The care homes sector in England is highly vulnerable to changes in minimum wages since it employs a large number of low-paid workers. **Giulia Giupponi** and **Stephen Machin** investigate the impact of the National Living Wage, which was introduced in 2016. One effect has been a rather worrying deterioration in the quality of care.

Care homes: effects of the National Living Wage

Minimum wages have become the focus of renewed interest by governments around the world. This has probably been more marked in places where real wages have stagnated, as minimum wages are a policy lever that can be used to help people at the bottom of the wage distribution.

Our study analyses the consequences of one such recent policy experiment. The context is the introduction of the National Living Wage (NLW) in the UK. After being elected in May 2015, the new government called an emergency budget on 8 July, in which it unexpectedly announced the introduction of the NLW. This raised the minimum wage rate for workers aged 25 and over from £6.70 to £7.20 starting from 1 April 2016, while leaving the minimum wage rate for younger workers at the level of the existing National Minimum Wage (NMW).

The NLW changed the structure of minimum wages operating in the UK by moving the number of wage rates up from four to five and altering their age profiles. There are now five minimum wages: the NLW for workers aged 25 and over; the NMW for 21-24 year olds; the youth development rate for 18-20 year olds; the young worker rate for 16 and 17 year olds; and the apprentice minimum wage.

We are interested in understanding how care homes in England adjusted to the NLW and whether it had consequences for younger workers who were not directly affected by the reform. The care homes sector is highly vulnerable to changes in minimum wages since it employs a large number of low-paid workers. Of these, many are aged 25 and over, making it especially suited to analysing the introduction of the NLW.

Moreover, the sector is very labour-intensive, and residents' fees are regulated and paid for by local authorities. Specifically, even though approximately 75% of residential care places are in homes owned and managed

> The National Living Wage substantially raised wages at the bottom of the hourly wage distribution in care homes

Wages have increased but with few adverse effects on employment and hours worked

by private sector firms, up to 60% of places are funded by local authorities. Hence, a minimum wage change is likely to have a substantial effect on total costs, potentially having an impact on workers and firms that are more affected by the change.

Analysing worker- and firm-level data for a panel of care homes in England, we find that the NLW strongly affected the wages of care workers. Figure 1 plots the hourly wage distribution for care assistants one month before (left panel) and three months (second left panel), six months (third left panel) and 12 months (right panel) after its introduction.

The charts provide compelling evidence that the NLW substantially raised wages at the bottom of the hourly wage distribution. In March 2016, 31% of care assistants were paid at the NMW rate of £6.70 an hour and 73% were paid at or below £7.20 an hour. After the NLW was introduced, the share of care assistants paid below the NLW dropped from 63% as of March 2016 to 14% as of June 2016, while the share earning £7.20 per hour jumped from 10% as of March 2016 up to 37% as of June 2016 and 47% as of March 2017.

In spite of the significant wage increase induced by the introduction of the NLW, we find little evidence of adverse effects on the number of workers and on hours worked. The limited ability to change residents' fees (due to local authority regulations) makes it unlikely that care homes responded to the wage shock by increasing prices.

While it is plausible that homes suffered a profit hit, we do not find evidence that the NLW increased the probability of firm closure, leading us to

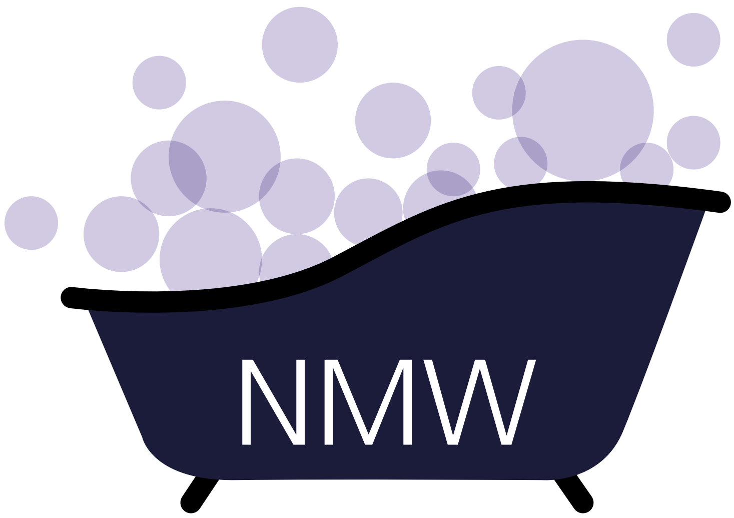


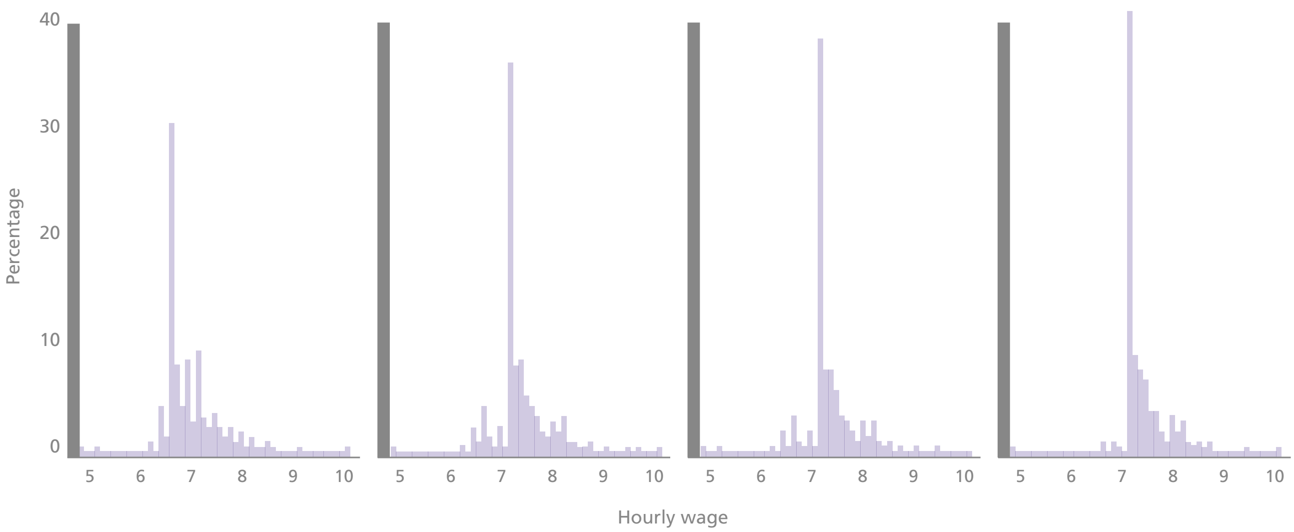
Figure 1:
Hourly wage distribution for care assistants

March 2016
31% at £6.70
73% at or below £7.20

June 2016
37% at £7.20
51% at or below £7.20

September 2016
39% at £7.20
52% at or below £7.20

March 2017
42% at £7.20
47% at or below £7.20



Source: National Minimum Dataset for Social Care.

the conclusion that any profit hit has so far not been large enough to drive care home providers out of business.

Rather, the margin of adjustment used to offset the sizable wage cost shock appears to be in the quality of care services. We have information on the quality of care from the inspection reports conducted by the Care Quality Commission (CQC), the independent regulator of health and adult social care in England.

CQC is responsible for periodically inspecting and rating adult social care providers. The ratings are articulated into five key lines of enquiry, asking if the service is safe, effective, caring, responsive to people's needs and well led.

Our empirical results uncover a worsening of care services in all five of these areas in those care homes where the NLW bit hardest. In light of the growing need for care services in our ageing society, this result raises concerns about the future ability of the care home industry to meet fundamental standards of quality and safety (at current levels of funding).

A peculiarity of the NLW is that it increased the minimum wage for workers aged 25 and over, but left the minimum wage rate for workers aged 21-24 at the existing NMW level of £6.70 per hour. It is a fascinating question, then, whether care homes left wages for younger workers unchanged or whether they raised them too.

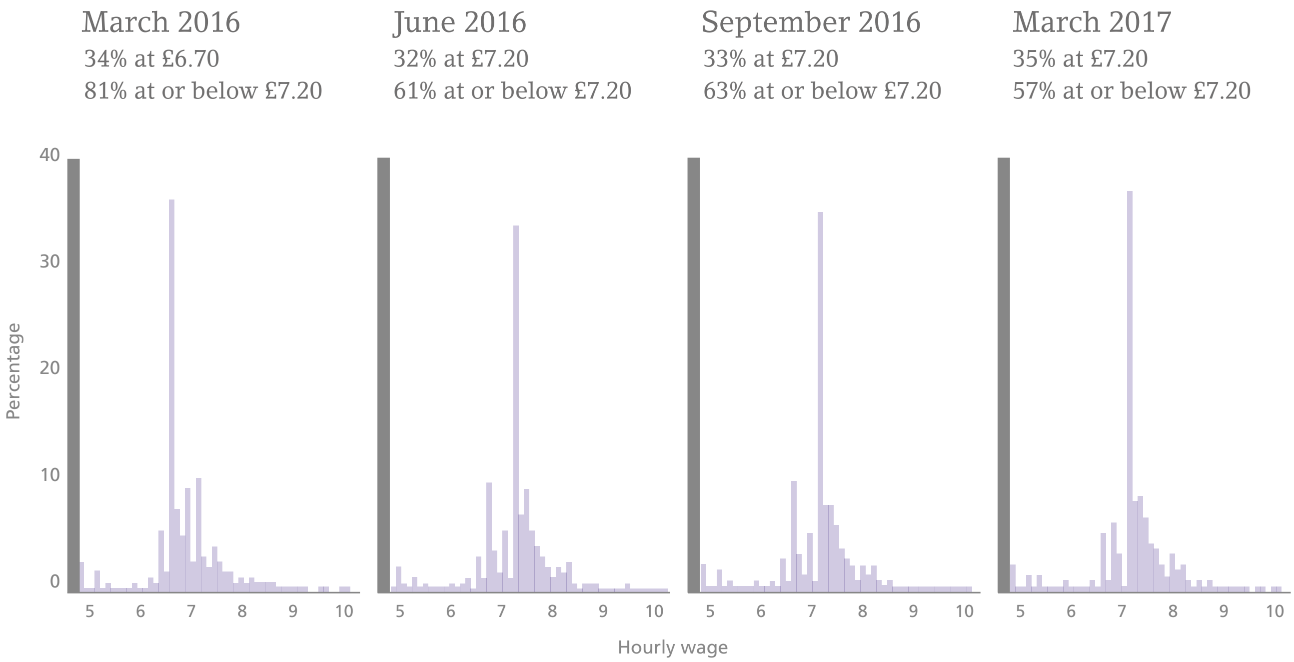
Our study finds strong evidence that the NLW generated positive spillover effects on the wages of younger workers. Figure 2 replicates the charts reported in Figure 1 for the group of care assistants aged under 25.

Strikingly, the evolution of the wage distribution for younger workers mirrors what we find for the entire sample of care assistants over all age groups. In the months following the introduction of the NLW, a strong wage compression occurs in the bottom half of the distribution and a spectacular spike appears at the new minimum. According to Figure 2, while 34% of care assistants aged under 25 were paid the NMW rate in March 2016, less than 10% were paid the NMW rate and up to 35% were paid the new NLW rate in March 2017, 12 months after the introduction of the NLW.

Firms might be induced to raise wages of younger workers for reasons of fairness or administrative simplicity. Yet if youth productivity is lower than the uprated wage warrants, they may at the same time

The margin of adjustment that firms have used to offset higher wage costs appears to be the quality of care services

Figure 2:
Hourly wage distribution for care assistants under 25



Source: National Minimum Dataset for Social Care.

try to reduce the share of hours worked by their younger workers or the proportion of youth in their workforce. We test whether positive wage spillovers are associated with such negative employment consequences for younger workers, and in fact find no evidence of negative spillovers.

An obvious candidate for explaining why we observe positive spillovers on younger workers' wages is that either workers or firms are concerned about pay fairness and prefer workers doing the same job to receive the same wage, irrespective of age differences. If workers' preferences for fairness were entirely responsible for the emergence of wage spillovers, the spillovers should be stronger for employees working in a team or with direct sight of their colleagues while working.

To test whether spillover effects are driven by workers' preferences as opposed to employers' preferences, we replicate our analysis in the domiciliary care sector. Domiciliary care is a social care service provided to people who live in their own houses and require assistance with personal care routines or other activities.

Domiciliary care assistants typically work individually, drive their own car to visit customers' homes and are often contracted on flexible working hours as their work tends to be organised into short and fragmented home visits. Consequently, domiciliary carers tend to have limited face-to-face interactions with co-workers on the job and are unlikely to be fully aware of their working conditions. If downward wage spillovers were entirely due to workers' preferences, we would expect the spillovers to be milder among domiciliary carers than care assistants.

Our findings indicate that domiciliary care workers experience wage spillovers very similar in magnitude to those we identify in the care home industry, lending support to the fact that team dynamics and workers' preferences for fairness are not key drivers of minimum wage spillovers.

There are two other plausible explanations for the emergence of downward wage spillovers. The first is employers' preferences for pay fairness. The second is employers' preferences for administrative simplicity, whereby they try to minimise the costs of managing a diverse wage structure. While we cannot formally test which of these two theories has the largest bearing, information from a survey of care homes seems to support the 'fairness hypothesis'.

Care home owners and managers were surveyed both before and after the NLW was introduced and asked for their views on its level. Before the NLW was introduced, 43% of respondents believed that the level of the NLW was about right, 15% thought it too low and 38% thought it too high (with the remaining 4% not having an opinion).

After April 2016, respondents appear to be much more favourable to the minimum wage floor, with 53% considering it about right, 20% considering it too low and only 24% considering it too high (the remaining 3% not having an opinion). Moreover, while it is not uncommon for respondents to state that it is fair for a worker to earn a 'living wage', none of them mentions administrative simplicity as a reason for aligning the wages of younger and older workers. Thus, employers' preferences emerge as the most plausible explanation for the observed wage spillovers.

In sum, the main impact of the changed minimum wage structure was on the wages of both directly affected older workers and indirectly affected younger workers. There is no evidence of employment adjustment, but a rather worrying deterioration in the quality of care.

This article summarises 'Changing the Structure of Minimum Wages: Firm Adjustment and Wage Spillovers' by Giulia Giupponi and Stephen Machin (http://cep.lse.ac.uk/pubs/download/dp1533.pdf).

Giulia Giupponi is an occasional research assistant in CEP's labour markets programme.
Stephen Machin is director of CEP.

Firms' responses to higher wage costs raise concerns about the ability of the care home industry to meet fundamental standards of quality and safety at current levels of funding