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Electing Happiness: Does Happiness Affect Voting and do Elections Affect Happiness?

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Abstract

What causes us to vote and what do we get out of it? We approach these questions using data on voting and subjective well-being (SWB) from a large household panel dataset in the UK. We find some evidence that SWB can affect voting intention but no evidence that the results of three recent elections have any effect on SWB.

JEL: D7. Keywords: Voting, life satisfaction, subjective well-being.

1. Introduction

Voting in elections has long have been an area of research for political scientists and economists. Since Downs (1957), most models of why people vote – and what they get out of voting – are based on the assumption of economic agents that are rational according to an underlying set of preferences. Despite a great deal of work that builds on such models, voting and its consequences for individual welfare are still not very well understood (Green and Shapiro, 1994; Levine and Palfrey, 2007). Whilst, the relationship between happiness – or subjective well-being (SWB) – and voting does not form part of existing formal models of voting, its consideration represents one way to develop a greater understanding of voting and the impact of elections.

This paper represents the first attempt to identify the causal relationships between voting and SWB (for more on possible associations, see Di Tella and MacCulloch, 2005). We test whether SWB affects voting intention and whether the result of elections affect SWB by using a panel dataset running over the three most recent national elections in the United Kingdom (which were all won by the Labour Party). The dataset contains information on life satisfaction, which is increasingly being used by economists as a measure of SWB (Dolan et al, 2008). Ratings of life satisfaction have been validated against neurological evidence (Davidson, 2004), physiological evidence (Steptoe et al, 2005), and a range of behaviors (e.g. Lyubomirsky et al, 2005).

Section two provides an overview on the relevant literature on the determinants of voting and how elections affect outcomes. Section three explains the data and methodology and section four presents the results. We find that SWB does not affect a person's propensity to vote on its own but we do find that Conservative Party supporters with higher life satisfaction are less likely to vote in elections than Labour Party supporters. We find no effect of the election result on SWB, either for Conservative or Labour supporters. Section five discusses the results and the possibility of a focussing illusion (Schkade and Kahneman, 1998), whereby we do not think about something (like an election result) anywhere near as much as we think we will.

2. Relevant literature and hypotheses

The Downs (1957) model of voting has stimulated a great deal of research (see Blais (2000) for a review). The model suggests that voting is costly to each individual, that no individual voter obtains direct utility from the act of voting itself, and that the benefits to society from the vote are discounted by the probability of casting a decisive vote. While it has been found that the potential decisiveness of the vote matters in large elections (Rosenthal and Sen, 1973; Silberman and Durden, 1975) and experimental settings (Levine and Palfrey, 2007), this result is not unequivocal (Ashenfelter and Kelly, 1975).

Importantly, the model significantly under-predicts the number of people that vote in elections. Myerson (2000) illustrates the problem of the decisiveness model using a Poisson distribution of random voters. He finds that the

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probability of voting pivotally for one candidate is 8.1x10⁻⁹, i.e. the benefit to a voter who prefers a candidate must be more than eight billion times greater than the cost to vote. If it costs \$10 to vote in an election, then the expected benefits of electing one's preferred candidate must be greater than \$80 billion. Extensions to the Downs model suggest that people obtain direct consumption benefits from voting due to civic duty (Opp, 2001), which may provide its own contagion effect to vote (Shachar and Nalebuff, 1999). Social norms can increase voter turnout (Gerber et al, 2008) and the media can also play an important part (Gerber et al, 2009).

There has been some work analysing the psychological reasons behind why and how people vote in large elections e.g. cognitive dissonance (Mullainathan and Washington, 2009). Such evidence suggests that act of voting strengthens future opinions of a candidate i.e. those who are induced to turnout show increased polarization in their views toward the candidates two years post-election. Such cognitive dissonance can have an effect on a person's propensity to vote and means that we need to be cautious in assuming that there is a causal link between individuals' attitudes and their voting preference. It has also been shown that framing effects, which should be irrelevant to people's voting preferences, do indeed affect preferences. For instance, Shue and Luttmer (2008) provide an account of how the actual ballot layout can affect people's preferences in the presence of non-negligible voting costs. While such factors may shape an individual's propensity to vote, there have been no studies examining how SWB affects the propensity to vote.

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The research examining the impacts of voting (or an election) has used economic outcomes. For instance, Alesina and Roubini (1992) find evidence that there are electoral cycles on the inflation rate for a range of countries. For the U.S., there are mixed results on the effect of elections on economic outcomes. Grogan (1994), Knight (2000), and Besley and Case (2003) find an impact of elections on fiscal outcomes, and Snowberg et al (2007) find an effect on monetary outcomes. On the other hand, Lee et al (2004) show that voters elect policies proposed by the parties instead of affecting the policy positions of the parties, and Ferreira and Gyourko (2009) find that the outcome of mayor elections in major U.S. cities does not affect size of city government, the allocation of public resources, property, and crime rates.

Some work has considered subjective assessments of welfare. Radcliff (2001) found that SWB is positively affected by left-wing governments i.e. liberal political systems, whereas – and somewhat contradictorily – Bjørnskov et al (2007) found that excessive government spending has detrimental effects on country aggregated SWB. Di Tella and MacCulloch (2005) find that when the government leans more to the right ideologically, right-wing individuals have higher SWB and left-wing individuals have lower SWB. Napier and Jost (2008) confirm this result although they attribute it to the fact that right-wingers are better able to justify income inequalities. Stutzer and Frey (2006) provide evidence from Switzerland to suggest that the opportunity to engage directly in the democratic process through referenda increases life satisfaction although Dorn et al (2007) have cast doubt on the robustness of this finding.

The main problem with all of these studies – and many in the voting literature more generally – is that they rely on cross-sectional data, suffer from potentially serious specification errors and selection effects and cannot establish causality. Given the lack of causal work in this area, we approach this important gap in the literature by directly examining how SWB can affect individuals' propensity to vote and how elections can affect SWB. More specifically, we aim to test the following four hypotheses. First, that SWB has no effect on voting. Second, that SWB has no effect on voting allowing for type and strength of political affiliation. Third, that there is no effect of the outcome of elections on SWB. Fourth, that there is no effect of the outcome of substance of SWB allowing for type and strength of political affiliation

3. Data and methodology

We use data from the British Household Panel Survey (BHPS), which covers the 1997, 2001 and 2005 general elections in the UK. The BHPS begun in 1991 and is a nationally representative sample of British households, which contains over 10,000 adult individuals. The entire sample of the unbalanced panel contains 30,336 observations (17,206 individuals). Of those, 4,197 stayed in all waves from wave 6 onwards (this is the first wave SWB ratings were elicited). The interviews for the BHPS take place between September and December of every year, and the general elections in 1997, 2001 and 2005 were in May, June and May respectively. So, the wave before an election is roughly six to nine months before and the wave after the election is roughly three to six months after the election has taken place. The SWB rating in the BHPS is based on a life

satisfaction question: "How dissatisfied or satisfied are you with your life overall?"; with seven possible response categories ranging from "1. very dissatisfied" to "7. very satisfied".

3.1 Methodology for hypotheses 1 and 2

To examine people's propensity to vote in a general election, we use a linearprobability random effects model:

$$V_{it} = \alpha + \beta LS_{it} + \sum_{a} \phi_{a} P_{a,it} + \sum_{b} \varphi_{b} (P_{a,it} \times LS_{it}) + \sum_{k} \delta_{k} x_{k,it} + \theta \gamma_{t} + \nu_{i} + \varepsilon_{it}$$
(1)

where i indicates the individuals, t indicates the time, V is the individual's propensity to vote, LS is the individual's life satisfaction, P is the person's party affiliation, x is a set of k explanatory variables related to people's voting behavior, and ε is the error term. The interaction term $(P_{a,u} \times LS_u)$ will enable us to determine whether a person's political affiliation interacted with life satisfaction affects the propensity to vote. We allow for time fixed effects, γ_t , and individual random effects, v_i . The inclusion of time fixed effects controls for yearly changes that are the same for all individuals (e.g. economic growth). The inclusion of the random effects allows for unobserved characteristics that are different for each person but constant over time (e.g. optimism).

The error term, ε_{ii} , is assumed to be random and not correlated with the observable explanatory variables. For the case of the individual random effects,

this seems a rather strong assumption, as it implies that unobserved personality traits, such as optimism and extraversion, are not correlated with voting preferences and life satisfaction. Therefore, we use the Mundalk (1978) transformation where the individual random effects becomes:

$$\nu_i = \sum_j \lambda_j \overline{z}_{j,i} + \omega_i \tag{2}$$

where ω_i is the pure error term (not correlated with observables), and $z_{j,it}$ is a subset of observables which is correlated with the error term. The correlation between the subset of observables and the individual random effects is $\lambda \overline{z}_{j,i}$, where \overline{z}_j is the average of z_j over time. In this case, λ is a statistical correction factor, and if this is interpreted as the correlation between unobservable random effects and some of the explanatory variables, then the fixed and the random effect models give rise to similar results (Ferrer-i-Carbonell, 2005). So incorporating equation (2) into (1) gives:

$$V_{it} = \alpha + \beta LS_{it} + \sum_{a} \phi_a P_{a,it} + \sum_{b} \varphi_b (P_{a,it} \times LS_{it}) + \sum_{k} \delta_k x_{k,it} + \theta \gamma_t + \sum_{j} \lambda_j \bar{z}_{j,i} + \omega_i + \varepsilon_{it}, \quad (3)$$

where \overline{z}_{j} here includes the average voting preferences and life satisfaction over time. Using fixed effects here would be infeasible since a significant proportion of the voting population do not change their political allegiance. So the first hypothesis suggests that SWB has no effect on voting behavior i.e. $\beta = 0$. The second hypothesis suggests that this relationship is not mediated by type and strength of party affiliation i.e. $\varphi = 0$. 'Strong' support is defined as those individuals who stay loyal to their party throughout the panel, i.e. partisans, and 'weak' support is defined as those individuals who do not stay loyal to their party i.e. non-partisans. This also enables us to control for habit-forming preferences (Gerber et al, 2003). The k set of x explanatory variables include variables that have been found to affect the propensity to vote e.g. sex, age, education and household income and regional effects (Johnston et al, 2005).

3.2 Methodology for hypotheses 3 and 4

To test whether the election affects SWB, we use a simple random effects model. Since the dependent variable is the life satisfaction variable, the average life satisfaction over time is not included as an error-correction term. For the third hypothesis, we would have the simple differences-in-differences model, which examines whether the election improves SWB:

$$LS_{it} = \alpha + \beta_1 V_i + \beta_2 T_{t+1} + \beta_3 (V_i \times T_{t+1}) + \sum_k \delta_k x_{k,it} + \varepsilon_{it}$$

$$\tag{4}$$

where V_i is a dummy variable which is unity if the individual votes in the general election at time *t* and T_{t+1} is a dummy variable which is unity for the wave after the general election takes place. So for H₃, we test whether $\beta_3 = 0$. For the fourth, hypothesis, we would have the equivalent of a difference-in-difference-in-differences model:

$$LS_{itv} = \alpha + \sum_{a} \theta_{a} P_{a,i} + \beta_{1} T_{t+1} + \sum_{b} \psi_{b} (P_{a,i} \times T_{t+1}) + \sum_{k} \delta_{k} x_{k,it} + \varepsilon_{it}, \quad v = 1,0$$
(5)

So we run two partial regressions, where we examine those who vote (v = 1) and those who do note vote (v = 0). This is equivalent to extending a further interaction effect to equation 4. The fourth hypothesis suggests that voting in the last election has not effect on SWB allowing for political party preference, i.e. $\psi_b = 0$. The k set of x explanatory variables included are those already found to affect life satisfaction from the literature e.g. sex, age, education, marital status, employment status, number of people in the household and household income (Dolan et al, 2008).

4. Results

As can be seen from Table 1, the expected turnout for each election is higher in the BHPS than the actual turnout. It might be that respondents in the BHPS are more inclined to act pro-socially and/or that they simply over-estimate their likelihood of voting but we cannot test for the relative weight of these possibilities. Table 2 breaks down the BHPS sample and the electorate for the three largest political parties. From 1997 to 2005, the representativeness of the BHPS in terms of the electorate has declined. We appreciate that these data are not perfectly representative of the British electorate but it represents the best dataset available to conduct longitudinal analysis at the national level on the relationship between SWB and voting intention and between elections and SWB.

4.1 Does SWB affect elections?

Table 3 shows the various regressions for all those in the BHPS prior to the 1997, 2001 and 2005 general elections. Regression 3.1 gives the raw correlation between life satisfaction and propensity to vote, which is positive and significant – a one-point increase in life satisfaction is associated with a 2% increase in the propensity to vote. However, in regression 3.2, life satisfaction becomes insignificant once we control for the background variables that are associated with the propensity to vote. Whilst not the focus of this paper, it is worth nothing that the effect of past (perhaps habit-related) voting is greater than the effect of other variables. Overall, then, we cannot reject the null hypothesis that SWB does not affect voting.

What about when we account for political preferences? Regression 3.3 shows that SWB does not affect the propensity to vote, although Labour and Liberal Democrat supporters were more likely to say that they intended to vote. From regression 3.4, when political preference is interacted with SWB, we find that Conservative supporters with higher SWB are less likely to say that they intend to vote. To test, whether this result holds for partisanship, Regression 3.5 uses the partisan voters only and shows that SWB does not affect the voting intentions of partisans. Regression 3.6 uses the non-partisan voters only and shows that 'weak' Conservatives are less likely to vote in the next election and that 'weak' Labour supporters are more likely to vote in the next election. Overall, we can reject hypothesis two: overall, happy Conservative are less intent on voting.

4.2 Do elections affect SWB?

Table 4 shows the various regressions that test hypothesis three. Unfortunately, the life satisfaction question was not asked in 2001 and so we cannot conduct a difference-in-differences analysis for this election. Regressions 4.1 and 4.2 present the random effects generalized least squares model to see whether the elections of 1997 and 2005 had any effect on SWB. Whilst the variables expected to affect SWB behave in the expected ways, voting in the previous election does not appear to have any effect on SWB.

What about when we account for political preferences? Table 5 splits the sample by those who voted and those who did not and also by strength of support. Regressions 5.1 and 5.2 show the results for the 1997 election for 'strong' and 'weak' supporters, respectively. The 1997 election had no effect on the SWB on either set of supporters – not even on the strong Labour supporters, whose party had been out of power for 18 years. Regressions 5.5 to 5.8 are analogous results for the 2005 election. This time, there are some odd results: non-partisan Labour voters reported significantly (but only marginally) lower SWB and those who had no political preference had higher SWB after the election. Overall, the election results do not appear to affect SWB very much at all but these odd results mean that, strictly speaking, we should reject hypothesis four.

5. Discussion

We have shown that life satisfaction does not in itself affect the propensity to vote in the UK, but that, when linked with political affiliation, Conservatives with higher SWB are less likely to vote. This suggests that there might something to be gained by models of voting from the incorporation of SWB. Of course, our results may be peculiar to the UK and to the measure of SWB we used. In particular, it is still an open question whether mood on the day of the election is an important determinant of the propensity to vote and the voting preference. Furthermore, we have not examined whether SWB could change voting preferences altogether (see Oswald and Powdthavee (2008) and Washington (2008) for recent examinations of why people change their political preferences).

We also showed that the last three elections in the UK have not in themselves affect life satisfaction and, when linked to political affiliation, they produce some odd results which suggest that elections generally have no effect on SWB. These results are consistent with the literature on affective forecasting. In general, it seems that we a tendency to overestimate the intensity and especially the duration of our reaction to events. For example, Gilbert et al (1998) asked voters in Texas during the 1990 election for governor (which was won by George W. Bush) how they would feel one month after the election if their candidate had lost. Respondents expected to feel miserable but when asked how they felt one month later, they were as happy whether their candidate had won or lost. Similar results have been found across other contexts that range from kidney dialysis (Riis et al, 2005) to housing assignments (Dunn et al, 2003).

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One explanation for our defective forecasting is the focusing effect (Schkade and Kahneman, 1998; Wilson et al, 2000) whereby we over-estimate how much we will think about an event in the future. The very nature of thinking about something actually makes it appear more important than it will probably turn out to be. Many individuals may believe that the outcome of the election will affect them for much longer than it actually does because they imagine thinking about the election much more than they do.

While our results are informative, there are obvious shortcomings. We limit ourselves to the last three general elections in the UK, which were all won by the Labour Party and there were no real surprises in the results. The analysis should be extended to other countries, to local elections and, in particular, to elections where the outcomes are much less certain. Until further results become available, we suggest that the last three elections in the UK really have had little effect in themselves on SWB. The impact of the policies of the government over that period we leave for another day.

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Table 1: Comparing intended voting turnout (in the BHPS) versus actual turnout

Turnout	Projected before election from BHPS*	Actual official turnout		
1997 General election	82%	71%		
2001 General election	75%	59%		
2005 General election	73%	61%		

*Are you planning to vote in next year's general election?

Table 2: Comparing BHPS turnout preferences versus actual preferences

General election	Labour BHPS	Labour actual	Conservative BHPS	Conservative actual	Liberal Dem BHPS	Liberal Dem actual
1997	55.8%	43.2%	26.7%	30.7%	13.1%	16.8%
2001	47.9%	40.7%	20.5%	31.7%	12.0%	18.3%
2005	36.5%	35.3%	21.6%	32.3%	14.7%	22.1%

Table 3: Linear-probability random effects model of the propensity to vote in the 1997, 2001 and 2005 United Kingdom general elections

	(3.1)	(3.2)	(3.3)	(3.4)	(3.5)	(3.6)
	All	All	All	All	Strong	Weak
	Vote in the GE t+1					
Life satisfaction	0.019	0.002	0.001	0.004	-0.005	0.009
	[0.002]**	[0.002]	[0.002]	[0.003]	[0.005]	[0.004]*
Conservatives party affiliation			-0.018	0.032	0.004	0.069
			[0.007]**	[0.026]	[0.034]	[0.036]
Lib Dems party affiliation			-0.012	0.011	-0.077	0.053
			[0.008]	[0.032]	[0.056]	[0.039]
Other party affiliation			-0.042	-0.051	-0.050	-0.041
			[0.009]**	[0.028]	[0.038]	[0.039]
No preference			-0.255	-0.235	-0.513	-0.186
			[0.008]**	[0.027]**	[0.055]**	[0.033]**
Missing/refused/don't know			-0.059	-0.059	0.116	-0.036
			[0.009]**	[0.031]	[0.124]	[0.036]
Conservatives x Life satisfaction				-0.009	0.000	-0.016
				[0.005]*	[0.006]	[0.007]*
Lib Dems x Life satisfaction				-0.004	0.015	-0.011
				[0.006]	[0.010]	[0.007]
Other party x Life satisfaction				0.002	0.002	-0.003
				[0.005]	[0.007]	[0.007]
No preference x Life satisfaction				-0.004	-0.011	-0.006
				[0.005]	[0.010]	[0.006]
Missing/refused/don't know x Life				0.000	0.050	0.002
satisfaction				0.000	-0.030	-0.003
Vote in the last GE2		0.200	0.221	0.221	0.270**	[0.007]
vote in the last GE?		0.399	0.331	0.331	[0.011]	0.320
Not aligible to yota in the last CE		0.201	0.164	0.164	0.160**	0.157
Not engible to vote in the last GE		0.201	0.104	0.104	[0.023]	0.157
Designal domentics (20)	NI-	[0.013]**	[0.012]**	[0.012]**	[0.023]	[0.015].
Xeer dummies (20)	No	Yes	Yes	Yes	Yes	Yes
Predominines (2)	INO N-	I es	Tes V	Tes V	Tes V	I es
Observations	1NO 20.226	1 es				
Number of individuals	30,330	29,370	29,370	29,370	8,982	20,388
Number of individuals	17,206	16,856	16,856	16,856	5,560	11,327
R ² overall	0.01	0.31	0.34	0.34	0.39	0.31

Standard errors in brackets. * significant at 5%; ** significant at 1%. ¹ Background variables included in these regressions are: sex, age, age², education (7), employment status (9), log of household income, averaged life satisfaction and average voting preferences (i.e. Mundalk transformation). The political reference group is the Labour party. The full table is available from the authors upon request.

	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)	(4.6)
	A	A11	Strong (partisan)	W	eak
	LS 1997 election	LS 2005 election	LS 1997 election	LS 2005 election	LS 1997 election	LS 2005 election
Vote in the last election	0.081	0.079	0.076	0.105	0.085	0.066
	[0.036]*	[0.023]**	[0.082]	[0.048]*	[0.040]*	[0.027]*
Election year dummy	-0.011	-0.109	-0.049	-0.115	0.001	-0.102
Vote in the last election x Election	[0.037]	[0.021]**	[0.084]	[0.047]*	[0.042]	[0.024]**
year	0.000	0.024	0.049	0.050	-0.014	0.004
	[0.042]	[0.026]	[0.092]	[0.052]	[0.047]	[0.031]
Regional dummies (20)	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies (2)	Yes	Yes	Yes	Yes	Yes	Yes
Background variables (31)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	16,745	26,010	4,384	9,389	12,361	16,621
R^2 overall	0.08	0.09	0.11	0.09	0.08	0.09

<u>Table 4: The effect of the election on life satisfaction (LS) – random effects generalized least</u> squares

Standard errors in brackets. * significant at 5%; ** significant at 1%.¹ Background variables included in these regressions are: sex, age, age², education (7), marital status (10), employment status (9), household size, and the log of household income. The political reference group is the Labour party. We also include a variable to control for those who were ineligible to vote. The full table is available from the authors upon request.

	(5.1)	(5.2)	(5.3)	(5.4)	(5.5)	(5.6)	(5.7)	(5.8)
	Voted in the GE		Not voted in the GE		Voted in the GE		Not voted in the GE	
	Strong	Weak	Strong	Weak	Strong	Weak	Strong	Weak
	LS 1997 election	LS 1997 election	LS 1997 election	LS 1997 election	LS 2005 election	LS 2005 election	LS 2005 election	LS 2005 election
Conservatives party affiliation	0.279	0.084	0.317	0.336	0.070	0.058	-0.189	0.121
1 2	[0.082]**	[0.042]*	[0.268]	[0.130]**	[0.058]	[0.048]	[0.181]	[0.100]
Lib Dems party affiliation	-0.008	-0.034	0.317	0.130	-0.047	0.052	-0.138	-0.037
	[0.107]	[0.055]	[0.370]	[0.169]	[0.083]	[0.047]	[0.255]	[0.109]
Other party affiliation	0.127	-0.161	-0.427	-0.273	0.004	-0.050	0.048	0.024
	[0.231]	[0.095]	[0.568]	[0.193]	[0.081]	[0.051]	[0.162]	[0.093]
No preference	0.583	-0.154	0.249	0.136	0.520	-0.038	-0.214	-0.020
•	[0.648]	[0.085]	[0.223]	[0.106]	[0.497]	[0.071]	[0.137]	[0.070]
Missing/refused/don't know	0.253	-0.139	0.446	0.507	-0.127	0.011	-0.054	0.129
C C	[0.276]	[0.061]*	[0.529]	[0.154]**	[0.202]	[0.048]	[0.283]	[0.081]
Election year dummy	0.033	-0.021	0.030	0.033	-0.034	-0.073	-0.316	-0.058
	[0.044]	[0.028]	[0.172]	[0.102]	[0.033]	[0.033]*	[0.110]**	[0.075]
Conservatives party affiliation x Election year	-0.040	-0.050	-0.285	-0.282	0.008	-0.068	0.218	-0.002
	[0.077]	[0.046]	[0.309]	[0.163]	[0.054]	[0.052]	[0.208]	[0.129]
Lib Dem party affiliation x Election year	-0.048	0.049	-0.299	-0.138	-0.004	-0.054	0.051	0.094
	[0.101]	[0.062]	[0.452]	[0.226]	[0.080]	[0.054]	[0.311]	[0.146]
Other party affiliation x Election year	-0.112	-0.022	0.081	0.690	-0.088	-0.025	0.275	-0.061
	[0.223]	[0.117]	[0.633]	[0.272]*	[0.048]	[0.057]	[0.160]	[0.117]
No preference x Election year	-0.399	-0.104	-0.158	0.018	-0.827	-0.014	0.286	-0.043
	[0.685]	[0.131]	[0.252]	[0.132]	[0.509]	[0.094]	[0.135]*	[0.086]
Missing/refused/don't know x Election year	-0.179	0.235	-0.267	-0.263	0.097	0.018	0.167	-0.042
-	[0.272]	[0.082]**	[0.560]	[0.191]	[0.201]	[0.060]	[0.296]	[0.106]
Regional dummies (20)	Yes							
Year dummies (2)	Yes							
Background variables (31)	Yes							
Observations	3,362	9,698	757	2,201	7,233	10,394	1,666	5,656
\mathbf{R}^2 overall	0.12	0.08	0.17	0.12	0.01	0.01	0.01	0.02

Table 5: The effect of the election on LS allowing for partisanship and party political preference – random effects generalized least squares