



## Does disability affect support for political parties?

Ralph Scott<sup>a,\*</sup>, Melanie Jones<sup>a,b,c</sup>

<sup>a</sup> Wales Institute of Social and Economic Research and Data, UK

<sup>b</sup> Cardiff Business School, Cardiff University, UK

<sup>c</sup> IZA, Bonn, Germany

### ARTICLE INFO

#### JEL classification:

I140

D720

#### Keywords:

Disability

Party support

Political identification

Panel data

Understanding society

### ABSTRACT

While it is well-established that disability reduces the probability of electoral turnout, far less is known about the relationship between disability and support for particular political parties. Using nationally representative longitudinal data from Understanding Society we explore the relationship between disability and party support in England and Wales along left-right and protest dimensions. Consistent with our hypotheses, analysis of cross-sectional data suggests that, after accounting for demographic characteristics, disabled people are significantly less likely to support parties to the right and more likely to support protest parties. In contrast, however, after accounting for time invariant individual unobserved heterogeneity using panel data methods, we find no evidence of a relationship between disability and left-right party support, and far less evidence of a relationship with protest parties. We discuss and attempt to reconcile these findings.

### 1. Introduction

The effect of disability on political attitudes and behaviour, and political party support in particular, remains a significant gap in knowledge in political science (Heffernan, 2024). This omission is important given the large number of disabled people globally – 16% of the world's population or 1.3 billion people (World Health Organisation, 2022). If disability influences party support, changes in the prevalence of disability and/or electoral participation by disabled people have the potential to influence election results. While a handful of recent studies have examined the influence of disability on left-right party support, predominantly in the US (see, Schur and Adya, 2013; Powell and Johnson, 2019), few (with the exception of Kavanagh et al., 2021) have considered other dimensions of party support, and none have done so using large scale, nationally representative longitudinal data which is able to control for unobserved individual heterogeneity.

This paper seeks to address this gap and provide a comprehensive analysis of the relationship between disability – defined as long-term, activity-limiting health conditions aligned to the 2010 UK Equality Act (2010)– and party support, through analysis of waves 1–7 of Understanding Society (2009–17), the UK Household Longitudinal Study (UKHLS). We consider support for political parties in England and Wales

along two dimensions, left-right and protest. These comprise both the primary axis of party competition during the period of analysis, as well as one of emerging importance (see Birch and Dennison, 2019).<sup>1</sup> We hypothesise that disabled people will be less likely to support right-wing parties due to a preference for greater redistribution and public spending than those without disabilities (Reher, 2022), and more likely to support protest parties akin to a form of dissatisfaction and political activism (Anspach, 1979). We test these relationships using statistical methods for both cross-sectional and panel data to explore the mechanisms through which such differences emerge, including considering transitions in disability as a significant life event that might change party support. We further address calls in the literature (Gastil, 2000; Powell and Johnson, 2019; Reher, 2022) to consider the influence of disability heterogeneity, specifically whether the relationships differ by the type, co-occurrence and chronicity of disability.

In cross-sectional analysis, we find that disabled people are less likely to support right-wing parties and more likely to support protest parties. This is the case after accounting for demographics (which may confound the relationship) but also economic resources, which are found to have a small mediating influence on left-right party support. In contrast, our panel estimates suggest no relationship between changes in disability and left-right party support and minimal evidence of a relationship

\* Corresponding author. SPAIS, University of Bristol, 11 Priory Road, Bristol, BS8 1TU, UK.

E-mail addresses: [ralph.scott@bristol.ac.uk](mailto:ralph.scott@bristol.ac.uk) (R. Scott), [JonesM116@cardiff.ac.uk](mailto:JonesM116@cardiff.ac.uk) (M. Jones).

<sup>1</sup> The UK is characterised by the dominance of two parties, with the key right-wing party (the Conservative party) succeeding a sustained period in power of the main left-wing party (the Labour Party) early in our analysis period (2010) and subsequently remaining in power.

between changes in disability and support for protest parties, suggesting that the observed disability gaps are largely attributable to either unobserved individual heterogeneity rather than disability *per se*, or more permanent disability acquired in childhood. Our findings therefore not only contribute new evidence to help better understand the role of disability but reinforce the differences between cross-sectional and panel estimates of party support (Langsæther, Evans, and O'Grady, 2022; O'Grady, 2019).

The remainder of the paper is structured as follows. Section 2 utilises the existing literature on disability, economic shocks and political attitudes and behaviour to develop our hypotheses on party support. In Section 3 we outline the Understanding Society data and the measures and statistical methods employed. In Section 4 and 5 we explore our findings in relation to disability-related gaps in support for left-right parties and protest parties respectively. Section 6 briefly concludes.

## 2. Background

### 2.1. Existing evidence

Despite major advances in the political and social rights of disabled people over the course of the twentieth and into the twenty-first century, the role of disability has been subject to limited scrutiny by political scientists (Heffernan, 2024). Indeed, while the discipline has recently sought to address this gap, Erkulwater (2022) records that between 1970 and 1989, five leading political science journals published only six articles on disability.

Studies have tended to investigate two main topics. The first is that of political representation of disabled people. This includes studies exploring descriptive (the extent to which disabled people are elected as representatives) or substantive representation (whether issues affecting disabled people gain political attention). Examples of these are studies which describe the extent of political under-representation of disabled people (Evans, 2016); in-depth qualitative interviews with disabled politicians to identify the barriers to elected office (Evans and Reher, 2022; Waltz and Schippers, 2021); analysis of party manifestos and media reports to understand how disabled people are accounted for (Evans, 2022); and conjoint survey experiments to determine voter perceptions of disabled electoral candidates (Reher, 2021).

A recent contribution in this vein is Reher (2022), which estimates the extent to which there is substantive representation of disabled people by investigating congruence between disabled voters and candidates, contrasting this with the issue positions of non-disabled people. Both disabled people and candidates in the UK are found to report being more left-wing and in favour of redistribution and public spending than non-disabled people, and these gaps in political preferences largely persist even within political parties.

Leading on from this, the second main topic aims to understand the political attitudes and behaviours of disabled people. In large part, this quantifies and explores the disability voting gap (DVG), or lower rates of turnout among disabled relative to non-disabled people. Studies that estimate the DVG in either the US (Schur et al., 2002; Schur and Adya, 2013; Schur and Kruse, 2000) or Europe (Clarke et al., 2006; Mattila and Papageorgiou, 2017; Reher, 2020; Teglbjærg et al., 2022), find gaps ranging from three per cent to twenty per cent, typically with larger gaps in the US. Interestingly, however, recent UK analysis by Brown and Jones (2023) questions the causal relationship between disability and turnout. The sizeable DVG evident after accounting for demographic characteristics is not evident when applying fixed effects estimators, suggesting a potential role for unobserved individual heterogeneity or life-long disability in driving voter participation.

Finally, and of most relevance to our study, a handful of studies look at differences in political attitudes and party identification by disability status. An early example is Gastil (2000), which analyses a small but representative sample of New Mexicans and finds that disabled people are more likely to identify with the Democratic party than the general

population, although they were not found to be more ideologically left-wing or socially liberal. Gastil (2000) attributes this lean towards parties of the left to greater support for public healthcare, assistance with employment and civil rights for disabled people, as well as partisan loyalty towards the Democratic party for prioritising these in their policy agenda. This could also translate to the UK context, as Evans (2022) finds that the Labour party makes more frequent and explicit policy offers to those with disabilities than the Conservatives, including producing a separate general election manifesto for disabled people in 2015, 2017 and 2019. On investigating this with a nationally representative US sample, however, Schur and Adya (2013) found no significant differences by disability in support for the Democrats or Republicans, with disabled people also placing themselves in a similar position to those without disabilities on a scale measuring political orientation (from liberal to conservative). Nevertheless, disabled people were significantly more supportive of traditionally left-wing policy positions, such as providing healthcare, public housing, supporting people into jobs and higher education, and regulating business more tightly. More recent analysis of the American National Election Studies by Powell and Johnson (2019) found a strong preference among disabled people for Obama and the Democrats in 2012, but this did not appear to consistently transfer to Hilary Clinton in 2016. In contrast, research looking at the 2015 General Election using data from the British Election Study Internet Panel (Reher, 2022) finds that relative to non-disabled people, disabled people identify themselves as more left-wing on average, as well as being more supportive of public spending, spending on healthcare, and redistribution.

While to our knowledge, no previous UK study has focused specifically on disability and party support, Bernardi (2021) considers a subgroup of those with psychological disabilities and finds people with depression (whether clinically diagnosed or self-rated) were less likely to support the Conservative party and more likely to support Labour than those without. Further, the international evidence on disability and party support has focused on disability gaps estimated using cross-sectional data. In contrast, looking at the distinct issue of self-reported health Rapeli et al. (2020) use longitudinal data from the British Household Panel Survey 1992–2005 and find a deterioration in health is positively related to support for the Labour party, while the opposite was true for support of the Conservatives, an outcome attributed to the Labour party's ownership of the issue of health in British political discourse. The existing literature has further focused almost exclusively on the left-right dimension of party support, despite the evidence from Schur and Adya (2013) that disabled people are more likely to support non-mainstream parties, something we develop below. It has also tended to rely on a global binary measure of disability. As Gastil (2000), Powell and Johnson (2019) and Reher (2022) recognise, this potentially disguises considerable heterogeneity among disabled people, for example, on the basis of impairment type, which we also explore.

### 2.2. Theoretical expectations

There are two broad schools of thought as to why people express support for a particular political party. The first relates to ideological proximity and at its base, self-interest. As formulated by Downs (1957), a voter uses the information available to them to determine which of the parties best serves their interests and rationally chooses to support them. Support for this theory is provided by evidence of ideological congruence between voters and parties (Dalton, 1985), whereby individuals tend to share similar positions on salient political issues with the parties they support. However, an alternative view emphasises the importance of the social psychology of partisan identification (Campbell et al., 1960) and affective polarisation (Green et al., 2004). In this formulation, support for a party represents a social group identity (Tajfel, 1982), which tends to make individual party support more persistent. Support for this theory comes from accounts indicating a lack of individual-level

ideological consistency or reliable knowledge of party positions (Achen and Bartels, 2016; Converse, 2006), necessary conditions for a choice-based theory of party support.

These established theories inform our expectations as to how disability might affect party support. For example, disabled people in Britain are on average less likely to be in work or attain higher levels of qualification (Jones et al., 2018), and disability onset has been found to lead to a reduction in income (Meyer and Mok, 2019). Rational self-interest would predict that these voters would therefore be more likely to support parties of the left, which tend to favour policies leading to higher levels of redistribution and public services. In general this is what previous research in the US (Gastil, 2000; Schur and Adya, 2013) and Britain (Reher, 2022) has found in terms of policy preferences. Indeed a review of the effects of personal economic shocks (Margalit, 2019), draws three main conclusions: firstly, that negative economic shocks are associated with an increase in left-wing political attitudes, e. g. support for welfare and redistribution (O'Grady, 2019), and positive shocks associated with increased propensity to vote Conservative, for example among lottery winners (Powdthavee and Oswald, 2014). Second, the evidence for such an effect on party support and vote choice is more mixed, perhaps due to deep-seated partisan identity or political values (Langsæther, Evans, and O'Grady, 2022; Margalit, 2013). And third, that negative economic shocks can also lead to support for populist parties (Dehdari, 2022). As such, the reduced economic circumstances that often result from acquiring a disability could mediate the relationship between disability and party support, something we explore in the analysis to come.

In addition, the finding regarding populist parties can also help us to develop a second hypothesis around preferences for we might call 'protest' parties, or more specifically, 'insurgent' protest parties (Alvarez et al., 2018), defined as anti-establishment parties which gather support in part due to their opposition to the current political mainstream. In relation to disability, using data from the European Social Survey (2002–2020), Kavanagh et al. (2021) find a disability gap in favour of right-wing populist parties, consistent with greater antiestablishment sentiment. The rationale can be further informed by Anspach's (1979) theory of the potential political responses of an individual with a disability and a positive self-concept. Writing in the context of the emergence of disability activist groups, Anspach suggests that in a political and social system that stigmatises disability, a disabled individual can either adopt a strategy of normalisation (minimising differences attributable to their disability) or of political activism, thereby challenging the political mainstream and prevailing societal values. In this way it is possible that those with disabilities might also choose to protest while voting, whereby they support anti-establishment parties as an expression of their dissatisfaction with mainstream parties.

However, returning to the alternative social identity perspective, support could also be explained by a party's descriptive representation, as the main British party of the left (the Labour party) has a superior record in terms of disability policy and representation than that of the right (Reher, 2022), which might lead to a degree of integration of these group identities. Thorp (2023) provides an innovative account of disability as a social identity, and its political consequences, demonstrating that (after accounting for demographics) those with more severe, visible and longer-standing disabilities are more likely to adopt a strong disabled group identity. In turn, those with a stronger disability group identity tend to be more supportive of redistribution and higher welfare payments, even when accounting for partisanship and left-right ideological self-placement.

As such, it may be that disability, particularly if recently acquired, has little influence on party support, if these identities are kept distinct and one's partisanship is deep set and strongly held. For this reason, it is essential to explore the impact of disability onset on party preferences. More broadly, acquiring a disability can be considered a life shock which influences party support. While some of this impact might be immediate, and therefore evident at disability onset, it might also accumulate over

time as the economic implications of disability become more pronounced (so called 'duration effects', see Meyer and Mok, 2019) and as individuals take time to identify socially and politically as disabled (Thorp, 2023). It is, however, important to consider whether disability exit can be considered in the same way, or whether the lived experience of disability gives rise to a permanent effect on disability identity and affiliation, leading to asymmetry in the effects of disability onset and exit on party support. While previous research has found either a small effect (Rapeli et al., 2021) or no effect (Brown and Jones, 2023) of disability onset on electoral turnout in Britain, there has been no investigation of the effect of transitions in disability on party support, making this a unique contribution of this study.

Building on these arguments we test the following four hypotheses:

**H1.** After adjusting for demographic factors, disabled people in England and Wales are more likely to support political parties of the left than those of the right compared to non-disabled people.

**H2.** After adjusting for demographic factors, disabled people in England and Wales are more likely to support protest parties versus the mainstream parties of Government compared to non-disabled people.

**H3.** Once we account for economic resources, the increased likelihood for disabled relative to non-disabled people to support both parties to the left and protest parties is reduced.

**H4.** Transitions in disability result in changes in party support in a similar direction to those observed cross-sectionally – an increased likelihood of support for left-wing and protest parties.

### 3. Data and method

#### 3.1. Understanding Society

Our analysis is based on data from Understanding Society (Institute for Social and Economic Research, 2022), a large, random probability, household panel study, which collects information on a range of individual and household characteristics, including politics. Given the focus on political party preferences, we restrict our analysis to the full adult sample (those aged over 18, excluding proxy responses), and to those resident in England and Wales, due to significant differences in the pattern of party competition in both Northern Ireland and Scotland during the period studied. Variation in the inclusion of the party support questions in later waves means we restrict the sample to survey waves 1 to 7, covering the years 2009–2017. We form an unbalanced panel of those who provide complete information on the variables of interest within a given wave. Cross-sectional weights are applied throughout the analysis to keep our cross-sectional and panel analysis comparable.<sup>2</sup> The analytic sample comprises 180,598 observations (178,939 of which are not zero-weighted) from 51,597 respondents, who report for an average of 3.5 waves each.

<sup>2</sup> In Section 4 and 5 we explore the sensitivity of our main findings to alternative samples and different approaches to weighting, including using longitudinal weights with a balanced panel.

### 3.1.1. Disability

The key independent variable in this analysis – disability – is measured in line with the 2010 Equality Act (UK Government, 2010), which focuses on long-term activity-limiting health conditions (including both physical and mental health), and is an established measure of disability in the UK (Office for National Statistics, 2019) and has been previously used to explore the DVG in Europe (Reher, 2020).<sup>3</sup> Applying this to Understanding Society, we define an individual as disabled based on their responses to two questions. First, individuals need to report a long-term health problem, defined as a positive response to: “Do you have any long-standing physical or mental impairment, illness or disability? By ‘long-standing’ I mean anything that has troubled you over a period of at least 12 months or that is likely to trouble you over a period of at least 12 months”. Individuals subsequently also need to report limitation in at least one activity of daily living (ADLs) defined as “any health problems or disabilities that mean you have substantial difficulties with any of the following areas of your life?“, with 12 options including hearing, sight, mobility and manual dexterity.<sup>4</sup> Those with no long-term health condition, or with a long-term condition but no difficulty in any of the mentioned ADLs, are coded as non-disabled. Based on this definition, disability is reported in 23.9% of observations (see Online Appendix Table A1).<sup>5</sup>

While we use the binary classification as our core measure of disability, we also explore heterogeneity in disability by type, co-occurrence and chronicity. We base our definitions on Brown and Jones (2023), whereby disability type is defined based on the respondent’s reported difficulties with ADLs, across four categories: physical, communication, mental and other (see the notes to Online Appendix Table A1 for definitions). Our measure of co-occurrence is coded based on the number of reported ADLs, where one ADL is distinguished from multiple ADLs. Chronicity measures the temporality of disability throughout the panel, conditional on reporting disability in the current wave, where temporary is distinguished from continuously reporting disability when observed in the panel. Online Appendix Table A1 presents descriptive statistics for these variables and indicate disabled people in the sample are more likely to have physical ADLs, multiple ADLs and temporary disability.

Online Appendix Table A3 presents further details of the dynamics of disability. While the vast majority (nearly 70%) of people remain non-disabled between two waves, there are a significant number of disability transitions in the data, with evidence of similar rates of disability exit and onset (7–8%). While not out of line with the previous

<sup>3</sup> There are, however, well-established limitations of using self-reported measures, particularly measurement error that will downward bias our estimates. The role of justification bias, whereby people use disability to justify inferior economic outcomes is perhaps less important in this context but might exaggerate the role of resources. In this context, reverse causality (whereby party support influences the likelihood of reporting a disability) is, however, possible. While we cannot rule this out completely, controlling for party support in the previous wave and therefore focusing on the relationship between disability and party support conditional on previous party support reduces, but does not eliminate, the cross-sectional relationship between disability and party support (see Sections 4 and 5).

<sup>4</sup> The full list is as follows: mobility, manual dexterity, continence, coordination or lifting, carrying or moving objects; communication, relating to hearing, sight, and communication or speech; mental, relating to memory, ability to concentrate, learn or understand, and recognising physical danger; and other, relating to personal care or any other health problem.

<sup>5</sup> Disability prevalence is fairly constant across the period considered here (see Online Appendix Table A2).

literature (see, for example, Brown and Jones, 2023) evidence of churn generates potential for concerns around measurement error (Jäckle and Pudney, 2015), which will downward bias our longitudinal estimates in particular.<sup>6</sup> We further note that we are constrained to observe disability onset and exit within the panel and have no information on disability before this point. As such, onset might not reflect the first disability experienced over the lifecycle, where we would expect the impact to be most pronounced.

### 3.1.2. Party support

We measure party support in two main ways which are derived from a combination of questions. First respondents are asked: “Generally speaking do you think of yourself as a supporter of any one political party?” Those answering *no* are then asked: “Do you think of yourself as a little closer to one political party than to the others?”. If the answer to either of these questions is *yes* they are asked which party this is.<sup>7</sup> Those who answer *no* to both of these questions are finally asked: “If there were to be a general election tomorrow, which political party do you think you would be most likely to support?”. The latter represents an alternative measure of party support, more along the lines of classic vote intention, where it is still possible to register no support for any party. Following the approach of the British Social Attitudes survey (Lee and Young, 2013), answers to these three questions are combined to generate our measure of party support. Online Appendix Table A4 provides an account of how each question contributes to the overall composition of our party support variable. This shows that disabled people were more likely to state their support for a party to the first question, which is perhaps surprising given evidence of a DVG. However, there is very little difference between the response rates to our overall measure by disability (73.0% and 72.6% for disabled and non-disabled people respectively).

In constructing our measure of left-right party support, we adopt the approach of Langsæther et al. (2022), where support for the Conservative party (the main party of the right) (coded 1) is distinguished from support for any other party (coded 0).<sup>8</sup> In creating a measure of ‘insurgent’ protest party support as defined by Alvarez et al. (2018) for the British electoral context at this time, we can take inspiration from Birch and Dennison (2019), who find that of those who said their 2015 General Election vote was primarily motivated by a desire to protest, the vast majority (over 95%) opted for UKIP, the Greens or other smaller parties. For this reason, those who expressed support for the Conservatives, Labour, Liberal Democrats or Plaid Cymru (coded 0) (as they all formed part of the UK or Welsh governments during the period under study), are distinguished from those who expressed support for the Greens, UKIP, the BNP and any other party (coded 1) – all of whom were relatively uncompetitive in General Elections during this period. Again

<sup>6</sup> Of those transitions where we observe disability status a year later 48% of onsets are for more than one year and 35% of exits last for more than one year. In Sections 4 and 5 we explore the sensitivity of our findings to alternatively using a two-period measure of disability (disabled in the current and previous wave) to address occasional misreporting.

<sup>7</sup> Table 1 provides a list of possible responses.

<sup>8</sup> This measure is, however, complicated by the emergence of UKIP over the period of study, which although not strictly an economically right-wing party, did attract support from social conservatives during this time (Ford and Goodwin, 2014). Sections 4 and 5 explore the sensitivity of our findings to alternatively coding support for UKIP as ‘right-wing’, as well as a straightforward comparison between support for the Conservative and Labour party. We further examine the influence of those reporting no party.

**Table 1**  
Party support by disability.

Political party	All		Disabled		Non-disabled	
	N	%	N	%	N	%
Conservatives	69,589	36.7	15,041	33.2	54,548	37.8
Labour	76,037	40.1	19,080	42.1	56,957	39.5
Liberal Democrats	20,356	10.7	4,663	10.3	15,692	10.9
Plaid Cymru	1,302	0.7	327	0.7	975	0.7
Greens	8,944	4.7	1,921	4.2	7,023	4.9
UKIP	7,363	3.9	2,383	5.3	4,980	3.5
BNP	553	0.3	153	0.3	400	0.3
Other	5,498	2.9	1,729	3.8	3,770	2.6
Left-right party support	69,589	36.7	15,041	33.2	54,548	37.8
Protest party support	22,359	11.8	6,187	13.7	16,172	11.2

Notes: The sample is restricted to adult respondents (aged 18 and older) in England and Wales in wave 1 to 7 of Understanding Society. Data are weighted by cross-sectional weights.

following Langsæther et al. (2022), those who did not express support for any party are coded as missing.<sup>9</sup>

By way of illustrating the construction of our two core measures of party support, Table 1 documents the support for each political party and presents the left-right and protest party support measures used in the analysis. It confirms the dominance of the two main political parties, who are the parties of choice for more than 75% of the sample, with the initial patterns by disability along expected lines – disabled people are less likely to support the right-wing party and are more likely to support protest parties. However, these descriptive statistics fail to account for composition effects, and we control for a range of covariates which capture other personal and household characteristics in the analysis which follows.

In a similar manner to disability, we present aggregate changes in our measures of party support over time in Online Appendix Table A6 and individual transitions in support in Online Appendix Table A7. Over the period, we observe a ‘U’ shaped relationship in support for the Conservative party and increasing support for protest parties (in line with prior polling findings, Kavanagh and Cowley, 2016, chapter 1). Despite arguments that party support is a largely permanent phenomenon, we find a sizeable number of transitions in both measures (around 5% of people change party support between waves and in roughly equal offsetting patterns on both left-right and protest dimensions).

### 3.1.3. Covariates

Our covariates are designed to address confounding, and test the hypotheses set out above. In relation to the former we control for demographic variables related to both disability and party support (Reher, 2020; Schur and Adya, 2013). Our specification controls for age (and age squared), sex, ethnicity and region of residence which are likely to be pre-determined. Age is measured in years, while sex and ethnicity are binary variables where male and white British are the reference categories respectively. Region is a 10-category variable based on Government Office Regions. In order to test the extent to which any effect of disability is mediated by economic resources (as hypothesized in H3), which are likely to be affected by disability, we include variables for

<sup>9</sup> In Section 4 and 5 we explore the robustness of our findings to alternative approaches, including coding those who reported supporting no party as both non-protest and protest respectively, and including Plaid Cymru within protest parties. Recognising the differences among the parties which form our protest party measure, we also considered each party separately. Estimates from a pooled multinomial logit model suggest that, when adjusting for demographics, disabled people are significantly more supportive of three of the four constituent parties of the protest measure (UKIP, Greens and other parties), the exception being the BNP (which constitutes only 0.3% of party support) (see Online Appendix Table A5).

employment status (distinguishing those employed (the reference category), unemployed, retired and other economically inactive), education (measured as no qualifications (reference category), any qualifications below degree-level, and degree level and above) and (logged) gross personal monthly income (from all sources including employment, benefits and investments).<sup>10</sup> Online Appendix Table A8 provides a full set of descriptive statistics for our covariates by disability. Consistent with previous evidence, disabled people are found to be on average older, more likely to be female, white British, retired or other economically inactive, have lower incomes and not hold a degree.

## 3.2. Method

### 3.2.1. Pooled cross-sectional analysis<sup>11</sup>

To quantify the relationship between disability and party support we initially estimate the following Ordinary Least Squares regression equation:<sup>12</sup>

$$P_{it} = \delta + \alpha D_{it} + Z_{it}\beta + X_{it}\gamma + \theta_t + \varepsilon_{it} \quad (1)$$

Here  $P_{it}$  represents the binary variables capturing left-right or protest party support for individual  $i$  in year  $t$ ,  $D_{it}$  indicates disability,  $Z_{it}$  is a vector of demographic characteristics set out above and  $X_{it}$  controls for economic resources. Our initial specification (model (1)) includes only a constant term ( $\delta$ ), set of month/year fixed effects  $\theta_t$ , and disability indicator, where the key parameter of interest,  $\alpha$ , measures the raw difference in party support by disability. Throughout standard errors are clustered by individual. We estimate several additional specifications, successively adding controls for demographic characteristics (model (2)) to explore whether any disability gaps relate to disability *per se* (H1, H2) and economic resources (model (3)) to capture the mediating channels of resources through which disability might operate (H3). The estimation of successively more comprehensive specifications facilitates a comparison of the disability coefficients across specifications, enabling us to explore their role in explaining disability gaps in party support and, to identify a residual influence of disability ( $\alpha$ ). The latter captures disability gaps that would exist among otherwise comparable individuals and is therefore useful in identifying unexplained channels through which disability might operate (for a similar approach see Brown and Jones, 2023).

To explore variation in party support among disabled people we replace the binary disability variable in equation (1) with our measures of heterogeneity introduced above, namely (i) (aggregated) ADL to capture disability type (ii) co-occurrence proxied by single and multiple ADL, and (iii) chronicity defined as continuous and temporary disability. For co-occurrence and chronicity non-disabled observations form the omitted base group. For disability type, in each case the absence of the specific ADL is the comparator.

### 3.2.2. Longitudinal analysis

While it is possible to establish the conditional association between disability and party support from cross-sectional analysis, this does not imply a causal relationship since unobserved individual traits might be correlated with disability and preferences for political parties. Building on recognition from Reher (2020) in relation to the DVG and Kavanagh et al. (2021) in relation to party support, we utilise the benefits of

<sup>10</sup> Those who reported negative income (less than 0.1% of the sample) are recoded as 0.

<sup>11</sup> We focus on the estimates from the pooled model to facilitate comparison with the longitudinal analysis, but the findings are consistent across time (available on request)

<sup>12</sup> This facilitates the inclusion of individual fixed effects. Coefficient estimates from our linear probability models (LPM) are very similar to the marginal effects from corresponding probit models which account for the binary nature of the dependent variable (see Sections 4 and 5).

longitudinal data to explore causality in this context. To do so, we estimate a model of party support similar to equation (1) but with the inclusion of individual fixed effects ( $\mu_i$ ) as follows:<sup>13</sup>

$$P_{it} = \delta + \alpha D_{it} + Z_{it}\beta + X_{it}\gamma + \mu_i + \theta_t + \varepsilon_{it} \quad (2)$$

As such our estimates of  $\alpha$  are identified from variation in disability *within* rather than between individuals, or transitions in disability status. In this respect, we test whether changes in disability relate to changes in party support (H4). Unobserved characteristics which are constant within individuals, including for example, personality traits or socio-economic background, are therefore accounted for. In this way, the estimated influence of disability represents a causal relationship under the assumption that all relevant individual characteristics are captured by time-invariant influences and the observable time-varying controls.

#### 4. Does disability affect left-right party support?

##### 4.1. Cross-sectional analysis

Table 2 presents the coefficient estimates from equations (1) and (2) for the binary measure of disability. We first consider our findings for left-right party support (Panel A), where we are testing H1 – that, conditional on demographic characteristics, those with disabilities are less likely to support parties of the right. Successively more comprehensive specifications of the pooled cross-sectional model are set out across columns (1)–(3).<sup>14</sup> After controlling for month/year fixed effects, disabled people are 4.6 percentage points (or 11.9%) less likely to support the Conservatives than other parties (column (1)).<sup>15</sup> Accounting for demographic characteristics as potential confounders strengthens the relationship between disability and supporting the Conservatives, with the gap widening to 9.4 percentage points (or 30.1%) (column (2)). We therefore find evidence in support of H1, disabled people express less support for right-wing parties than otherwise comparable non-disabled people. In column (3) we include covariates designed to test H3, that is our measures of economic resources, and explore whether these provide a mediating channel. While important in themselves (see Online Appendix Table A9, column (3)) there is only a small (but significant) mediating effect on the relationship between disability and left-right support.<sup>16</sup> We therefore find modest support for H3. In this respect, the relationship with disability does not predominately reflect economic resources and our results are consistent with alternative explanations, including greater support for left-wing policy positions among disabled people, such as spending on healthcare and welfare (Reher, 2022; Schur and Adya, 2013). To contextualise this, the residual 7.7 percentage point disability gap is sizeable, being of similar magnitude to the difference between graduates and those with no qualifications and about half the size of the gap between White British and voters of other ethnicities, consistent with it being an important factor in understanding party

<sup>13</sup> We exclude time invariant demographic characteristics (age, sex and ethnicity) in models (2) and (3).

<sup>14</sup> Online Appendix Table A9 presents a full set of coefficient estimates.

<sup>15</sup> Percentages are based on the difference in estimated marginal means (that is, the estimated percentages for disabled and non-disabled people, conditional on the model covariates), where the baseline is 38.5% of non-disabled people supporting the Conservatives in model (1) and 31.2% in model (2).

<sup>16</sup> The difference in disability coefficients between models (2) and (3) is  $-0.017$  (p-value of 0.013). We also performed causal mediation analysis for employment, income and education measures separately using the approach of Imai et al. (2010), which supports our findings of a small role for resources in mediating the influence of disability (results available on request). While we test the hypothesis that disability leads to a change in economic circumstances and then party support, it is also possible that poor economic circumstances leads to an increased risk of disability (particularly considering a likely shared confounder of childhood deprivation), and it is these that influence party support, and so we do not make strong claims about causal direction.

support.

##### 4.2. Longitudinal analysis

Turning to our panel estimates in Table 2, which include individual fixed effects, columns (4)–(6) similarly build up the model specification. Regardless of the specification, our results show no relationship between changes in disability status and left-right party support, with coefficient estimates near zero. We therefore find no support for H4. Disability transitions do not appear to act as a significant life event which impacts party support. In this respect the findings mirror Brown and Jones (2023) who find no relationship between disability and electoral turnout after accounting for individual fixed effects. There are several potential explanations for our findings. First, the above relationship between disability and left-right party-support might be spurious and reflect unobserved factors, which are accounted for by the individual fixed effects. Possible examples include early life experiences, particularly socio-economic background which might be related to disability and political preferences. Second, the cross-sectional relationship might be driven by permanent disability, which is omitted in our analysis of transitions. This would be consistent with socialisation theory whereby political preferences are largely set in early adulthood.<sup>17</sup> Third, the absence of a relationship may reflect measurement error in disability and/or that it takes time for disability transitions to change party support, perhaps through the accumulation of economic disadvantage or greater political identification with disability. Our findings are consistent with the absence of significant relationships for well-established cross-sectional drivers of party support, for example highest qualifications and employment status (see Online Appendix Table A9, column (6)), and align to previous work which shows that changes in class and economic circumstances do not significantly affect party support (Langsæther, Evans, and O'Grady, 2022; O'Grady, 2019).

##### 4.3. Sensitivity analysis

Table 3 explores the sensitivity of the estimates to the measurement of our two key variables, namely, disability and party support. For conciseness, we restrict our attention to model (2) which controls for demographic characteristics, but report further specifications in Online Appendix Table A10. Columns (1) and (2) relate to left-right party support, excluding and then including individual fixed effects respectively. In terms of disability measurement, we first use a two-period measure (Panel A) which excludes the most temporary disabilities that might be more likely to reflect measurement error and thereby focus on longer-term permanent disability anticipated to have a more pronounced effect. Confirming this, the disability gap in the pooled model is slightly larger, but our core findings remain unchanged. We further confirm that the absence of a relationship between disability transitions and changes in party support is not a reflection of asymmetry in terms of the influence of disability onset and exit (see Papageorgiou et al., 2019 for similar arguments in relation to health), since neither are related to party support in longitudinal analysis (Panel B). We similarly consider the robustness of our findings to the measurement of left-right party support. Our results change only marginally when we include UKIP in the definition of right (Panel C) or focus on the two-party Labour/Conservative distinction (Panel D). Overall, therefore our analysis provides reassurance that our findings are not sensitive to the measurement of disability or left-right party support.

Online Appendix Table A10 presents an extended set of sensitivity analysis. We first consider the sample and weighting, and demonstrate

<sup>17</sup> While the causal impact of lifelong disability cannot be identified in our analysis, there is no significant variation in the relationship between disability transitions and changes in party support by age (see Online Appendix Table A15).

**Table 2**  
Disability gaps in party support.

	Pooled cross-section estimates			Panel estimates		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Left-right</i>						
Disability	-0.046*** (0.005)	-0.094*** (0.005)	-0.077*** (0.005)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)
Demographics	No	Yes	Yes	No	Yes	Yes
Resources	No	No	Yes	No	No	Yes
Individual fixed effects	No	No	No	Yes	Yes	Yes
F-test	3	28	32	2392	2197	2084
Adj-R <sup>2</sup>	0.005	0.059	0.070	0.757	0.757	0.757
<i>Panel B: Protest</i>	(1)	(2)	(3)	(4)	(5)	(6)
Disability	0.025*** (0.003)	0.043*** (0.003)	0.037*** (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)
Demographics	No	Yes	Yes	No	Yes	Yes
Resources	No	No	Yes	No	No	Yes
Individual fixed effects	No	No	No	Yes	Yes	Yes
F-test	11	14	15	981	901	855
Adj-R <sup>2</sup>	0.021	0.030	0.034	0.525	0.526	0.526

Notes: The sample is restricted to adult respondents (aged 18 and older) in England and Wales in wave 1 to 7 of Understanding Society. The number of observations is 178,939 throughout. Data are weighted by cross-sectional weights. Estimates are from a LPM, with standard errors clustered at the individual-level in parenthesis. Significance levels: \* =  $p < 0.05$ , \*\* =  $p < 0.01$ , \*\*\* =  $p < 0.001$ . All F-tests statistically significant at the 0.001 level. The reference group is non-disabled people.

our findings are not sensitive to the use of cross-sectional weights (Panel A), using longitudinal weights on a balanced panel subsample (Panel B), estimating the model over an extended 12 wave period (Panel C), restricting the upper age of the sample to 65 (Panel D) and including Scotland (Panel E). We further ensure our key findings hold when a Labour government was in office (that is prior to the 2010 election) and do not therefore reflect anti-incumbent voting (Panel F). Our results are also robust to alternatively estimating the cross-section models using a probit model to account for the binary nature of the dependent variable (Panel G). We find similar results when using a lagged disability indicator (Panel H), which reduces the likelihood our results conceal a relationship whereby disability takes time to change party support, and when excluding individuals with a spell of disability observed prior to the first disability onset within the panel (Panel K) to better capture 'shock onset'. Our results also change only marginally when we define left-right to include no party support as left (Panel L). Finally, we consider the choice of specification. By way of addressing potential reverse causality, we include lagged party support (Panel O) as an explanatory variable.<sup>18</sup> As might be expected, this dampens but does not eliminate the relationship between disability and party support. Our findings with respect to the role of economic resources are also robust to the inclusion of more subjective measures (Panel P) which might better capture individual perceptions of financial wellbeing, including those that might reflect the additional costs of disability.

#### 4.4. Heterogeneity analysis

Table 4 is structured in the same way as Table 3 and presents the estimates for disability heterogeneity based on model (2).<sup>19</sup> Panel A shows variation by type, where there is a negative relationship between all disability types and right-wing party support (column (1)). We further find that those reporting physical disability are less supportive of right-wing parties than those reporting communication disability and other disabilities. Panel B shows differences by co-occurrence, with those with multiple ADL significantly less likely to support the right-

wing Conservatives. Again, however, neither of these patterns are evident after accounting for individual fixed effects (column (2)), providing no support for H4 and suggesting transitions in disability type and co-occurrence are unrelated to changes in party support. Finally, Panel C shows patterns by chronicity and, consistent with it being an explanation for the absence of a relationship between disability transitions and left-right support, those who continuously report disability are significantly less likely to support the political right than those with temporary disability. Overall, therefore, our hypothesis (H1) of lower right-wing party support holds regardless of the type and nature of disability.

## 5. Does disability affect support for protest parties?

### 5.1. Cross-sectional and longitudinal analysis

In this section we turn to the estimates in Table 2 (Panel B) which relate to the binary measure of disability and support for protest parties, thereby testing H2. The specifications are the same as in Section 4.<sup>20</sup> Before accounting for potential confounders, disabled people are on average 2.5 percentage points (21.2%) more likely to support protest parties (column (1)).<sup>21</sup> Controlling for demographics magnifies this relationship to 4.3 percentage points (46.9%), but as for left-right party support there is fairly modest mediation by economic resources (column (3)), and in this case it is statistically insignificant, with a residual disability gap of 3.7 percentage points (36.3%).<sup>22</sup> Our evidence therefore suggests strong support for H2, but no evidence of support for H3 relating to protest parties. The relative magnitude of the residual disability gap is substantial and suggests that disability *per se* gives rise to support for protest parties as a means of challenging the political mainstream (Alvarez et al., 2018). Interestingly given the dominance of attention on the left-right dimension of party support in the international literature, when compared to left-right party support the relative

<sup>20</sup> Online Appendix Table A12 presents a full set of coefficient estimates.

<sup>21</sup> As previously, percentages are based on the difference in estimated marginal means (the estimated percentages for disabled and non-disabled people, conditional on the model covariates), where the conditional baseline is 11.3% of non-disabled people supporting a protest party in model (1), 9.1% in model (2) and 10.2% in model (3).

<sup>22</sup> The difference in disability coefficients is -0.006 (p-value of 0.164).

<sup>18</sup> We do not estimate the specification with lagged disability and individual fixed effects due to Nickell bias (Nickell, 1981).

<sup>19</sup> Online Appendix Tables A11 and A14 present coefficient estimates across model specifications (1)–(3) for left-right and protest party support, respectively.

**Table 3**  
Disability gaps in party support, sensitivity analysis.

	Left-right		Protest	
	Pooled cross-section estimates	Panel estimates	Pooled cross-section estimates	Panel estimates
	(1)	(2)	(3)	(4)
<i>Panel A: Two-period disability</i>				
Disability	-0.111*** (0.006)	-0.001 (0.004)	0.048*** (0.004)	0.006 (0.004)
F-test	26	2240	12	916
Adj-R <sup>2</sup>	0.060	0.774	0.028	0.550
N	138,192		138,192	
<i>Panel B: Disability dynamics</i>				
Disability onset	-0.069*** (0.006)	-0.001 (0.004)	0.038*** (0.004)	0.003 (0.004)
Disability exit	-0.060*** (0.006)	0.001 (0.004)	0.035*** (0.004)	0.005 (0.004)
Two-period disability	-0.127*** (0.007)	-0.001 (0.005)	0.057*** (0.005)	0.009 (0.005)
F-test	27	2195	12	897
Adj-R <sup>2</sup>	0.062	0.774	0.029	0.550
N	138,192		138,192	
<i>Panel C: Including UKIP as right-wing</i>				
Disability	-0.077*** (0.005)	0.001 (0.003)	-	-
F-test	34	2000	-	-
Adj-R <sup>2</sup>	0.071	0.737	-	-
N	178,939			
<i>Panel D: Conservative/Labour</i>				
Disability	-0.097*** (0.006)	0.000 (0.002)	-	-
F-test	42	3918	-	-
Adj-R <sup>2</sup>	0.098	0.867	-	-
N	139,452			
<i>Panel E: Including Plaid Cymru as protest</i>				
Disability	-	-	0.042*** (0.003)	0.004 (0.003)
F-test	-	-	15	939
Adj-R <sup>2</sup>	-	-	0.032	0.538
N			178,939	

Notes: The sample is restricted to adult respondents (aged 18 and older) in England and Wales who responded to every wave from 1 to 7 of Understanding Society (unless otherwise stated). Data are weighted by cross-sectional weights (unless otherwise stated). Estimates are from a LPM (unless otherwise stated), with standard errors clustered at the individual-level in parenthesis. Specifications include demographic controls, specification 2 and 4 also include individual fixed effects. Controls for region and month x year fixed effects are also included but not reported. All F-tests statistically significant at the 0.001 level. Significance levels: \* = p < 0.05, \*\* = p < 0.01, \*\*\* = p < 0.001.

magnitudes of the disability-related gaps are larger for protest parties and support wider scrutiny of the relationship between disability and party support. Indeed, in relative terms the disability gap in protest party support is larger than the gender gap, comparable to that between graduates and those without qualifications, and only smaller than that for the gap between White British and other ethnic groups. In this respect, and consistent with Kavanagh et al. (2021), the findings signal particular dissatisfaction with traditional political parties among disabled people, aligned to evidence of a DVG. As with the left-right outcome, however, the panel estimates (columns (4)–(6)) do not indicate a relationship between disability transitions and changes in support for protest parties. Therefore, once again we find no support for H4.

### 5.2. Sensitivity analysis

We undertake the corresponding sensitivity analysis for protest party support in Table 3 (columns (3) and (4)) and Online Appendix Table A13. Focusing first on Table 3, we find no evidence of a

**Table 4**  
Disability heterogeneity and party support.

	Left-right		Protest	
	Pooled cross-section estimates	Panel estimates	Pooled cross-section estimates	Panel estimates
	(1)	(2)	(3)	(4)
<i>Panel A: Type</i>				
Physical	-0.064*** (0.005)	0.001 (0.003)	0.027*** (0.004)	0.003 (0.003)
Communication	-0.038*** (0.008)	-0.001 (0.004)	0.015** (0.005)	0.009* (0.004)
Mental	-0.048*** (0.008)	0.001 (0.004)	0.021*** (0.006)	-0.006 (0.005)
Other	-0.043*** (0.006)	-0.001 (0.003)	0.027*** (0.005)	0.002 (0.004)
Equality of coefficients	8.57*	0.36	3.97	4.95
F-test	28	2139	14	877
Adj-R <sup>2</sup>	0.059	0.757	0.030	0.526
<i>Panel B: Co-occurrence</i>				
Single ADL	-0.060*** (0.006)	-0.001 (0.003)	0.033*** (0.004)	0.003 (0.003)
Multiple ADL	-0.116*** (0.006)	-0.001 (0.003)	0.050*** (0.004)	0.007* (0.003)
Equality of coefficients	70.59***	0	12.57***	1.05
F-test	28	2177	14	893
Adj-R <sup>2</sup>	0.060	0.757	0.030	0.526
<i>Panel C: Chronicity</i>				
Temporary	-0.071*** (0.005)	-	0.036*** (0.003)	-
Continuous	-0.135*** (0.008)	-	0.056*** (0.006)	-
Equality of coefficients	49.41***	-	10.30**	-
F-test	28	-	14	-
Adj-R <sup>2</sup>	0.060	-	0.030	-

Notes: The sample is restricted to adult respondents (aged 18 and older) in England and Wales in wave 1 to 7 of Understanding Society. The number of observations is 178,939 throughout. Data are weighted by cross-sectional weights. Estimates are from a LPM, with standard errors clustered at the individual-level in parenthesis. All models include demographic controls, specifications (2) and (4) include individual fixed effects. Significance levels: \* = p < 0.05, \*\* = p < 0.01, \*\*\* = p < 0.001. All F-tests statistically significant at the 0.001 level. For co-occurrence and chronicity the reference group is non-disabled people, for each type the absence of the specific ADL is the comparator. We test for the equality of coefficients capturing heterogeneity using Wald Chi-squared tests.

relationship between disability transitions and support for protest parties using a two-period definition of disability (Panel A) or when separating disability onset and exit (Panel B). We similarly find the results are robust to an alternative definition of protest party support which includes Plaid Cymru (Panel E). Therefore, again there is no evidence that our findings reflect the specific measures utilised.

In Online Appendix Table A13 we show that our cross-sectional findings for protest party support are not sensitive to the use of cross-sectional weights (Panel A), using longitudinal weights on a balanced panel subsample (Panel B), estimating the model over an extended 12 wave period (Panel C), restricting the upper age of the sample to 65 (Panel D), including Scotland (Panel E), estimation using a probit model (Panel F) and to using a lagged measure of disability (Panel G) and when excluding individuals with a spell of disability observed prior to the first disability onset within the panel (Panel J). Our cross-sectional results change only slightly when including no party in the definition of non-



protest party (Panel K) or protest party (Panel L) or when subjective measures of economic resources are included in the specification (Panel O). As above, controlling for lagged party support (Panel N) dampens the relationships but leaves our main conclusions unaffected.

Our longitudinal results, however, are more sensitive. While the size of the coefficients are similar to our benchmark estimates, and consistently much smaller than those from the cross-sectional models, the relationship between transitions in disability and party support are significant (at the 95% confidence level) when the model is estimated on the unweighted sample (Panel A), among the sample restricted to less than age 65 (Panel D), including Scotland (Panel E), excluding individuals observed as disabled prior to their first disability onset (Panel J) and when those who did not state a party preference are included as non-protest (Panel K), the latter perhaps reflecting a relationship between disability and transitions from no party support to a protest party. We are therefore more cautious to conclude the absence of a longitudinal relationship and no evidence to support *H4* in this instance.

### 5.3. Heterogeneity analysis

In [Table 4](#) (columns (3) and (4)) the relationship between disability and supporting a protest party is broken down by disability type (Panel A), co-occurrence (Panel B) and chronicity (Panel C). After accounting for demographics, all four types of disability are positively associated with support for protest parties (column (3)) but there is no significant difference between disability types. Analysis by co-occurrence indicates a stronger relationship between supporting a protest party and multiple, relative to single, ADL. The same pattern is evident for chronicity, where those with continuous as opposed to temporary disability significantly more likely to support a protest party. In this respect our findings somewhat mirror left-right support, with evidence supporting *H2* regardless of the type and nature of disability. In relative terms, however, the differences by co-occurrence and chronicity of disability identified appear greater for left-right than protest party support.

Consistent with the previous analysis most of the coefficients are insignificantly different from zero after accounting for individual fixed effects in column (4). There are two exceptions to this: gaining a communication ADL or multiple ADLs increases support for a protest party, consistent with evidence of a causal relationship. While the effects are relatively small in magnitude (less than 1 percentage point (or about 7%)) they provide some evidence for a dynamic effect of disability on party support and suggest, consistent with the sensitivity analysis above, that this is more evident for protest than left-right party support.

## 6. Conclusion

Utilising nationally representative longitudinal data for England and Wales from 2009 to 2017 we explore the relationship between disability and support for political parties on both left-right and protest dimensions. In doing so, we extend the growing interest in, and evidence relating to, disability and political participation beyond electoral turnout and political representation. More specifically we provide the first comprehensive analysis of the relationship between disability and party support in the UK, which includes party support on left-right and protest dimensions, as well as the first estimates relating to disability heterogeneity and accounting for unobserved heterogeneity using panel estimation methods, to the international literature.

We hypothesise that, after accounting for demographic composition, disabled people will be more likely to support parties on the political left, partly reflecting economic disadvantage, but also due to differences in preferences for government policies relating to healthcare and redistribution. We further argue that disabled people will be more likely to support protest parties by way of political activism arising from marginalisation. Results from our analysis of pooled cross-sectional data support both hypotheses and confirm a small and partial mediating role of economic resources for left-right party support. In this respect,

disability-related differences in economic resources are not the key driver of the relationships we observe. Instead, in our most comprehensive models, which control for demographics and economic resources we find a sizeable residual disability gap, reflecting disability *per se*, or differences in party preferences between otherwise comparable disabled and non-disabled people, perhaps a reflection of party identity. Our findings are not just important for political parties in understanding the drivers of support but suggest that changes in disability prevalence, for example, because of an ageing population, and/or electoral participation among disabled people could affect election outcomes. In relative terms, after accounting for compositional effects, the disability gap is slightly larger for support for protest parties (46.9%) than the political right (30.1%), highlighting the importance of considering party support beyond the traditional left-right axis and potentially a concerning reflection of disabled people's dissatisfaction with traditional political options. In further analysis we show these patterns exhibit relatively limited variation by disability type but are exacerbated for those with multiple ADLs or chronic disability.

Since cross-sectional estimates reflect associations rather than causal relationships, we further explore the extent to which these relationships are evident after accounting for individual level unobserved heterogeneity using panel data methods. In contrast to our cross-sectional estimates, we find no evidence of a relationship between changes in disability and left-right support, that is, transitions in disability do not form a life shock which affects support for the Conservative party. We further do not find a general relationship between changes in disability and support for protest parties but one that exists in select specifications and for certain types of disability, namely communication and multiple ADLs. We suggest several potential alternative explanations for these results, including that the cross-sectional relationships are largely spurious and/or that the analysis of transitions neglects the causal relationship between more permanent lifelong disability and party support akin to the latter developing early in the life-course and persisting. Our evidence of stronger relationships between chronic disability and party support is consistent with the latter. Overall, however, we are unable to offer a conclusive explanation. Our results instead highlight how sensitive the findings in relation to disability and party support are to the choice of estimation method. This both reinforces the importance of longitudinal analysis and, suggests caution is required when interpreting findings based on cross-sectional data (see also [Brown and Jones, 2023](#); [Langsæther, Evans, and O'Grady, 2022](#); [O'Grady, 2019](#)). Nevertheless, given we are the among the first to account for unobserved individual heterogeneity in this context, it is important that future research explores the robustness and generalisability of these findings, particularly across countries and different political systems. It would also be valuable to consider the dynamic impact of disability in more detail, including in relation to chronicity of disability and the age of disability onset.

## Funding

This project is based on research supported by the Wales Institute of Social & Economic Research and Data (WISERD). WISERD is a collaborative venture between the Universities of Aberystwyth, Bangor, Cardiff, South Wales and Swansea. The research that this publication relates to was undertaken through WISERD Civil Society – Civic Stratification and Civil Repair Centre and was funded by the ESRC (grant number: ES/S012435/1).

## CRedit authorship contribution statement

**Ralph Scott:** Writing – review & editing, Writing – original draft, Software, Methodology, Formal analysis, Data curation, Conceptualization. **Melanie Jones:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Funding acquisition, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Acknowledgements

This work is based on data from Understanding Society, produced by the University of Essex Institute of Social and Economic Research and supplied by the UK Data Archive. These data are Crown Copyright and have been used by permission. The use of these data in this work does not imply the endorsement of the data collectors and providers in relation to the interpretation or analysis of the data. We are grateful to two anonymous referees and colleagues at the 2023 APSA annual meeting disability mini-conference and the 2023 EPOP conference for providing comments on an earlier draft.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.electstud.2024.102881>.

## Data availability

The data is available under licence from the UK Data Service at the following permanent link: <http://doi.org/10.5255/UKDA-Series-2000053>. Replication R code is available from Harvard Dataverse at: <https://doi.org/10.7910/DVN/TOCZF4>

## References

- Achen, C.H., Bartels, L.M., 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton University Press, Princeton.
- Alvarez, R.M., Kiewiet, D.R., Núñez, L., 2018. A taxonomy of protest voting. *Annu. Rev. Polit. Sci.* 21, 135–154.
- Anspach, R.R., 1979. From stigma to identity politics: political activism among the physically disabled and former mental patients. *Soc. Sci. Med. Med. Psychol. Med. Sociol.* 13, 765–773.
- Bernardi, L., 2021. Depression and political predispositions: almost blue? *Party Polit.* 27, 1132–1143.
- Birch, S., Dennison, J., 2019. How protest voters choose. *Party Polit.* 25, 110–125.
- Brown, S., Jones, M., 2023. Understanding the disability voting gap in the UK. *Elect. Stud.* 85, 102674.
- Campbell, A., et al., 1960. *The American Voter*. John Wiley, Hoboken, NJ.
- Clarke, H., et al., 2006. Taking the bloom off new labour's rose: party choice and voter turnout in Britain, 2005. *J. Elections, Public Opin. Parties* 16, 3–36.
- Converse, P.E., 2006. The nature of belief systems in mass publics (1964). *Crit. Rev.* 18, 1–74.
- Dalton, R.J., 1985. Political parties and political representation: party supporters and party elites in nine nations. *Comp. Polit. Stud.* 18, 267–299.
- Dehdari, S.H., 2022. Economic distress and support for radical right parties—evidence from Sweden. *Comp. Polit. Stud.* 55, 191–221.
- Downs, A., 1957. *An Economic Theory of Democracy*, first ed. Harper and Row, New York.
- Erkulwater, J., 2022. The puzzling place of disability in political science. Available from: <https://preprints.apsanet.org/engage/apsa/article-details/6319e6cb5351a3a673f32d88>. (Accessed 18 January 2023).
- Evans, E., 2016. Diversity matters: intersectionality and women's representation in the USA and UK. *Parliam. Aff.* 69, 569–585.
- Evans, E., 2022. Disability policy and UK political parties: absent, present or absent-present citizens? *Disabil. Soc.* 38, 1743–1762.
- Evans, E., Reher, S., 2022. Disability and political representation: analysing the obstacles to elected office in the UK. *Int. Polit. Sci. Rev.* 43, 697–712.
- Ford, R., Goodwin, M.J., 2014. *Revolt on the Right*. Routledge, Abingdon.
- Gastil, J., 2000. The political beliefs and orientations of people with disabilities. *Soc. Sci. Q.* 81, 588–603.
- Green, D., Palmquist, B., Schickler, E., 2004. *Partisan Hearts and Minds*. Yale University Press, New Haven.
- Heffernan, A.K., 2024. Disability in Political Science. *Annu. Rev. Political Sci.* 27, 317–335.
- Imai, K., Keele, L., Tingley, D., 2010. A general approach to causal mediation analysis. *Psychol. Methods* 15, 309–334.
- Institute for Social and Economic Research, 2022, 17th Edition. *Understanding Society: Waves 1-7*. [data collection]. <http://doi.org/10.5255/UKDA-SN-6614-18>.
- Jones, M.K., Davies, R., Drinkwater, S., 2018. The dynamics of disability and work in Britain. *Manch. Sch.* 86, 279–307.
- Kavanagh, D., Cowley, P., 2016. *The British General Election of 2015*. Palgrave Macmillan, Basingstoke.
- Kavanagh, N.M., Menon, A., Heinze, J.E., 2021. Does health vulnerability predict voting for right-wing populist parties in Europe? *Am. Polit. Sci. Rev.* 115, 1104–1109.
- Langsæther, P.E., Evans, G., O'Grady, T., 2022. Explaining the relationship between class position and political preferences: a long-term panel analysis of intra-generational class mobility. *Br. J. Polit. Sci.* 52, 958–967.
- Lee, L., Young, P., 2013. *British Social Attitudes 30: Politics*. NatGen, London.
- Margalit, Y., 2013. Explaining social policy preferences: evidence from the great recession. *Am. Polit. Sci. Rev.* 107, 80–103.
- Margalit, Y., 2019. Political responses to economic shocks. *Annu. Rev. Polit. Sci.* 22, 277–295.
- Mattila, M., Papageorgiou, A., 2017. Disability, perceived discrimination and political participation. *Int. Polit. Sci. Rev.* 38, 505–519.
- Meyer, B.D., Mok, W.K.C., 2019. Disability, earnings, income and consumption. *J. Publ. Econ.* 171, 51–69.
- Nickell, S., 1981. Biases in dynamic models with fixed effects. *Econometrica* 49, 1417–1426.
- Office for National Statistics, 2019. *Disability and employment*, UK. Available from: <http://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/disability/bulletins/disabilityandemploymentuk/2019>. (Accessed 8 February 2024).
- O'Grady, T., 2019. How do economic circumstances determine preferences? Evidence from long-run panel data. *Br. J. Polit. Sci.* 49, 1381–1406.
- Papageorgiou, A., Mattila, M., Rapeli, L., 2019. Does health affect party identification? Evidence from German panel data. *Representation* 55, 215–224.
- Powdhavee, N., Oswald, A.J., 2014. Does money make people right-wing and inequalitarian? A longitudinal study of lottery winners. *IZA Discussion Paper* 7934. Available from: <https://docs.iza.org/dp7934.pdf>. (Accessed 19 November 2024).
- Powell, S., Johnson, A.A., 2019. Patterns and mechanisms of political participation among people with disabilities. *J. Health Polit. Pol. Law* 44, 381–422.
- Rapeli, L., Mattila, M., Papageorgiou, A., 2020. Breaking a habit: the impact of health on turnout and party choice. *Party Polit.* 26, 133–142.
- Rapeli, L., Papageorgiou, A., Mattila, M., 2021. When life happens: the impact of life events on turnout. *Polit. Stud.* 71, 1243–1260.
- Reher, S., 2020. Mind this gap, too: political orientations of people with disabilities in Europe. *Polit. Behav.* 42, 791–818.
- Reher, S., 2021. How do voters perceive disabled candidates? *Frontiers in Political Science* 2, 634432.
- Reher, S., 2022. Do disabled candidates represent disabled citizens? *Br. J. Polit. Sci.* 52, 520–534.
- Schur, L., et al., 2002. Enabling democracy: disability and voter turnout. *Polit. Res. Q.* 55, 167–190.
- Schur, L., Adya, M., 2013. Sideline or mainstreamed? Political participation and attitudes of people with disabilities in the United States. *Soc. Sci. Q.* 94, 811–839.
- Schur, L., Kruse, D.L., 2000. What determines voter turnout?: lessons from citizens with disabilities. *Soc. Sci. Q.* 81, 571–587.
- Tajfel, H., 1982. Social psychology of intergroup relations. *Annu. Rev. Psychol.* 33, 1–39.
- Teglbjærg, J.H., et al., 2022. The disability gap in voter turnout and its association to the accessibility of election information in EU countries. *Disabil. Soc.* 37, 1342–1361.
- Thorp, J.R., 2023. *Body politic: disability and political cohesion*. Available from: [https://www.dropbox.com/s/8nra7isqjb4ostc/DisabilityID\\_JRT.pdf?e=1](https://www.dropbox.com/s/8nra7isqjb4ostc/DisabilityID_JRT.pdf?e=1). (Accessed 13 June 2024).
- Jäckle, A., Pudney, S., 2015. Survey response behaviour and the dynamics of self-reported health and disability: an experimental analysis. *Understanding Society working paper*. Available from: <https://www.understandingsociety.ac.uk/wp-content/uploads/working-papers/2015-05.pdf>. (Accessed 19 November 2024).
- UK Government (2010). Available from: <https://www.legislation.gov.uk/ukpga/2010/15/contents> (accessed 24 January 2023).
- Waltz, M., Schippers, A., 2021. Politically disabled: barriers and facilitating factors affecting people with disabilities in political life within the European union. *Disabil. Soc.* 36, 517–540.
- World Health Organisation, 2022. *Global report on health equity for persons with disabilities*. Available from: <https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/global-report-on-health-equity-for-persons-with-disabilities>. (Accessed 26 July 2023).