Apprentices and the minimum wage: the case for narrowing differentials

Report for UNISON

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Executive summary

The National Minimum Wage Apprentice Rate (NMWAR), applies to apprentices under the age of 19, and all other apprentices for the first year of their apprenticeship, after which time older apprentices are eligible for their age-related minimum wage. This report was commissioned by UNISON, to critically review the Low Pay Commission’s evidence base relating to the case for wage differentials between apprentices and employees, particularly for people under the age of 19. It also incorporates academic research from countries with well-established apprentice systems. This report further includes a case study from NHS Scotland, to highlight the benefits to an employer of paying the voluntary Living Wage to apprentices.

Key findings:

Factors that affect employers’ decision to offer apprenticeships

- Research for the LPC found that raising the NMWAR significantly has previously not impacted the supply of apprenticeships- this is consistent with the view that the statutory wage rate is not the most significant factor to employers in offering apprenticeships.

- Research from both UK and abroad suggests that employers’ decision to offer apprenticeships is based on total net cost, rather than wage costs of apprenticeships. This view is supported by the fall in apprentice starts after introduction of Apprentice Levy, which increased training costs, and therefore the net cost significantly for many employers.

- There is some evidence from LPC research that having different wage rates for apprentices over the age of 19 after their first year of training may contribute to under-compliance and may encourage substitution in some low-pay sectors.

Factors that affect people’s decision to undertake and complete an apprenticeship

- Many who undertake apprenticeships in the UK see the lower apprentice wage rate as a tradeoff for training and higher future earnings. However, there is evidence from both the UK and abroad that higher wages contributes to higher completion and retention rates, especially in low wage sectors with less employment security and progression opportunities. Higher completion and retention rates lower the overall net costs of apprenticeships, by allowing employers to capture more productivity from trained workers.

- There is evidence from a variety of governmental and third sector sources that low wages in apprenticeships may serve as a barrier which prevents people from low-income backgrounds from accessing apprenticeships. Women,
disabled people, and people from BAME backgrounds are disproportionally represented in lower paying apprenticeships.

Employer benefits to paying apprentices the voluntary Living Wage

- In the NHS in Scotland, paying the voluntary Living Wage to apprentices was seen an important way to recruit young employees, in order to ensure the NHS has the ‘skills pipeline’ it needs for the future, given its ageing workforce. The Living Wage was also seen as an instrumental way to widen access to apprenticeships in the NHS to under-represented groups. This case study and other academic research with employers found that young apprentices were valued for their fresh thinking, IT skills, and enthusiasm.

Conclusion

The research reviewed in this report indicates no negative effect from increasing the NWAR on employers’ offer of apprenticeships. It seems that policy relating to training costs may have a far larger impact, although the impact of the Apprentice Levy so far seems to be negative. While wage rates may not have a significant impact on the number of apprenticeships offered, the differential wage rates may contribute to employer behaviour towards apprentices in other ways- such as under-compliance (whether intentional or not) and substitution of younger, cheaper apprentices for older ones.

Where apprentice wage rates may also have more influence is over apprentice behaviour- both current and potential. While the majority of people who have undertaken apprenticeships may not see the wage level as a primary motivation, there is evidence that low wages may be dissuading people from low-income backgrounds from undertaking apprenticeships to begin with.

Higher wages may also improve both completion rates and retention rates. In this way, raising wages may indirectly encourage employers to offer more apprentice places in the long run, by reducing the net costs of apprenticeships as completion and retention rates rise. Improving completion rates is also vital to fulfilling the ultimate goal behind policies attempting increasing apprenticeships: ensuring a ‘pipeline’ of trained young workers to meet the skills needs of the future.
1. Introduction and context

The National Minimum Wage Apprentice Rate (NMWAR), applies to apprentices under the age of 19, and all other apprentices for the first year of their apprenticeship, after which time older apprentices are eligible for their age-related minimum wage. As of April 2018, the NMWAR is £3.70.

This report begins with a brief overview of recent policy changes that have affected apprenticeships in the UK, a comparison of how apprenticeships function in the UK compared to other countries, and a brief analysis of some of the key demographics of apprenticeships.

This report then considers the evidence base of the factors that affect the number and level of apprenticeships offered by employers: beginning with the effect of raising the NMWAR, then considering the total net cost of apprenticeships, including a discussion of the impact of the apprentice levy. It then considers if age-differentiated apprentice rates contribute to under-compliance and/or substitution.

The next sections look at the impact that increasing the NMWAR might have on apprentices- by potentially improving completion rates and widening access to apprenticeships to under represented groups.

Finally, the report includes a case study of NHS Scotland, discussing the employer benefits to paying apprentices the voluntary Living Wage.

The introduction of the NMWAR

The NMWAR was introduced from October 1, 2010, following a recommendation from the LPC in 2009.1 The NMWAR replaced the ‘recommended minimum level’ of £95 per week in England. Other UK countries had not previously had minimum pay levels for apprentices, although most schemes required that apprentices receive some wage.2

Current policy context

The Government has set a target of 3 million apprenticeship starts by 2020.3 From April 2016, employer National Insurance Contributions (NICs) were abolished for

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2 Ibid.
apprentices under the age of 25 (they had previously been abolished for under 21s in 2015).4

The introduction of the National Living Wage (£7.20 per hour) for people 25 and older from April 2016 may also have affected employer’s likelihood of taking on apprentices.

Apprenticeship Levy
The Apprenticeship Levy will pay for apprenticeship training and assessment previously funded by government grants, and provided by colleges and training providers.

As of April 2017, all UK employers with an annual pay bill of £3 million and over are required to pay the Apprenticeship Levy of 0.5% of their pay bill above the £3 million threshold. 5

While the NMWAR is set UK-wide, other apprenticeship policy is devolved, so varies across countries in the UK.

England
In England employer’s contributions to the levy are held in a digital account which can be used to pay training and assessment providers for their services, meaning that 100% of these costs can be covered by their levy account. Employers below the £3 million pay bill threshold will be required to contribute 10% of the costs faced by organisations delivering apprentice training and assessment. Before the levy, employers paid little towards these costs, meaning smaller employers face greater costs in recruiting apprentices than previously. However, employers with less than 50 employees are not required to co-invest in any 16-18 year old apprentices.

The funding system for apprentice training and assessment has been simplified. Previously, the funding formula included variables such as local area costs, the size of the employer and area deprivation. The formula has been replaced with 15 funding bands, within which employers and providers will negotiate a fee.

As of April 2017, employers and providers will receive an additional £1,000 for every 16-18 year old apprentice taken on. However, many English stakeholders believe changes to the funding system have reduced funding for 16-18 year old apprentices.

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The content of apprenticeships in England is also changing, with apprenticeships changing from ‘frameworks’ to ‘standards’. The key difference between frameworks and standards is that standards will have an end assessment.6

Scotland
The Scottish Government has set a target of 30,000 apprenticeship starts by 2020.7

**Key characteristics of UK system compared to others.**

In ‘The State of Apprenticeships in 2010’, Steedman8 notes that apprenticeships play a more substantial role in the labour market in other countries, with “Australia, Austria, Germany and Switzerland hav[ing] between three and four times as many apprentices as England”(p2).

The report outlines some key differences of England’s apprenticeship system. First, England stands out as having notably short apprenticeships – usually one to two years, in comparison to a standard three year placement. Secondly, the age profile of England’s apprentices tends to be older in comparison to France, where (like other dual-system countries) apprenticeships are limited to under-25s. Thirdly, England is the only country where apprenticeships at level 2 (intermediate/GCSE level) are far more prevalent than higher, level 3 apprenticeships. Finally, apprentice rates are calculated based on a set proportion of a skilled workers wage across the dual-systems in Austria, Germany and Switzerland, as well as France and Ireland.

Higton et al9 found that countries with the largest apprenticeship programmes utilised longer apprenticeships that allowed employers to benefit from their investment and higher quality learning, with increased use of qualifications which form a 'licence to practice,' thus encouraging young people to pursue apprenticeships despite the increased opportunity cost caused by lower wages.

**Key demographics of apprenticeships**

The changing age profile of apprentices
Prior to 2004, the Government did not fund apprenticeships for people over the age of 25, so there were very few apprentices in this age group. Since then, there has been a rapid expansion in the number of older apprentices- 68% of the increase in the number of people starting apprenticeships between 2006/07 and 2010/11 were

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7 Ibid.
people over the age of 25. As figure 1 shows, over the last decade, the number of apprentices between the ages of 16-17 has fallen from 63,400 in 2008 to 42,000 in 2017. While the absolute number of apprentices in each older age group has increased, the largest proportional increase has occurred in apprentices over the age of 21. The number of apprentices over the age of 21 has more than tripled—apprentices between the ages of 21 and 24 have increased from 27,400 in 2008 to 85,800 in 2017, while the number of apprentices over the age of 25 increased from 24,600 to 84,600.

Figure 1: Apprentice numbers by age

![Figure 1: Apprentice numbers by age](source)

Figure 2 shows that these changes have shifted the age profile of apprentices older. In 2008, 16 and 17 year olds made up 30% of apprentices, while those over the age of 25 were only 11%. By 2017, 16 and 17 year olds made up only 12%, while over 25s were 24%. The proportion of 18 year old apprentices also shrank (from 22% to 15%), while the proportion of 19-20 year olds remained stable (25%) and the proportion of 21-24 year olds increased (from 13% to 24%).

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Fall in apprentice starts

Figure 3 shows that following the implementation of the Apprentice Levy in April 2017, there has been a fall in Apprentice starts in the new academic year compared to the same months in the previous year. September is usually the month with the largest number of Apprentice starts, especially for Apprentices under the age of 25, so even though data is not yet available for the full 2017/18 academic year, it seems likely that the total number of starts for 2017/18 will be significantly lower than 2016/17.

Between September and December 2017, there were 175,000 Apprentice starts, a 25% decline from 233,000 during the same period the previous year. The largest proportional fall was among apprentices over the age of 25: starts fell 34% from 87,400 in 2016 to 57,600 in 2017. The number of starts from 19-24 year olds decreased 23% (from 68,300 to 52,400), while there were 12,100 fewer apprenticeship starts for people under 19 in 2017, a 16% decline from the 77,200 previous year. The ramifications of this decline for the possibility of raising the NMWAR are discussed further in section 2.
Figure 3: Apprentice starts by age group

Source: Department for Education, Monthly Apprenticeship Starts
2. What factors influence employers’ supply of apprenticeships?

Raising NMWAR significantly has previously not impacted the supply of apprenticeships

In March 2015, the Government announced that the NMWAR would increase in October of that year from £2.73 to £3.30 per hour- this increase of 21% was by far the largest ever increase in the rate. In keeping with the Government’s objective of increasing the number of apprenticeships, this boost was designed to shrink the gap between the NMWAR and the under-18 NMW, to make apprenticeships more appealing to young people.  

The Department for Business, Innovation and Skills’ (BIS) impact assessment estimated that 67,000 apprenticeships would be affected by the change- with low pay sectors particularly affected. Despite this, BIS concluded that raising the NMWAR would have no significant impact on the number of apprenticeships offered, as employer’s had specific incentives for offering apprenticeships beyond low wages. BIS argued that evidence on the impact on low-wage employees of minimum wage increases was not applicable to apprentices for this reason.

The LPC commissioned research to assess the impact of the rate increase in 2015 on the number and characteristics of apprentices. Using a Difference-in-Differences approach to compare outcomes in higher and lower paying areas, this research found no significant negative impact on apprentice numbers or completion rates. In fact, they found that apprentice numbers had increased following the rate rise, although the researchers were keen to stress that other policy changes may have been responsible for this, rather than the NMWAR.

The research also found no significant effect on younger apprentice (16 to 18) or on apprentices in lower-paying sectors. While there was some evidence that raising the NMWAR may have negatively affected apprentice numbers in hairdressing, data limitations mean this finding is not robust.

The research also found no evidence that the demographic characteristics of apprentices had changed in response to the increase.

Conclusion

A significant increase of 21% to the NMWAR did not have a significant impact on the number or characteristics of apprentices, even among young apprentices or low pay sectors. This is consistent with the view that employers’ supply of apprentice places

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12 Ibid.
13 The National Living Wage for people over age 25 was introduced in 2016, which raised the cost of employees relative to apprentices.
is not sensitive to increases in the NMWAR. The following section explores employers’ motivations for providing apprenticeships, and the larger cost factor of apprenticeships they may be more sensitive to—the total net cost.

The ultimate concern of employers is likely larger than wage costs- it is the net cost or benefit of apprenticeships

Apprentices incur significant training costs to employers that typical employees do not. The LPC has acknowledged that ‘there is an additional margin of adjustment that employers could use in responding to the Apprentice Rate – the volume and quality of training’ and that, because training time is less productive than time spent on work tasks, employers have an incentive to minimise time spent training.\(^\text{14}\)

A series of semi-regular studies from the 1990s through 2012\(^\text{15}\) used a case study approach to estimate the costs and benefits to employers of offering apprenticeships. The most recent included eight sectors, including three low pay sectors: retailing, hospitality and health and social care. These studies found that employers were only willing to invest in apprentice training if they were fairly certain they would be able to recoup the cost of training through increased productivity—either during the training period, or afterwards for employers who were confident they would be able to retain apprentices as employees.\(^\text{16}\)

Employers in low pay sectors are therefore more concerned with the net costs of training apprentices than sectors such as engineering, as these sectors will struggle to retain higher qualified employees post-training in a competitive labour market. Some low pay sectors have also seen the largest proportional increase in training costs since the turn of the century. While data from 2003 showed employers in customer service incurring no net cost for a level 2 apprenticeship, by 2011 the net cost had ballooned to approximately £3000. These sectors’ net costs of training were also increased by the cost of training for people who do not complete the apprenticeships. Drop-out rates also varied by sector, with the highest reported rate in the hospitality sector.\(^\text{17}\) Increasing apprentice wages in low pay sectors such as this could therefore decrease training costs if it resulted in improved completion rates.

The net costs of apprenticeships varied hugely by framework— with Engineering and Construction frameworks incurring estimated net costs of £39,600 and £34,600, respectively in 2011. Despite these significant costs, employers in these sectors continued to offer apprenticeships as in these sectors apprenticeships are an


\(^{16}\) Ibid.

\(^{17}\) Ibid.
established norm to aid recruitment and retention and to meet skills’ needs now and in the future.18

The net costs of apprenticeships were also linked to the productivity of apprentices. In health care, employer reported recouping the cost of training by the end of an apprenticeship, as many employers reported that apprentices could fulfil a full job role, meaning they were highly productive while training.19

International evidence on costs and benefits for employers

A review of international evidence by Muehlemann and Wolter 20 found there were only two European countries in which there was sufficient national data on apprenticeships to estimate the net costs or benefits of apprenticeships to employers- Germany and Switzerland. Their comparison between Germany and Switzerland found that factors including length of apprenticeship, wage level in comparison to skilled rates, and balance of tasks assigned to apprentices, resulted in varying levels of net benefit to firms. In Germany, where apprentices are paid more but undertake less productive tasks, there is a net cost to having an apprentice by the end of their placement. In Switzerland there is a net benefit. This is consistent with other studies which have estimated the net cost to employers across these two countries.21 The research suggests that German employers may be more willing to incur net costs as German firms have fairly high (50%) retention rates post-apprenticeship, allowing them to recoup their costs. Switzerland has slightly lower retention rates, meaning firms have more incentive to recoup training costs by the end of the training period.22

The impact of the Apprentice Levy

The evidence discussed above suggests that historically, training costs may have had a larger impact on the offer of apprenticeships than wage costs. However, the introduction of the Apprentice Levy represents a large increase in training costs for some employers. The LPC has identified that employers in retail, hospitality, and health and social care were most concerned that they would not be able to recoup their full levy payment and would need to consider how they could offset the cost.23 Research from Reform has posited that the levy is resulting in a reduction in both the quantity and the quality of apprenticeships offered to young people. This report highlights that the overall number of apprenticeship starts has declined dramatically since the introduction of the levy, and that there has been a marked increase in

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19 Ibid.
higher level apprenticeships- but only 12% of these are undertaken by people under 19.24

Figure 4: Apprentice starts by level and age

![Bar chart showing apprentice starts by level and age]

Figure 4 shows that the largest fall in apprentice starts has occurred in intermediate level apprenticeships (Level 2 apprenticeships), while the number of higher level apprenticeships increased, as the Reform research points out. Among higher level apprenticeships, the number of starts increased for each age group, although the largest proportional and absolute increase occurred for ages 19-24 (1,900 more starts, a 48% increase).

The fact that higher level apprenticeships do not appear to have been affected by the levy is consistent with research with employers that has found employers taking on higher level apprentices in frameworks such as engineering will tolerate high net costs. For such employers, apprentices are necessary to maintain their skills pipeline, and they are more confident in being able to retain people post-apprenticeship.25

At the intermediate level, there was a decline in starts for all age groups- but both the largest absolute fall in numbers and the largest proportional decline occurred among

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people over the age of 25— a 52% decline from 43,600 in autumn 2016 to 20,800 in 2017. The number of 19-24 years olds starting an apprenticeship at this level fell 38%, while the largest age group within intermediate levels, the under 19s, fell 23% from 48,800 to 37,600.

While there has certainly been a significant reduction in total apprenticeship starts for under 19s- 16% from 2016 to 2017, the biggest reduction has been in apprenticeship starts for over 25s (34%), which has been driven by a reduction in intermediate apprentice starts. This could be evidence that the increase in training costs have made employers in low pay sectors more sensitive to wage costs. People over the age of 25 may have been the most affected by this, as these apprentices will be eligible for the National Living Wage (NLW) after their first year. Low wage employers looking to control costs may therefore prefer taking on younger apprentices.

This may mean than employers in these low-paying sectors would be more sensitive to wage increases for apprentices than previously, as reducing or keeping apprentices wages low may be a means of offsetting some of the costs of the levy. However, as the apprenticeship levy beds in, employers may begin to offer more apprenticeships in order to recoup the levy. In this scenario, employers have an incentive to reduce drop-out rates and improve employee retention, in order to reduce the net costs of apprenticeships. As has been discussed, an increase in the NWAR could potentially be offset by improving completion and retention, thus decreasing net costs.

Conclusion

Evidence from both the UK and other countries in which apprenticeships are common and well-established suggests that employers view apprenticeships through the lens of total net cost or benefit, rather than simply wage costs. Cost of training, retention rates post-apprenticeship, wage costs and productivity during training all contribute to the net cost or benefit of an apprenticeship to an employer.

The Apprentice Levy may have limited the ability of larger employers in the UK to exert control over training costs. The effect is likely to be largest on low pay sectors, who have less tolerance for high net costs due to low retention of employees post-apprenticeship. This is supported by the fact that there has been a decrease in lower level apprenticeships since the introduction of the levy.

However, it is too soon to draw firm conclusions about how employers will respond to the levy in the long-run. As the levy is now a ‘fixed cost’, employers have an incentive to try and use the training funds to increase productivity. The research discussed in this section suggests that there are various ways to do this. Employers could either seek to improve the productivity of apprentices, such as by increasing the length of the apprenticeship or by converting existing employees into apprentices; employers could attempt to improve retention rates post-apprenticeship, by making skills gained during training less transferable to other roles or by increasing wages post-apprenticeship. Lastly, employers could seek to keep wage bills for apprentices low. The evidence that the biggest reduction in apprentice
places has occurred in lower level apprenticeships (more likely to be low paid sectors), suggests that this may have been the initial response of some employers. However, in the long-term, improving completion and retention rates may be a better way for employers to decrease the net costs of apprenticeships. Increasing the value of the NMWAR may be necessary to improve completion and rendition rates in low pay sectors.

Different rates for people over 18 after first year of apprenticeship may contribute to under compliance or encourage substitution

Complexity may contribute to under-compliance

Research undertaken for the LPC in advance of the introduction of the NMWAR found that employers in low-pay sectors valued simplicity in pay rates. Employers who were using existing exemptions for apprentices from the NMW expressed a preference for a flat rate of pay, and a single rate across apprenticeship levels or year of study. This research also found anecdotal evidence that some apprentices in these low pay sectors did not always receive the pay raise to the NMW they were entitled to at 19. The researchers suggested that the complexity of having different rates for different ages depending on the year of the apprenticeship resulted in confusion on what the appropriate pay was for apprentices among both employers and apprentices themselves, which may contribute to under compliance.

The LPC have reported disproportionately high levels of minimum wage non-compliance since the increase in 2015 as reported in the Apprenticeship Pay Survey: in 2014 the underpayment rate stood at 6 per cent of apprentices, rising to 15 per cent in 2016. This compares to between 0 and 2 per cent non-compliance for full employees. Underpayment of apprentices appears to be higher in low paid sectors such as hairdressing, childcare and construction. In their 2017 report the LPC recommended that wider changes in apprenticeship policy be used as an opportunity to tighten up education and enforcement around payment of the apprentice rate.

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26 Before the introduction of the NMWAR in 2010, apprentices under the age of 19, and over the age of 19 for their first year of apprenticeship, were exempt from the NMW, although most frameworks required that apprentices be paid. (LPC, 2009)


29 Ibid


Recent research found that understanding of the NMW eligibility was still very poor among many apprentices and employers in child care and hairdressing (which are among the sectors with the highest non-compliance rates). This research also found that non-compliance decreases with age among first-year apprentices (who are all eligible for the NMWAR); it increases with age for apprentices who are eligible for the NMW (second-year apprentices over 18 years old).

While some of the non-compliance in these sectors may be intentional, some may result from the complexity of the system. Low-pay sectors are the most likely to fall foul of the system, as they are the most likely to be paying apprentices at or just above the NMWAR, meaning they will under-pay apprentices over 18 in their second year if they do not significantly increase their pay.

Substitution

Table 1 shows the percentage increase in pay from the NMWAR to the NMW, or the pay gap between apprentices in their first and second year of apprenticeships by age. Evidence from both the UK and the Netherlands suggests that for employees on the minimum wage, if the gap between different age minimum wage rates is too high, it may lead to substitution effect may occur between older and younger workers. The largest wage gap between minimum wage age rates in the Netherlands study was 17 per cent, while in the UK in 2018 it was 40%. The gaps between the NMWAR and the NMW in 2018 were significantly higher-with apprentices over the age of 20 seeing a jump of almost 100% or more in their second year. This may particularly be a concern in sectors such as child care and hairdressing, which have high rates of non-compliance and the bite of the NMWAR is high for young apprentices. Some employers in these sectors expressed concern about the higher cost of older apprentices in Drew et al (2016). In 2016, 39% of childcare employers in a survey for the LPC said they felt the age profile of their employees was likely to change in response to the introduction of the national ‘Living Wage’ or people over 25. If higher minimum wages for employees lead to substitution of younger workers, a large gap between wages for younger and older apprentices may also dissuade some low pay employers from taking on older


Kabátek (2016) Happy Birthday, You’re Fired! The Effects of Age-Dependent Minimum Wage on Youth Employment Flows in the Netherlands IZA Discussion Papers


apprentices- as the larger proportional fall in apprentices over the age of 25 after the introduction of the Apprentice Levy may indicate.

Table 1: The wage gap between apprentices over the age of 18 in their first and second year of apprenticeship

<table>
<thead>
<tr>
<th>Age</th>
<th>NMW 2018</th>
<th>Percentage increase- ‘jump’ in pay from NMWAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-20</td>
<td>£5.90</td>
<td>59%</td>
</tr>
<tr>
<td>21-24</td>
<td>£7.38</td>
<td>99%</td>
</tr>
<tr>
<td>25+</td>
<td>£7.83</td>
<td>112%</td>
</tr>
</tbody>
</table>

Conclusion

The current complexity of the system of apprentice pay leads to confusion among some low pay employers and apprentices about what the correct rate of pay should be in each year of an apprenticeship by age, which may contribute to high rates of under-compliance in hairdressing and child care. The system also means that apprentices over the age of 18 face a significant pay rate ‘jump’ between their first and second years, which may lead to substitution of younger apprentices for older ones, or dissuade employers from taking on older apprentices. Increasing the NMWAR so that apprentices over the age of 18 did not need a significant pay increase in their second year to comply with NMW eligibility would reduce the complexity of the system, which might improve non-compliance, and reduce the risk that younger apprentices will be substituted for older ones.
3. What factors effect young people’s decision to undertake apprenticeships?

Pay may not be main motivation for undertaking apprenticeship, but may contribute to completion rates

Why do apprentices choose this path?

Research undertaken with apprentices appears to support the view that they view the lower apprentice wage rate as a tradeoff for training and higher future earnings. This seems to have been true both before and after the introduction of the NMWAR. However, while wage rates may not be the primary driver of undertaking apprenticeships, they may be an important factor in completion rates.

Focus groups with apprentices undertaken by IPPR for the LPC before the introduction of the NMWAR found that the majority of participants were prepared to accept lower wages ‘in return for two important advantages: job satisfaction and the prospect of higher wages in the future.’ 37 Similarly, in 2006, a survey of apprentices by Cambridge Policy Consultants found that only a small minority (4% of level 2 and 7-8% of Level 3 apprentices) cited earning a wage as their main reason for participating. 38

After the introduction of the NMWAR, the attitudes of apprentices do not seem to have shifted much. A survey of over 1,000 apprentices in 2012 found that 54% were attracted to apprenticeship because they ‘valued the qualification and career prospects.’ 39 However, wages are acknowledged as part of the appeal for a significant proportion of apprentices: 42% valued ‘an opportunity to combine earning and learning.’

Completion rates

Ensuring that people who undertake apprenticeships complete them is vital to the policy aims of government. It is also critical to employers- high completion rates decrease the overall cost of apprenticeships, and ensures they have the skills pool they need. While the wage level may not be the primary motivation for people who undertake apprenticeships, there is evidence that it may contribute to completion rates. In 2013/14, three in ten apprentices under the age of 21 who started an apprenticeship did not complete it, so this is a critical area of policy concern. 40

40 Social Mobility and Child Poverty Commission (2016) Apprenticeships, young people, and
The body of research undertaken to explore the reasons for completion vs noncompletion of apprenticeships have broadly found that a web of often inter-related factors seem to contribute. Some of the key factors associated with success are to do with the training and management of apprentices- supportive employers and ‘a culture of training being valued’, as well as the quality and time allocated for training have been identified as critical to success.\(^{41}\) This research also found that low wages are linked to high apprentice turnover, and act to encourage apprentices to leave before completing their course. Evidence from the TUC to the LPC in 2009 cited research that found that 27 per cent of trainees who dropped out of training stated ‘not getting enough money’ as their main reason.\(^{42}\)

More recently, evaluation of the results of the Apprenticeship Vacancies System\(^ {43}\) found that 11% of apprentices who didn’t complete their course attributed their decision to low pay. In this research, many non-completers indicated that an increase in pay, or other financial assistance, could have encouraged them to continue with the apprenticeship. An evaluation of the Apprentice Grant for Employers survey found that 17% of those who left their Apprenticeship without completing did so because the wage was too low.\(^ {44}\)

Future earnings, completion and retention

If many apprentices are willing to forego earnings while they complete their apprenticeship, the prospects of a role, ideally with a pay premium, upon completion of the apprenticeship become paramount. The Young Women’s Trust report that many apprentices feel they have no prospects to secure a role as a full employee in their current workplace when their placements are finished, instead they expect to be replaced with another apprentice.\(^ {45}\) The Sutton Trust also found variable prospects for a significant pay premium upon completion by sector.\(^ {46}\) Other research for the LPC has found that some low pay sectors, such as retail, apprenticeships result in no significant future earnings gain.\(^ {47}\) For low pay sectors with less potential for a permanent position with pay progression post- apprenticeship, higher wages during the apprenticeship could potentially increase completion rates.

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\(^{41}\) Gallacher (2004)


\(^{44}\) Ibid.

\(^{45}\) Young Women’s Trust (2016) Making Apprenticeships Work for Young Women London: Young Women’s Trust.


Higher apprentice salaries may also assist with retention of employees who successfully complete an apprenticeship—a report for the TUC and UnionLearn suggested that employers with the highest average level of apprentice pay also appear to have highest retention rates, post training.\textsuperscript{48} Research by the LSC to support expanding apprenticeships in England found that one of the main reasons given by non-completers was that they left their employer for a higher paying job, and many who could have been persuaded to stay suggested that better pay or support with other costs would have helped—suggesting that higher pay could improve both completion and retention.\textsuperscript{49} This argument suggests that employers wishing to recoup their costs spent on apprenticeships, higher wages could be one avenue to insure they retain skills.

International evidence on apprentice completions

A study in Germany considering the reasons for dropping out of apprenticeships found that financial hardship increased the likelihood of an apprentice leaving their placement.\textsuperscript{50} Additionally, the lower the level of missed wages—the opportunity cost measured as “the apprenticeship wage relative to the wage for unskilled workers in the same sector” - the lower the chances of apprentices dropping out (p21). The study also identified poor earning potential upon completion as increasing the chances of apprentices dropping out.\textsuperscript{51}

Research from Germany, Switzerland\textsuperscript{52} and Australia\textsuperscript{53} found that if an apprenticeship affords sufficient pay premiums upon completion, lower apprenticeship wages are deemed acceptable. Karmel and Mlotkowski\textsuperscript{54} differentiated between trade apprentices and non-trade apprentices. For trade apprentices, the prospect of a skilled role and requisite pay premium upon was a motivator to complete the course and increase pay in the long term. For non-trade apprentices, “completion rates decrease with increases in the difference between wages in alternative employment and training wage” (p34). In other words, for non-trade apprentices, the low apprentice rate matters more as the gap widens with alternative employment opportunities. Like evidence from the UK, this supports the view that raising wages may increase completion rates in low pay sectors.

\textsuperscript{48} Income Data Services (2011) \textit{Apprentice Pay and Conditions: A research report for TUC/Unionlearn} London: TUC.
\textsuperscript{50} Bessey D and Backes-Gellner U (2008) \textit{Dropping Out And Revising Educational Decisions: Evidence From Vocational Education Zurich}: Swiss Leading House.
\textsuperscript{51} Ibid.
\textsuperscript{53} Karmel T and Mlotkowski P (2011) \textit{The impact of wages and the likelihood of employment on the probability of completing an apprenticeship or traineeship} Adelaide: NCEVR
\textsuperscript{54} Ibid.
Conclusion

While wage levels may not be the primary motivation for most people deciding to undertake apprenticeships, substantial evidence suggests that poor pay contributes to noncompletion of apprenticeships, and therefore that higher wage levels might increase completion rates. Wage levels during the apprenticeship may be particularly important in low pay sectors which are less likely to offer permanent employment or a future earnings premium upon completion of an apprenticeship- as these are two key factors that seem to contribute to apprentices being willing to accept lower wages during training. The cost of increasing wage rates for apprentices could be at least partially offset by decreasing the overall net cost of apprenticeships through increased completion and retention rate.

Public sector apprentice pay rates and completions

Data collected through Freedom of Information requests by Unison does not show a significant correlation between apprentice wage rates and completion rates in public sector organisations. There were also no significant correlation found between the proportion of apprentices recruited externally and wage rates, or the proportion of apprentices recruited internally and wage rates. However, as Table 2 shows, all sectors in this study paid above the NMWAR. The average lowest paid apprentice rate was £4.38 paid in Further Education- 25% above the NMWAR and above the NMW for under 18s. Across all sectors, completion rates were far higher than the last available England-wide completion rate of 74%.  

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Table 2: Completion rates by public sector

<table>
<thead>
<tr>
<th>Institution</th>
<th>Average lowest apprentice rate of pay (per hour)</th>
<th>Average completion rate</th>
<th>Proportion of organisations that guarantee apprentices a job at end of scheme</th>
<th>Proportion of new starts from recruitment of new apprentices from external sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Further Education</td>
<td>£4.38</td>
<td>93%</td>
<td>13%</td>
<td>87%</td>
</tr>
<tr>
<td>Higher Education</td>
<td>£6.97</td>
<td>87%</td>
<td>19%</td>
<td>93%</td>
</tr>
<tr>
<td>Police</td>
<td>£5.86</td>
<td>93%</td>
<td>24%</td>
<td>75%</td>
</tr>
<tr>
<td>NHS Acute Trusts</td>
<td>£4.60</td>
<td>81%</td>
<td>27%</td>
<td>48%</td>
</tr>
<tr>
<td>Councils</td>
<td>£5.14</td>
<td>86%</td>
<td>7%</td>
<td>80%</td>
</tr>
<tr>
<td>Total</td>
<td>£5.17</td>
<td>87%</td>
<td>13%</td>
<td>76%</td>
</tr>
</tbody>
</table>

Source: FOIs from UNISON

The factors identified in the previous section as contributing to completions may provide some insight into these high completion rates. The quality of training, along with management practices—such as managers investing time in apprentices, valuing training and peer support—are key factors in apprenticeship completions. This project also found that factors such as employment stability and the level of wages were important. Within the Unison data, average completion rates were slightly higher (67%) among employers that guaranteed apprentices a job at the end of the scheme compared to those that did not (61%). It may therefore be the case that the quality of training, management practices, comparatively high wages and security of employment (among a minority of employers), contributed to strong completion rates in the public sector.

Conclusion

Data collected on apprenticeships in public sector bodies by Unison does not show a correlation between apprentice wages and completion rates. However, all of the average lowest pay rates were significantly above the NMWAR. It could be that there is a diminishing effect from increasing apprentice pay rates on completion rates above a certain level of the NMWAR.

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57 Ibid.
Equalities and the NMWAR

Low wages may create financial barriers to apprenticeships

Evidence suggests that low apprentice pay may be a barrier dissuading people from some groups from participating in apprenticeship schemes.5859606162

The NUS has reported that young people “are being systematically shut out from vocational education because of financial constraints at almost every stage”, labelling the apprentice minimum wage exploitative and calling for the scrapping of a separate rate (pg 3).63 Likewise, the Young Women’s Trust has recommended moving towards a single minimum wage for all age groups, alongside extending travel discounts and childcare support to further encourage young women into apprenticeships.64

The Sutton Trust has pointed to the potential negative impact of a low wage to the individual apprentice, as well as their families, with cuts to child tax credits and child benefits severely impacting a family’s finances for some low-income households.65

The Sutton Trust reported that, according to parents and apprentices, monetary incentives would be the most effective motivator to begin an apprenticeships, and 50 per cent and 42 per cent of parents and families respectively reported that raising the starting salaries of apprentices would be the most effective motivator, after the provision of a travel card and assistance with buying course related equipment. Monetary incentives were more important the lower the income of the parents.66

The Skills Commission cite the “immediate financial barriers” associated with apprentices from economically disadvantaged backgrounds, when “making ends meet” can be a significant challenge for those without familial support (p13).67 They recommend a package of incentives to mitigate the financial disincentive currently facing prospective apprentices, including examining the impact on household benefit entitlement, extension of the student loan scheme, and extension of subsidies such as discounted travel passes.

63 Ibid.
64 Young Women’s Trust (2016) Making Apprenticeships Work for Young Women London: Young Women’s Trust.
66 Ibid.
67 Skills Commission (2016) Spotlight on... Apprenticeships and Social Mobility London: Skills Commission
Who gets the best paid apprenticeships?

Equality concerns relate not just to certain groups being potentially excluded from apprenticeships, but also the likelihood that people with certain demographics will undertake the best paid apprenticeships which can be routes into better pay in future.

Almost a decade ago, the EHRC expressed concern that government policies seeking to expand the number of apprentices needed to address the issue of women, disabled people, and ethnic minority apprentices being disproportionately represented in poorer, lower-paid apprenticeships with fewer opportunities for advancement. These issues are ongoing, with evidence from the Learning and Work Institute highlighting that in certain areas, pupils who are eligible for Free School Meals are half as likely as their peers to undertake an advanced apprenticeship. In addition, students from BAME backgrounds are underrepresented, restricting the “pool of talent” employers can recruit from (p4).

One of the reasons the Equal Opportunities Commission (EOC) recommended that the minimum wage be extended to cover apprentices in 2004 was to address the gender pay differential between apprentices, which was largely attributed to gender segregation by sectors, with higher paying sectors such as engineering overwhelmingly male while low paying sectors such as child care, hairdressing and health and social care are predominately female. As Table 2 shows, the picture in 2016 remains very mixed. 15% of all female apprentices are working in hairdressing or early years, where the lowest earning quartile of women appeared to not be receiving the statutory apprentice rates. These low paying frameworks remain overwhelming female (93% of early years and 85% of hairdressing). A further 15% of women undertaking apprenticeships in 2016 were in the business framework, which had a 25th pay percentile only slightly above the NMWAR. Conversely, one of the best paid frameworks, engineering and related, was only 5% women, and only 2% of all female apprentices were in this framework. Research from the Sutton Trust has found a significant future earnings premium associated with completing engineering frameworks, so gender framework segregation is not just affecting women’s earnings now, but potentially in the future as well. This research found that from apprentices educated to Level 3, the future earnings differential was three times larger for men than women.

71 Ibid.
Table 3: Frameworks and gender

<table>
<thead>
<tr>
<th>Framework</th>
<th>Proportion of apprentices in this framework who are female</th>
<th>Proportion of all female apprentices in this framework</th>
<th>Lower quartile female pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business and related</td>
<td>64%</td>
<td>15%</td>
<td>£3.85</td>
</tr>
<tr>
<td>Children’s learning, development and wellbeing</td>
<td>93%</td>
<td>9%</td>
<td>£3.30</td>
</tr>
<tr>
<td>Construction and related</td>
<td>3%</td>
<td>0%</td>
<td>£5.13</td>
</tr>
<tr>
<td>Customer service</td>
<td>57%</td>
<td>5%</td>
<td>£5.35</td>
</tr>
<tr>
<td>Electrotechnical</td>
<td>1%</td>
<td>0%</td>
<td>£5.30</td>
</tr>
<tr>
<td>Engineering and related</td>
<td>5%</td>
<td>2%</td>
<td>£5.89</td>
</tr>
<tr>
<td>Hairdressing</td>
<td>85%</td>
<td>6%</td>
<td>£3.04</td>
</tr>
<tr>
<td>Health and social care</td>
<td>77%</td>
<td>33%</td>
<td>£5.81</td>
</tr>
<tr>
<td>Hospitality</td>
<td>57%</td>
<td>7%</td>
<td>£5.75</td>
</tr>
<tr>
<td>Management</td>
<td>54%</td>
<td>7%</td>
<td>£7.00</td>
</tr>
<tr>
<td>Retail</td>
<td>40%</td>
<td>5%</td>
<td>£4.50</td>
</tr>
</tbody>
</table>

Conclusion

There is evidence that the low rate of the NMWAR may restrict access to apprenticeships for people from low-income households. The demographics of those who undertake apprenticeships also shows that women, disabled people and people from BAME backgrounds are over-represented in lower-paying frameworks, and therefore stand to benefit the most from an increase in the NMWAR.
4. Case study NHS: The employer case for an apprentice living wage

All apprentices in the NHS in Scotland have been paid the voluntary Living Wage (currently £8.75 per hour) since April 2016. This case study is based on interviews with a union organiser and an NHS recruitment specialist working in Greater Glasgow and Clyde. This health board is the largest NHS employer in Scotland, and currently employs approximately 60 apprentices across a range of frameworks. The following benefits were attributed to paying the Living Wage to apprentices:

Future proofing the NHS—the need for a skills pipeline

One of the main reasons given by employers for offering apprenticeships is to meet current and future skills demand. This ‘skills pipeline’ of young people is especially important in sectors with an ageing workforce, such as the NHS. ‘Future proofing’ the organisation requires careful planning:

‘One of the things we’ve [NHS GGC, in partnership with Unions] tackled is need for better workforce planning. With a highly specialist, highly regulated, ageing workforce, we needed to identify gaps in the future workforce. [We’re tried] to genuinely create a framework for employment that allows [apprentices] to train in role, identify their skills and the best role [for them] and then grow into the nurses, and CEOs of the future. Everyone accepts we need that and apprentices can be a route in for people is very safe and planned way to do that.’ –Union organiser

As the Union organiser highlights above, in addition to ensuring that future skills needs are met, a pipeline of apprentices can provide a pool from which future managers and sector leaders can be drawn.

In order for apprenticeships to be an effective skills pipeline, it is important for apprenticeships to be valued, both by young people and wider society. One key way for policy makers and employers to demonstrate that they value apprenticeships is by paying a decent wage:

‘If the phrase ‘Modern Apprenticeships’ is to have value, in communities and the workplace, they have to be paid and valued appropriately. [...] People have to have the value of a wage they can live on.’ –Union organiser

Lastly, other employer research has highlighted the ability of apprenticeships to ensure an ‘optimum fit between the skills of the employee and the needs of the

workplace by being able to shape apprentices’ and trainees’ approaches to their work and the organisation in which they are employed.’ This was also mentioned as a benefit within the NHS, where many roles require highly specialist knowledge and language. The concern expressed by the union organiser on apprenticeships more broadly was around substitution for other jobs. This is discussed in chapter 2.

Widening access

The apprentice programme for NHS Greater Glasgow and Clyde is intentionally seeking to widen access to apprenticeships to underrepresented groups within its workforce— including young people, disabled people, and people from BAME backgrounds. Paying apprentices the living wage was seen as beneficial to this commitment, by making apprenticeships more appealing and/or liveable. The role of the living wage was highlighted in attracting young people, especially those from low-income backgrounds:

‘[With the Living wage] the starting salary becomes immediately attractive to young people from low-income, especially workless families. This is important because in Glasgow we have some very high rates of worklessness.’ NHS recruitment specialist

10 of the 60 most recent intake cohort of apprentices have a disability, and paying the Living Wage was seen as one contributing factor to this success.

Recruitment

Another common reason that employers offer apprenticeships is to aid in recruitment. Both CIPD (2014) and BIS (2015) have noted the relationship between application intensity and advertised wages, with higher paid apprenticeships attracting more applicants. Consistent with this, NHS GGC received 4,000 applications for 60 vacancies during their last round of recruitment. Despite this, the NHS recruitment specialist was clear that their programme was in competition with private sector firms for engineering and plumbing apprentice candidates, and they therefore needed to offer a decent wage to secure top candidates:

‘If we go an event to recruit apprentices in engineering, business admin, plumbing, we have competition for people [from the private sector] and [if] someone beside me is paying the national minimum apprentice rate, [if] someone beside me is paying the national minimum apprentice rate, [who] are parents going to bring their children [to]? Pay is big attraction to young people. You can see their eyes popping out of their head.’ —Recruitment specialist, NHS

Fresh thinking- skills and innovation

A common argument for paying apprentices below the age of 19 a lower wage is that young people are less likely to have work skills from previous employment. However,

79 Ibid.

the NHS recruitment specialist disagreed with this assessment, highlighting that young people often have ‘fantastic’ IT skills, which gives them a critical edge relative to older workers in NHS services which are becoming increasingly tech-driven. The value that ‘digital natives’ can bring to employers has been highlighted elsewhere as part of the business case for hiring young people.\textsuperscript{82,83,84}

The NHS recruitment specialist was also keen to stress the ‘soft’ skills that young people without much work experience could bring, such as enthusiasm, a willingness to be more open to advice and mentoring, and a lack of ‘bad habits’ formed in previous roles. This ‘malleability’ has been highlighted as a key benefit of younger apprentices in other research.\textsuperscript{85} The recruitment specialist also felt that the youngest generation had a strong commitment to social responsibility, and hoped that bringing in young people who articulated these NHS values at the beginning of their careers would ensure that these values would be maintained and built upon throughout their NHS careers.

Lastly, it was felt that young apprentices often brought a ‘freshness’ or questioning attitude which could drive innovation within the service. The recruitment specialist described how, on a recent visit by the Cabinet Secretary, a Senior Ward Nurse had praised a ward clerk apprentice for re-designing and streamlining the ward processes.

Conclusion

The NHS in Scotland has an ageing workforce, necessitating investing in a pipeline of young, skilled employees. Young apprentices are seen as a critical way to ensure this pipeline, and paying the living wage is seen as a way to make apprenticeships attractive to young people. Young apprentices are seen as valuable not just for their ability to ‘future proof’ the workforce, but also for their innovation, IT skills and enthusiasm.

\textsuperscript{82} Chartered Institute of Personnel and Development (2012) The Business Case for Employer Investment in Young People: Today’s Young People, Tomorrow’s Workforce CIPD.
\textsuperscript{83} PWC (2011) Millennials at Work: Reshaping the Workplace PWC
5. Conclusion

Evidence from both the UK and abroad points to the net cost of apprenticeships as a key factor in employers’ decision to offer apprenticeships, of which wages are just one part. Apprentice productivity, training costs and retention rates post-apprenticeship all contribute to the net cost of offering apprenticeships, and employers’ willingness to incur a cost rather than a profit from apprenticeships. The fact that raising the NMWAR 21% in 2015 had no significant impact on apprenticeship starts provides evidence that previously increasing the NMWAR did not result in a significant increase in net costs. The significant reduction in apprentice starts following the introduction of the Apprentice Levy indicates that employers have been far more impacted by this increase in training costs.

The 34% reduction of apprenticeship starts for over 25s, driven by a reduction in Intermediate (Level 2) apprenticeships, indicates that low wage sectors are the most affected, and that employers may have become (at least temporarily), more sensitive to the higher wage costs associated with older apprentices, as they attempt to offset training costs.

The evidence suggests that increases to the NMWAR alone do not impact on apprentice starts. However, the NMWAR does not occur in a vacuum, but rather in a policy landscape which has seen huge changes that have affected the cost of apprenticeships beyond wages. The research reviewed in this report points to apprentice wage rates as being a fairly ineffective instrument for influencing employers’ offer of apprenticeships. It seems that policy relating to training costs may have a far larger impact, although the impact of the Apprentice Levy so far seems to be negative.

While wage rates may not have a significant impact on the number of apprenticeships offered, the differential wage rates may contribute to employer behaviour towards apprentices in other ways- such as under compliance (whether intentional or not) and substitution of younger, cheaper apprentices for older ones.

Where apprentice wage rates may also have more influence is over apprentice behaviour- both current and potential. While the majority of people who have undertaken apprenticeships may not see the wage level as a primary motivation, there is evidence that low wages may be dissuading people from low-income backgrounds from undertaking apprenticeships to begin with.

Higher wages may also improve both completion rates and retention rates. In this way, raising wages may indirectly encourage employers to offer more apprentice places in the long run, by reducing the net costs of apprenticeships as completion and retention rates rise. Improving completion rates is also vital to fulfilling the ultimate goal behind policies attempting increasing apprenticeships: ensuring a ‘pipeline’ of trained young workers to meet the skills needs of the future.