

The Resolution Foundation Labour Market Outlook

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The UK has seen more strikes in the past year than in any since the 1980s. These strikes have been concentrated in the public and transport sectors, where unionisation rates are highest. The public and public-funded sectors have seen a bigger pay hit than the private sector overall, but there are exceptions – highly unionised transport workers have seen no average real pay hit but lots of strikes, whereas un-unionised personal service workers haven't gone on strike but have seen big pay cuts. Meanwhile, vacancies have increased more in the public sector. In the long run, the need to staff the public sector will push the Government to limit or redress some of the relative pay cuts in coming years.

In our Lifting the Lid section, we compare the employment rates of particular groups during the pandemic and the financial crisis. The data show that part-time workers and workers without degrees fared especially badly in the pandemic, which also hit different regions much more unequally.

Spotlight | Public sector pay

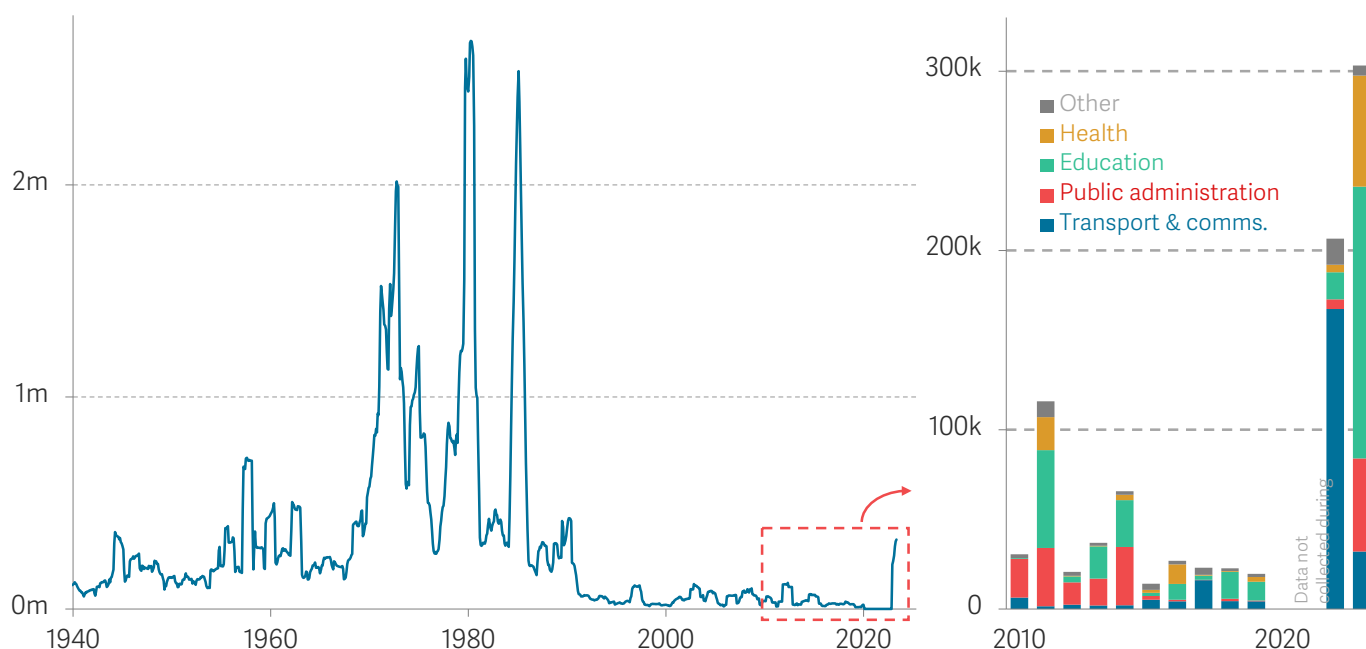
Last month, in line with the recommendations of the public sector pay review bodies, the Government announced pay rises in 2023-24 of [between 5 and 7 per cent](#) for several groups of public sector workers. Teachers' unions accepted their 6.5 per cent offer, but the 6 per cent offered to junior doctors was rejected by the British Medical Association, who plan to go ahead with four days of strike action this month. In this article we dig a bit deeper into why the issue of public sector pay has become such a vexed issue.

There has been lots of industrial action in the last two years

The past two years have seen a level of industrial action in the UK not seen since the 1980s. In the 12 months to May 2023, 3.9 million working days were lost to strikes (compared to an average of 450,000 per year during the 2010s), more than at any point since 1989. This 2023 high point is remarkable given the decline in union membership which has taken place over the past few decades – only 22 per cent of employees were in a union in 2022, down significantly from 39 per cent in 1989.

As always, it's useful to have some historical context. Winding the clock further back shows that the level of industrial action in the 1970s was much higher than it is today; in some years, the number of days lost to strikes was more than eight times higher than has been the case over the past year (and this at a time when the size of the workforce was 25 per cent smaller). Data on strike action (including a sector breakdown post-2010 in the right panel) is set out in Figure 1.

FIGURE 1: The number of strikes has risen sharply but is still low by the standards of the 1970s
 Working days lost per month, overall (left panel), and by industry (right panel): UK



NOTES: Left panel shows rolling 12-month average; right panel shows the average within the calendar year. Data is missing between February 2020 and June 2022 – collection of labour disputes data was suspended during the COVID-19 pandemic. SOURCE: RF analysis of ONS, Labour Disputes Inquiry.

Strikes have been concentrated in unionised sectors – those currently or formerly part of the public sector

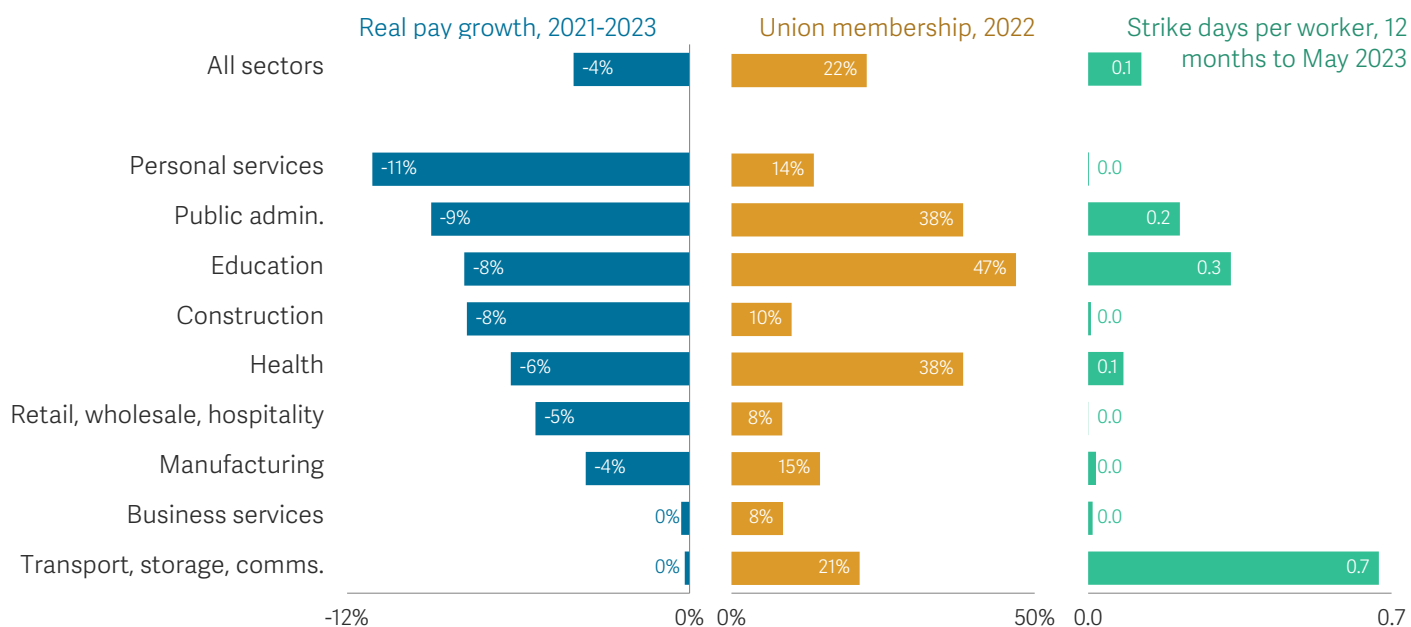
The recent strike action has been concentrated in those parts of the economy which have a sizeable union presence. These are the mainly public sector industries (health, education, and public administration), and transport & storage,¹ the rail and mail parts of which used to be nationalised industries. Together these significantly publicly funded industries account for 96 per cent of all working days lost to strikes over the past year, and 69 per cent of all union members.

This (unsurprising) relationship between strikes and unions can be seen in Figure 2, which provides a sector breakdown of the hit to real earnings over the past two years, the rate of union membership, and the number of strike days per worker. It's clear from these comparisons that high union membership is a pre-condition for strikes. The broad sector which has experienced the biggest pay hit – personal services, which includes a range of activities such as hairdressing, gyms, and computer repairs - has seen essentially zero strike action because its rate of union membership (14 per cent) is low. Figure 2 also shows that not all strike action is happening alongside real pay cuts (although one could argue that it is strike action, or the threat of it, that has enabled workers to protect their pay in real terms): the transport, storage and communications sector has seen by far the most strike activity, with 0.7 days' work lost to strike action per job over the past year (compared to 0.1 across the economy as a whole), but weekly pay in this sector has only fallen by 0.2 per cent in real terms over the past two years, compared to a 4 per cent fall across the economy as a whole.

¹ Strictly speaking we are abbreviating here: the ONS actually publish data for the combination of 'Transport, Communication, and Storage' (SIC sectors H and J).

FIGURE 2: High union membership is a pre-condition for strikes

Sector breakdown of: real pay growth (May 2021 to May 2023), union membership (2022), working days lost to strikes per job (12 months to May 2023): UK



NOTES: Sectors have been aggregated to match those used in the Labour Disputes Inquiry dataset. Data is missing for some sectors (Agriculture, Utilities). Pay measure is total pay, from Average Weekly Earnings dataset. Union membership rate is union membership divided by employees.
 SOURCE: RF analysis of ONS, Labour Disputes Inquiry; ONS, Workforce Jobs; BEIS, Trade Union Membership Statistics; ONS, Labour Disputes Inquiry.

Public sector pay has fallen sharply in real terms since 2021 ...

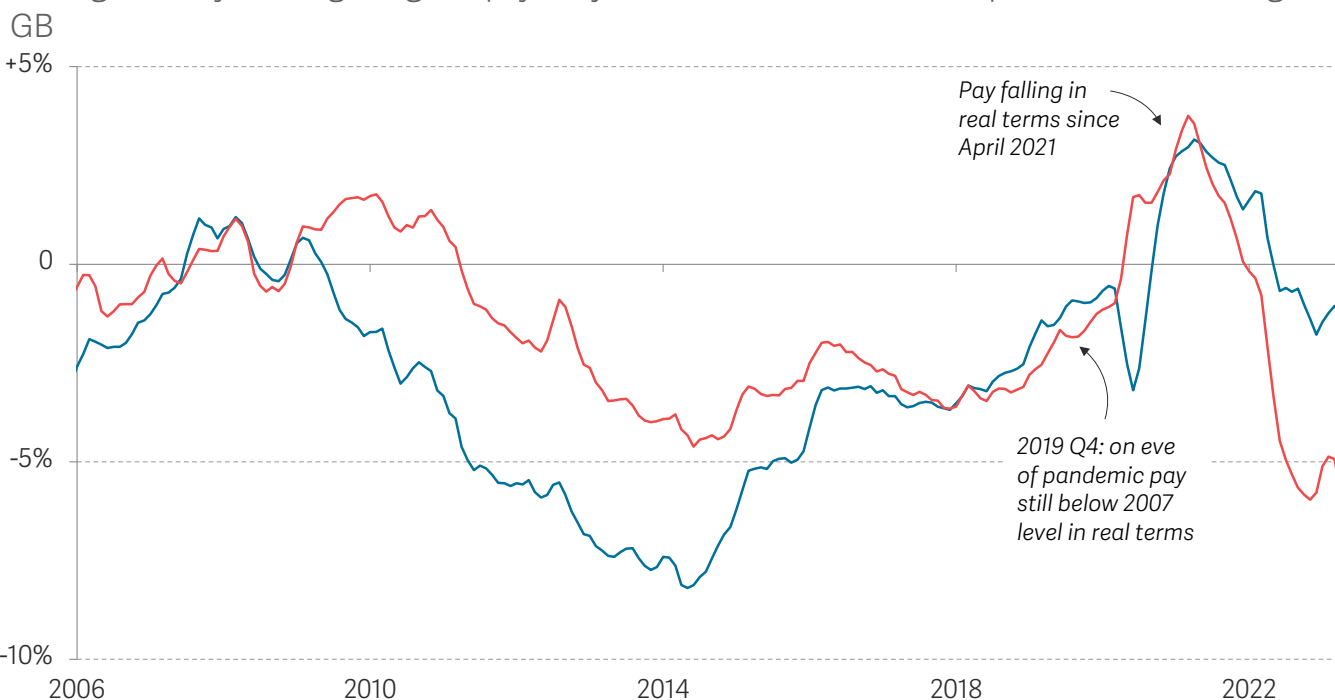
Although Figure 2 shows there are differences across the public sector, the big picture is that the past two years have been difficult ones for public sector workers as a whole. Across the economy as a whole, total average weekly pay was 4.1 per cent lower in real terms (adjusted for CPI inflation) in the three months to May 2023 (the latest data point) than it was in the three months to May 2021. But the hit has been more severe in the public sector, where in the three months to May 2023 average weekly pay was 9.2 per cent below its real value two years ago – three times the fall experienced in the private sector (-2.9 per cent) over this period (Figure 3).

This public-private difference is especially evident comparing public and private workers within industries. In health and social care, average weekly pay for public sector workers has fallen 9.8 per cent over the past two years, compared to a fall of 3 per cent among private sector workers in that industry.² Together, public sector workers in health and education account for 12 per cent of all UK jobs, but 26 per cent of the total real-terms pay hit felt by UK workers over the past two years.

² It should be noted that we aren't necessarily comparing like-for-like here: social care workers, for example, mainly work in the private rather than the public sector, and their pay although low in levels terms will have been supported by increases in the minimum wage, which will not be the case for most health workers in the public sector. This will be contributing to stronger pay growth among private sector workers in health and social care.

FIGURE 3: Public sector pay has fallen sharply in real terms during the cost-of-living crisis

Average weekly earnings (regular pay), adjusted for CPI inflation, compared to 2007 average level:



NOTES: Regular pay excludes bonuses and arrears. Latest data point is May 2023.
SOURCE: RF analysis of ONS, Average Weekly Earnings, and ONS, Consumer price inflation.

On the subject of comparing pay with changes and prices, and between different parts of the public sector, there are two points to make on measurement. First is that using the right price index makes a big difference. The BMA, for example, often use the [defunct](#) retail prices index (RPI) rather than the consumer prices index. The RPI has risen 11 percentage points more than CPI since 2010 and so paints a worse picture of real pay growth over the period – RPI gives a 30 per cent fall in junior doctors pay from August 2010 to March 2023, versus a 19 per cent fall if using CPI.³ That is still a very significant fall, much larger than the 6.6 per cent fall in average real public sector pay over the same period.

But this brings us to another measurement point, which is that it's risky to compare the pay of a specific job category (such as junior doctors) with overall average pay, or with average pay across the public sector, say. That is because changes in average pay across the whole economy or whole public sector reflect changes in pay for specific job types, but also changes in the composition of employment. There is now a very longstanding trend across developed economies of faster jobs growth in higher-paying occupations than in lower-paying ones – which provides a compositional boost to average pay. In recent years, this 'occupational upgrading' has happened slightly faster in the public sector: it has accounted for 25 per cent of nominal pay growth between 2011 and 2019 in the public sector and 22 per cent in the private sector. The implications of this occupational upgrading is that average pay in a sector will grow faster than pay for a given job or a given pay grade. This is the case for doctors, for example. Doctors have become more senior since 2010 (i.e. 'senior' doctors comprise a larger share of the total), such that average doctors' real pay (deflated by CPI) has fallen by

³ RF analysis of NHS pay and workforce statistics. Junior doctors' pay calculated as the weighted average of staff group categories Specialty Registrar, Core Training, Foundation Doctor Year 2 and Foundation Doctor Year 1. Pay measure is mean annual pay per person.

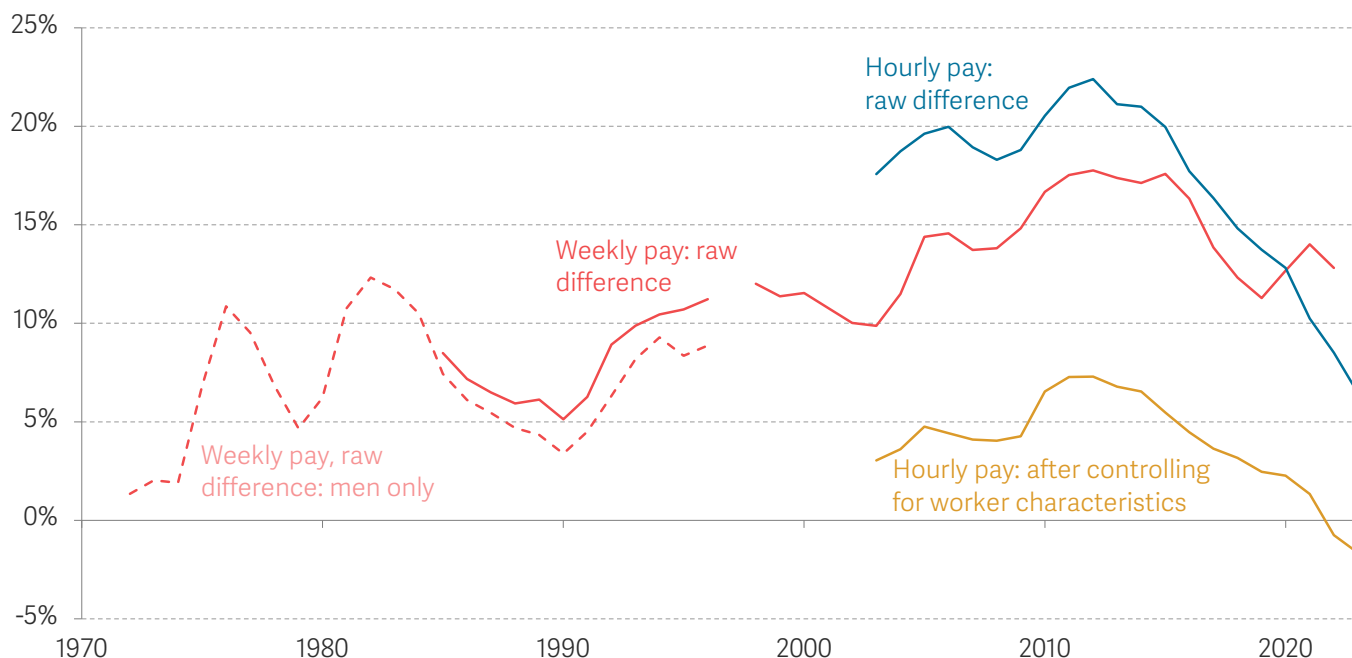
16 per cent since 2010, while average pay for both junior doctors (-19 per cent) and senior doctors (-19 per cent) has fallen by more. This matters because the Department for Health and Social Care and HM Treasury will care mostly about the total bill, but individual health care workers will care more about growth in their pay band.

... and overall pay in the public sector has fallen relative to the private sector since 2012

The backdrop to the current sharp real pay squeeze in the public sector was a decade in which pay levels fell, in relative terms, compared to the private sector. In the four decades up to 2010, the raw difference between pay in the public and private sectors has been trending upwards – i.e. public sector workers were paid increasingly more (see Figure 4). But this gap has been falling since 2010. Most strikingly, on a measure of median hourly pay, the gap between the public and private sectors fell from a high point of 22 per cent in 2012 to 6 per cent in 2023. Part of these gaps can be explained by differences in types of workers in the public and private sectors. We can calculate a [public sector pay 'premium'](#) by controlling for these differences. As with the raw pay gap, the public sector pay premium has been falling since 2012, and actually turned negative in 2011, meaning that public sector workers were paid less, conditional on their characteristics.

FIGURE 4: After controlling for hours worked and worker characteristics, but not pensions, pay is now slightly lower in the public sector than the private sector

Difference between pay in the public and private sector: UK



NOTES: Weekly pay comparison comes from ONS [published dataset](#) of estimates of median public and private sector pay from New Earnings Survey (1970-1996) and Annual Survey of Hours and Earnings (1997 to 2022). Hourly pay comparison comes from analysis of the Labour Force Survey microdata. Worker characteristics controlled for are age, experience, gender, and region. Method for calculating public sector pay premium is based on [IFS's approach](#).

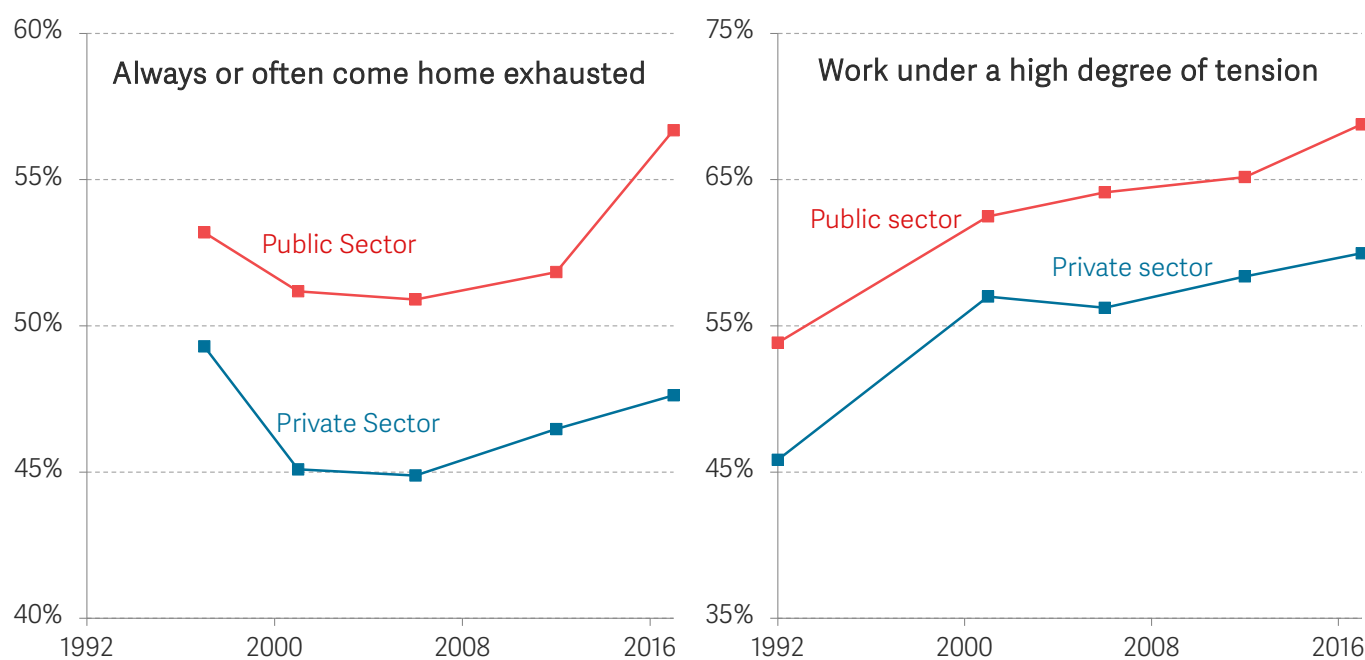
SOURCE: RF analysis of ONS, New Earnings Survey, ONS, Annual Survey of Hours and Earnings, and ONS, Labour Force Survey.

There has been greater pressure on working conditions in the public sector

Although falling real pay is at the centre of current strikes, that's not the only motivation. In the case of doctors, for example, questions about working conditions in hospitals are often raised. There is evidence that, even before the pandemic and cost-of-living crisis periods, there were growing concerns relating to intensity of work across the economy as a whole, but particularly in the public sector. Figure 5 shows two measures from the Skills and Employment Survey (which sadly only gives data up until 2017) – the proportion of workers who always or often 'come home exhausted', and the proportion who work 'under a high degree of tension'. In both cases, the share of workers reporting these issues has always been higher in the public sector, and the rise between 2012 and 2017 was greater in the public sector. For example, in 2017, 57 per cent of public sector workers reported always or often coming home exhausted, compared to 48 per cent of private sector workers. These differences aren't explained by differences in the personal characteristics of the respective workforces.⁴

FIGURE 5: **Work is harder in the public sector**

Proportion of workers who say that they 'always' or 'often' come home exhausted from work (left panel), and who work under a high degree of tension (right panel), by sector: UK



SOURCE: RF analysis of ONS, Skills and Employment Survey.

The combination of falling pay (relative to the private sector) and the increasing demands of the work presumably explain why satisfaction with pay (as measured in the Skills and Employment and Skills Survey) had been identical in the public and private sectors in the 1992, 2006 and 2012 waves of the, but between the 2012 and 2017 waves pay satisfaction fell in the public sector, but rose in the private sector.⁵

⁴ In a regression of working under a high degree of tension the coefficient on being a public sector worker is similar with and without the inclusion of age and sex dummies. Including qualification lowers the public sector coefficient slightly.

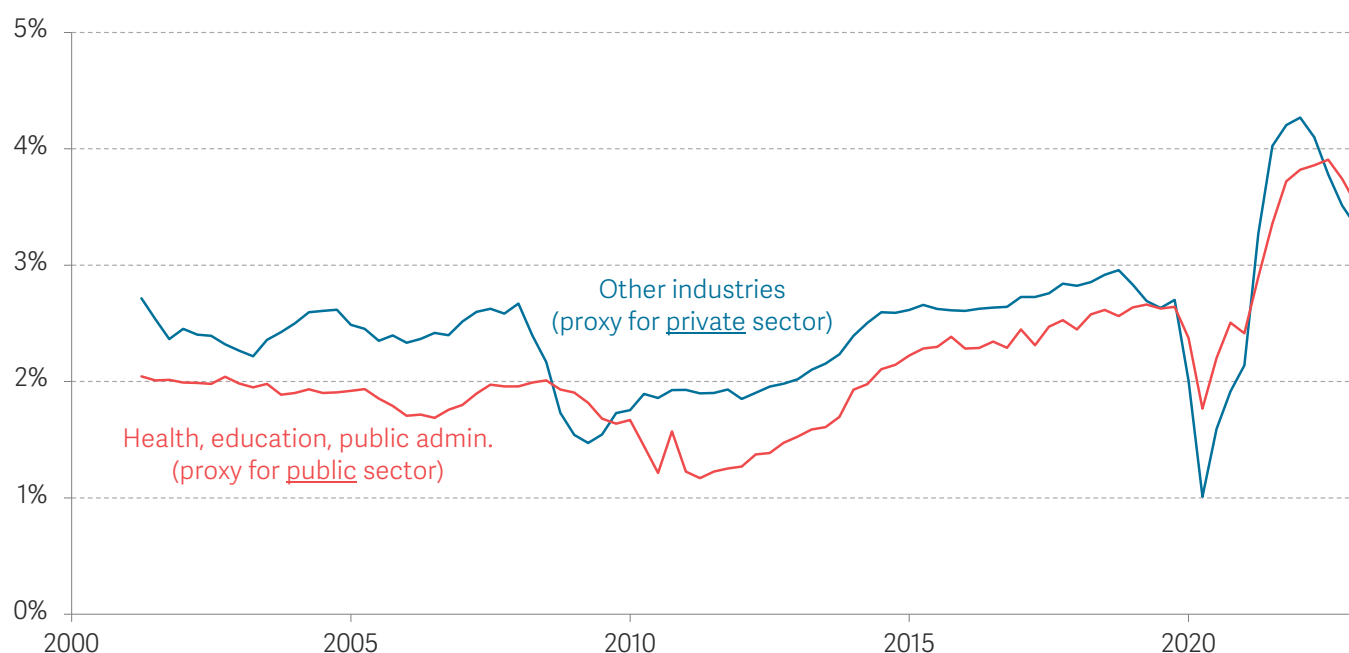
⁵ Specifically, in the Skills and Employment Survey, between 2012 and 2017 the proportion of workers expressing satisfaction with pay fell from 62 to 59 per cent in the public sector, and rose from 62 to 69 per cent in the private sector. We have [elsewhere written](#) about how, in the case of social care workers, falling satisfaction with pay may be linked to the rising demands of the job, as much as they are about the level of pay. Such considerations may apply more broadly across the public sector.

The recent pay squeeze in the public sector appears to have contributed to a larger relative increase in vacancies in the public sector

Vacancies shot up across the economy as a whole as the country emerged from Covid – but they did so faster in the public sector (see Figure 6). The vacancy rate in the mainly-public-sector industries of health, education and public administration was 33 per cent higher in March 2023 than pre-Covid (December 2019) levels, while it was 23 per cent higher across the rest of the economy. Because the vacancy rate started from a lower base in the public sector (this will be linked to lower staff turnover), this faster increase has brought the vacancy rate (3.5 per cent in the mainly public sector industries) roughly in line with the rest of the economy (3.3 per cent). Of course, these averages hide large variations within sectors. In the social care sector, for example, the vacancy rate within frontline roles stood at [11 per cent](#) in 2021/22 (we wrote [earlier in the year](#) about the deep lying problems with pay and conditions faced by care workers).

FIGURE 6: The vacancy rate is normally higher in the private sector, but vacancy rates are now equal after a faster increase in public sector vacancies post-Covid

Vacancy rates by grouped industries (proxy for public and private sectors): UK



NOTES: Vacancy rate is measured as vacancy levels divided by number of jobs. Figures exclude agriculture and forestry & fishing sectors due to missing data.

SOURCE: RF analysis of ONS, Vacancies and jobs in the UK.

This is a reminder that decisions about public sector pay are also constrained by the need to provide functioning public services, and that will require an appropriate level of staffing. In the long-run, these means that pay and conditions in the public sector can't drift too far apart from those in the private sector – if they do, then it becomes increasingly difficult for the public sector to attract workers. The care sector is a good example of this – pressure for better pay and conditions there isn't being felt through strike action, but in difficulty recruiting workers.

Angst over public sector pay may end soon

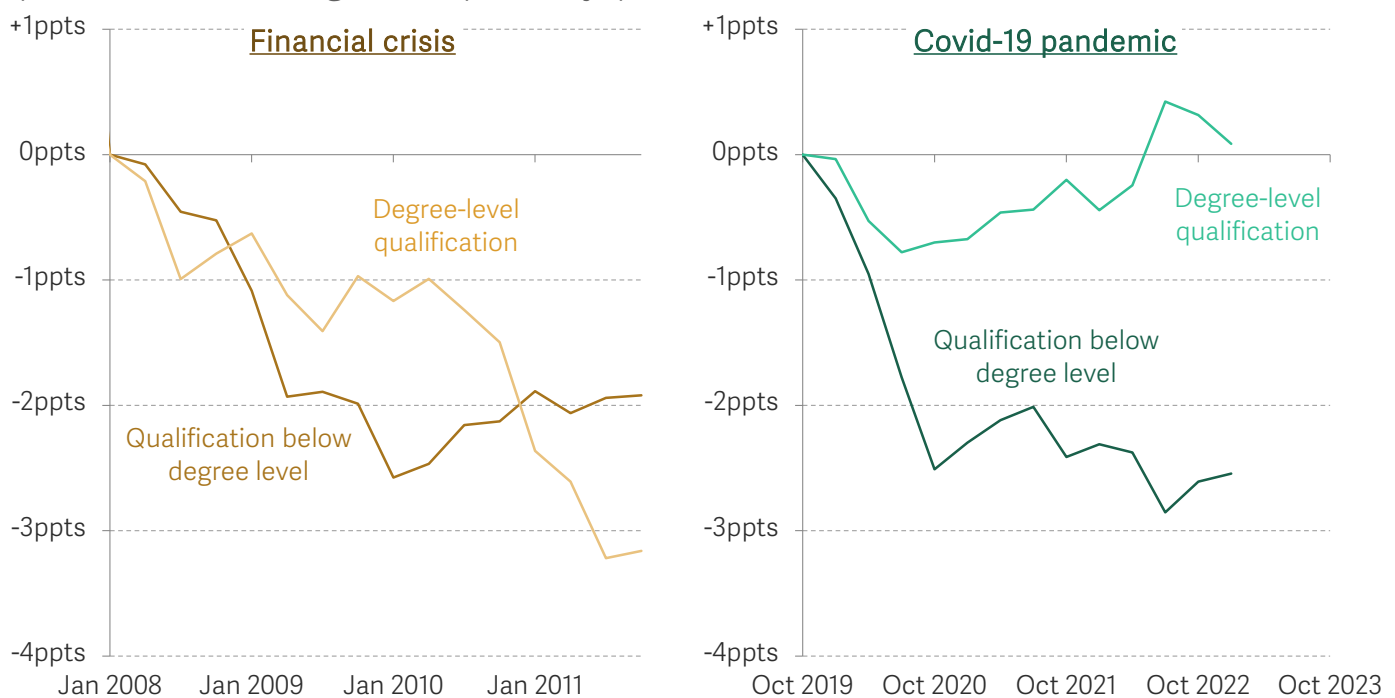
Although disputes with doctors and train drivers continue, 2023 may turn out to be the high-water mark of the recent strike action in the UK. The Government’s recent pay offer for 2023-24 was accepted by the teaching unions. And the next couple of years will likely see real wage growth returning across the economy as a whole, and some amount of pay catch up in the public sector relative to the private sector; the Government’s recent pay offer to the public sector (of 5-7 per cent) is only slightly lower than the current rate of nominal pay growth in the private sector (7.7 per cent in the three months to May 2023), but nominal pay growth in the private sector is likely to slow over the next year as the Bank of England’s interest rate rises take effect.

Lifting the lid | The picture across different groups and areas

Here we explore a few of the most interesting labour market developments for different groups of workers and different parts of the country.

FIGURE 1: The pandemic’s economic hit fell disproportionately on those without degrees

Cumulative change in the employment rate among 26-64-year-olds since Q1 2008 (left-hand panel) and Q4 2019 (right-hand panel), by qualification level: UK



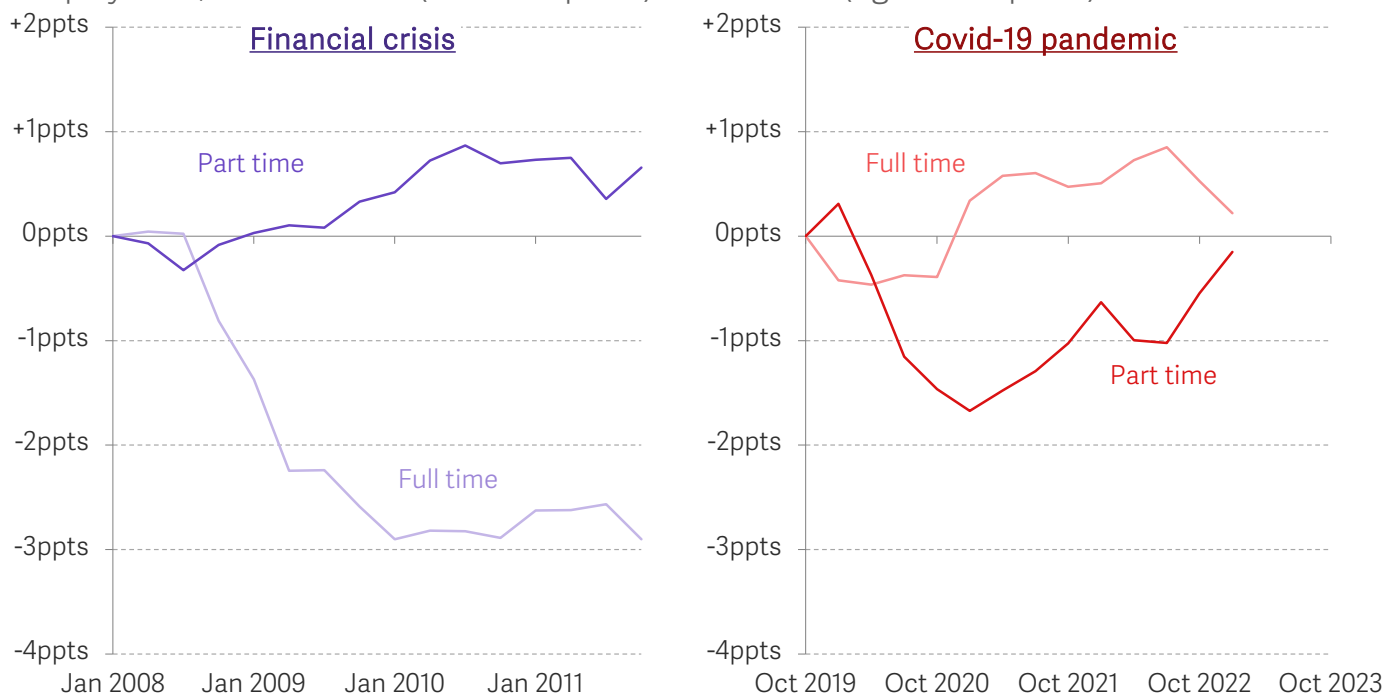
NOTES: Latest data point is Q4 2011 for the left-hand panel and Q1 2023 for the right-hand panel.
SOURCE: RF analysis of ONS, Labour Force Survey.

In the Lifting the Lid section of this Labour Market Outlook, we compare three aspects of the pandemic-induced labour market hit with those seen during the financial crisis.

First of all, employment falls during the Covid-19 pandemic were far more concentrated among workers without a degree than the financial crisis (we use 26-64-year-olds here so that people still in education do not distort our results).⁶ As the left-hand panel of Figure 1 shows, employment falls during the financial crisis (since the start of 2008) were relatively evenly spread between workers with and without a degree-level qualification: indeed, by the end of 2011, the employment fall among graduates was greater than among non-graduates, at 3.2 percentage points and 1.9 percentage points respectively. By contrast, the Covid-19 employment fall was almost entirely accounted for with workers with qualifications below degree level (the right-hand panel of Figure 1). By Q1 2023, employment among this group was down 2.5 percentage points since the end of 2019, whereas among graduates, employment was up 0.1 percentage points, having only fallen by 0.8 percentage points at its low point (Q3 2020). In part, this is likely down to the fact that older workers – who tend to be [less likely to have a degree](#) – have seen the [sharpest rise](#) in inactivity since the start of the pandemic.

FIGURE 2: Unlike the financial crisis, part-time work took the hit of the Covid-19 crisis

Cumulative change in the proportion of 16-64-year-olds who are in full-time and part-time employment, since Q1 2008 (left-hand panel) and Q4 2019 (right-hand panel): UK



NOTES: Latest data point is Q4 2011 for the left-hand panel and Q1 2023 for the right-hand panel.
 SOURCE: RF analysis of ONS, Labour Force Survey.

Second, the impact on part-time work differed greatly between the financial crisis and the Covid-19 pandemic. During the financial crisis (the left-hand panel of Figure 2), more or less the entire employment fall was accounted for by full-time workers. Between Q1 2008 and Q4 2011, the share of the working-age population in full-time employment fell by 2.9 percentage points. By contrast, part-time employment actually *rose* by 0.7 percentage points over the same period. ([Past Resolution Foundation research](#) attributed the rise in part-time work post-2008 to a ‘feel poor, work more’ effect:

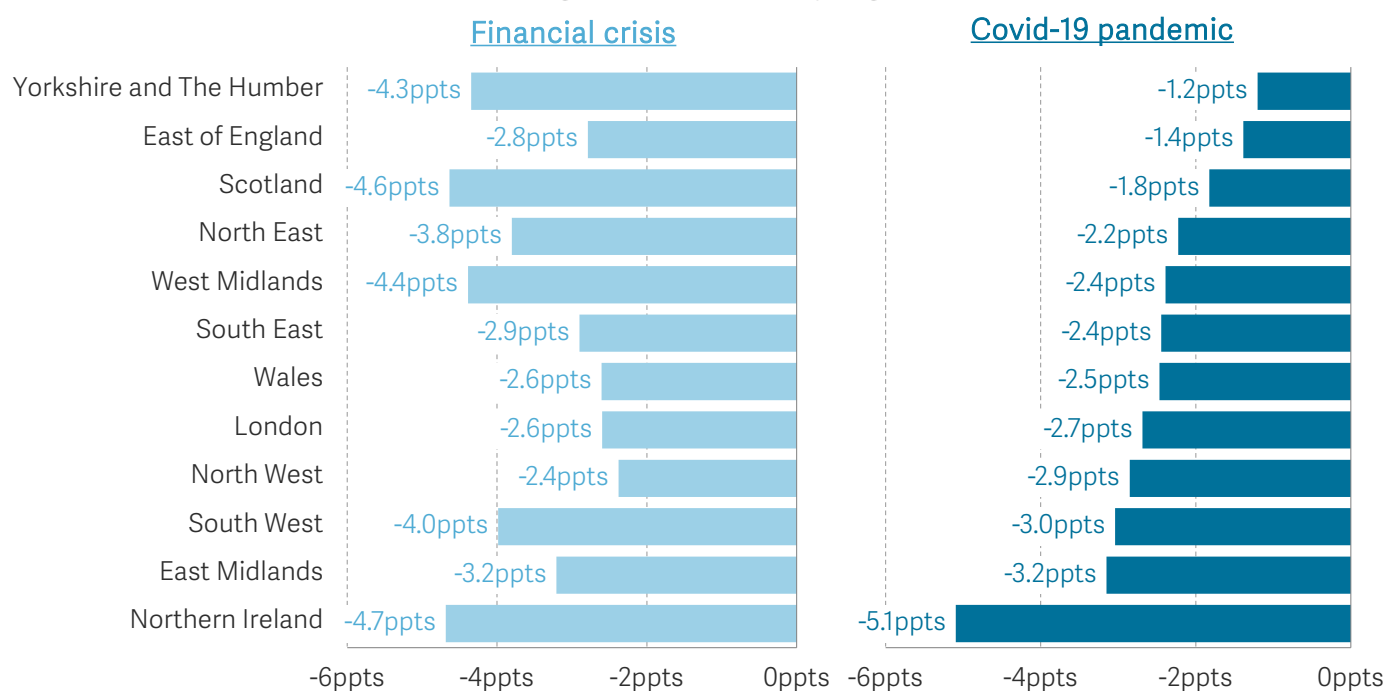
⁶ Specifically, falls in participation among full-time students – most of whom would not (yet) have a degree-level qualification – were [particularly pronounced](#) during the Covid-19 crisis. In this chart, we instead choose to focus on wider trends in employment among workers with lower-level qualifications.

second earners in two-adult families – disproportionately women with children – entered work, often part time, to boost their household incomes in the face of a living standards squeeze.)

The Covid-19 pandemic, shown in the right-hand panel of Figure 2, looks quite different. Part-time employment fell starkly during 2020 – perhaps because part-time work was particularly common in the sectors where job losses were most common (three-fifths of hospitality employees [work part time](#), for example) and among many of the types of workers most likely to leave the workforce (such as [students](#)) – while full-time employment dropped only slightly before recovering to pre-pandemic levels. By Q1 2023, however, both full-time and part-time employment were roughly as prevalent as they were pre-pandemic: part-time employment was just 0.2 percentage points below its pre-pandemic level, while full-time employment was up by the same amount.

FIGURE 3: The Covid-19 pandemic had a more unequal impact than the financial crisis across the UK's regions and nations

Peak cumulative fall in the working-age employment rate in the 40 months since Dec-Feb 2008 (left-hand panel) and Dec-Feb 2019 (right-hand panel), by region and nation: UK

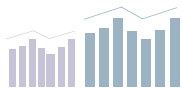


NOTES: 40 months after Dec-Feb 2008 takes us to Mar-May 2023; 40 months after Dec-Feb 2019 takes us to Mar-May 2023, the latest data available.

SOURCE: RF analysis of ONS, Labour Force Survey.

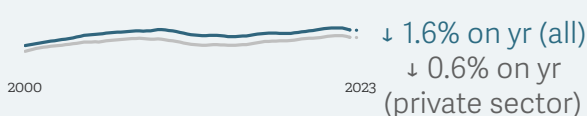
Finally, Figure 3 shows that the Covid-19 crisis was far more geographically unequal than the financial crisis. During the financial crisis, the peak fall in the hardest-hit area (4.7 percentage points in Northern Ireland) was just under twice the peak fall in the least-hard hit area (2.4 percentage points in the North West). But the peak fall in the area hardest hit by the Covid-19 crisis (5.1 percentage points, also in Northern Ireland) was more than four times the peak fall in the least-hard hit area (1.2 percentage points in Yorkshire and the Humber).⁷ In both of these recessions, Northern

⁷ The coefficient of variation is also larger for Covid-19 pandemic than the financial crisis (-0.39 and -0.25 respectively), i.e. our conclusion of the Covid-19 crisis being the more unequal of the two is not driven by a single outlier.



The Scorecard | Q1 2023

Median employee earnings



In Q1 2023, real median hourly pay fell by 1.6% as inflation outpaced wages. Pay fell by more in the public sector; this Outlook's spotlight explores the public sector pay squeeze in more detail.

Earnings decomp.



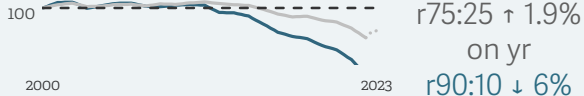
The compositional effect on earnings increased by 5.5 ppts compared to a year earlier, from a negative effect to a positive effect. This measure has been in flux recently due to changes in the workforce since the start of the Covid-19 pandemic.

Annual pay rises



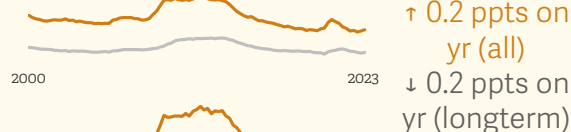
Median year-on-year real hourly pay for employees in work over a year (both job stayers and changers) fell by 3.5% in Q1 2023, down 7.2 ppts from the previous year when real hourly pay grew by 3.8%, as inflation outpaced wage growth.

Earnings Inequality



The p90:p10 ratio fell by 6% in the year to April 2022, supported by recent increases in the minimum wage, but the p75:p25 ratio rose by 1.9%.

Unemployment by duration



The unemployment rate was 3.9% in Q1 2023, up from 3.6% in Q3 2023 but still close to record lows. Long-term unemployment is down on the year.

Under-employment



Under-employment rose by 13% on the year as the labour market began to loosen gradually, but remains lower than any point in the 2010s except for 2019.

Job-to-job moves



The proportion of workers voluntarily moving job (an indicator of worker confidence) fell by 12% on the year but remains above pre-pandemic levels.

Migrant job entry



The proportion of jobs going to new migrants increased by 7% on the year. Migrant job entry fell during the Covid-19 pandemic but since reached record highs, albeit falling slightly in the latest quarter (Q1 2023).

Workforce participation



The labour force participation rate of 18-69-year-olds fell to 76.2% in Q1 2023. A key driver of non-participation is inactivity due to long-term sickness, which has recently reached record highs.

Labour productivity



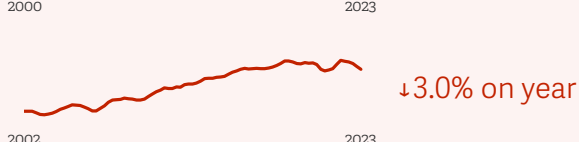
Hourly productivity fluctuated during the pandemic (likely in part for compositional reasons) but in Q1 2023 was down 0.6% on the year.

Training intensity



"Off-the-job" training fell by 3% on the year, following two decades of falls in such training – a potential drag on productivity.

Graduates in non-graduate occupations



The proportion of graduates in non-graduate roles (a measure of mismatched demand and supply of skills) fell by 3% on the year.

The Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low to middle incomes by delivering change in areas where they are currently disadvantaged.

We do this by undertaking research and analysis to understand the challenges facing people on a low to middle income, developing practical and effective policy proposals; and engaging with policy makers and stakeholders to influence decision-making and bring about change.

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