by Date, the Final 750 Days



we see that the pattern differs across parties during the year leading up to the election. Conservative Party preferences tend to evolve fairly consistently over the period whereas Labour and Liberal preferences come into focus late in the cycle, over the final three to four months. The results fit with our expectations in Hypothesis 1 but the differences between parties are not those we anticipated in our motivation for Hypothesis 2 – during the official campaign, we do not see a more dramatic increase in the informativeness of polls for the Liberals than *both* of the major parties.

Comparing Britain and the US

Earlier in the article, we hypothesised that the relationship between the polls and the vote will differ across different political systems. Specifically, we posited that preferences in the British parliamentary system will come into focus more quickly by comparison with those in presidential systems.²³ To begin to address this possibility, we compare patterns in Britain with those for presidential and congressional elections in the US. For this comparison, Figure 9 shows the mean adjusted *R*-squared for the three main British political parties from Figure 6. It also shows the adjusted *R*-squareds predicting the national presidential and congressional vote from national polls in elections since 1948 – specifically, we predict the Democratic share of the two-party vote from its two-party poll share. The presidential ‘trial

Figure 9: The Predictability of Elections from Polls: Britain and the US Compared

heat' vote question asks survey respondents which candidate they would vote for if the election were held today.²⁴ The congressional vote question asks which party's candidate for Congress in their district they would vote for, which is often referred to as the 'generic' ballot.²⁵ We only report numbers going as far back before an election as is reasonable given the availability of polls – 450 days in advance for congressional elections and 300 days back for presidential elections.²⁶

In Figure 9 it is clear that at the end of the election cycle, specifically the last 90 days, polls predict the presidential vote better than the British parliamentary vote, but further away from the election their performance drops sharply. Indeed, at the beginning of the election year, presidential polls contain almost no information about the election day vote. As we hypothesised (H3), parliamentary polls provide more information about election outcomes early in the cycle and this difference disappears (quickly) once both presidential candidates are known. The figure also supports our hypothesis that polls in centralised, parliamentary systems such as Great Britain will be substantially more informative than legislative polls in more candidate-oriented presidential systems such as the US: British polls are substantially more informative than congressional polls. We cannot be sure of the precise mechanism, but factors such as the greater role played by incumbency or candidate quality in the more localised US elections and the role that assessments of national parties and their leaders play

in structuring public opinion in the more centralised Westminster elections may help explain the difference.

Discussion and Conclusion

Our examination of polls and the vote in Britain reveals a substantial pattern that comports with our conjectures. To begin with, we confirmed our expectation that a significant amount of information about parties' prospects in Britain's parliamentary system is contained in polls conducted even a year or more before election day. We also confirmed party differences in the evolution of electoral preferences over the course of the election cycle. We find that Conservative electoral performance starts to come into focus earlier, and this increases continuously from eighteen months out. By contrast, the Labour and Liberal vote only begins to sharpen in the polls around five months before election day, and even then expressed preferences are less informative than for the Conservatives. Further substantive work is needed to understand the reasons for these patterns and explore explanations for the other differences we observe across parties. There are other questions as well. It might be that preferences evolve differently for governing and opposition parties – such as those suggested by theories of retrospective voting (Fiorina, 1981).

The comparison of Britain and the US confirmed our expectation that British polls are much more informative at early stages of the electoral cycle than American polling: in congressional races this holds throughout the cycle and in presidential elections it is true until the last months of the cycle, when both presidential candidates are known. The nationalised, party-centred campaigns and stable party leadership found in Britain are reflected in more stable preferences, which reveal an underlying structure to vote intention polls very early in the electoral cycle.

British electoral preferences are not perfectly stable, however. They change over the course of a cycle and a substantial portion of these changes lasts to impact the outcome. The evolution begins about one and a half years before election day, well in advance of the formal election campaign. It continues up to election day. We cannot pinpoint what actually drives this evolution. What we can say is that something happens over this eighteen-month 'long campaign' to crystallise preferences gradually.

Our investigation also points towards questions for future research in wider comparative context. Of obvious importance is whether the differences we identify between the US and Britain are generalisable across other presidential and parliamentary countries. We also want to assess the differences within these government types. The usual suspects are electoral and party systems, but other aspects of context, such as federalism, might also matter (see Wlezien, 2010). This requires additional theorising and analysis. For now, the contrast between Britain and the US is strongly suggestive of substantive differences in the evolution of electoral preferences across political systems.

Appendix

The data used for this article consist of 3,293 opinion polls conducted in Britain between 1945 and 2010 by eighteen different polling houses: Gallup, National Opinion Polls (NOP), Business Decisions, Opinion Research Centre (ORC), Research Services Ltd (RSL), ASL, Market & Opinion Research International (MORI)/Ipsos-MORI, Marplan/ICM

Research Ltd, Harris, Harris Interactive, Communicate Research (ComRes), Populus, Rasmussen, YouGov, BPIX, Nielsen Media Research (NMR), Angus Reid and Opinium. These data were compiled from a large number of sources, with further cross-checks and triangulation in the case of inconsistencies or missing data (in particular with reference to missing sample sizes). Further details of the collection of poll data are reported below.

Much of the poll data for the 1997–2001, 2001–5 and 2005–10 election cycles are compiled from Ipsos-MORI's (2010b) 'Voting intentions (Westminster) – All Companies' Polls' series which reports all polls published on GB vote intention by major pollsters and/or from the cross-tabs published online by polling houses. For the election cycles prior to 1997 poll data were compiled from, and cross-checked against, a number of different data series.

- *Gallup*: data on 811 polls conducted by the Gallup Organisation between 1950 and 2000 were compiled from the original *Gallup Political and Economic Index* and from King and Wybrow's (2001) *British Political Opinion 1937–2000*, and supplemented with poll data provided by Michael Thrasher. Additional data were also compiled from National Opinion Polls' *Political Bulletin* and its *Political, Social, Economic Review*. Further cross-checks were made against the fieldwork dates of reports in the *Roper Centre for Public Opinion Research*. Gallup ceased political polling in Britain in 2001.
- *National Opinion Polls*: data on 530 polls conducted by National Opinion Polls (NOP) between 1959 and 2005 were compiled from data provided by Nick Moon and Michael Thrasher and from NOP's *Political Bulletin* and *Political, Social, Economic Review*, in addition to data from the annual 'Reference Section' of the *British Elections and Parties Yearbook* (formerly the *British Elections & Parties Review*).
- *Marplan/ICM Research Ltd*: data on 510 polls conducted by Marplan/ICM Research Ltd were compiled from ICM's (2010) 'Guardian Voting Series', published online, and from data provided by Michael Thrasher.
- *Market & Opinion Research International/Ipsos-MORI* (from 2005): data on 673 polls conducted by MORI (now Ipsos-MORI) between 1976 and 2010 are compiled from Ipsos-MORI's (2010a) *Voting Intention in Great Britain*, published online.
- *Harris*: data on 141 polls conducted by Lou Harris & Associates were compiled from data provided by Michael Thrasher. Note that Harris Interactive is treated as a distinct polling house.

Where possible, poll data were cross-checked and triangulated against other available sources, in particular the annual 'Reference Section' of the *British Elections and Parties Yearbook* (formerly the *British Elections & Parties Review*), over the period between 1987 and 2005 by David Denver, David Broughton, Justin Fisher, Colin Rallings, Michael Thrasher, Phil Cowley, Andrew Russell and others. We still lack historic poll data from the 1950s, 1960s and 1970s for Opinion Research Centre (ORC), Lou Harris and Business Decisions (pollster for *The Observer* in the 1970s), Research Services Limited (RSL) and for ASL during the 1990s, while exact fieldwork dates are often not available for some NOP polls from the 1950s, 1960s and 1970s. Tracking down these data would be desirable, but at present it is unclear whether records still exist other than in newspaper reports – in particular of fieldwork dates and sample sizes.

Table A1: Number of Polls by Polling House, 1950–2010

	<i>Polling house</i>	<i>Polls</i>
1	Gallup	811
2	National Opinion Polls (NOP)	530
3	MORI/Ipsos-MORI	673
4	Marplan/ICM Research Ltd	510
5	Harris	141
6	Harris Interactive	16
7	Communicate Research (ComRes)	87
8	Populus	94
9	Rasmussen	3
10	YouGov	279
11	BPIX	33
12	Nielsen Media Research (NMR)	10
13	Angus Reid	20
14	Opinium	10
15	Business Decisions	4
16	Opinion Research Centre (ORC)	8
17	Research Services Limited (RSL)	4
18	ASL	59
		3,293

Poll Questions

- Gallup: ‘If there were a general election tomorrow, which party would you support?’, ‘Which party are you most inclined to vote for?’
- NOP: ‘If you do vote in the next general election, which party will you vote for?’
- Ipsos-MORI: ‘How would you vote if there were a General Election tomorrow?’
- ICM Research Ltd: ‘If there were a general election tomorrow which party do you think you would vote for?’
- Harris Interactive: ‘If the general election were held tomorrow for which party do you intend to vote?’
- Communicate Research (ComRes): ‘If there were a general election tomorrow, would you vote Conservative, Labour, Liberal Democrat or some other party?’
- Populus: ‘If the general election was tomorrow, which party would you vote for?’
- YouGov: ‘If there were a general election tomorrow, which party would you vote for?’
- Angus Reid: ‘If a General Election were held tomorrow, which one of the following parties would you be most likely to support in your constituency? – ‘Decided Voters with Leaners’ (March 2010), ‘In the General Election that will take place on 6 May, which one of the following parties are you most likely to support in your constituency?’ (April 2010).
- Opinium: ‘If there were a general election tomorrow, for which party would you vote?’

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Notes

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- 1 It is important to note that the late crystallisation of support for the Liberals would, by construction, have implications for the crystallisation of support for another party, or parties (including 'others'), since late shifts in support must come from (or go) somewhere. Technically voters do not have to shift support from party to party, they also can shift from 'don't know' or 'won't say' to a party or *vice versa*.
- 2 We only include polls where the exact fieldwork dates are known (this leads to exclusion of NOP polls from the period between 1959 and 1964 where only the month of fieldwork is known). 'Liberal' polls refer to the Liberal Party prior to 1981, to the aggregated vote intention for the SDP and Liberal Party for the period between 1981 and 1990, which formed a formal electoral pact, the 'SDP–Liberal Alliance' between 1981 and 1988, and to Liberal Democrat support after 1990.
- 3 Although these decision rules may seem innocuous enough, they have been shown to affect the tally, particularly in recent election years (Erikson *et al.*, 2004; Wlezien and Erikson, 2001). For example, likely voter samples sometimes distort the reported vote prior to election day by exaggerating short-term trends in who is sufficiently 'likely' to vote. Still, we usually have little choice but to rely on results from voter samples used for the headline figures as these are the only figures we can reliably obtain for most historical polling time series.
- 4 For surveys in the field for an even number of days, the fractional midpoint is rounded up to the following day.
- 5 It is important to note that polls on successive days are not truly independent. Although they do not share the same respondents, they do share overlapping *polling periods*. Thus polls on neighbouring days will capture a lot of the same things, which is of consequence for an analysis of dynamics.
- 6 Previous work in different countries (Erikson and Wlezien, 1999; Fisher *et al.*, 2011; Jackman, 2005; Pickup and Johnston, 2007) has demonstrated that within a given electoral cycle, the polls from a given polling house may contain a constant error – a house effect. In order to evaluate the relationship between true public opinion and the electoral outcome, it may be desirable to correct polls for these house effects. Unfortunately, the sparseness of data on polls in the early electoral cycles makes the estimation of these house effects problematic. Since we are unable to produce adjustments for every cycle, we choose not to adjust the polls in any cycle. However, the literature cited above shows that house effects are small compared with industry bias, which itself has varied dramatically between elections in the UK.
- 7 There are no polls during the last 30 days for the 1950 and 1951 elections.

- 8 These estimates are inflated somewhat (1–2 percentage points) by sampling error, and there are other sources of error as well (see Converse and Traugott, 1986; Crespi, 1988; Lau, 1994; Perry, 1979).
- 9 In time series, this is referred to as a ‘stationary’ process – technically, the process has a constant mean, variance and autocorrelation structure over time.
- 10 In time-series language, this is known as an ‘integrated’ or unit-root process, or more colloquially as a ‘random walk’.
- 11 This moving equilibrium could be the consequence of a ‘combined’ process (Wlezien, 2000).
- 12 A linear or quadratic trend term(s) could be added to this equation to tap underlying trends in support. Note that while we propose modelling preferences separately for each election cycle, the resulting patterns across elections could be indistinguishable. For instance, as noted above, it might be that there is a constant long-term equilibrium level of support for each party towards which preferences gravitate in every election year. See also Erikson and Wlezien, 2012.
- 13 Specifically, given poll readings on days $t - x$ and $t + y$, the estimate for a particular day t is generated using the following formula:

$$\hat{V}_t = [y * V_{t-x} + x * V_{t+y}] / (x + y).$$

For days after the last poll before an election, we assume the numbers from the last pre-election poll. This has some consequence for the accuracy of poll predictions very close to the election, as we have to carry forward polls from well before the end of the cycle in some years, as we will see. Because the frequency of polling increases as election time approaches, the number of interpolated values is greatest at the beginning of each election cycle. This has the effect of reducing the variance when polls are sporadic, but does not affect the general level and trajectory of the estimated timeline regressions. If non-interpolated data were to be used, the results would be noisier and there would be a number of days in the electoral cycle on which values were not available. Further, it would increase the reliance of the estimates on single election cycles, whereas our interest is in the general pattern.

- 14 The degree of increase depends on the sizes of the coefficients and the variance of the shocks. For example, if b is low and the variance of the shocks is high, the R -squared will spike just before election day; if b is low and the variance of shocks is low, the increase would be more gradual. Now, if b is high and the variance of shocks is high, the R -squared will tend to be high but below 1.0 throughout and would increase discernibly leading up to election day; if b is high and the variance of shocks is low, the increase at the end would be less pronounced.
- 15 Data on the party share of the Great Britain vote at UK general elections are compiled from Rallings and Thrasher (2007; 2010).
- 16 Fourteen of the seventeen election cycles are 750 days in length or more. For three other election cycles, the start date is less than this duration – reaching 608 days for the 1950 to 1951 cycle, 531 days for the 1964 to 1966 cycle and just 223 days for the period between the February and October elections of 1974.
- 17 The patterns do not change substantially when we vary t according to the number of days since the previous election rather than the number of days before the current election.
- 18 The over-time correlation between the daily explained variances for the Liberals and Labour (from Figure 6) is a substantial 0.90. By contrast, the corresponding correlation is 0.49 for the Liberals and the Conservatives and 0.31 for Labour and the Conservatives.
- 19 This holds whether or not the party is in power, based on separate analyses.
- 20 This is not to say that the equilibrium values of party support are constant, either across election years or within election years over time. Indeed, the pattern of coefficients and R -squareds reveals that they change over time.
- 21 Since even polls very close to election day are sometimes systematically out of line with the actual results in different directions on different occasions (e.g. for Labour in 1992 and for the Liberal Democrats in 2010), we have replicated our analyses substituting the final polls for the actual result. While the R -squareds improve and the coefficients are larger, particularly closer to the election, the substantive conclusions about the evolution of preferences over the course of the long campaign are very similar to those from our main results.
- 22 The coefficients for the days just before elections are deceptive because we do not have clear readings of voter preferences during this period, in some years none at all during the official campaign period – see Table 3. Even those polls that are available at the end of the cycle span a range of days and thus may not capture very late movement. Still, there is another good reason for sub-1.00 coefficients even at the end of the campaign: as we have seen, polls have measurement error, so that the coefficients are biased downward in proportion to the share of the variance due to error.
- 23 As noted above, there is reason to expect the electoral system to matter as well.
- 24 The ‘trial heat’ question takes the general form, ‘Suppose the presidential election were held today. If <Barack Obama> were the Democratic Party’s candidate and <Mitt Romney> were the Republican Party’s candidate, who would you vote for?’, though there is some variation in question wording over the years. The data used in our analyses consist of 1,971 separate polls over the fifteen elections between 1952 and 2008. For more details, see Erikson and Wlezien, 2012.
- 25 The ‘generic ballot’ is a survey question asked at the national level about how respondents intend to vote in their district in the upcoming congressional elections, with the traditional Gallup wording of the question asking respondents: ‘If the elections for Congress were being held today, which party’s candidate would you vote for in your congressional district – the Democratic Party’s candidate or the Republican Party’s candidate?’ The data used here are from Bafumi *et al.* (2010) and Erikson and Sigelman (1996), supplemented with data for the 2000, 2004 and 2008 elections. All told, there are 1,528 generic ballot polls for the 32 elections between 1946 and 2008.
- 26 The adjusted R -squareds for presidential elections come from Erikson and Wlezien (2012). The numbers for congressional elections are based on regressions using data described in Note 25.

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