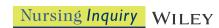
ORIGINAL ARTICLE



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From plaster casts to picket lines: Public support for industrial action in the National Health Service in England

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Abstract

This paper explores public sentiment towards strike action among healthcare workers, as a result of their perceived inadequate pay. By analysing survey data collected in England between 2022 and 2023, the study focuses on NHS nurses and junior doctors, due to their critical role in delivering essential public services. Results indicate higher public support for strikes by nurses and junior doctors compared to other professions such as postal workers, teachers, rail workers, airport workers, civil servants and university lecturers. However, variation in support for strikes by healthcare workers is observed across societal segments. Significant disparities in support are linked to individual political affiliations, left-right ideological positions and trust in the NHS. In short, nonconservative voters, individuals leaning towards left-wing politics and those with greater trust in the NHS demonstrate higher likelihoods of supporting strikes by health workers. These findings carry implications for future strike decisions and highlight specific target groups for enhanced communication efforts to garner increased public support.

KEYWORDS

junior doctors, National Health Service (NHS), nurses, public support, strikes, trust

1 | INTRODUCTION

In the first stages of the COVID-19 pandemic in 2020, healthcare workers in the National Health Service (NHS) were celebrated across the United Kingdom in a nationwide 'clap for the NHS campaign'. Yet one-and-a half years later, the NHS was experiencing large-scale strikes as nurses and junior doctors engaged in industrial action for increased pay. These strikes were seen as the most disruptive in the 75 years of the NHS (Baldwin, 2023). While this was not the first time that nurses in Britain went on strike, it was the first time in the more than 100 years of the NHS's existence that the Royal College of Nursing balloted its members for industrial action (Hayward & Fee, 1992). In March 2023, junior doctors also voted to engage in

strike action. Strikes among healthcare workers such as nurses and doctors represent a subject of particular concern in any country due to the vital role they play in delivering crucial public sector services (Toynbee et al., 2016). In the UK, the NHS holds a specific status in the minds of many people who show strong levels of support and trust in the NHS (Pickering et al., 2024; Stewart, 2023).

The decision by nurses and junior doctors to engage in strike action was not taken lightly. The two groups felt that they had no other options after the failure of negotiations on pay and working conditions (Baldwin, 2023). The Royal College of Nursing describes pay as being the key issue but also acknowledges the fact that in October 2022, there were more than 47,000 unfilled nursing roles within the NHS, with no sign that this would be remedied, as the

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number of student nurses was in decline (Clarke et al., 2023). For junior doctors, pay was also a key factor behind the strikes, as the BMA has found that a drop in real pay increases the likelihood of junior doctors leaving the profession (British Medical Association, 2023). It is also well-established that the NHS has been in a long-term funding and staffing crisis, as the Conservative governments since 2010 have spent less on the NHS than any previous government (Hoddinott, 2023). Strikes by the NHS also raise ethical and practical issues that go beyond those in other sectors. The ethical dilemma is particularly acute: healthcare providers are bound by a professional commitment to patient care, making the decision to strike a complex moral issue (Brecher, 1985; Essex, Ahmed, et al., 2023). Consequently, strikes by NHS staff are often structured to minimise patient risk. For example, emergency services are typically maintained during strike action, and some professionals volunteer to return to work in extreme circumstances to ensure patient safety. Recent research has established that strikes have a limited impact on patient morbidity (Essex, Milligan, et al., 2022: Essex, Weldon, et al., 2022).

Public opinion towards industrial action, in general, tends to be mixed, but there is some evidence that the public is generally more sympathetic towards striking healthcare workers (Dhai et al., 2011; Kelloway et al., 2008). The NHS enjoys a unique emotional and cultural status in the UK, and there is high respect for its healthcare professionals (Stewart, 2023). Yet the potential impact on patient care places considerable pressure on both the government and striking workers to resolve disputes swiftly (Essex & Weldon, 2022). The legal framework in the UK does allow healthcare workers to strike, but recent changes to employment legislation have made it more difficult. Specifically, the Strikes (Minimum Service Levels) Act 2023 has meant that healthcare is now considered an essential service, so employers can compel workers, nurses and doctors to maintain minimum staffing levels even when a lawfully conducted vote has confirmed the strike action (Zahn, 2023).

An important question to ask is whether support for striking NHS workers is consistent across society. Recent research suggests that there has been a strong focus on the economic consequences of strikes and less on political factors (Hertel-Fernandez et al., 2021). Other research has focused on social media responses to strike action and argues that focusing on public views towards strike action is important for developing a public communications strategy (Kalocsányiová et al., 2023). Building on this research, we examine public support for NHS strikes by using a survey with seven waves conducted in 2022 and 2023, with a total of 3839 respondents. We find that the support for NHS strikes is not uniform across all groups. Large differences exist based on people's political beliefs, their voting behaviour and the degree to which they trust the NHS. Our findings can help shed light on any future decisions to engage in strike action, as they will indicate the groups to which the striking professions might wish to focus their communications strategy if they want to increase levels of public support. This is important, as there is currently a lack of knowledge of how the public views strike action (Vesper & König, 2022).

2 | LITERATURE REVIEW

Given the importance of the public sector in modern welfare states, strikes by public sector workers tend to evoke a different set of reactions to those by workers in the private sector (Hall & Soskice, 2001; Jansson & Uba, 2023; Kelloway et al., 2008) As public sector workers often provide essential services such as healthcare, education and public transport, their decision to go on strike can have widespread societal ramifications, even if someone is not directly involved in the action. The primary motivating factors for strike action in the public sector are wages, working conditions and benefits. Workers aim through unions to exert pressure on their employers—in this case, the government—to produce more favourable terms of employment. However, the government, representing taxpayers, must also balance fiscal responsibilities, raising questions about the ethical factors involved in public sector strikes (Jansson & Uha, 2023).

The dynamics of public opinion are also different. While strikes by private sector workers might be seen as a dispute between employees and a corporate entity, public sector strikes often engage the broader public in a more direct manner (Szabó, 2022). Taxpayers, who effectively 'fund' public sector wages, may have divided opinions on the legitimacy of such strikes (Kelloway et al., 2008). Public opinion can thus play a significant role in shaping the outcome of proposed strikes, either forcing the government into negotiations or prompting legal interventions to halt the strike action.

In addition, there are other issues which can complicate strike action among healthcare workers. Nurses, in particular, are seen as having a high degree of professionalism coupled with a strong commitment to service (Briskin, 2013; Essex, Burns, et al., 2023). But at the same time, they have been regarded as a passive workforce, subordinated by gender and medical hierarchies (McKeown, 2009).

The relationship between labour conflicts, especially strikes, and left-wing politics is rich and multifaceted, deeply rooted in the history and theories of labour movements (Hall & Soskice, 2001). Left-wing politics have traditionally aligned with workers' rights, advocating for better wages, working conditions and benefits for labourers. Strikes often serve as pivotal moments of political and social activism for trade unions and to some extent political parties. It should be noted, however, that the decreasing size of trade unions in the UK (in 2014, there were just over six million members) leads to questions about the effectiveness of trade unionism (Hodder et al., 2017). Nevertheless, there is little doubt that unions and labour action provide a platform for highlighting inequalities in the labour market and advocating for systemic change (Dorigatti & Pedersini, 2021). The political backing of left-wing groups can lend additional weight and legitimacy to industrial action, making strikes more than just an employment issue but a broader social and political phenomenon. In some cases, left-wing political parties may incorporate demands made during strikes into their policy platforms, using the momentum to push for legislative change (Dias, 2021).

However, this relationship is not without its complexities. While left-wing politics generally supports labour rights, the extent and

manner of this support can vary significantly. For instance, more moderate social democrats may seek to act as mediators, urging both sides to find compromise through dialogue and negotiation. On the other hand, more radical left-wing elements might see strikes as part of a larger struggle against capitalism and may push for more confrontational and disruptive actions (Broeze, 1991; Pilati & Perra, 2020). Moreover, the role of trades unions, often significant actors in labour conflicts, can complicate this relationship. Unions may have affiliations with left-wing parties but also possess their own set of interests and priorities that may not always align perfectly with a broader political agenda (Otjes & Green-Pedersen, 2021). This divergence can lead to tensions, particularly if a left-wing party in power is forced to make decisions that are unpopular with unions or the working class (Lisi, 2022). The dynamics also shift depending on the cultural and political context of a country. In places where leftwing parties are more marginalised, strikes may serve as one of the few available avenues for workers to express their grievances and push for change. In contrast, in countries with strong left-wing representation, strikes may be integrated into a broader strategy that includes legislative initiatives and public campaigns (Voncken & Otjes, 2023). There is a natural affinity between labour conflicts, such as strikes, and left-wing politics, although the relationship is complex and shaped by various ideological, historical and contextual factors. Strikes are both influenced by and have an impact on left-wing political agendas, serving as critical events that can galvanise support, shape policies and redefine political narratives.

2.1 Strikes and public opinion

The relationship between public opinion and strike action, particularly in the public sector, is complex and dynamic (Kane & Newman, 2019; Kelloway et al., 2008). Public opinion serves as both a barometer and a driver of the political climate in which strikes occur, and can significantly influence the strategies adopted by both workers and employers (Kalocsányiová et al., 2023). In the context of public sector strikes, the role of public opinion is especially important due to the public's direct stake in the services being disrupted (Kelloway et al., 2008). For example, when healthcare workers go on strike, the quality of essential services is affected, and this has immediate implications for the general public (Hertel-Fernandez et al., 2021). In such cases, the public, who are also the consumers of these services, effectively become a third party in the dispute, and their perception can shape the narrative surrounding the strike.

Public opinion can lend legitimacy to strike action (Vesper & König, 2022). A strike is often seen as a last resort, an action taken when negotiations have failed. If the public perceives that workers are striking for just reasons-such as demanding fair wages, protesting unsafe conditions or advocating for better quality of services-this can translate into social and political pressure on the employer to negotiate in good faith (Jansson & Uba, 2023). This can have significant effects: in the United States, a positive effect has been found of strikes on mass attitudes towards organised labour up

to a year after the strikes occurred (Hertel-Fernandez et al., 2021). Supportive public opinion can manifest in various ways, from social media campaigns and public protests to direct political lobbying, thus amplifying the workers' cause (Kalocsányiová et al., 2023; Orazani et al., 2021; Vesper & König, 2022). Conversely, if the public perceives the strike as unjustified, disruptive or damaging to the community, this can weaken the workers' bargaining position (Kelloway et al., 2008). Negative public opinion may embolden employers to take a more aggressive stance, knowing they have the backing of public sentiment (Orazani et al., 2021). In extreme cases, sustained public outcry against strike action can even lead to legal interventions to curtail or halt the strike, especially if it is perceived as putting lives at risk or causing undue hardship to communities.

The media plays a crucial role in shaping public opinion during strikes. The framing of issues, the voices amplified and the stories told can paint the strike action in a particular light, either engendering public support or opposition (Naughton, 2022). It is not uncommon for both sides in a dispute to engage in public relations campaigns to win the 'hearts and minds' of the public, recognising the leverage that public opinion can bring to the bargaining table (Kalocsányiová et al., 2023). Moreover, the influence of public opinion varies depending on the political context. In more democratic societies, where public opinion can directly affect political decisions through electoral consequences, strikes can become highly politicised events (Johnston et al., 2022). In contrast, in less democratic settings, the influence of public opinion may be mediated through different channels, such as social unrest or the involvement of civil society organisations (Della Porta, 2020). Thus, public opinion is not merely a backdrop against which strike action occurs. It is an active force that can shape the strategies, outcomes and even the legality of such actions (Orazani et al., 2021). Given its power to validate or delegitimise industrial action, public opinion remains a critical factor deserving of close scrutiny in any comprehensive analysis of strikes, especially in the public sector.

Strikes by healthcare workers

Strikes by healthcare workers such as nurses and doctors are especially contentious given the essential and often life-saving nature of the services being provided (Essex & Weldon, 2022; Park & Murray, 2014). However, such strikes are becoming increasingly common (Essex, Milligan, et al., 2022; Li & Ng, 2022). When healthcare professionals go on strike, the moral, ethical and social implications are heightened, given the key societal role these professions play. When firefighters take strike action, governments often replace them with members of the armed forces. This is not possible when nurses and junior doctors strike. Due to the highly trained skillset of healthcare providers, it is very difficult to substitute those taking strike action. This compels governments to make a careful balancing act between workers' rights and public health imperatives (Dworkin, 1977; Kalocsányiová et al., Widgery, 1976). First, the motivations for strikes in the healthcare

sector often parallel those in other public sectors: inadequate pay, long working hours, poor working conditions and issues surrounding professional autonomy (Essex, Ahmed, et al., 2023). Given that healthcare is a high-stress environment where mistakes can be fatal, demands for better conditions and remuneration are not merely about personal gain but are also tied to the quality of patient care (Szabó, 2022). Striking healthcare workers frequently argue that better working conditions would lead to improved patient outcomes (Essex & Weldon, 2022).

Despite these reasons, the decision to go on strike is never straightforward for healthcare professionals (Park & Murray, 2014). They often face a moral dilemma, balancing their ethical obligation to provide care against the need to advocate for better working conditions that, in the long term, could benefit both staff and patients (Essex, Ahmed, et al., 2023; Galanti, 2022). To mitigate the impact on patient care, 'minimum service agreements' are sometimes put in place during strikes, although they are voluntary and not related to the minimum service levels that employers can now request after the recent update to UK employment law. These agreements ensure that emergency cases and critical services are still covered, but this is not a comprehensive solution and often puts additional strain on those who remain on duty. Furthermore, they might not be entirely effective (Gruber & Kleiner, 2012). The potential effect of strike action on patients has been reported to have a marginal effect on morbidity: this was most recently confirmed in a systematic review (Essex, Milligan, et al., 2022). It must be noted, though, that there are studies reporting some negative health consequences (Kofoed et al., 2009; Njugun, 2018; Prinsley, 1971). Recent research has found a worrying relationship with ethnicity: the 2016 UK junior doctors' strikes were found to have strong negative effects on black patients (Stoye & Warner, 2023).

Public opinion plays a pivotal role in the dynamics of healthcare strikes. On the one hand, there is generally a high degree of public sympathy for healthcare workers, given the emotional and physical toll their jobs can take (Essex, 2023). On the other hand, the public also has a vested interest in uninterrupted healthcare services. Therefore, striking healthcare workers can both receive substantial public support and be subject to intense scrutiny and criticism (Kalocsányiová et al., 2023; Vesper & König, 2022). Legal frameworks also add complexity to strike action in healthcare. Many jurisdictions have specific laws or regulations that limit or regulate the ability of healthcare workers to strike, especially when patient safety is at risk (Stoye & Warner, 2023). In some cases, mandatory arbitration or other dispute resolution mechanisms may be required by law to avoid reaching the point of strike action.

Moreover, the structure of healthcare systems varies by country, affecting how strikes are organised and their resulting impact (Szabó, 2022). For example, in countries with a nationalised healthcare system, the government is the direct employer, and strikes can be seen as political actions aimed at influencing government policy. In contrast, in countries where healthcare is privatised, strikes may be aimed at individual employers or corporations, somewhat limiting their scope and impact (Immergut, 1992).

Thus, the impact of strike action might not be viewed uniformly; there are different perspectives among the public with regard to strike action by healthcare workers (Dhai et al., 2011).

3 | DATA AND METHODOLOGY

The data used in this survey come from a series of survey waves collected by YouGov. The survey is based on respondents in England with an age range of 18–91. Our nursing strikes sample was based on 7 monthly waves of data: December 2022 to May 2023, plus an additional wave in October 2023. The junior doctors' data were captured in four waves: March to May 2023, plus October 2023. These dates cover the periods when the nurses' and junior doctors' strikes occurred (nurses' strikes occurred on 15 and 20 December 2022, 18 January 2023, 6 and 7 February 2023 and 1 May 2023; junior doctors were on strike on 13–15 March 2023 and 11–14 April 2023). The total number of respondents included is 3839 for the nurses' strikes and 2198 for the junior doctors' strikes.

Our dependent variable for both nurses and junior doctors asks how much the respondent supports or opposes the particular group in their strike action. The questions are measured on a seven-point scale where one indicates 'strongly support' and seven indicates 'strongly oppose'. For ease of interpretation, we have reversed the scale for our analysis, so that moving forward a high score indicates strong support for strikes and a low score means less support for strikes.

We include a number of independent variables in our analysis, all collected in the same survey waves. We can group these variables into two groups: one for socioeconomic status and a second group focused on political and trust variables. Our socioeconomic variables include age, as well as age squared, as there might be a nonlinear relationship. We include a variable on whether the respondent is female or male, whether they have completed university education, whether they work in the public sector, whether they report their own health as being poor, whether they are registered as having a disability and whether they belong to an ethnic group. Apart from age, these variables all take a binary expression. For the political and trust variables, we include a variable where the respondent reports their position on a left-right scale from 0 to 10, whether they voted for the Conservative party at the 2019 General Election, and how much they trust the NHS in general on a scale from 1 (not at all) to 7 (completely).

4 | RESULTS

We present the descriptive statistics for both the dependent and independent variables in Table ${\bf 1}.$

In Table 1, all of our respondent data have been converted to percentages, except for age. As has been mentioned, data for nursing strikes were captured in more waves than for junior doctors. This is reflected in the lower N for junior doctors than nurses in Table 1.

Looking at respondent levels of support for strikes, we find that there is less support for junior doctors striking than there is for nurses. However, as will be seen later, in all the striking groups we examined, nurses and junior doctors always received the first and second highest levels of support.

TABLE 1 Descriptive statistics.

Respondents	Nurses	Junior doctors	
Support for strikes (%)	63.06	55.55	
Mean age	50.42	50.1	
Men (%)	45.04	45.5	
Women (%)	54.96	54.5	
In good health (%)	60.61	61.87	
Disabled (%)	29.76	28.96	
Ethnic minority (%)	14.46	14.65	
Left wing (%)	33.49	33.46	
Middle (%)	35.62	36.03	
Right wing (%)	30.88	30.51	
Voted Conservative 2019 (%)	46.4	46.68	
Voted Labour 2019 (%)	33	32.75	
Voted Liberal Democrat 2019 (%)	11.97	11.77	
Trust the NHS (%)	67.65	66.7	
N	3839	2198	

The mean age of our respondents is about 50, and there is a slight over-representation of female respondents. In all of our other demographic variables, however, our survey data are much more representative of England as a whole. At the 2011 census, approximately 14% of English people were recorded as belonging to an ethnic minority, which is in line with our survey. Our party voting distribution is also closely aligned with the percentages for England at the 2019 general election, which were 47% Conservative, 32% Labour and 13% Liberal Democrat. Our left-wing/right-wing variable splits our respondents into three broadly equal groups, with about a third left wing, a third right wing, and a third finding themselves in the middle. The rate of our disabled respondents is a little higher than the national figure of approximately 22%. Disability figures vary significantly depending on methodology; in our case, we are including all respondents who reported that health or disability issues had limited their abilities either a little or a lot in the last 12 months. If we restrict this to just those reporting 'a lot', it takes disabilities down to around 10%, which is significantly lower than the national figure. Finally, around two-thirds of our respondents express trust in the NHS. Of all the institutions we have looked at, in every wave, the NHS always achieves the highest level of trust.

Figure 1 shows levels of support for strikes across several sectors: nurses, junior doctors, postal workers, teachers, rail workers, airport workers, civil servants and university lecturers. Polling was conducted monthly, with the exception of the months in the grey box. As can be seen, in all of the work categories we surveyed, nurses always have the highest levels of public support, with junior doctors achieving the second highest level of public support. There would

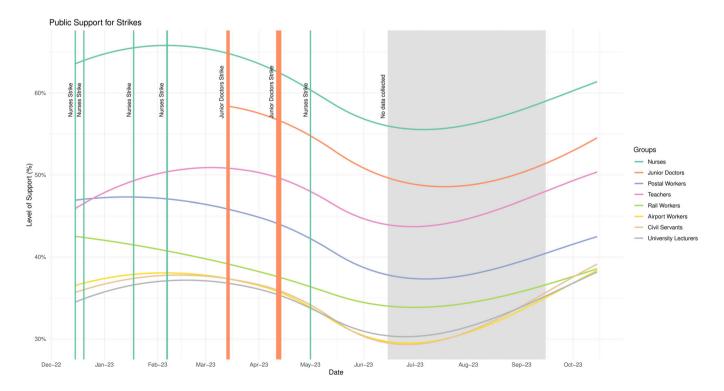


FIGURE 1 Public levels of support for strikes across various sectors (LOESS smoothed). Vertical lines indicate strike dates, with width indicating the duration of the strike.

also appear to be wave effects: in the months in which levels of support for nurses go down, levels of support for all other sectors go down as well. It should also be noted that in the groups we have analysed, nurses and junior doctors are the only groups to consistently achieve majority public support: in every wave we polled, nurses and junior doctors always had support from greater than 50% of our respondents. This is not true for any other group. Our findings corroborate those reported by the Royal College of Nursing, finding high levels of public support in the early stages of the conflict (Clarke et al., 2023, December 15).

However, purely descriptive data are only able to get us so far. The aim of this article is to examine the explanatory factors for support of strike action among healthcare workers. We present our results in Table 2 where we report two linear regression models for each group of nurses and doctors. While our dependent variable is

constrained between 1 and 7, we use a linear regression for the analysis. We have also performed the analysis presented in this paper using an ordered logistic regression. This was done to ensure that the seven-point scale on which our dependent variable is measured, which violates the theoretical assumptions of the linear regression, could still be used with the linear regression models. We found that neither the sign of the effects nor the level of significance changes in any meaningful way from the coefficients and significance recovered by using the linear regression models. Additionally, as we have an over-representation of women among our respondents, weighted versions of both the linear and ordered logistic regressions were run but once again yielded no significant differences. Given this, we have decided to present the results in the manuscript as linear models as the interpretation of such models is more straightforward for everyone. The code and data to reproduce all versions of the models

TABLE 2 Regression models of levels of support for strikes by nurses and junior doctors.

	Dependent variable					
	Nurses			Junior doctors		
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.019	0.014	0.013	0.005	0.0001	-0.004
	(0.012)	(0.011)	(0.013)	(0.016)	(0.014)	(0.017)
Age squared	-0.0004***	-0.0003**	-0.0002*	-0.0003**	-0.0002	-0.0001
	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0002)
Women	0.005	-0.133**	-0.082	0.134	-0.018	0.064
	(0.069)	(0.061)	(0.068)	(0.090)	(0.080)	(0.089)
University	0.525***	0.285***	0.086	0.558***	0.314***	0.102
	(0.073)	(0.065)	(0.074)	(0.096)	(0.085)	(0.097)
Own health	-0.029	-0.033	-0.026	0.097*	0.059	0.053
	(0.041)	(0.036)	(0.041)	(0.054)	(0.047)	(0.053)
Disabled	0.074	0.054	0.063	0.072	0.041	0.041
	(0.086)	(0.076)	(0.084)	(0.113)	(0.100)	(0.112)
Ethnic minority	-0.108	0.128	0.018	0.042	0.211*	0.147
	(0.101)	(0.090)	(0.114)	(0.132)	(0.117)	(0.146)
Left Right		-0.386***	-0.331***		-0.393***	-0.319***
		(0.015)	(0.019)		(0.020)	(0.024)
Trust NHS		1.147***	1.153***		1.003***	1.021***
		(0.066)	(0.075)		(0.086)	(0.097)
Voted Conservative			-0.787***			-0.987***
			(0.083)			(0.107)
Constant	4.988***	6.112***	6.228***	4.540***	5.947***	6.187***
	(0.333)	(0.305)	(0.393)	(0.437)	(0.400)	(0.509)
Observations	3820	3779	2969	2182	2160	1697
R^2	0.052	0.274	0.331	0.076	0.286	0.358
Adjusted R ²	0.050	0.273	0.328	0.073	0.283	0.354

^{*}p < 0.1; **p < 0.05; ***p < 0.01.

are reported in Harvard Dataverse, available at: https://doi.org/10.7910/DVN/SZJSOF.

The first three models look at nurses, while models 4–6 look at junior doctors. Models 1 and 4 use age, age squared, women, university education, a measure of the respondent's own health, disability and membership of an ethnic minority as the independent variables.

Our choice of variables warrants some discussion. Age has been included, as this is a key demographic variable. Different age groups may have different perspectives on strike action, as older respondents may have grown up in different economic, social and political environments than younger respondents (Dalton, 2008). Gender is known to affect perspectives on work, social justice and equality. Accordingly, gender influences a variety of political and social views, such as support for strike action (Kittilson & Schwindt-Bayer, 2012). The level of education has long been shown to have a significant relationship with a variety of political perspectives (Nie et al., 1996). In its simplest form, higher education exposes people to more diverse ideas, which in turn may affect their views on strike action. Personal health status is an important factor to consider. Ideally, we would have liked to have had data on the recency and frequency of respondents' experience with the NHS. As this was not available, the health status of respondents was the next-best alternative (Pescosolido, 1992). Disability is a similar factor (Oliver, 2018); we would expect that respondents with disabilities would have more exposure to NHS services, so this needs to be controlled for in our models. Capturing ethnic minority status in our models is important for two reasons. First, the experience of inequality affects views on factors such as strike action (Hochschild, 1996). Second, research studies suggest that strikes by healthcare workers have disproportionate effects on minority groups (Stoye & Warner, 2023). The left-right position is an important variable to capture, as ideology is a significant predictor of many different factors, including support of unionism (Inglehart & Welzel, 2005). Trust in the NHS has been included as we expect that people who trust the NHS will also support the front-line people working for it (Calnan & Sanford, 2004). Finally, capturing whether our respondents voted for the Conservative Party at the general election in 2019 should indicate broader ideological positions which will influence support for both public sector strikes and state-supported healthcare provision (Clarke et al., 2017).

Age itself has no effect, but the square of age does, suggesting an inverse U relationship: support for strikes goes up with age until it reaches a certain point, at which support for strikes starts to go down again among older people. Having a university degree shows a strong positive relationship with support for striking nurses and junior doctors. None of our other independent variables in Models 1 and 4 (women, health, disability, ethnic minority) show any relationship with support for strikes, with the single exception of health and junior doctors, which demonstrates a very low level of significance.

Models 2 and 5 introduce two new variables: where the respondents place themselves on a left-right political scale and their level of trust in the NHS. Both show strongly significant relationships.

The more right-wing our respondents are, the less their level of support for striking nurses and junior doctors, and the more our respondents trust the NHS, the more supportive they are of strikes. University degree remains significant in these models, but it is interesting to note that the effect of age squared is less significant in the nurses model, and loses significance completely in the junior doctors model.

Finally, Models 3 and 6 introduce whether our respondents voted for the Conservative party in the 2019 general election. It is important to include this in its own model, as it affects the *N* significantly: many of our respondents chose not to tell us how they voted in the election. Once again, the effect of age squared diminishes further in the nurses' model and remains insignificant in the junior doctors' model. The significance of a university degree is also lost in both models. But the left-right measure, and trust in the NHS remain strongly significant. The Conservative vote variable itself is also strongly, negatively, significant: respondents who voted for the Conservative party are significantly less supportive of striking nurses and junior doctors.

In the above models, we have pooled all observations for each group regardless of which wave was used. However, there have been changes in the outcomes for the groups since the first round of surveys ended in May 2023, most notably the nurses have made an agreement with the government and are no longer taking strike action, while junior doctors on the other hand continue their conflict, most recently in December 2023 with new strike action. In this regard, we cannot rule out that there might have been a change in attitude among respondents to this. In Table 3, we present two regressions for each type of strike separating out the survey waves that were gathered continuously and the most recent wave 16.

The results here broadly corroborate our findings when considering all surveys together. Although age and age squared no longer have an effect in wave 16, this might be due to the lower N and where it is significant it has a very limited effect. Interestingly among the respondents for wave 16, women have significantly less support towards the nurses strikes than men, and there is no effect for junior doctors. Curiously, universityeducated respondents exhibit support for strike action, in wave 16, but not in the earlier waves. The political variables exhibit the same relationships as earlier in the pooled models. The more rightwing our respondents are, the less supportive they are of strike action. Conservative voters continue to be sceptical towards the strikes and have a much larger coefficient for wave 16 alone than for the earlier waves. Trust towards the NHS is also here important for the relationship with support for strike action. Overall, we can say that the effects of our independent variable have broadly not diminished despite the strike action still being ongoing for the junior doctors. This is an important finding for those involved in the decision-making on striking and whether to negotiate, as there appears to be no reduction in the level of public support; where there is opposition it is from respondents with the characteristics expected for those in general being against strike action as a tool for the labour movement.

TABLE 3 Time variant regression models of levels of support for strikes by nurses and junior doctors.

	Dependent va	ariable			
	Nurses		Junior doctors		
	Waves 6-11 (1)	Wave 16 (2)	Waves 9-11 (3)	Wave 16 (4)	
Age	0.017	-0.032	0.001	-0.037	
	(0.014)	(0.035)	(0.020)	(0.033)	
AgeSquared	-0.0003**	0.0001	-0.0002	0.0002	
	(0.0001)	(0.0003)	(0.0002)	(0.0003)	
Women	-0.042	-0.317*	0.139	-0.157	
	(0.072)	(0.192)	(0.101)	(0.185)	
University	0.039	0.438**	0.008	0.441**	
	(0.079)	(0.207)	(0.111)	(0.199)	
Own health	-0.011	-0.161	0.062	-0.001	
	(0.043)	(0.121)	(0.060)	(0.117)	
Disabled	0.095	-0.189	0.028	0.091	
	(0.090)	(0.235)	(0.128)	(0.226)	
Ethnic minority	0.010	0.009	0.108	0.222	
	(0.123)	(0.318)	(0.167)	(0.306)	
Left Right	-0.342***	-0.235***	-0.339***	-0.238***	
	(0.020)	(0.058)	(0.027)	(0.055)	
Trust NHS	1.153***	1.167***	0.998***	1.148***	
	(0.080)	(0.212)	(0.110)	(0.204)	
Voted Conservative	-0.776***	-0.978***	-0.959***	-1.216***	
	(0.089)	(0.243)	(0.122)	(0.234)	
Constant	6.111***	7.371***	6.223***	6.527***	
	(0.426)	(1.046)	(0.592)	(1.007)	
Observations	2573	396	1301	396	
R^2	0.334	0.339	0.357	0.391	
Adjusted R ²	0.332	0.322	0.352	0.375	

^{*}p < 0.1; **p < 0.05; ***p < 0.01.

5 | DISCUSSION AND CONCLUSION

When workers in important public sector roles engage in strike action, it is naturally of concern to the general population. But the impact of such strikes is not the same across sectors. When university staff strike, for example, the impact is limited. When school teachers strike, the impact is more notable: parents need to make alternative child-care arrangements. But when nurses and junior doctors strike, the impact has the potential to be most significant, as it could be life-threatening. In the latest round of strikes in the UK, both nurses and junior doctors made great efforts to reduce this likelihood, and indeed research indicates that healthcare strikes have little effect on morbidity (Essex, Williams,

et al., 2022). Nevertheless, strikes may still have negative health consequences, and marginalised groups may be affected disproportionately (Njugun, 2018; Stoye & Warner, 2023). It is therefore vital to research the dynamics of strikes by nurses and junior doctors. We find that nurses and junior doctors achieve higher levels of public support for strike action than any other group we have studied. But this support is not universal. On the one hand, people who trust the NHS also tend to support strikes by nurses and junior doctors. On the other hand, Conservative voters, and those who identify as being more right-wing, tend to have lower levels of support for striking nurses and junior doctors.

Our analysis does come with certain limitations that must be acknowledged. First of all, we do not have a measure for how often the respondents use the NHS themselves. This means that we are not able to speak directly to the views of patients, as was done in part of a recent scoping review (Essex, Ahmed, et al., 2023). Capturing the health status of respondents is the closest that we can come to this; we hope that future research will be able to have a more direct measure of experience with NHS services. Additionally, while we do see a variance in public support over time, we have not captured data in a prolonged non-strike period; as such, we have no way of determining a baseline of support for healthcare workers. Despite these limitations, our findings do contribute to our understanding of this important area. Strike action is taken not only to seek public support for the decision to take to the picket lines but also to create enough sympathy to pressure the government to engage in negotiations (Kalocsányiová et al., 2023; Kelloway et al., 2008; Naughton, 2022; Vesper & König, 2022) The link between industrial action and public opinion has long been known to play a role in industrial action (Beers, 2010; Kelloway et al., 2008; Vesper & König, 2022). Winning the hearts and minds of the public for industrial action is critical for the striking party to achieve their goals (Naughton, 2022). To convince the public to back their demands, the strikers need to present claims that a large part of the public supports (Bieler, 2018) In that sense, our results present a conundrum: the large levels of support for strike action among the English public, coupled with the importance of the NHS, should lead us to expect a swift settlement of healthcare strikes by the government (Stewart, 2023).

There appears to be a relatively strong consensus that nurses and doctors are underpaid (Baldwin, 2023). Media stories about nurses and doctors trained in the UK relocating abroad for better pay and working conditions might be part of conditioning the public towards a more sympathetic view of strike action. It is recognised that the framing of labour conflicts in health services matters; indeed, five different discourses regarding strike action by nurses have been identified on social media (Kalocsányiová et al., 2023; Naughton, 2022). Yet as we have shown, there is no uniformity in who has the stronger levels of support when it comes to asking people via a traditional survey.

We should also acknowledge that historically there has been a strong link between trades unions and left-wing politics. There is a link in Britain between most trades unions and the Labour Party, which means that those supportive of the Conservative Party are generally less sympathetic to labour conflict and towards those engaging in strike action (Taylor, 2021). This is also evident in our findings. Where people place themselves on a left-right scale can also help explain the levels of support for strike action, and this is also something that fits with the general expectations for how labour conflicts are perceived. If the current Conservative government believes that it should follow its supporters and that these supporters are ideologically to the right on the political spectrum, then the failure to settle the industrial action is understandable. This may be seen as a no-cost action by the government: they will not be punished for refusing to settle, as their core supporters do not support the strikes. It is also worth pointing out that the governments of Margaret Thatcher, John Major, Tony Blair and Gordon Brown spent on average more per year on the NHS than the Conservative governments since 2010, even when taking into account spending in the COVID years (Hoddinott, 2023), suggesting that, for some Conservatives, the NHS is a surprisingly low priority.

The results we have presented in this paper should be of interest to those attempting to understand levels of support for strike action, and also those who decide whether or not to call strike action in the future. Our findings suggest that a Labour government might find its supporters expecting a solution in favour of the striking groups within the NHS as it is the supporters of the, at the time of writing, current Conservative government in Britain who are less supportive of strike action. The political aspect of industrial action is an important element to understand, both in general and in this specific case. It is also clear that there is much work to do in rebuilding a relationship between the unions representing nurses and junior doctors and the government of the day. Whether that is feasible under the current UK government is questionable. It is also likely that the general direction of the NHS, the funding and staffing crisis and the need for modern infrastructure and buildings are necessary factors to overcome before it is possible to view strike action by healthcare workers as a low risk.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Full replication data and code are available through the Harvard Dataverse, at https://doi.org/10.7910/DVN/SZJSOF

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