



The
University
Of
Sheffield.

Department
Of
Economics.

Sheffield Economic Research Paper Series.

Election Outcomes and Individual Well-being: Evidence from British Panel Data

Daniel Gray, Harry Pickard and Luke Munford

ISSN 1749-8368

SERPS no. 2018018

December 2018

Election Outcomes and Individual Well-being: Evidence from British Panel Data*

DANIEL GRAY†
*Department of Economics,
University of Sheffield,
S1 4DT, UK
d.j.gray@sheffield.ac.uk*

HARRY PICKARD
*Department of Economics,
University of Sheffield,
S1 4DT, UK
h.g.pickard@sheffield.ac.uk*

LUKE MUNFORD
*School of Health Sciences
University of Manchester
M13 9PL, UK
luke.munford@manchester.ac.uk*

Abstract

Given the recent seismic changes in the political landscape across Europe and in the US, it is important to understand how voting behaviour and election results influence an individual's subjective well-being. Exploiting novel longitudinal data on individuals in the UK matched to their parliamentary constituency, we find that supporting the incumbent political party exerts a positive influence on individual well-being. This relationship is different across overall life satisfaction and psychological well-being, gender and personal characteristics. Potential endogeneity concerns are addressed in two ways; we employ an instrumental variable approach and a regression discontinuity in time design to estimate the impact of a quasi-natural experiment. The results relating to the instrumental variable approach support the positive relationship between national and constituency incumbency support and well-being. In the regression discontinuity in time design, we identify a causal relationship by exploiting the timing of survey questions around the 2010 election date. We find that Liberal Democrat supporters have approximately one-unit higher level of overall life satisfaction after their party's surprise electoral success.

Keywords: Election Results; Subjective Well-being; United Kingdom; Voting Behaviour.

JEL classification: D0; D1; D6; H1.

*This paper benefited from comments from Sarah Brown, Georgios Efthyvoulou and seminar participants at the University of Sheffield. We are grateful to the Data Archive at the University of Essex for supplying the data. Understanding Society and BHPS are funded by the Economic and Social Research Council and various Government Departments, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and Kantar Public. The research data are distributed by the UK Data Service. Any remaining errors are our own. † Corresponding author.

1 Introduction

In the UK and across much of the developed world, there have been significant shifts in the political landscape. These shifts are demonstrated by a move away from mainstream political policies in the UK, the election of Donald Trump in the US and the En Marche! party of Emmanuel Macron in France. Arguably, these events represent significant change in the political spectrum and have potentially long lasting and significant consequences to individual lives.

Contemporaneously with these events, the area of individual well-being has received an increased amount of attention from a range of subjects, including psychology and economics, but also from policy makers. It is increasingly acknowledged that monetary measures of economic development, such as GDP, should be used in conjunction with alternative non-monetary measures of development, including for example, individual well-being (Stiglitz et al., 2009). In the UK, and across many other developed countries, this has led to the collection of well-being data, with a view to use it to inform policy decisions. Consequently, fully understanding the determinants of individual well-being is of increased importance.

Within the sphere of subjective well-being and politics research there are two strands of literature; those papers that consider the effect of well-being on political support, and those that consider the reverse scenario, whether some type of political support promotes individual well-being. In terms of the former direction of the relationship, Liberini et al. (2017) investigate the role of subjective well-being on the probability of supporting the incumbent governing party. Using survey data from the UK, they examine whether happier individuals are more likely to support the incumbent party at the national level. Their results show that happier respondents are 1.6 percentage points more likely to support the incumbent party. This result is supported by difference-in-difference analysis using an exogenous shock to happiness, the death of a spouse, which rules out the reverse causality of incumbency support increasing happiness. In a similar spirit, Dolan, Metcalfe and Powdthavee (2008) explore the relationship between life satisfaction and voting turnout. They present evidence that happier individuals are more likely to participate in the next general election. However, when exploring the effect of party affiliation and life satisfaction, no statistical relationship is found.

In the reverse scenario, where political support influences individual well-being, research has focused on the left-right nexus. For example, Di Tella and MacCulloch (2005) demonstrate that left-wing voters are happier when left-wing parties win elections and left-wing policies come to fruition, for instance, lower unemployment. A positive effect on well-being is similarly found for right-wing voters when right-wing parties win and for right-wing policy outcomes, for example, lower inflation. Likewise, Alesina et al. (2004) find that in Europe left-wing voters are relatively unhappier about inequality, whilst right-wing voters report lower levels of happiness when the domestic inflation rate rises.

Moreover a growing body of literature considers the exogenous impact of events that have a lasting impact upon political stances. Oswald and Powdthavee (2010) show that voters who have daughters are more likely to support left-wing parties, whereas those with sons are more likely to align themselves to right-wing parties. Again, Powdthavee and Oswald (2014) present evidence from an experimental setup in which a windfall of money, in the form of a lottery win, makes individuals more likely to support a right-wing party, suggesting that, in essence, higher levels of wealth makes you more right-wing. In a related literature, Giuliano and Spilimbergo (2014) show that people born in recessions favour more income redistribution and tend to vote for left-wing parties.

More recently, Pierce et al. (2016) show the impact on happiness when partisans win or lose an election. Using evidence from the 2012 US presidential election, partisan losers (Republican voters) are immediately less happy post-election. In contrast, no effect is found for the Democrat voters, the partisan winners. Furthermore, Jong A Pin et al. (2017) explore an individual's wider political thoughts and the relationship with their life satisfaction. They show that individuals who have populist and nationalistic preferences typically report lower levels of life satisfaction, whilst a preference for cultural freedom is associated with higher levels of life satisfaction.

A related literature explores the effect of identity on individual well-being. It is expected that individuals who report a preference for a certain political party will experience higher levels of well-being, and this level of well-being may be affected by the relative number of individuals who share the political preference either at the national or local level. Akerlof and Kranton (2000)

explore, from a theoretical perspective, the impact an individual’s sense of identity has on a range of economic outcomes by allowing an individual’s identity to enter into their utility function. If an individual’s political preference is seen as being made up of a set of beliefs and social preferences, and gives an individual a sense of identity, one could argue that their political preferences could influence their level of well-being. In this setting, racial identity has been found to exert a positive effect on individual well-being (Hughes et al., 2015), whilst, Casey and Dustmann (2010) link identity to labour market outcomes and find that the identity of immigrants to either the home or host country, has a weak impact on labour market outcomes.

This paper aims to contribute to the existing literature in several ways. By analysing individual level panel data in the UK, we explore the effect of political preference and election outcomes at both the national and constituency level on individual well-being, as measured by overall life satisfaction and psychological well-being. Furthermore, we exploit the exact constituency voting results to explore the effect of “relative” political identity on individual well-being. That is, whether having a larger proportion of like minded voters in a constituency impacts on an individual’s own well-being. We then implement an instrumental variable approach to address potential endogeneity concerns. Finally, we exploit a quasi-natural experiment and employ a regression discontinuity in time approach in order to explore the robustness of our results. We explore these relationships using a range of methodologies in an attempt to control for reverse causality and to identify a causal relationship between political preference, election results and individual well-being.

Generally, we find that supporting the political party in power has positive impacts on individual well-being. The results from a fixed effects analysis suggest that these results differ across gender, an individual’s level of financial prosperity and the measure of well-being considered. Moreover, these differences are observed whether political support is measured at the local (constituency) or national level. The results relating to overall life satisfaction, suggest that it is supporting the incumbent party at the national level that exerts a positive impact. However, when psychological well-being is considered, for men it appears it is the local, as opposed to the national results, that have a positive impact. Moreover, we find differential effects over the distribution of subjective financial prosperity; the positive effect of supporting the incumbent party is diminished at higher

levels of subjective financial prosperity.

We then go on to address potential endogeneity concerns in two distinct ways. First, we employ an instrumental variable approach, exploiting the structure of our data to identify intergenerational transmissions of political beliefs. Second, we present evidence from a quasi-natural experiment. We implement a regression discontinuity in time (RDiT) to exploit an unexpected result from the 2010 general election. The results relating to the instrumental variable approach are generally consistent with the fixed effects estimates. Supporting the incumbent party at the local or national level is positively related to individual well-being. In addition, the results relating to the regression discontinuity in time design once again indicate that supporting a party that becomes the incumbent has a positive effect on life satisfaction.

The remainder of this paper is organized as follows: Section 2 gives a brief background to the UK political system; Section 3 describes the data; Section 4 outlines our empirical approach; Section 5 presents the main results; and Section 6 presents results relating to models that address potential endogeneity concerns. Finally, Section 7 concludes.

2 UK Political Landscape

The people of the UK elect a government using a “first past the post” system, where each member of parliament is elected in a local constituency.¹ The system requires a party to obtain a majority of the parliamentary seats, by doing so, they are then entitled to form a government. If no party gains an outright majority, then there is a hung parliament, in which there can be a minority government or a coalition can be formed with other parties, for example in 2010, a coalition between the Liberal Democrats and Conservatives was formed. The data on elections used in this paper are taken from the Constituency Level Election Archive (CLEA), compiled by Kollman et al. (2016). The data source contains information on each and every UK parliamentary seat going back until 1832, and includes details of party vote shares and turnout. This paper, however, focuses on the period

¹In the UK, a parliamentary constituency is an electoral region that comprises of approximately 72,000 individuals. In the 2015 election there were 650 constituencies.

1992-2016 to match our individual level data. Over this time the total number of parliamentary seats has fluctuated due to population change, which sets the boundaries for each constituency area (see Table 1 for more details). We are uniquely able to match individuals to their parliamentary constituency in a given year, which allows to us identify who that person voted for and what the vote shares for each political party in a respondent’s constituency are. This allows us to discern if a person, for instance, is a Labour voter who resides in a constituency with a higher concentration of Labour voters.

During the period considered in this paper, there were six separate general elections where the governing party changed on three different occasions. In 1992 the Conservative party, led by John Major, won a majority and governed until the next election in 1997. The Labour party, then led by Tony Blair, presided over a relatively tranquil period of electoral success and were maintained in government for 13 years (three terms) until 2010. Following the great recession, British politics entered a period of uncertainty as the 2010 election produced a hung parliament – the first since 1974. The Conservatives were the largest party and entered into a coalition with the Liberal Democrats, led by Nick Clegg, forcing Labour into opposition. This unexpected scenario allows us to implement a quasi-experimental technique to ascertain the causal relationship between political ideology and individual well-being. This is discussed in more detail later. To illustrate this period graphically, the national vote shares of the major parties over time are shown in Figure 1.

3 Data and Variables

3.1 Individual-Level Longitudinal Data

The empirical analysis of this paper draws on two large nationally representative longitudinal data sources. These are namely, the British Household Panel Survey (BHPS) and its successor UK Household Longitudinal Study (UKHLS), also known as Understanding Society.² The BHPS was conducted by the Institute for Social and Economic Research and is a nationally representative

²Full details of the data are documented in Fumagalli et al. (2017).

longitudinal survey of private households in which the same households are interviewed on an annual basis. The first wave, conducted in 1991, contained a sample of approximately 5,500 households, corresponding to roughly 10,300 adults. The sample size of the BHPS was increased in 1999 when an additional 1,500 households from Scotland and Wales were included and similarly, in 2001, a further 2,000 households from Northern Ireland were added.³ We exploit information from waves 2 - 18 to coincide with the general election in the 1992. The BHPS is then merged with the UKHLS, which superseded the BHPS in 2009.

The UKHLS is a nationally representative longitudinal survey of approximately 40,000 households in the UK, with face-to-face interviews carried out between January 2009 and January 2011 for wave 1. In total there are 7 waves of the Understanding Society, giving us information on 74,630 individuals across the entire panel once missing observations are omitted. Both the UKHLS and BHPS contain information on a wide range of socio-economic and demographic characteristics and, of particular importance to the present study, a range of information relating to individual political allegiances. Furthermore, the data allows us to identify which parliamentary constituency each individual resides in. This allows us to match the vote shares of each political party, for a given year at the constituency level, to each individual.

3.2 Variables of Interest

We consider two dependent variables that capture an individual’s level of well-being. Specifically, we consider a single item measure of life satisfaction and a multiple item measure of psychological well-being based on the General Health Questionnaire (GHQ). The measure of life satisfaction, in line with, for example, Clark et al. (2008), Gardner and Oswald (2007) and Kassenboehmer and Haisken-DeNew (2009) amongst many others, is based on the question: “How dissatisfied or satisfied are you with... your life overall?” This is measured on a seven point scale, where one indicates “not satisfied at all” and seven indicates “completely satisfied”. The spatial distribution of this variable for all years in the sample binned by parliamentary constituency is presented in Figure 2. The average level of life satisfaction is 5.2 and Figure A1 displays a long left-hand tail in

³Due to the different political landscape in Northern Ireland, we remove all individuals from Northern Ireland from the analysis.

line with the existing literature.

In addition to life satisfaction, we also explore an individual’s level of psychological well-being using a multiple item measure. Specifically, we use the GHQ, which is a series of twelve questions which are each measured on a four point scale. The GHQ score, developed by Goldberg (1972), assigns an ordered ranking of the responses to the GHQ and is widely used in the existing literature. We consider the Likert scale, which converts valid answers to the 12 questions of the GHQ to a single scale, which is increasing in health status, by recoding the variables so that the scale for individual variables runs from zero to three, and then summing, giving a scaled variable running from zero (the most distressed) to 36 (the least distressed).⁴ Again, the spatial distribution for all years in the sample binned by parliamentary constituency is presented in Figure 3. In line with life satisfaction, the measure of psychological well-being is negatively skewed, as presented in Figure A2 and Table 2 reports that the average score is 24.6.

To identify which political party each individual supports, we use two questions. The first asks “If there were to be a general election tomorrow, which political party do you think you would be most likely to support?” and the second “Which political party [are you] closest to?” From the responses to these questions, we identify whether a person supports a particular party if they answer with that party to both questions. We also create a group of individuals that do not support a political party and exclude those individuals who cannot vote. Figure 4 presents the how individual indicate support of the three major parties and no party over time. It clearly demonstrates a large increase in the proportion of individuals who do not identify with any of the three main political parties.

Our main explanatory variable of interest ($Support\ National_{it}$) is a measure of incumbency support at the national level, based on party support. The variable takes the value one if the individual’s supported party is the same as the national government, for example, a Labour voter from 1997 to 2010 takes a value of one, and zero otherwise.⁵ As presented in Table 2, the average

⁴We have also used the caseness transformation of the GHQ, which collapses the twelve questions into binary outcomes which are then summed resulting in a measure based on a 12 point scale. This gives similar results to those presented in the paper.

⁵From 2010 to 2015, Liberal Democrat and Conservative supporters take the value 1 due to the coalition government.

number of individuals which report being a supporter of the incumbent national party is 31.8%.

Our second explanatory variable of interest (*Support Local_{it}*) is a measure of incumbency support at the constituency level, based on party support. Here, we use election data merged to our individuals to determine whether the MP of the party they support won the individual's parliamentary seat. For instance, a Labour supporter in constituency c with a labour MP will take the value one, whereas, a Conservative party supporter in the same constituency will take the value zero. As presented in Table 2, the average number of individuals which report being a supporter of the incumbent national party is 36.5%.

Figures 5 and 6 present the average life satisfaction and GHQ levels, by political party, over time. The figures suggest that there differences in the levels of reported well-being dependent of an individuals political preference. It is apparent that conservatives report higher levels of both well-being measures. In addition, it appears there are differences in how well-being measures evolve over time.

Finally, we include a set of observed time variant controls that are standard in the well-being and voting literatures. These are namely: a quadratic in age; marital status as captured by variables indicating married, divorced, or widowed, with single being the omitted category; highest level of education captured by variables indicating having a degree or other high level qualification, other higher qualification, A-level, GCSE, other qualification, while below GCSE level is the omitted category; household size; the natural logarithm of monthly household income; a dummy for home ownership; an indicator if children are present in the household; and employment status indicating employed, self-employed, retired or unemployed with not currently not in the labour force being the omitted category. In addition we control for residential government office region fixed effects and year fixed effects.⁶ Variable definitions and summary statistics relating to our control variables are presented in Table 2.

⁶For an extensive discussion relating to the determinants of individual well-being, see for example, Dolan, Peasgood and White (2008).

4 Empirical Strategy

We use a range of methods to explore the effect of incumbency support on individual well-being. As our starting point, in line with the existing literature relating to the determinants of individual well-being, see, for example, Ferrer-i-Carbonell and Frijters (2004), we control for unobserved, time-invariant individual effects by employing a fixed effects model. Generally, we estimate the following equation:

$$Well-being_{it} = \beta_1 Support\ Incumbent_{it} + \beta_2 X_{it} + \eta_t + \alpha_i + \epsilon_{it} \quad (1)$$

where $Well-being_{it}$ is either the overall life satisfaction or GHQ measure of subjective well-being. Our variable of interest is the dichotomously defined variable $Support\ Incumbent_{it}$, which is defined at either the national or parliamentary constituency level. X_{it} is the vector of observable individual control variables described in the previous section whilst η_t are year specific fixed effects. α_i is a time invariant unobserved component and ϵ_{it} a white noise error term. The coefficient of interest is β_1 , which gives the impact of supporting the incumbent political party either at the national or local level, is anticipated to be positive. As mentioned above, we begin by estimating Equation 1 using a linear fixed effects model to control for the unobserved individual heterogeneity (α_i).⁷ Given our initial fixed effects strategy, we are unable to observe any differences across time invariant variables, for example, gender. We may expect a heterogeneous effect across these inherent characteristics. Moreover, the literature has shown that there is a gender gap in well-being where males persistently report higher levels than females (see, for example, Alesina et al. (2004) and Stevenson and Wolfers (2009)). As a consequence, we estimate our models in a pooled sample of males and females and then for males and females separately.

⁷We have also implemented a fixed effects ordered logit model and obtain qualitatively similar results.

5 Results

5.1 Fixed Effects Estimation

Table 3 presents the basic results relating to the impact of local and national election results on both well-being measures.⁸ Considering Panel A of Table 3, the results indicate that supporting the political party which wins either at the national or constituency level, has a positive and significant impact on life satisfaction. This is also true once the sample is split into males and females in columns (2) and (3), respectively. The magnitude of this effect appears to be larger for females, as opposed to males. For example, supporting the national incumbent party increases, on average, male life satisfaction levels by 0.022 units, whilst for females it increases life satisfaction by 0.041 units. Considering the effect at the local constituency level, the results suggest that supporting the incumbent local MP's party is once again positively related to overall life satisfaction. However, once the sample is split between males and females, it is apparent that females are the driving cause of this relationship. The final three columns of Panel A include supporting the political party at the national and local levels. The results suggest that it is support for the political party at the national, as opposed to the constituency level which has a positive impact on life satisfaction. This result is consistent across both samples of males and females.

Turning our attention to Panel B of Table 3, which presents the impact political support has on psychological well-being as measured by the GHQ. The results are notably different from those relating to overall life satisfaction, which advocates the use of a range of well-being measures. Considering the national level results, again these suggest a positive relationship between supporting the incumbent party and psychological well-being. Although, once we consider the results at the constituency level we find that it is only males that are influenced by the local political party. This relationship is found to be statistically insignificant for females. On the pooled sample of males and females the inclusion of both local and national variables, as presented in column (7), suggests that they both have a positive impact on psychological well-being levels. The separation by gender

⁸Table B1 presents the results relating to basic controls. These results are generally, in line with the existing literature, with marital status, income and employment status exerting a statistically significant impact on both GHQ and life satisfaction.

however reveals that the results at the national and constituency level have distinct impact on males and females respectively. Specifically, it appears that for males it is the constituency level electoral results that are important for psychological well-being. In contrast, for females, it is the national level results that affect psychological well-being.⁹

The results presented in this section indicate that supporting the incumbent party at both the national and constituency level has a positive impact on both overall life satisfaction and psychological well-being. These results are found to differ across gender and across the measure of well-being explored. This contributes to the existing literature that explore the impact of macro-economic events on individual well-being, and shows that election results, and the political affiliation of an individual can combine to have economically meaningful impacts on an individuals level of well-being. We now proceed to explore the heterogeneity of these results across different groups whilst also attempting to control for potential endogeneity issues.

5.1.1 Financial Prosperity

To explore heterogeneity across the sample, we interact the incumbency support dummy with the individual's subjective prosperity. The existing literature relating to voting behaviour and support of different government policies highlight the importance of an individual's financial position. For example, Alesina and La Ferrara (2005) show that an individual's current financial position and expected future financial position are significant determinants of supporting redistributive policies. That is, individuals who expect to be better off in the future are less likely to support redistributive policies. Moreover, in the UK, voters are traditionally separated by their current financial situation due to the parties traditional values. Individuals with higher levels of financial resources typically favour right-wing parties as they are associated with policies such as lower tax. As a consequence of this, to explore the heterogeneity of election results on individuals well-being, we interact supporting the incumbent with an individual's subjective financial prosperity. Subjective financial prosperity is based on responses to the question, "How well would you say you yourself are managing financially

⁹We have also tried interacting both support at the national and constituency level and find that the interaction between these two variables fails to have a statistically significant impact on overall life satisfaction and GHQ.

these days?” This is measured on a five point scale, ranging from “living comfortably” to “finding it very difficult”. In our context, higher values indicating higher levels of perceived prosperity. This measure has been used in the existing literature, see for example, Wildman (2003) and Mentzakis and Moro (2009) and requires individual to provide a subjective assessment of their current financial position.

Panel A and Panel B of Table 4 present the results relating to overall life satisfaction and psychological well-being, respectively. The interaction terms are presented graphically in Figures A3 and A4, which shows the impact of supporting the incumbent party at the national and constituency levels, across the financial prosperity index. The results suggest that supporting the incumbent has a positive impact on overall life satisfaction, in line with the results discussed above, and in accordance with the existing literature. As expected a priori, subjective prosperity also has a positive impact on overall life satisfaction. The interaction between these factors reveals that financial prosperity has less of an impact on well-being if they support the incumbent national party. This effect is more pronounced at the national level for females, as opposed to males. The results are generally the opposite at the local level, with the interaction between financial prosperity and supporting the local political party having a negative sign for males, as opposed to females.

Panel B of Table 4 presents the impact of financial prosperity and political support on psychological well-being, whilst Figures A5 and A6 show the impact of supporting the incumbent party at the national and constituency levels, across the financial prosperity index, on psychological well-being. The results suggest that the level of financial prosperity has a positive impact on psychological well-being, whilst, the interaction between national incumbency support and financial prosperity reveals that supporting the incumbent party at the national level reduces the impact of financial prosperity. Interestingly, it appears that this effect is more prevalent for females as opposed to males. The converse is true for the measure of psychological well-being when incumbency is captured at the constituency level. The results indicate that supporting the local MP’s party serves to increase the measure of psychological well-being; supporting the local party is associated with a 0.23 unit increase in GHQ scores, whilst a one-point increase in financial prosperity, increases psychological well-being by 0.91 units. The interaction reveals an inverse relationship, indicating that

for an individual who supports the incumbent party, an increase in their financial prosperity has less of an impact compared to an individual who does not support the incumbent party. The effect is larger for males, with local election support not a significant determinant for females. Subjective financial prosperity is found to have a positive impact, however, the effect is less pronounced for individuals whose party won at the constituency level. This seems to indicate that supporting, at the constituency level, the political party in power, mitigates some of the effects of reporting lower levels of financial prosperity. This simple analysis highlights that the effect of supporting the incumbent party has a differential impact dependent on individual financial circumstances.

5.1.2 National Seats, Local Shares and Spill-over Effects

In this section, we exploit data relating to the number of parliamentary seats won (at the national level) by each political party and the voting behaviour in each constituency, as measured by share of votes won by each political party. Given that we can observe the parliamentary constituency an individual resides in, and the precise voting behaviour of that constituency, we explore whether these vote shares impact individual well-being. We then explore whether the effect of supporting the incumbent party on well-being displays a different relationship if the individual lives in a “close” parliamentary constituency, as measured by the magnitude of victory at the constituency level.

Initially, we explore the results relating to the number of parliamentary seats won by the political party supported by the individual.¹⁰ This arguably captures the success of the political party, even if the political party does not gain overall power. The results presented in Panel A of Table 5 suggest that the number of parliamentary seats won by the political party an individual supports, has a positive impact on both overall life satisfaction and psychological well-being. Specifically, a 1 standard deviation increase in the number of seats won increases life satisfaction by 0.009 units, whilst it is associated with a 0.03 unit increase in psychological well-being. Interestingly, the results relating to psychological well-being are more pronounced for males, with the results being statistically insignificant for females.

¹⁰The number of seats are standardised in order to more easily interpret the results.

Turning our attention to Panel B of Table 5 reveals a positive relationship between the proportion of the constituency that voted for the same political party as an individual supports and their individual well-being. For example, a 1 percentage point increase in the proportion of individuals at the constituency level who voted for the same political party as the individual is associated with an increase in overall life satisfaction of 0.06 units, whilst it is associated with an increase in psychological well-being of 0.23 units. Interestingly these results are not symmetrical across males and females. For instance, for the measure of psychological well-being the composition of the constituency is only statistically significant for males, as opposed to females. These differences again highlight the importance of separating the sample by gender.

Finally, in this section, we identify those parliamentary constituencies that had a “close” result, compared to a significant majority. We identify those constituencies where the margin of victory was 5 percentage points or less, and those where the margin of victory was greater than 5 points. The results, presented in Table 6, indicate that in line with the above results, supporting the incumbent local party has a positive impact on life satisfaction for females, whilst it has a stronger impact on psychological well-being for males. What is also apparent is that for both males and females this positive effect is present in those constituencies where the winning margin was greater than 5 points.

6 Addressing Endogeneity Concerns

Our results so far establish that there is a positive association between supporting the incumbent government and well-being. However, Liberini et al. (2017) present evidence for the reverse relationship (well-being impacts on political support), and as such, reverse causality suggests an endogeneity concern for our results. As a consequence we now exploit an instrumental variable approach and a RDiT approach to circumvent this bias in order to explore a causal interpretation of our results.

6.1 Instrumental Variable Approach

6.1.1 Methodology

In this setting, we exploit the intergenerational transmission of political preferences to instrument for an individual’s political ideology. We exploit the structure of our data by identifying parental political preference, for the group of individuals in the data where we can discern parental characteristics.¹¹ For a valid instrument we require a variable which is strongly correlated with the potentially endogenous variable (supporting the incumbent party) and is uncorrelated with unobserved factors which impact well-being. We instrument an individual supporting the incumbent political party with parental support for the incumbent party. Parental political preference is strongly related to child political preference, see, for example, Jennings et al. (2009), satisfying a the first stage. Furthermore we assume that parental political preference only impacts on individual well-being through child political preference. In this setting, we take the father’s political preferences, and if this is missing, we use the mother’s political orientation. Parental political preference is defined as the political party the parent reports supporting when they are observed in the data. In cases where parental political preference changes, we take the party the parent votes for more frequently. This measure is assumed to be time invariant to maximise the number of observations in the analysis. As a robustness check we then focus on the Understanding Society data as in these wave is where most parental–child matches occur.¹²

6.1.2 Results

Panel A of Table 7 presents the results relating to when supporting the incumbent party is instrumented by if parents support the incumbent party, whilst panel B presents the results once the focus is on the Understanding Society data sample. Across all specifications, we obtain a strong first stage as indicated by a large F-statistic. This shows that, in line with prior expectations, an individual is likely to follow their parental political ideology. Across all specifications, the variables maintain a positive relationship, however, the level of statistical significance has been reduced.

¹¹This corresponds to approximately 31,000 observations.

¹²We acknowledge that finding a suitable instrument that satisfies the exclusion restrictions in the context of individual well-being is problematic. For this reason we go on to implement a regression discontinuity design.

Panel B presents the results restricting the sample to the Understanding Society data. Here, the precision of the estimates is increased and the results suggest that the positive relationship is maintained, in line with the findings discussed previously. It should be noted however in this setting that there is limited evidence that supporting the incumbent party is endogenous and as such the use of an instrumental variable is redundant.¹³

6.2 Regression Discontinuity in Time

An alternative strategy to potentially overcome the endogeneity problem is to exploit the timing of the survey interviews and the election dates. More specifically, we are interested in comparing those voters who completed a wave of the survey shortly before an election to those who had completed it shortly after an election. This framework allows us to employ a sharp regression discontinuity design where our running variable is time, the so-called RDiT.

6.2.1 Identification Issues

To be able to identify the causal effect of supporting an election winner on well-being from a regression discontinuity design, the standard assumptions have to hold (Lee and Lemieux, 2010). Moreover, in the context of a RDiT, there are some additional challenges for identification (Hausman and Rapson, 2018). The first identifying assumption, relating to a RDiT design, is that there is no anticipation of treatment. If this is violated it will potentially bias estimates downwards by smoothing any discontinuity. To ensure this is not an issue, we need to select a general election that reflects a quasi-natural experiment, where there was an unanticipated win for a political party. Fortunately, one such scenario exists in the British political landscape that our data covers. The 2010 general election resulted in a hung parliament, the first since 1974, where the Liberal Democrats became the power brokers and entered into a coalition government with the Conservative party. This constitutes a clear and obvious ‘surprise win’ for the Liberal Democrats, who were considered the ‘third’ party in British politics at the time. Here, we would expect a positive shock

¹³The reported Durbin-Wu-Hausman statistic fails to reject that supporting the incumbent political party is exogenous, and as such there is no requirement of an instrumental variable. We acknowledge, however, given the results of Liberini et al. (2017), that there is likely to be a dual relationship running between political support and well-being. Statistical evidence here suggests that this is not a concern in our analysis.

to Liberal Democrat supporter’s happiness after the election compared to those who reported their happiness shortly before the election.

Second, the cut-off date cannot be endogenous. That is, the election was called by the incumbent to occur when happiness was particularly high in order to gain more votes, as Liberini et al. (2017) argue. This is related to the third concern, that there may be some “compound treatment”, where the election takes place at the same time as another systematic shock to well-being. Given that we are considering Liberal Democrat supporters, a non-incumbent party when the election was called, and that the election was a pre-determined event, these should be of no valid concern here.

The fourth concern is that in the absence of treatment all outcomes will vary smoothly at the cut-off, that is, there would be no discontinuity if there were no election. As the election was an exogenous event and no other significant event took place on the 6th May 2010 that would affect our estimates, this should not be a concern in this context. A parallel RDiT using a different outcome is potentially not useful in this context as an election impacts numerous outcomes. Thus, we run a placebo test using the date exactly one year prior to the election date to be sure that it was the election causing the discontinuity.

The last condition for the validity of a RDiT is the absence of selective sorting. This refers to the assumption that individuals cannot control the assignment variable and therefore treatment status. As we are dealing with the timing of a survey, the date at which an individual is observed is as good as random. Thus, we have no problem with selective sorting.

Finally, we include a range of controls, namely, gender, a quadratic in age, monthly income and employment status, to explore the robustness of our estimates and to ensure that these factors do not cause the estimates to be biased. In addition, we also include government office region fixed effects in the robustness analysis to account for the treatment effect varying geographically.

6.2.2 Empirical Approach

To examine the effect empirically, we focus on three groups of Liberal Democrat supporters. This disaggregation is to avoid a selection bias from an individual switching which party they support. The first group is all individuals who identify as an Liberal Democrat supporter, the second group

consists of Liberal Democrat supporters who identify strongly with the party, and the third is made up of Liberal Democrat supporters who have constantly voted for the Liberal Democrat party.¹⁴

The local polynomial regression, or RDiT, estimate is equivalent to the OLS estimation of the following equation using only observations that satisfy $days_i \in (6\text{th May } 2010 - h; 6\text{th May } 2010 + h)$.

$$LFSAT_i = \alpha + \rho\tau_i + \gamma_1 days_i + \gamma_2 days_i^2 + \epsilon_i \quad (2)$$

where τ_i is a dummy variable denoting treatment status taking the value one if the Liberal Democrat supporter was surveyed after the 2010 general election on the 6th May, and zero if they were surveyed before. Hence ρ is the local average treatment effect (LATE). We focus on the life satisfaction variable as our outcome as this measure better captures short-term changes in well-being unlike the GHQ measure.¹⁵ We begin by fitting a second-order polynomial in $days_i$ on either side of the threshold ($days_i = 0$) and use higher and lower order polynomials as a robustness check.¹⁶ ϵ_i is the error term. Another key decision is h , the kernel bandwidth, the trade-off between precision and bias. Following the literature, we report estimates using the algorithm in Calonico et al. (2014), which computes the optimal bandwidth from the data and can therefore be different in each regression. Standard errors are clustered at the constituency level to account for spatial correlation.

6.2.3 Results

Initially, we visually inspect the data for any discontinuities at the cut-off. Figure 7 presents the binned scatter plots of happiness over time for the three groups of Liberal Democrat supporters. A visible discontinuity appears around the election day, suggesting support for our empirical strategy. More specifically, the discontinuity appears to be a larger jump for those who identify more strongly

¹⁴Strong voters are defined using answers from the survey question “Strength of support for stated party”, where we code a dummy variable one for respondents who reply “very strong” or “fairly strong”, and zero otherwise. In addition, constant voters are defined as individuals who have reported a preference for the Liberal Democrat party 80% of the time or more in the observed data.

¹⁵We repeat the estimation using the GHQ as the outcome variable and we find no significant effect. Results are presented in Table 14.

¹⁶When a set of individual-level characteristics are included, the results remain qualitatively the same. That is, we estimate $LFSAT_i = \alpha + \rho\tau_i + \gamma_1 days_i + \gamma_2 days_i^2 + \gamma_3 X_i + \epsilon_i$.

with the Liberal Democrat party. We now go on to formally explore these relationships using a RDiT approach.

Table 8 explores the impact of the surprise election win for the Liberal Democrat party on a Liberal Democrat supporter’s degree of overall life satisfaction. In column (1) we find no significant effect for the impact of the election on all types of Liberal Democrat supporters. In column (2) we find a positive and statistically significant effect on the well-being of Liberal Democrat supporters after the 2010 election, albeit at the 10% level of significance. In column (3), Liberal Democrat supporters who consistently vote for the Liberal Democrat party, have over 1 unit higher levels of well-being after the surprise election win for their party and is significant at the 5% level. In Table 9 we include several covariates into the estimating equation. The significant relationship persists; individual who consistently state they are Liberal Democrat supporters have about 1 unit higher levels of well-being after the election.

In order to support this identification strategy as a valid approach in elucidating a causal effect, we subject the RDiT estimates to a number of sensitivity checks. We change the second-order polynomial to higher- and lower-order values and the results remain qualitatively the same, presented in Table 10. Next, we conduct a placebo test to ensure that it is the election that creates the discontinuity rather than some other event that would systematically drive our results. Here, we look for a discontinuity 1 year prior to the 2010 election, i.e. the placebo cut-off date is now 6th May 2009. The results are reported in Table 11 and we find no evidence of a significant discontinuity for our placebo cut-off as expected.¹⁷ Further to this, we assess how other party supporters were affected before and after the 2010 election. We consider the Labour party to have ‘lost’ the election as they became the opposition party. Therefore we expect a negative effect on their supporter’s well-being due to electoral defeat. Using the same RDiT approach, shown in Table 12, we find some evidence that this is the case. The estimates do, however, produce a persistent negative coefficient as expected. The lack of a strong effect may be because the impact of winning on well-being is more salient than that of losing.

¹⁷The polling data shows an increase in the vote share for the Liberal Democrats around the 14th April 2010. To ensure that the supporters’ did not experience the happiness shock at this stage we set our cut-off to this date and repeat our analysis. The results, available on request, show no significant effect.

As a further check of the sensitivity of the results advocated by Hausman and Rapson (2018) of RDiT strategies, we follow the approach in Barreca et al. (2011) and perform a donut RDiT. We do so to explore whether the results are sensitive to the actual forming of a government rather than the surprise of initial electoral success. After the election that resulted in a hung parliament, there were 6 days of negotiations between the political parties in order to form a majority government. The Conservative and Liberal Democrat parties came to an agreement and announced they would form a coalition government. Therefore, we shift our cut-off point to the 12th May when the coalition was publicly announced, that is, we drop all observations between the 6th May and 11th May. The results are presented in Table 13. The findings remain robust for individuals who consistently report being Liberal Democrat voters, however no effect is found for strong Liberal Democrat voters. This lack of significant results for strong Liberal Democrat supports is attributed that they went into a coalition government with the Conservative party.

Overall, our results provide evidence that individuals who have consistently voted for the Liberal Democrats have a positive and significant effect to their well-being after their party is unexpectedly successful at the ballot box in an election.

7 Conclusions

This paper contributes to the growing literature depicting the relationship between politics and subjective well-being. Analysing individual longitudinal data from the UK, we aimed to ascertain the causal impact of both local and national election results on two measures of subjective well-being. We construct a novel dataset which matches constituency level information, including precise party vote shares, to a wealth of individual level voting preferences and socio-economic information. This allows us to explore the effects of election outcomes at both the national and constituency level.

Our paper appeals to several literatures. First, the paper contributes to the growing literature on the effects of macroeconomic and national outcomes on subjective well-being. Second, the analysis contributes to the literature relating to the impact of identity on subjective well-being.

Moreover, this paper contributes to our understanding of the determinants of subjective well-being, which is increasingly important given the use of such measures in policy making.

Generally, we found evidence that individuals who support the incumbent at both the national level or the local level report a higher level of life satisfaction and psychological well-being. Interestingly, the results indicate that there are differences across males and females, with distinct relationships across the impact of national and constituency level results. For example, for males, supporting the incumbent at the constituency level exerts a positive impact on psychological well-being, however this fails to have a statistically significant impact on psychological well-being in females. In addition, these effects are found to be different across different levels of subjective financial prosperity, with supporting the incumbent party having a greater impact on well-being for those who feel they are less prosperous.

We then address potential endogeneity concerns by implementing an instrumental variable approach and by using a regression discontinuity in time design around the 2010 election to explore the relationship using a quasi-natural experiment. Once again, the findings suggest that supporting the incumbent political party has a positive impact on individual well-being, consistent with the fixed effects analysis.

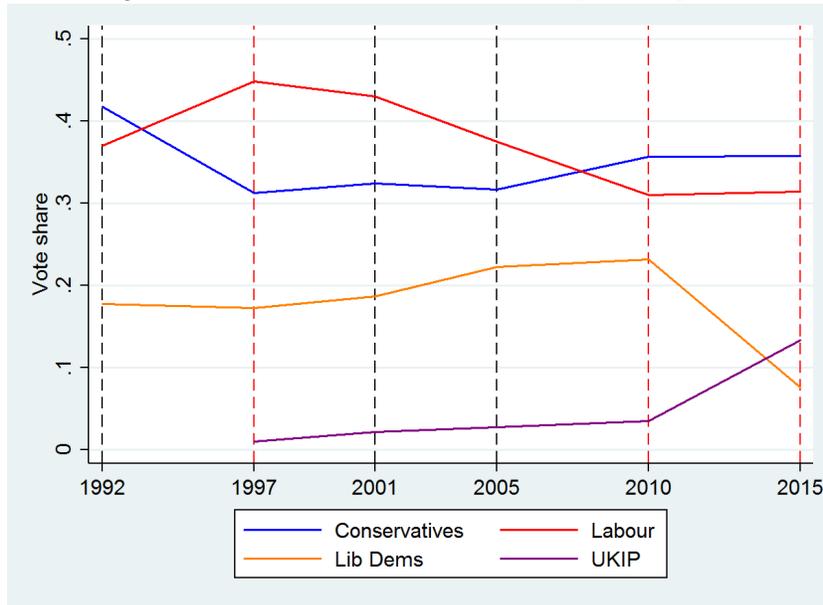
Our findings have important implications for wider society. Our results indicate that election results and voter preference have an impact on a range of individual well-being measures. Consequently, given the potential increase in individual well-being as a result of a successful election result, individuals should be encouraged to turn out and vote for their preferred political party. More widely this highlights the importance of policies that aim to promote political engagement across society, given the potential benefits of this engagement at the individual level.

8 References

- Akerlof, G. A. and Kranton, R. E. (2000), ‘Economics and identity’, *The Quarterly Journal of Economics* **115**(3), 715–753.
- Alesina, A., Di Tella, R. and MacCulloch, R. (2004), ‘Inequality and happiness: Are Europeans and Americans different?’, *Journal of Public Economics* **88**(9), 2009–2042.
- Alesina, A. and La Ferrara, E. (2005), ‘Preferences for redistribution in the land of opportunities’, *Journal of public Economics* **89**(5-6), 897–931.
- Barreca, A. I., Guldi, M., Lindo, J. M. and Waddell, G. R. (2011), ‘Saving Babies? Revisiting the effect of very low birth weight classification’, *The Quarterly Journal of Economics* **126**(4), 2117–2123.
- Calonico, S., Cattaneo, M. D. and Titiunik, R. (2014), ‘Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs’, *Econometrica* **82**(6), 2295–2326.
- Casey, T. and Dustmann, C. (2010), ‘Immigrants’ identity, economic outcomes and the transmission of identity across generations’, *The Economic Journal* **120**(542).
- Clark, A. E., Diener, E., Georgellis, Y. and Lucas, R. E. (2008), ‘Lags and leads in life satisfaction: A test of the baseline hypothesis’, *The Economic Journal* **118**(529).
- Di Tella, R. and MacCulloch, R. (2005), ‘Partisan Social Happiness’, *The Review of Economic Studies* **72**(2), 367–393.
- Dolan, P., Metcalfe, R. and Powdthavee, N. (2008), Electing Happiness: Does Happiness Affect Voting and Do Elections Affect Happiness?, Discussion Papers in Economics 30, University of York.
- Dolan, P., Peasgood, T. and White, M. (2008), ‘Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being’, *Journal of Economic Psychology* **29**(1), 94–122.
- Ferrer-i-Carbonell, A. and Frijters, P. (2004), ‘How Important is Methodology for the estimates of the determinants of Happiness?’, *The Economic Journal* **114**(497), 641–659.
- Fumagalli, L., Knies, G. and Buck, N. (2017), ‘Understanding Society: The UK Household Longitudinal Study harmonised British Household Panel Survey (BHPS) user guide’.
- Gardner, J. and Oswald, A. J. (2007), ‘Money and mental wellbeing: A longitudinal study of medium-sized lottery wins’, *Journal of health economics* **26**(1), 49–60.
- Giuliano, P. and Spilimbergo, A. (2014), ‘Growing up in a Recession’, *The Review of Economic Studies* **81**(2), 787–817.
- Goldberg, D. (1972), ‘The detection of psychiatric illness by questionnaire: A technique for the identification and assessment of non-psychotic psychiatric illness’.
- Hausman, C. and Rapson, D. S. (2018), ‘Regression Discontinuity in Time: Considerations for Empirical Applications’, *Annual Review of Resource Economics* **10**(1).

- Hughes, M., Kiecolt, K. J., Keith, V. M. and Demo, D. H. (2015), ‘Racial identity and well-being among african americans’, *Social Psychology Quarterly* **78**(1), 25–48.
- Jennings, M. K., Stoker, L. and Bowers, J. (2009), ‘Politics across generations: Family transmission reexamined’, *The Journal of Politics* **71**(3), 782–799.
- Jong A Pin, R., Laméris, M. and Garretsen, H. (2017), Political preferences of (un)happy voters: Evidence based on new ideological measures, Working Paper 17003-EEF, University of Groningen, SOM research school.
- Kassenboehmer, S. C. and Haisken-DeNew, J. P. (2009), ‘You’re fired! The causal negative effect of entry unemployment on life satisfaction’, *The Economic Journal* **119**(536), 448–462.
- Kollman, K., Hicken, A., Caramani, D., Backer, D. and Lublin, D. (2016), ‘Constituency-Level Elections Archive’, <http://www.electiondataarchive.org/index.html>. Produced and distributed by Ann Arbor, MI: Center for Political Studies, University of Michigan.
- Lee, D. S. and Lemieux, T. (2010), ‘Regression discontinuity designs in economics’, *Journal of Economic Literature* **48**(2), 281–355.
- Liberini, F., Redoano, M. and Proto, E. (2017), ‘Happy voters’, *Journal of Public Economics* **146**, 41–57.
- Mentzakis, E. and Moro, M. (2009), ‘The poor, the rich and the happy: Exploring the link between income and subjective well-being’, *The Journal of Socio-Economics* **38**(1), 147–158.
- Oswald, A. J. and Powdthavee, N. (2010), ‘Daughters and Left-Wing Voting’, *The Review of Economics and Statistics* **92**(2), 213–227.
- Pierce, L., Rogers, T. and Snyder, J. A. (2016), ‘Losing Hurts: The Happiness Impact of Partisan Electoral Loss’, *Journal of Experimental Political Science* **3**(1), 44—59.
- Powdthavee, N. and Oswald, A. J. (2014), Does Money Make People Right-Wing and Inegalitarian? A Longitudinal Study of Lottery Winners, IZA Discussion Paper 7934.
- Stevenson, B. and Wolfers, J. (2009), ‘The Paradox of Declining Female Happiness’, *American Economic Journal: Economic Policy* **1**(2), 190–225.
- Stiglitz, J. E., Sen, A. and Fitoussi, J.-P. (2009), ‘Measurement of economic performance and social progress’, *Online document <http://bit.ly/JTwmG>*. Accessed June **26**, 2012.
- Wildman, J. (2003), ‘Income related inequalities in mental health in great britain: analysing the causes of health inequality over time’, *Journal of health economics* **22**(2), 295–312.

Figure 1: National vote share of selected political parties



Notes: The graph shows the evolution of party votes shares from 1992-2015. Black dashed lines indicate election years where the same party remained in government. Red dashed lines indicate election year where there was a change of the governing party.

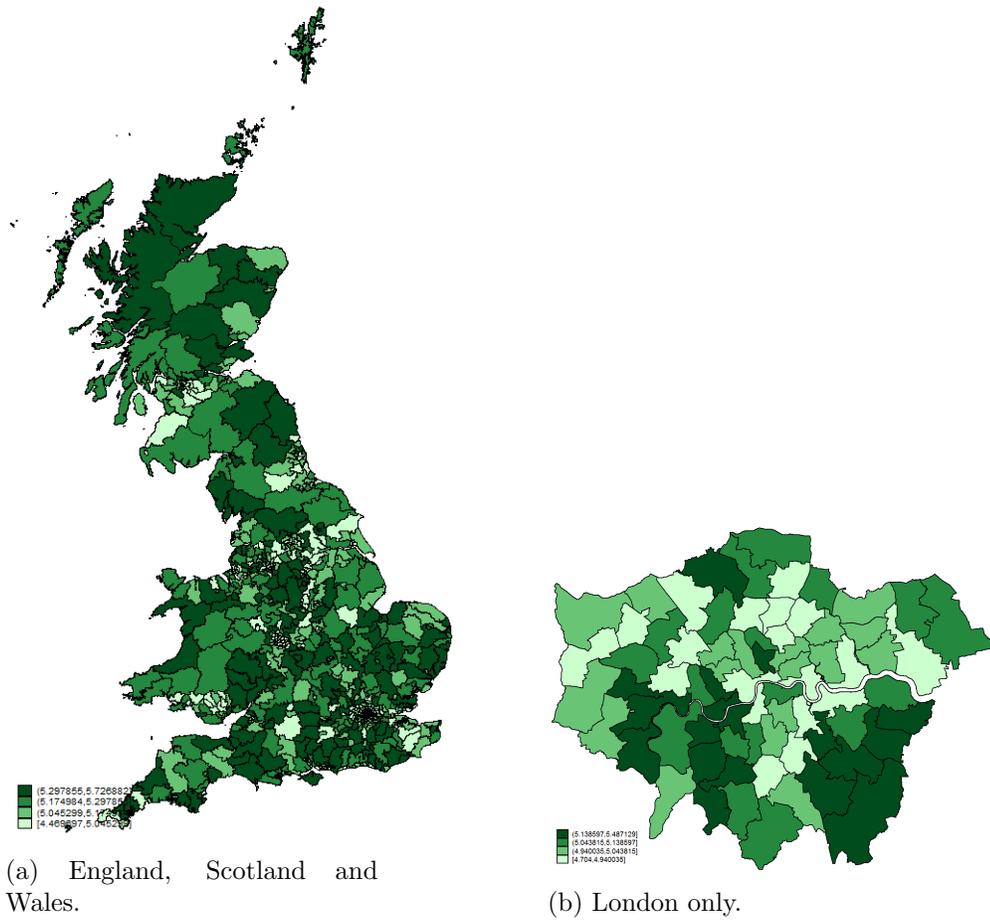


Figure 2: Spatial distribution of *LFSAT* by parliamentary constituency

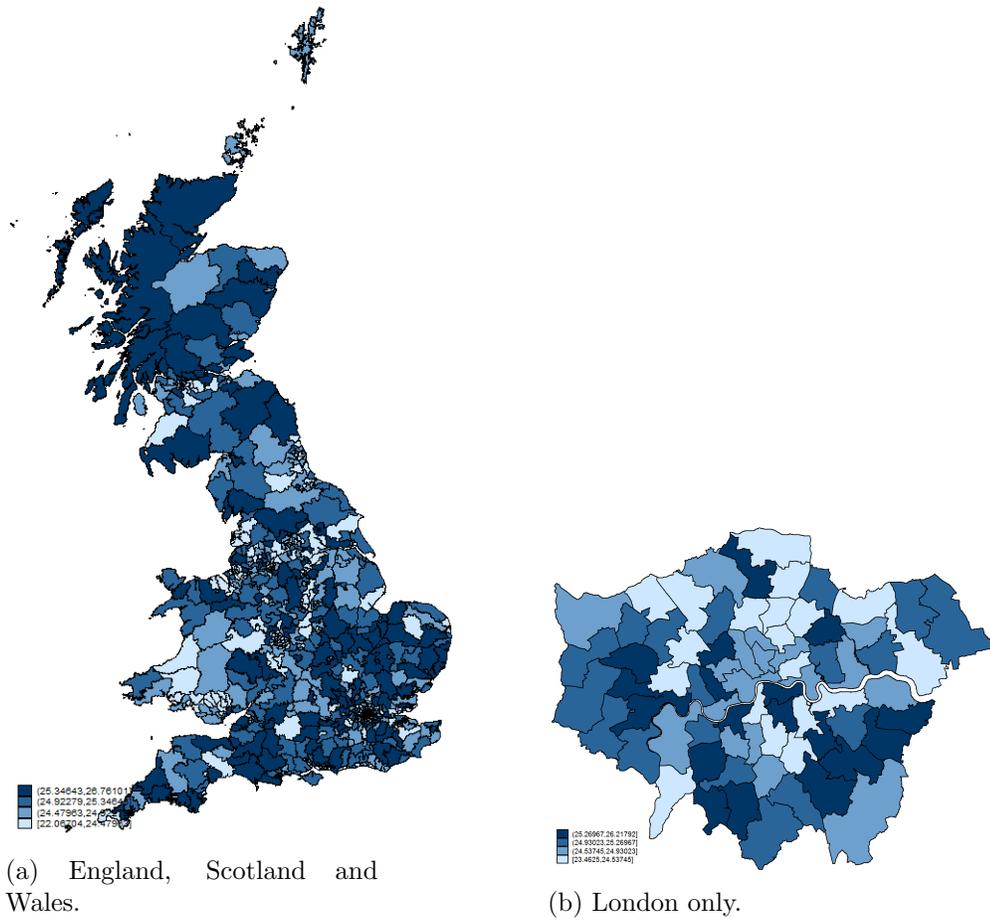
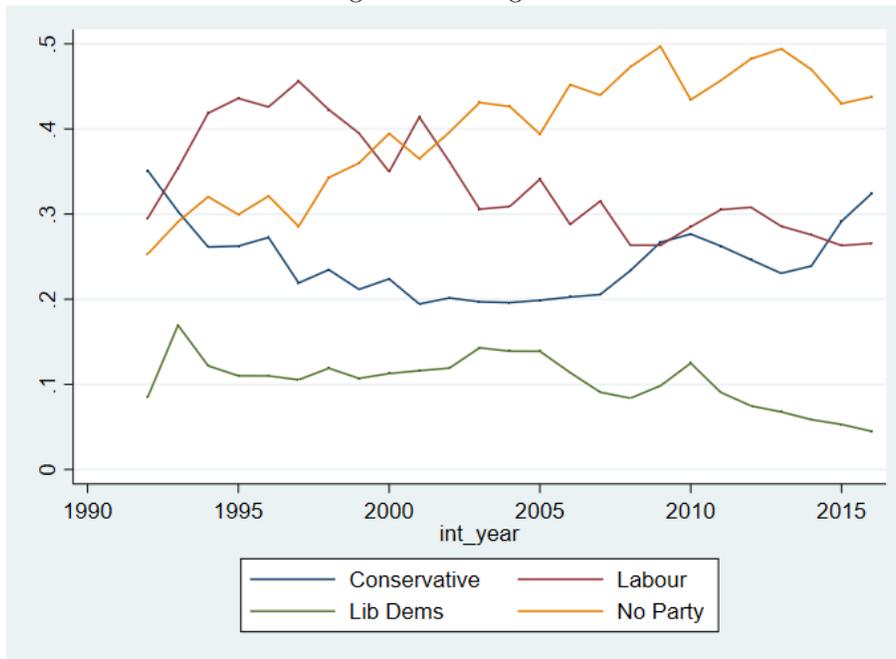


Figure 3: Spatial distribution of *GHQ12* by parliamentary constituency

Figure 4: Average vote



Notes: The graph shows the average vote of all individuals from the BHPS and Understanding Society.

Figure 5: Average Life Satisfaction

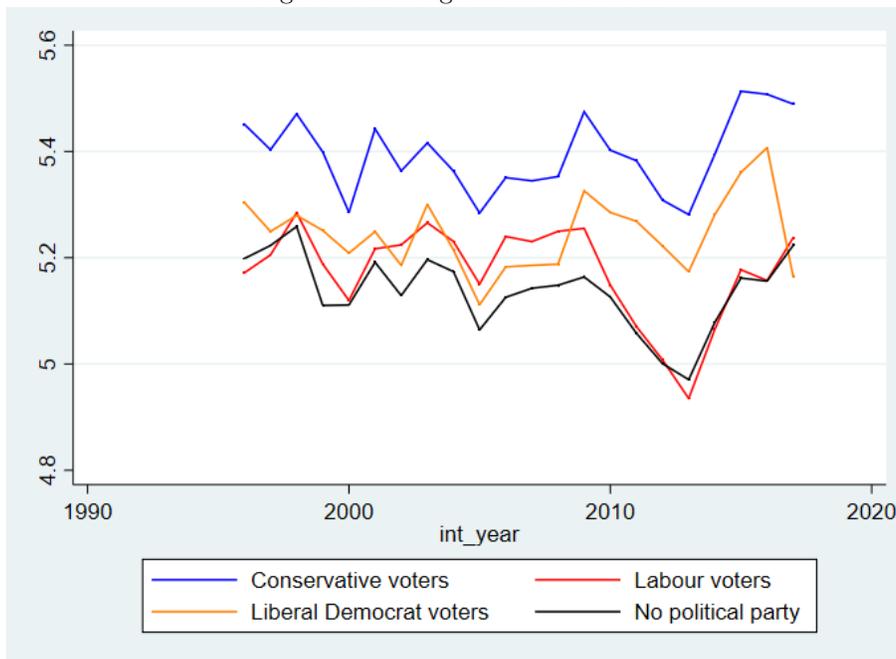


Figure 6: Average GHQ

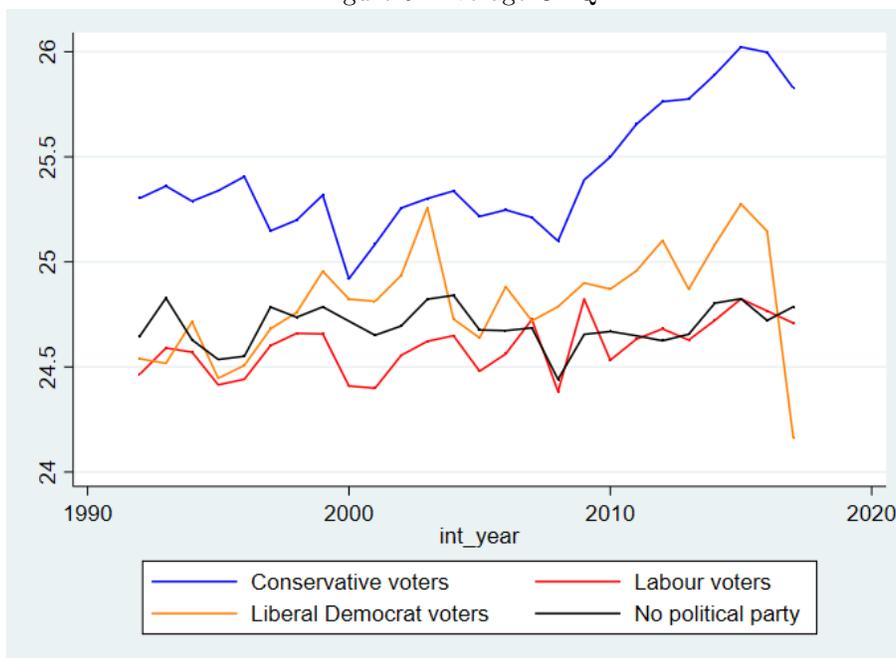


Table 1: UK Governments and parliamentary seats

| Governing party | Election date | Governing party seats | Seats required for a majority | Total number of seats |
|--|----------------|-----------------------|-------------------------------|-----------------------|
| Conservative Party | 9th April 1992 | 336 | 326 | 651 |
| Labour Party | 1st May 1997 | 418 | 330 | 659 |
| Labour Party | 7th June 2001 | 413 | 330 | 659 |
| Labour Party | 5th May 2005 | 355 | 324 | 646 |
| Coalition | 6th May 2010 | 363 | 326 | 650 |
| (Conservative Party and Liberal Democrats) | | 306 | | |
| | | 57 | | |
| Conservative Party | 7th May 2015 | 330 | 326 | 650 |

Table 2: Definition and descriptive statistics for all main covariates

| | Description | Mean | Min. | Max. |
|---------------------------------|--|-----------------|-------|--------|
| Support national | = 1 if supports political party that is currently in national government, 0 otherwise | 31.8 | | |
| Support local | = 1 if supports political party that holds the seat at the constituency level, 0 otherwise | 36.5 | | |
| Life satisfaction | "How dissatisfied or satisfied are you with... your life overall?" | | | |
| | 1 = "not satisfied at all" and 7 = "completely satisfied" | 5.173 (1.428) | 1 | 7 |
| GHQ12 - Likert | GHQ12 Likert measure - increasing in psychological well-being | 24.851 (5.495) | 0 | 36 |
| Financial Prosperity | "How well would you say you yourself are managing financially these days?" Measured on a 5 point scale where 0 indicates "Finding it very difficult" and 4 represents "Living comfortably" | 2.836 (1.018) | 0 | 4 |
| Age | Age of the respondent in years | 47.638 (17.75) | 18 | 102 |
| Age ² / 100 | Age squared of the respondent divided by 100 | 25.845 (17.986) | 3.24 | 104.04 |
| Married | = 1 if married, 0 otherwise | 66.8 | 0.471 | |
| Divorced | = 1 if separated or divorced, 0 otherwise | 8.1 | | |
| Widowed | = 1 if widowed/widower, 0 otherwise | 6.4 | | |
| Household size | Number of individuals in the household | 2.816 (1.4) | 1 | 16 |
| Children in the household | = 1 if children under the age of 16 are present in the household | 29.2 | | |
| Ln(Monthly household income) | Natural logarithm of gross household income the month before interview | 7.831 (0.772) | 3.912 | 11.37 |
| Home owner | = 1 if owns home outright or with mortgage, 0 otherwise | 71.8 | | |
| Employed | = 1 if employed, 0 otherwise | 50.8 | | |
| Self-employed | = 1 if self-employed, 0 otherwise | 7.5 | | |
| Retired | = 1 if retired, 0 otherwise | 22.6 | | |
| Unemployed | = 1 if unemployed, 0 otherwise | 4.3 | | |
| Education - Degree | = 1 if degree or above is highest level of education, 0 otherwise | 20.6 | | |
| Education - Other higher | = 1 if other higher qualification is highest level of education, 0 otherwise | 11.1 | | |
| Education - A-level | = 1 if A-level or above is highest level of education, 0 otherwise | 21.2 | | |
| Education - Other qualification | = 1 if other qualification is highest level of education, 0 otherwise | 10.1 | | |
| Education - GCSE | = 1 if GCSE or above is highest level of education, 0 otherwise | 21.2 | | |
| No. of obs. | | 375,318† | | |

Notes: Data from BHPS and UKHLS covering the period 1992 - 2015. † Number of observations for life satisfaction sample is 341,817 as a consequence of the measure not being included in all survey years. Binary variables present the percentage in each category. Standard deviations are in parenthesis.

Table 4: Well-being and winning: interaction with financial prosperity

| Panel A | Life satisfaction | | | | | |
|---|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-----------------------|
| | Overall (1) | Male (2) | Female (3) | Overall (4) | Male (5) | Female (6) |
| Support national | 0.0810*** (0.0163) | 0.0557** (0.0239) | 0.0993*** (0.0222) | | | |
| Financial prosperity | 0.213*** (0.00351) | 0.209*** (0.00522) | 0.216*** (0.00474) | | | |
| Support national × Financial prosperity | -0.0183*** (0.00520) | -0.0132* (0.00758) | -0.0216*** (0.00713) | | | |
| Support Local | | | | 0.0548*** (0.0163) | 0.0744*** (0.0242) | 0.0396* (0.0220) |
| Financial prosperity | | | | 0.213*** (0.00364) | 0.213*** (0.00541) | 0.213*** (0.00493) |
| Support local × Financial prosperity | | | | -0.0143*** (0.00523) | -0.0220*** (0.00771) | -0.00820 (0.00710) |
| R-squared | 0.026 | 0.028 | 0.026 | 0.026 | 0.028 | 0.026 |
| Number of pidp | 72,393 | 33,260 | 39,163 | 72,393 | 33,260 | 39,163 |
| Observations | 341,593 | 152,736 | 188,857 | 341,593 | 152,736 | 188,857 |
| Panel B | GHQ12 | | | | | |
| | Overall | Male | Female | Overall | Male | Female |
| Support national | 0.217*** (0.0557) | 0.168** (0.0776) | 0.254*** (0.0788) | | | |
| Support national × Financial prosperity | 0.904*** (0.0121) | 0.884*** (0.0170) | 0.917*** (0.0169) | | | |
| Support national × Financial prosperity | -0.0606*** (0.0178) | -0.0391 (0.0247) | -0.0770*** (0.0254) | | | |
| Support local | | | | 0.226*** (0.0557) | 0.388*** (0.0784) | 0.104 (0.0780) |
| Financial prosperity | | | | 0.907*** (0.0126) | 0.906*** (0.0177) | 0.907*** (0.0177) |
| Support local × Financial prosperity | | | | -0.0593*** (0.0179) | -0.0953*** (0.0251) | -0.0323 (0.0253) |
| R-squared | 0.030 | 0.036 | 0.027 | 0.030 | 0.037 | 0.027 |
| Number of pidp | 74,562 | 34,320 | 40,272 | 74,562 | 34,320 | 40,272 |
| Observations | 375,070 | 168,035 | 207,035 | 375,070 | 168,035 | 207,035 |

Notes: All specifications include auxiliary control variables (age, age squared, a dummy for ‘married’, a dummy for ‘divorced’, a dummy for ‘widowed’, the natural log of household size, the natural log of monthly household income, a dummy for home ownership, binary indicator of having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for ‘retired’, a dummy for ‘unemployed’, a set of education dummies for a degree, other higher education, A-level and GCSE level, government office region fixed effects and year fixed effects). ‘Financial prosperity’ is a continuous variable where higher values represent that one perceives themselves as more financially prosperous. Robust standard errors are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 5: National Seats and constituency shares

| Panel A | Life Satisfaction | | | GHQ12 | | |
|-----------------|-------------------------|-----------------------|------------------------|-----------------------|-----------------------|--------------------|
| | Overall | Male | Female | Overall | Male | Female |
| Number of seats | 0.00949*** (0.00325) | 0.00923* (0.00475) | 0.00985** (0.00443) | 0.0298*** (0.0110) | 0.0467*** (0.0153) | 0.0164 (0.0156) |
| R-squared | 0.011 | 0.013 | 0.010 | 0.009 | 0.013 | 0.008 |
| Number of pidp | 70,744 | 32,308 | 38,463 | 72,905 | 33,372 | 39,560 |
| Observations | 322,170 | 142,409 | 179,761 | 354,802 | 157,300 | 197,502 |
| Panel B | Life Satisfaction | | | GHQ12 | | |
| | Overall | Males | Females | Overall | Males | Females |
| Local share | 0.0623*** (0.0167) | 0.0456* (0.0246) | 0.0754*** (0.0226) | 0.231*** (0.0569) | 0.387*** (0.0798) | 0.110 (0.0799) |
| R-squared | 0.011 | 0.012 | 0.010 | 0.009 | 0.013 | 0.007 |
| Number of pidp | 72,408 | 33,267 | 39,171 | 74,579 | 34,328 | 40,281 |
| Observations | 341,817 | 152,833 | 188,984 | 375,318 | 168,141 | 207,177 |

Notes: All specifications include auxiliary control variables (age, age squared, a dummy for 'married', a dummy for 'divorced', a dummy for 'widowed', the natural log of household size, the natural log of monthly household income, a dummy for home ownership, binary indicator of having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for 'retired', a dummy for 'unemployed', a set of education dummies for a degree, other higher education, A-level and GCSE level, government office region fixed effects and year fixed effects). 'Number of seats' is defined as the standardised number of seats the individual's supported party won at the last election. 'Local share' is the share of total votes for an individual's supported party in their constituency. Robust standard errors are reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 6: Well-being and the size of the local win

| | GHQ12 | | | | | | | | | | | |
|----------------|---------------------|-------------------|--------------------|------------------|-------------------|------------------|---------------------|---------------------|------------------|------------------|------------------|------------------|
| | Life satisfaction | | | | | | GHQ12 | | | | | |
| | Wide | | | Tight | | | Wide | | | Tight | | |
| Overall | Male | Female | Overall | Male | Female | Overall | Male | Female | Overall | Male | Female | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| Support local | 0.021*** (0.007) | 0.018* (0.010) | 0.023** (0.010) | 0.001 (0.022) | -0.025 (0.032) | 0.020 (0.029) | 0.084*** (0.024) | 0.147*** (0.034) | 0.033 (0.034) | 0.017 (0.074) | 0.014 (0.102) | 0.025 (0.106) |
| R-squared | 0.010 | 0.012 | 0.010 | 0.013 | 0.013 | 0.017 | 0.009 | 0.013 | 0.010 | 0.017 | 0.010 | 0.010 |
| Number of pidp | 68,171 | 31,248 | 36,948 | 14,743 | 6,723 | 8,025 | 70,165 | 32,234 | 37,956 | 15,265 | 6,965 | 8,305 |
| Observations | 299,425 | 133,702 | 165,723 | 42,392 | 19,131 | 23,261 | 328,575 | 147,072 | 181,503 | 46,743 | 21,069 | 25,674 |

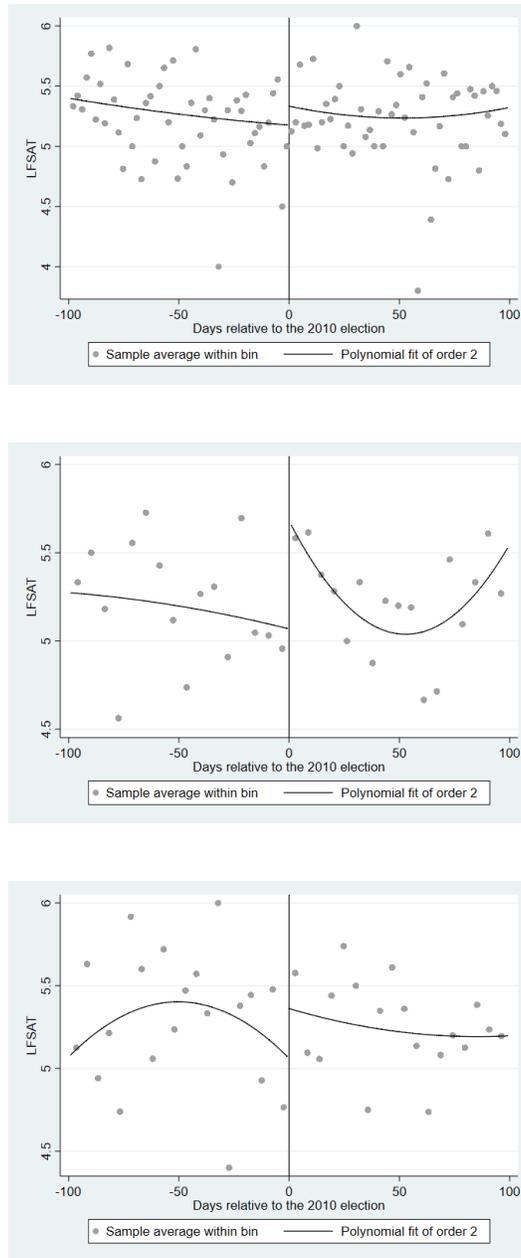
Notes: All specifications include auxiliary control variables (age, age squared, a dummy for 'married', a dummy for 'divorced', a dummy for 'widowed', the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a dummy for full-time employment, a dummy for part-time employment, a dummy for 'retired', a dummy for 'unemployed', a set of education dummies for a degree, A-level and GCSE attainment, government office region fixed effects and year fixed effects). 'Tight' is defined as 1 when the individual's constituency vote share was within 5 percentage points, otherwise the constituency is defined as 'Wide'. Robust standard errors are clustered by respondent and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 7: Instrumental variable approach

| Panel A: Full Sample | Life satisfaction | | | | | |
|-------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Overall | Males | Females | Overall | Males | Females |
| First stage: Parental Support | 0.329*** (0.005) | 0.326*** (0.007) | 0.332*** (0.007) | | | |
| Support Incumbent | 0.0719 (0.0563) | 0.0747 (0.0782) | 0.0624 (0.0813) | | | |
| First stage: Parental Support Local | | | | 0.334*** (0.005) | 0.326*** (0.007) | 0.342*** (0.007) |
| Support Incumbent Local | | | | 0.0950* (0.051) | 0.107 (0.073) | 0.0503 (0.073) |
| IV F-stat | 4215 | 2098 | 2106 | 4081 | 1977 | 2115 |
| Durbin-Hausman p-value | 0.846 | 0.844 | 0.634 | 0.888 | 0.460 | 0.315 |
| Observations | 28,544 | 14,942 | 13,602 | 28,544 | 14,942 | 13,602 |
| GHQ12 | | | | | | |
| First stage: Parental Support | 0.337*** (0.005) | 0.335*** (0.007) | 0.339*** (0.007) | | | |
| Support Incumbent | 0.0623 (0.211) | 0.407 (0.271) | -0.363 (0.323) | | | |
| First stage: Parental Support Local | | | | 0.342*** (0.005) | 0.334*** (0.007) | 0.351*** (0.007) |
| Support Incumbent Local | | | | 0.230 (0.192) | 0.452* (0.254) | 0.0466 (0.285) |
| IV F-stat | 4819 | 2440 | 2371 | 4674 | 2282 | 2410 |
| Durbin p-value | 0.330 | 0.260 | 0.0241 | 0.764 | 0.276 | 0.307 |
| Observations | 31,257 | 16,512 | 14,745 | 31,257 | 16,512 | 14,745 |
| Panel B: Understanding Society | | | | | | |
| | Life satisfaction | | | | | |
| | Overall | Males | Females | Overall | Males | Females |
| First stage: Parental Support | 0.310*** (0.006) | 0.307*** (0.009) | 0.313*** (0.009) | | | |
| Support Incumbent | 0.190** (0.079) | 0.247** (0.113) | 0.117 (0.112) | | | |
| First stage: Parental Support Local | | | | 0.328*** (0.006) | 0.316*** (0.009) | 0.341*** (0.009) |
| Support Incumbent Local | | | | 0.115* (0.066) | 0.113 (0.097) | 0.0918 (0.089) |
| IV F-stat | 2564 | 1243 | 1312 | 2738 | 1234 | 1508 |
| Durbin p-value | 0.282 | 0.219 | 0.831 | 0.835 | 0.655 | 0.662 |
| Observations | 20,044 | 10,138 | 9,906 | 20,044 | 10,138 | 9,906 |
| GHQ12 | | | | | | |
| First stage: Parental Support | 0.311*** (0.006) | 0.307*** (0.009) | 0.314*** (0.008) | | | |
| Support Incumbent | 0.438 (0.304) | 0.773* (0.401) | -0.0669 (0.453) | | | |
| First stage: Parental Support Local | | | | 0.328*** (0.006) | 0.316*** (0.009) | 0.340*** (0.009) |
| Support Incumbent Local | | | | 0.314 (0.253) | 0.505 (0.347) | 0.232 (0.363) |
| IV F-stat | 2579 | 1250 | 1322 | 2745 | 1240 | 1509 |
| Durbin p-value | 0.656 | 0.160 | 0.413 | 0.935 | 0.331 | 0.765 |
| Observations | 20,109 | 10,174 | 9,935 | 20,109 | 10,174 | 9,935 |

Notes: All specifications include auxiliary control variables (age, age squared, a dummy for 'married', a dummy for 'divorced', a dummy for 'widowed', the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a dummy for full-time employment, a dummy for part-time employment, a dummy for 'retired', a dummy for 'unemployed', a set of education dummies for a degree, A-level and GCSE attainment, government office region fixed effects and year fixed effects). IV F-stat is the F-test of excluded instruments. Robust standard errors are clustered by respondent and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Figure 7: The effect of being a Liberal Democrat supporter on well-being before and after the 2010 general election.



Notes: Panel A is for all individuals who identify as a Liberal Democrat supporter. Panel B is for individuals who identify strongly as a Lib. Dem. supporter and Panel C is for individuals who constantly vote for the Lib. Dem. party.

Table 8: The impact of a Liberal Democrat party win on well-being after the 2010 general election, RDiT estimates

| | All LD (1) | Strong LD (2) | Constant LD (3) |
|------------------------|------------------|-------------------|--------------------|
| days > 6th May 2010 | 0.277 (0.237) | 0.909* (0.477) | 1.128** (0.465) |
| Robust p-value | 0.273 | 0.07 | 0.01 |
| Bandwidth estimate (h) | 52 | 49 | 28 |
| Observations | 2,749 | 716 | 935 |

Notes: The dependent variable in all columns is LFSAT. RDiT estimates using a second-order polynomial with optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is the 2010 general election (6th May). Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 9: The impact of a Liberal Democrat party win on well-being after the 2010 general election, RDiT estimates: with control variables

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------|------------------|-------------------|--------------------|------------------|------------------|--------------------|
| | All LD | Strong LD | Constant LD | All LD | Strong LD | Constant LD |
| days > 6th May | 0.285 (0.235) | 0.883* (0.473) | 1.109** (0.467) | 0.265 (0.221) | 0.702 (0.440) | 0.968** (0.453) |
| GOR FEs? | Yes | Yes | Yes | Yes | Yes | Yes |
| Controls? | No | No | No | Yes | Yes | Yes |
| Robust p-value | 0.261 | 0.092 | 0.012 | 0.244 | 0.129 | 0.021 |
| Bandwidth estimate (h) | 52 | 48 | 28 | 52 | 51 | 28 |
| Observations | 2,749 | 716 | 935 | 2,749 | 716 | 935 |

Notes: The dependent variable in all columns is LFSAT. RDiT estimates using a second-order polynomial with optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is the 2010 general election (6th May). Columns (1)-(3) include only government office region fixed effects. Columns (4)-(6) introduces controls for age, age squared, log monthly income, employment status, in addition to government office region fixed effects. Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 10: The impact of a Liberal Democrat party win on well-being after the 2010 general election, RDiT estimates, robustness checks

| | All LD | | Strong LD | | Constant LD | |
|------------------------|------------------|------------------|--------------------|------------------|-------------------|--------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| days > 6th May 2010 | 0.229 (0.195) | 0.327 (0.373) | 0.800** (0.375) | 0.670 (0.620) | 0.614* (0.352) | 1.187** (0.485) |
| Robust p-value | 0.242 | 0.358 | 0.038 | 0.409 | 0.069 | 0.011 |
| Polynomial order (p) | 1 | 3 | 1 | 3 | 1 | 3 |
| Bandwidth estimate (h) | 35 | 41 | 37 | 51 | 25 | 45 |
| Observations | 2,749 | 2,749 | 716 | 716 | 935 | 935 |

Notes: The dependent variable in all columns is LFSAT. RDiT estimates using an optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is the 2010 general election (6th May). Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 11: RDiT placebo test

| | All LD (1) | Strong LD (2) | Constant LD (3) |
|------------------------|-------------------|------------------|--------------------|
| days > 6th May 2009 | -0.009 (0.675) | 2.434 (1.478) | -0.179 (1.214) |
| Robust p-value | 0.966 | 0.195 | 0.944 |
| Bandwidth estimate (h) | 40 | 36 | 35 |
| Observations | 829 | 155 | 396 |

Notes: The dependent variable in all columns is LFSAT. RDiT estimates using a second-order polynomial with optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is exactly 1 year prior to the 2010 general election on the 6th May i.e. 6th May 2009. Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 12: The impact of a Labour party loss on well-being after the 2010 general election, RDiT estimates

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|------------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|---------------------|---------------------|-------------------|
| | All Lab | Strong Lab | Constant Lab | All Lab | Strong Lab | Constant Lab | All Lab | Strong Lab | Constant Lab |
| days > 6th May 2010 | -0.154 (0.220) | -0.511 (0.345) | 0.0312 (0.235) | -0.501* (0.279) | -0.720* (0.409) | -0.229 (0.328) | -0.635** (0.315) | -0.872** (0.455) | -0.491 (0.397) |
| Robust p-value | 0.424 | 0.145 | 0.851 | 0.059 | 0.065 | 0.385 | 0.037 | 0.049 | 0.185 |
| Polynomial order (p) | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 |
| Bandwidth estimate (h) | 37 | 35 | 51 | 36 | 41 | 38 | 41 | 48 | 41 |
| Observations | 6,143 | 2,475 | 4,108 | 6,143 | 2,475 | 4,108 | 6,143 | 2,475 | 4,108 |

Notes: The dependent variable in all columns is LFSAT. RDiT estimates using a second-order polynomial with optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is the 2010 general election (6th May). Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 13: The impact of a Liberal Democrat party win on well-being after the 2010 general election, Donut RDiT estimates

| | All LD (1) | Strong LD (2) | Constant LD (3) |
|------------------------|------------------|------------------|--------------------|
| days > 12th May 2010 | 0.046 (0.317) | 0.872 (0.890) | 0.855* (0.499) |
| Robust p-value | 0.967 | 0.326 | 0.062 |
| Bandwidth estimate (h) | 56 | 42 | 29 |
| Observations | 2,640 | 681 | 908 |

Notes: The dependent variable in all columns is LFSAT. RDiT estimates using a second-order polynomial with optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is 6 days after the 2010 general election (12th May). The days between 6th and 11th May have been dropped. Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 14: The impact of a Liberal Democrat party win on well-being after the 2010 general election, dependent variable is GHQ12

| | (1) | (2) | (3) |
|------------------------|------------------|------------------|------------------|
| | All LD | Strong LD | Constant LD |
| days > 6th May 2010 | 0.775 (1.174) | 0.848 (2.223) | 1.790 (1.986) |
| Robust p-value | 0.419 | 0.550 | 0.246 |
| Bandwidth estimate (h) | 31.100 | 31.149 | 28.768 |
| Observations | 2,773 | 720 | 947 |

Notes: The dependent variable in all columns is GHQ. RDiT estimates using a second-order polynomial with optimal bandwidth (h) calculated as in Calonico et al. (2014). The running variable is time, measured in days, where the cut-off (0) is the 2010 general election (6th May). Robust standard errors are clustered by constituency and reported in parentheses; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table B1: Determinants of Well-being

| | Life Satisfaction | | | Pooled | GHQ12 | |
|---------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|
| | Pooled | Male | Female | | Male | Female |
| Age | -0.0142** (0.00699) | -0.00933 (0.0103) | -0.0186* (0.00952) | -0.122*** (0.0223) | -0.0924*** (0.0311) | -0.146*** (0.0315) |
| Age Squared | -4.93e-06 (0.00211) | -0.000580 (0.00312) | 0.000631 (0.00288) | 0.0781*** (0.00674) | 0.0888*** (0.00949) | 0.0717*** (0.00946) |
| Married | 0.129*** (0.0136) | 0.171*** (0.0210) | 0.102*** (0.0179) | 0.166*** (0.0473) | 0.303*** (0.0698) | 0.115* (0.0644) |
| Divorced | -0.125*** (0.0159) | -0.109*** (0.0237) | -0.134*** (0.0215) | -0.300*** (0.0553) | -0.266*** (0.0786) | -0.319*** (0.0771) |
| Widowed | -0.0972*** (0.0252) | -0.0504 (0.0432) | -0.122*** (0.0315) | -1.015*** (0.0853) | -0.582*** (0.139) | -1.194*** (0.110) |
| Household Size | -0.0300*** (0.00410) | -0.0223*** (0.00594) | -0.0348*** (0.00567) | -0.0448*** (0.0139) | -0.0365* (0.0191) | -0.0376* (0.0199) |
| Child Present | 0.0312*** (0.0102) | -0.00158 (0.0154) | 0.0466*** (0.0138) | 0.00798 (0.0346) | -0.260*** (0.0495) | 0.176*** (0.0483) |
| Ln(Monthly Income) | 0.0516*** (0.00555) | 0.0493*** (0.00817) | 0.0511*** (0.00757) | 0.141*** (0.0192) | 0.143*** (0.0269) | 0.124*** (0.0271) |
| Own Home | 0.00168 (0.0118) | -0.0161 (0.0171) | 0.0192 (0.0162) | -0.0411 (0.0400) | 0.00237 (0.0550) | -0.0713 (0.0570) |
| Employed | 0.0651*** (0.0102) | 0.180*** (0.0193) | 0.0213* (0.0122) | 0.844*** (0.0347) | 1.362*** (0.0629) | 0.681*** (0.0432) |
| Self Employed | 0.0949*** (0.0156) | 0.193*** (0.0240) | 0.0654*** (0.0229) | 0.980*** (0.0537) | 1.427*** (0.0780) | 0.889*** (0.0824) |
| Retired | 0.218*** (0.0140) | 0.317*** (0.0233) | 0.182*** (0.0181) | 1.143*** (0.0474) | 1.602*** (0.0758) | 0.997*** (0.0631) |
| Unemployed | -0.185*** (0.0144) | -0.149*** (0.0228) | -0.165*** (0.0195) | -0.786*** (0.0498) | -0.436*** (0.0741) | -0.842*** (0.0707) |
| Degree | -0.0951** (0.0459) | -0.160** (0.0677) | -0.0722 (0.0626) | -0.167 (0.150) | -0.357* (0.212) | -0.0980 (0.211) |
| Other Higher Degree | -0.0500 (0.0486) | -0.134* (0.0732) | -0.0120 (0.0653) | -0.00629 (0.160) | -0.253 (0.231) | 0.144 (0.221) |
| A-Level | 0.0495 (0.0418) | 0.0689 (0.0615) | 0.0313 (0.0571) | 0.402*** (0.135) | 0.457** (0.191) | 0.409** (0.190) |
| GCSE | 0.0120 (0.0405) | 0.105* (0.0604) | -0.0463 (0.0549) | 0.242* (0.132) | 0.298 (0.190) | 0.248 (0.183) |
| Other Qualification | -0.0169 (0.0352) | 0.0156 (0.0499) | -0.0467 (0.0494) | 0.0558 (0.116) | -0.0313 (0.157) | 0.148 (0.167) |
| Year Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| GOR Fixed Effect | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 341,817 | 152,833 | 188,984 | 375,318 | 168,141 | 207,177 |
| R-squared | 0.011 | 0.012 | 0.010 | 0.009 | 0.013 | 0.007 |
| Number of pidp | 72,408 | 33,267 | 39,171 | 74,579 | 34,328 | 40,281 |

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Appendix

Figure A1: Overall Life Satisfaction

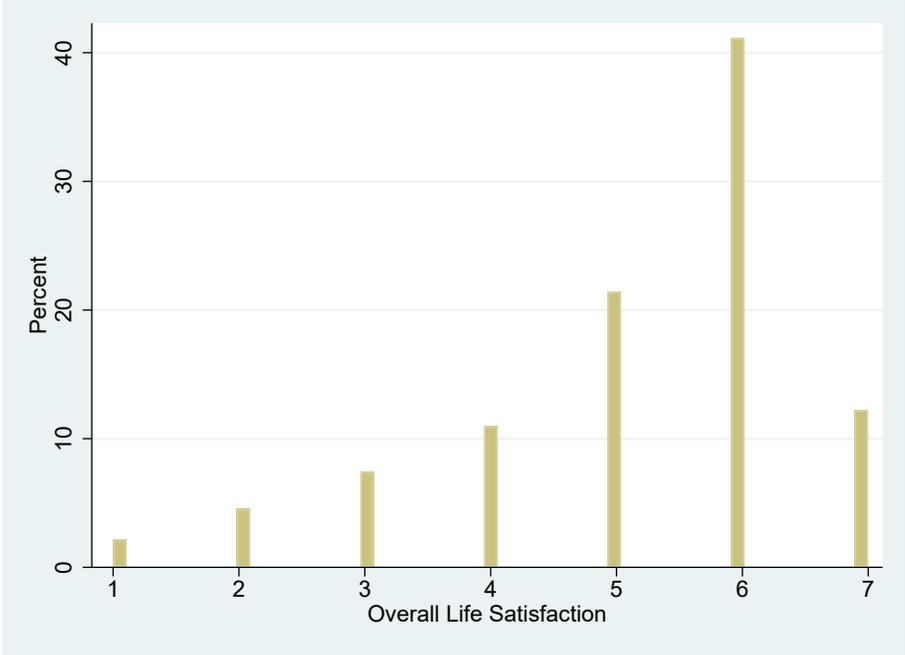


Figure A2: Psychological Well-being - GHQ12

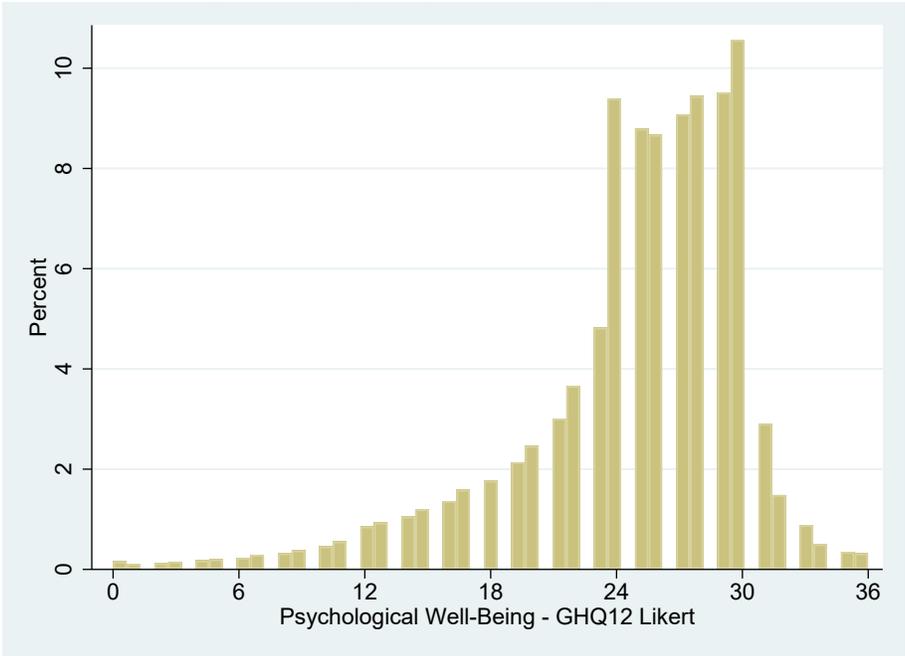


Figure A3: Marginal effects of supporting the incumbent at the national level over financial prosperity - Life satisfaction

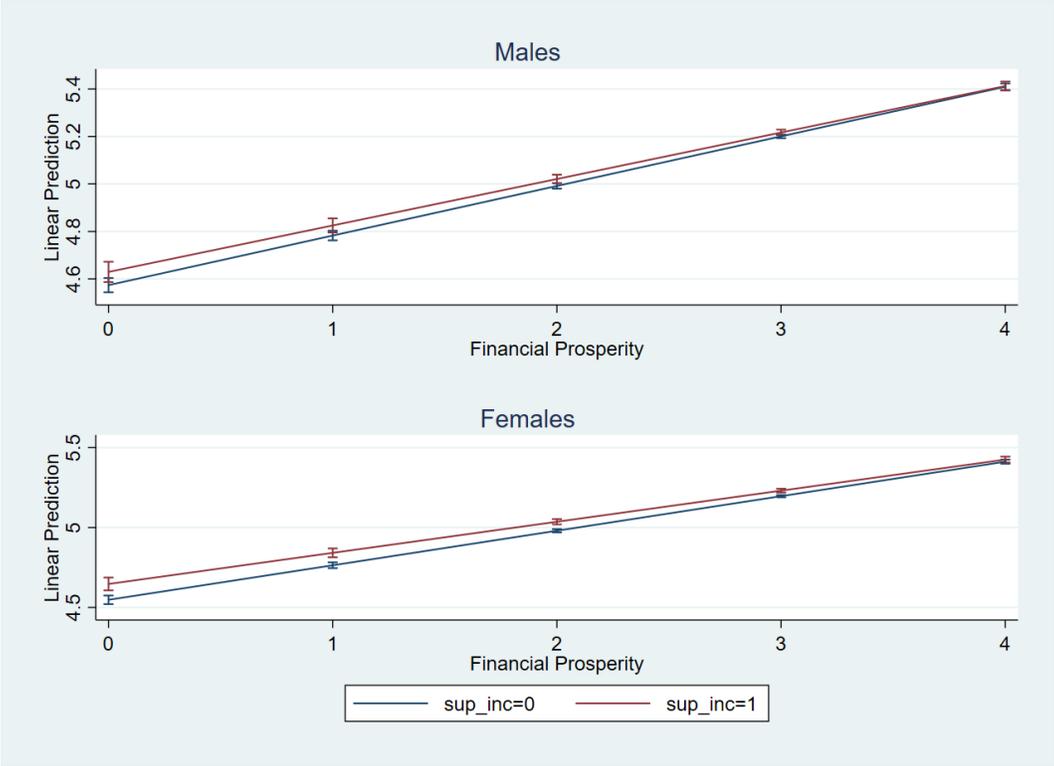


Figure A4: Marginal effects of supporting the incumbent at the constituency level over financial prosperity - Life satisfaction

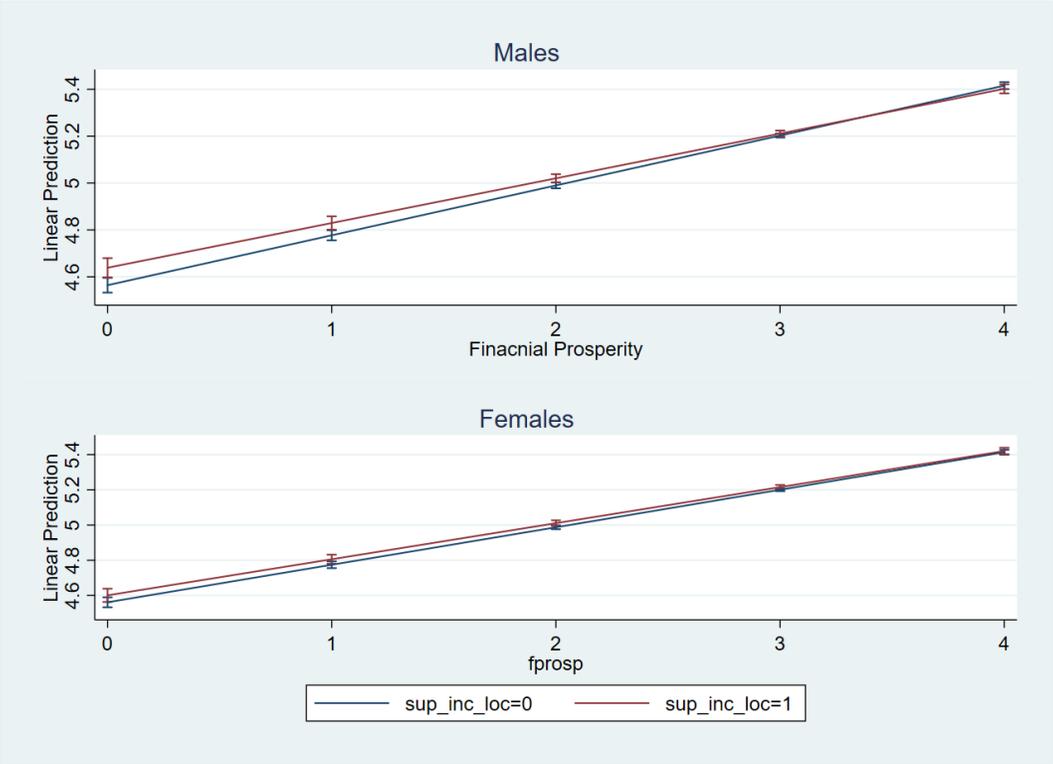


Figure A5: Marginal effects of supporting the incumbent at the national level over financial prosperity - GHQ12

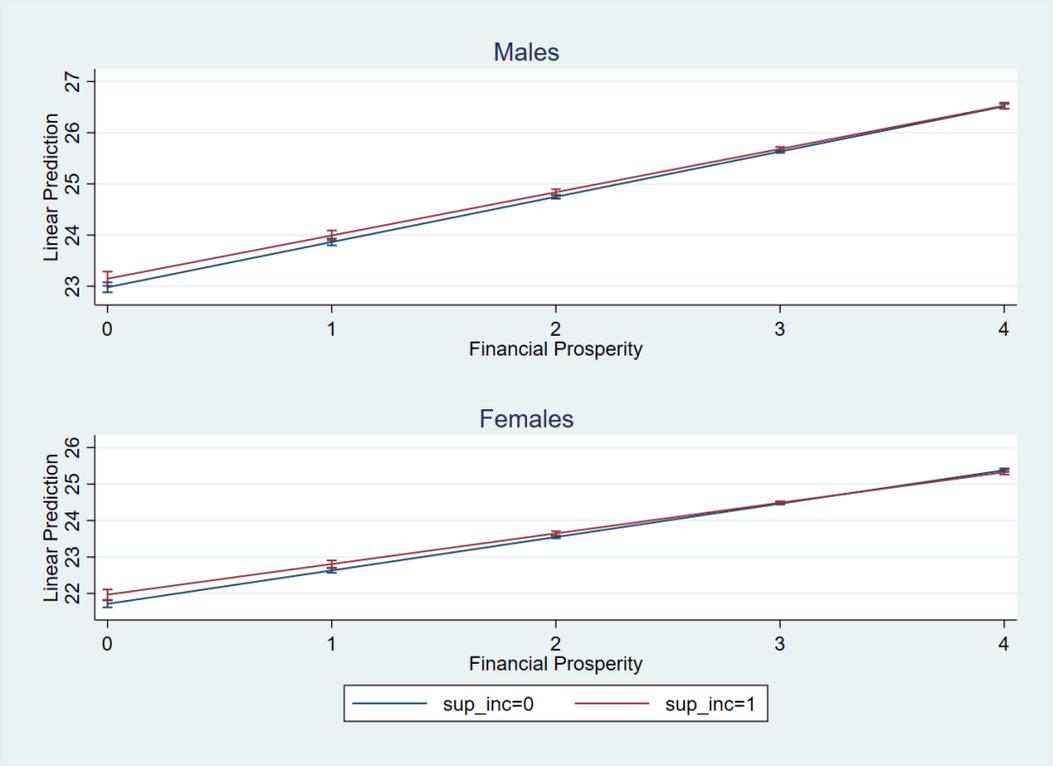


Figure A6: Marginal effects of supporting the incumbent at the constituency level over financial prosperity-GHQ12

