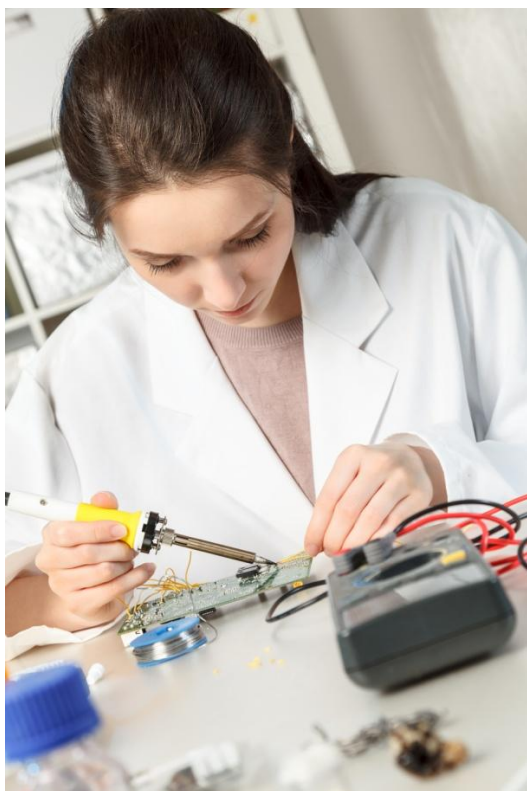


An international comparison of apprentice pay: Executive Summary

Low Pay Commission



October 2013

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Executive Summary

London Economics were commissioned by the Low Pay Commission to undertake an investigation of the level of apprenticeship pay across fourteen countries. Covering a range of countries with different educational and apprenticeship systems, the countries included in the original terms of reference are

- United Kingdom (broken down by Home Nation)
- Republic of Ireland
- Australia/ New Zealand
- Germany/ Austria/ Switzerland/ Netherlands
- Spain/ Italy
- France/ Belgium
- Denmark/ Sweden

Objective of the study

The main focus of the analysis relates to the assessment of apprentice pay (adjusted for price differences across countries (using PPP indices)), in absolute terms, and as a proportion of both any national minimum wage (where it exists) and as a proportion of the 'fully qualified rate' (or equivalent).

UK Apprenticeship key statistics

There have been contrasting trends in the take-up of apprenticeships across the countries of the UK. Although there has been an increase in the number of apprentices across the United Kingdom (from 266,000 in 2007/08 to 573,000 in 2011/12 (see Table 1)), this increase has been driven by apprenticeship take-up in England (with the number of apprentice starts more than tripling from just over 193,000 to over 520,000 during the period from 2003/04 to 2011/12). Although there has also been an **80%** increase in the number of apprentices in Scotland (**60%** in Northern Ireland) since 2007/08, the number of apprentice starts in Wales has declined gradually over the period.

Thousands	UK	England	Northern Ireland	Scotland	Wales
2003/04		193,600	3,500		
2004/05		189,000	3,400		24,600
2005/06		175,000	3,300		28,100
2006/07		184,300	3,300		19,600
2007/08	266,600	224,800	5,500	14,700	21,600
2008/09	275,700	239,800	7,100	10,600	18,100
2009/10	323,400	279,700	7,100	20,200	16,400
2010/11	506,200	457,200	8,900	21,500	18,600
2011/12	573,400	520,600	8,700	26,400	17,700

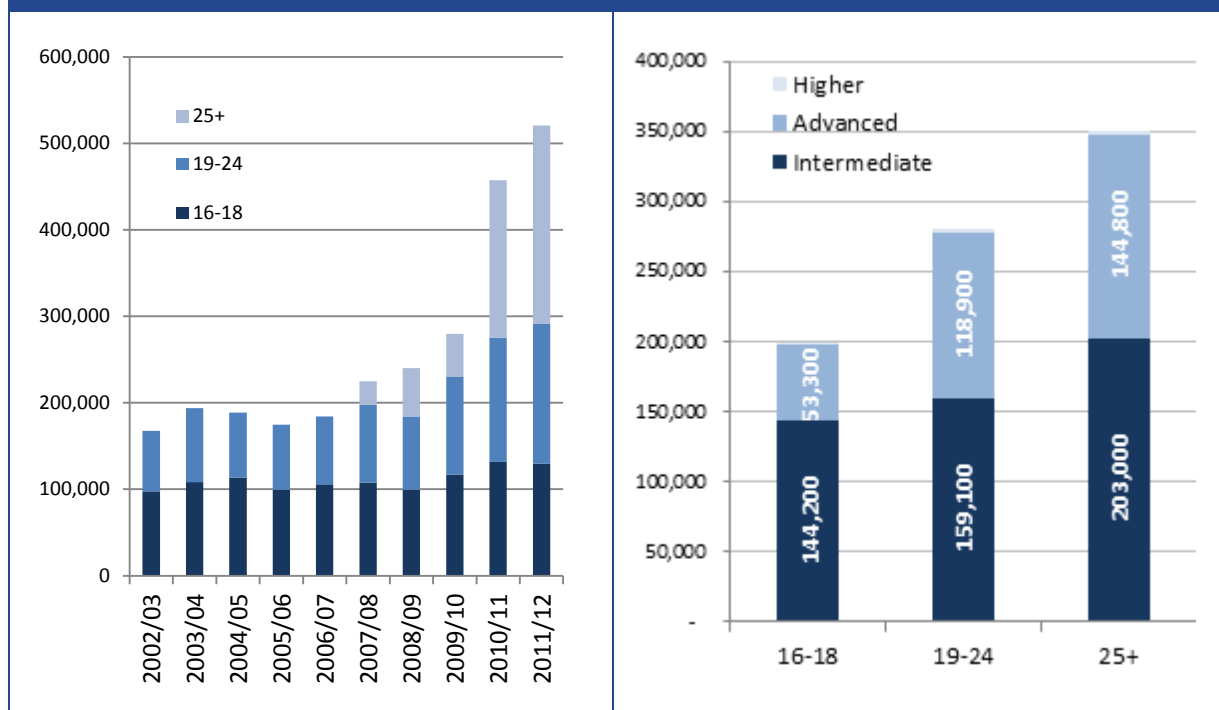
Notes: England data for 2011/12 are provisional, and may be subject to small revision. They exclude the small number of Level 4 apprenticeship starts from 2008/09. In Northern Ireland, Apprenticeships NI replaced Modern Apprenticeships in September 2007; hence the figures from 2007/08 are the sum of these two schemes. Figures for Scotland are only available for Modern Apprenticeships, which will not include all those at Level 2. Figures rounded to nearest 100. *Source: National Apprenticeship Service*

Apprentice composition

Of key importance is the composition of apprentice starts (predominantly in England). The increase in apprentice starts in England is dominated by individuals aged 25 or more. Compared to an increase of **11%** in the number of apprentices aged 18 or less, there has been a **42%** increase in the number of apprentice starts by learners aged between 19 and 24. However, the increase in the number of apprenticeship starts between 2009/10 and 2011/12 amongst those aged 25 or over stands at approximately 180,000, which corresponds to a **366%** increase.

In terms of the level of apprenticeship qualification being acquired, approximately **72%** are aiming for a Level 2 apprenticeship, while approximately **42%** of apprentices aged 19 or above are aiming for a Level 3 apprenticeship. This information is presented in Figure 1.

Figure 1: Total apprenticeship starts by age, England, 2002/03 to 2011/12



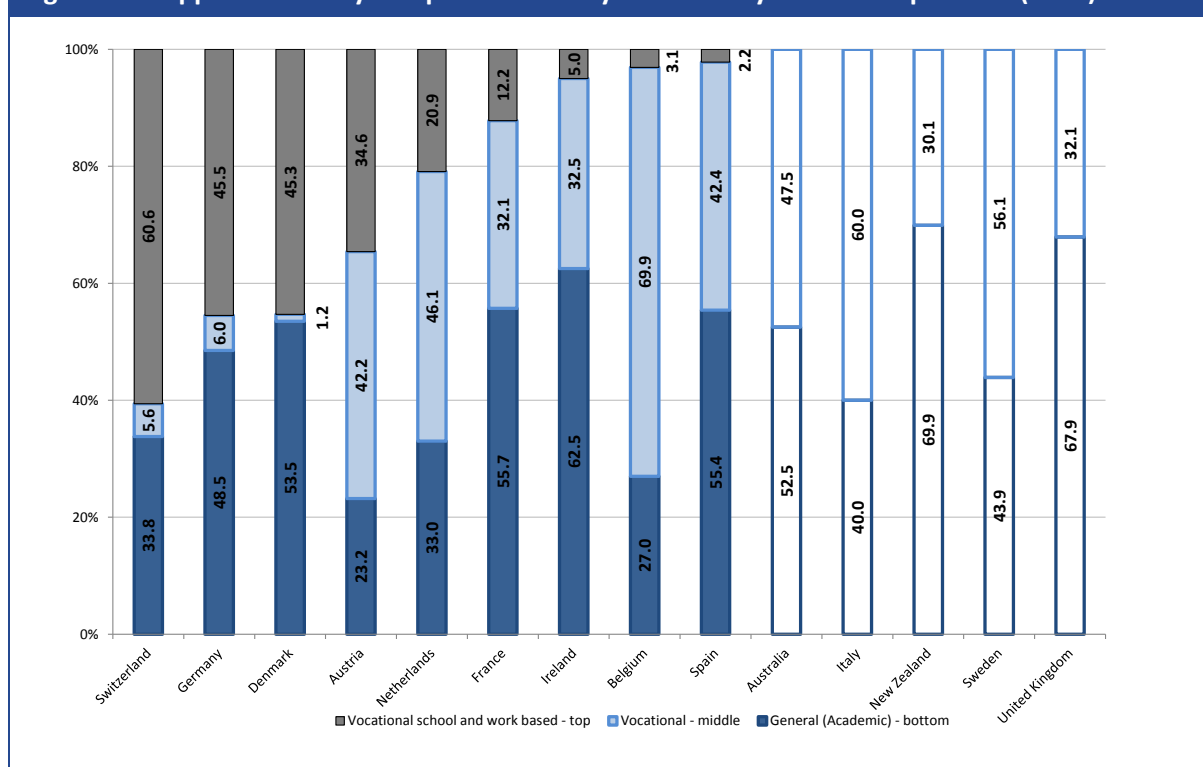
Source: Skills Funding Agency "Quarterly Statistical First Release Further Education & Skills: Learner Participation, Outcomes and Level of Highest Qualification Held" 27th June 2013. Notes: Left panel presents apprentice starts between 2003 and 2011, while the right panel presents total participation in 2011. Intermediate, advanced and higher apprenticeships correspond to NVQ Levels 2, 3 and 4 respectively.

Educational attainment and upper-secondary enrolment patterns

Placing vocational training within context, approximately **30%** of the UK **adult** population has upper-secondary vocationally orientated training as their **highest qualification** (i.e. ISCED Level 3B (or NVQ Level 3)), with approximately **7%** in possession of upper-secondary academic orientated training as their highest qualification (i.e. ISCED Level 3A (i.e. GCE 'A' Levels)). A further **14%** of UK adults are in possession of short course vocational qualifications as their highest qualification (i.e. ISCED 3C (i.e. NVQ Level 2)). The proportion of UK adults in possession of vocational qualifications as their highest qualification at upper-secondary level is significantly lower than in those countries with established and highly integrated workplace apprenticeship systems Germany (**49%**), Austria (**47%**), Switzerland (**40%**) and Denmark (**36%**).

Further re-iterating the differences in the various vocational training systems across countries, Figure 2 presents the proportion of **enrolments** at upper-secondary and post-secondary non-tertiary level. Compared to approximately **32%** of learners in the United Kingdom in **both** workplace and classroom based vocational training, in Switzerland approximately **61%** of learners at this level are enrolled in workplace vocational training (i.e. apprenticeships), with estimates for Germany, Denmark and Austria standing at between **35%** and **45%**. As the main report illustrates (Figure 9), those countries with a high incidence of (high quality) integrated workplace vocational training are also associated with relatively low youth unemployment rates, as well as small differences between youth unemployment and adult unemployment rates.

Figure 2: Upper secondary and post-secondary non-tertiary enrolment patterns (2010)



Source: OECD Education at a Glance (2013). Notes as per Table 11 in main report apply. There are a number of countries (presented to the right) where there is no breakdown between the nature of the vocational training undertaken. In these cases, the internal shading has been removed, and aggregate academic and vocational enrolments are presented.

Apprenticeship duration and content

There are three levels of apprenticeship in England – ‘Intermediate Apprenticeships’, ‘Advanced Apprenticeships’ and ‘Higher Apprenticeships’, encompassing a range of competencies and incorporating technical proficiencies at NVQ Level 2 or equivalent¹, NVQ Level 3 or equivalent² and NVQ Level 4 or equivalent³, respectively. Information from the National Apprenticeship Service indicates that, overall in 2011/12, of the **520,600** apprenticeship starts in England, approximately **63%** were at Intermediate Apprenticeship level, **36%** were at Advanced Apprenticeship level, with the remaining **1%** at Higher Apprenticeship level. In Wales and Northern Ireland, equivalent level apprenticeships are available, while in Scotland, there are 4 levels of apprenticeship available ranging from SVQ Level 2 and Level 3 (equivalent to an ‘Intermediate’ Apprenticeship and ‘Advanced’ Apprenticeship) to SVQ Levels 4 and 5 (‘Technical’ and ‘Professional’ Apprenticeships).

Information from the Individualised Learner Record (which is a record of Further Education learners in England administered by the Skills Funding Agency (SFA)) indicates that the average durations of apprenticeships at the three levels were approximately **12 months**, **18 months** and **12 months** respectively, implying that the completion of all three apprenticeship stages would require 42 months in total (on average). However, it is important to note that the introduction of Higher Apprenticeships is a relatively recent phenomenon, and as such, it is more likely that an apprentice will spend between **12 months** and **30 months** undertaking an apprenticeship; however there is some significant degree of variation depending on the sector of employment/training⁴.

¹ Broadly corresponding to ISCED Level 3C (i.e. short course vocational training)

² Broadly corresponding to ISCED Level 3B (i.e. vocational training at upper-secondary level)

³ Broadly corresponding to ISCED Level 4B (i.e. post-secondary non-tertiary vocational training)

⁴ Although the average length of an Intermediate Apprenticeship is 11.1 months, some of these apprenticeships are completed within 7-8 months, while others (e.g. Intermediate Apprenticeship in motor vehicle repair and plumbing) can last more than 20 months. At *Advanced*

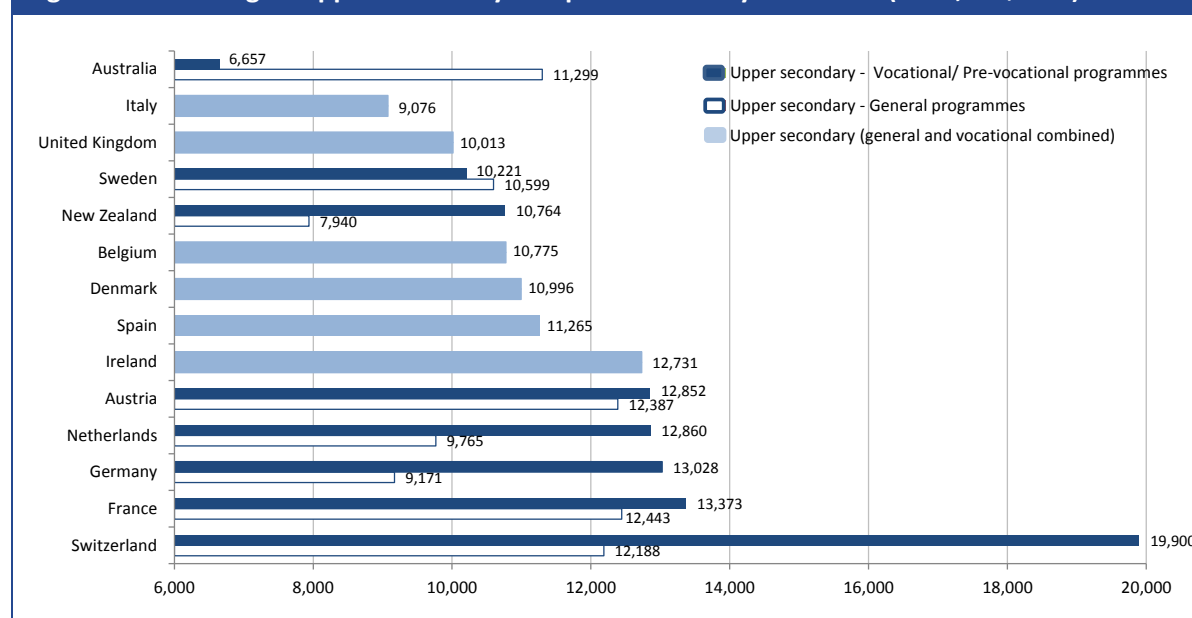
The information collected on the representative apprenticeship duration indicates that apprenticeship length in England is at the lower end of the spectrum. In Ireland and Switzerland, apprenticeships are generally **48 months** in length, while in Denmark, Australia and New Zealand the median length is **42 months** (though the mean length is closer to **36 months**). More commonly, apprenticeships last at least **36 months**, with Germany, Austria, and Belgium requiring a minimum of **36 months** (and often **42** or **48 months** in the case of Germany and Austria), while the median length of an apprenticeship in Sweden and France is approximately **36 months** (with the mean duration marginally lower). Only Spain, where a new system of apprenticeship training is being initiated, has shorter apprenticeship duration than England (on average **24 months**).

Funding for vocational training

Although there is no breakdown of funding per FTE learner in the United Kingdom at upper-secondary level (differentiated between general academic programmes or vocational programmes), the information in Figure 3 (from OECD *Education at a Glance*) indicates that average expenditure at upper-secondary level education in the United Kingdom stood at approximately **US\$10,013** per FTE learner per annum (**£6,618**). This average level of expenditure is approximately equivalent to the average levels of expenditure in Australia and Sweden (**US\$9,916** and **US\$10,375** respectively (**£6,452** and **£6,750** respectively)), although the focus of funding in these countries is very different. The average expenditure per FTE learner undertaking academic programmes in Australia is almost double the size of the funding levels on vocationally orientated programmes (compared to approximate parity in Sweden). With the exception of Italy, Australia and New Zealand, the UK has the lowest funding levels per FTE learner in any of the countries under consideration.

Perhaps unsurprisingly, at **US\$17,013** (**£11,069**), Switzerland has the highest level of funding per FTE learner; however, of particular note is the fact that the Swiss funding of vocational training is approximately **65%** higher per learner per annum compared to the academic route of qualification attainment. Similarly, German vocational training receives more funding per learner than the academic route, with **US\$13,028** (**£8,701**) on average in funding per FTE learner (compared to **US\$9,171** per annum for academic programme learners (**£5,967**)).

Figure 3: Funding of Upper secondary and post-secondary education (2010, US\$ PPP)



Source: OECD *Education at a Glance* (2012)

Apprenticeships level, the longest duration apprenticeship requires approximately 43 months (electrotechnical), while Advanced Apprenticeships in the plumbing industry require 36 months. In general, there are very few Advanced Apprenticeships lasting less than 12 months.

In Austria, France and Ireland, the average funding level at upper-secondary level is approximately **25-30%** higher per annum than the United Kingdom (with a relatively even split in funding across academic and vocational routes of qualification attainment), while in Denmark, Spain and the Netherlands, average funding levels at secondary level are between **10%** and **20%** higher than the United Kingdom.

Caveats/ notes of information on comparability of apprentice pay

Given the nature of the analysis, there is a significant amount of variation between - and within - countries in terms of both the apprenticeship systems, as well as the approach taken to apprenticeship remuneration.

In addition, although there are statutory minimums for apprentice pay in a number of jurisdictions, it is often the case that apprentices are paid significantly more than the legal minimum. As such, when comparing apprentice pay to both the fully qualified rate and any national minimum wage, we provide the best available evidence on the **actual** hourly rate of apprentice pay compared to the adult minimum wage, as well as actual hourly apprentice pay relative to a fully qualified worker (where the fully qualified worker is in an occupation requiring an apprenticeship to undertake the work or has an apprenticeship as their highest level of qualification).

In a number of cases, apprenticeship wages are determined at the sectoral-level through bargaining between the social partners (as are minimum wages), and can be dependent on the age of the apprentice or the location in which the apprenticeship is undertaken. In the main report, we provide more detailed information on the sector of employment of the relevant personal characteristics of the apprentice. However, for comparability purposes, when it is not possible to present a sensible average across all apprentices, we present estimates of the level of apprentice pay in the construction sector amongst young apprentices.

Apprentice pay in the United Kingdom

- Apprentices across the United Kingdom earn **£6.05** per hour on average with some degree of variation by Home Nation, year of training, and field of training. Information from the UK Labour Force Survey suggests that the average hourly rate for an individual whose highest qualification is an apprenticeship (the 'fully qualified rate') stands at **£11.92** across the United Kingdom. Combining this information on wage rates suggests that apprentices in the UK earn approximately **50%** of the fully qualified rate over the course of their apprenticeships. There is some variation across the Home Nations given the differences in the estimates of the fully qualified rates and apprentice pay, but these differences are not large.
- However, as a result of the composition of the apprentice cohort, and in particular the very large numbers of apprentices aged 25 or above, there is substantial variation in apprentice pay by age. Specifically, although the average apprentice pay across the UK stands at approximately **£6.05** per hour; for those apprentices aged less than 19, the average pay rate is approximately **£3.88** per hour, and compares to an average apprentice pay rate of **£8.15** for those aged 25 or above. This implies that younger apprentices earn approximately **32%** of the fully qualified rate on average over the course of their apprenticeship. **The average pay rate amongst apprentices reflects the large and increasing proportion of older learners undertaking apprenticeships.** Simply considering average pay rates reduces the comparability of findings internationally, especially in relation to those countries where apprenticeship training is predominantly the preserve of younger learners. In other words, a simple assessment of average apprentice pay rates may be misleading.
- Similar concerns emerge when assessing apprentice pay as a proportion of the adult minimum wage. Given the UK National (adult) Minimum Wage was up-rated to **£6.19** per hour in October 2012, the analysis undertaken suggests that apprentices across the United Kingdom earn between **90%** and **110%** of the adult NMW, again with variation by Home Nation. However, again focusing on younger apprentices only, the findings indicate younger apprentices earn approximately **63%** of the full adult minimum wage on average over the course of their apprenticeship.

Minimum Wage non-compliance

Comparing the hourly pay rate of apprentices to the minimum wage that they should be expected to receive based on their personal characteristics (age and the year of study), there are some estimates of the extent of non-compliance with the minimum wage in the United Kingdom⁵. The analysis indicates that

- **9%** of apprentices were paid less than **£2.50** per hour (the apprenticeship minimum wage at the time of the *Apprentice Pay Survey* report), with a further **8%** paid between **£2.51** and **£4.91** per hour (i.e. the minimum apprentice rate and the Development rate), which was estimated to be below their minimum wage based on their age and year of training. A further **2%** of apprentices were paid between **£4.92** and **£5.92** (the Development rate and the Adult rate), again less than the statutory minimum based on their age and training year. In total, the analysis found that non-compliance with minimum wage rates stood at **19%**.
- There was significant variation in the rate of non-compliance, with **48%** of individuals in the hairdressing sector suggesting they were paid below the relevant national minimum wage compared to **4-5%** in the Retail, Health and Social care and Customer Service sectors.

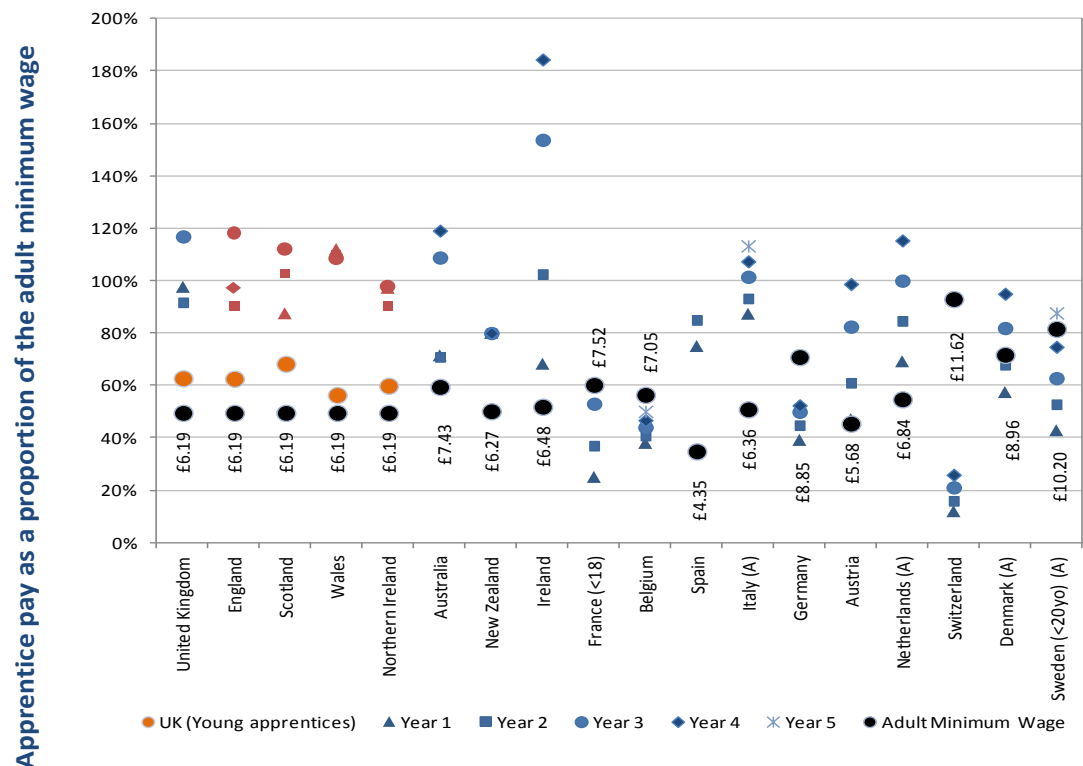
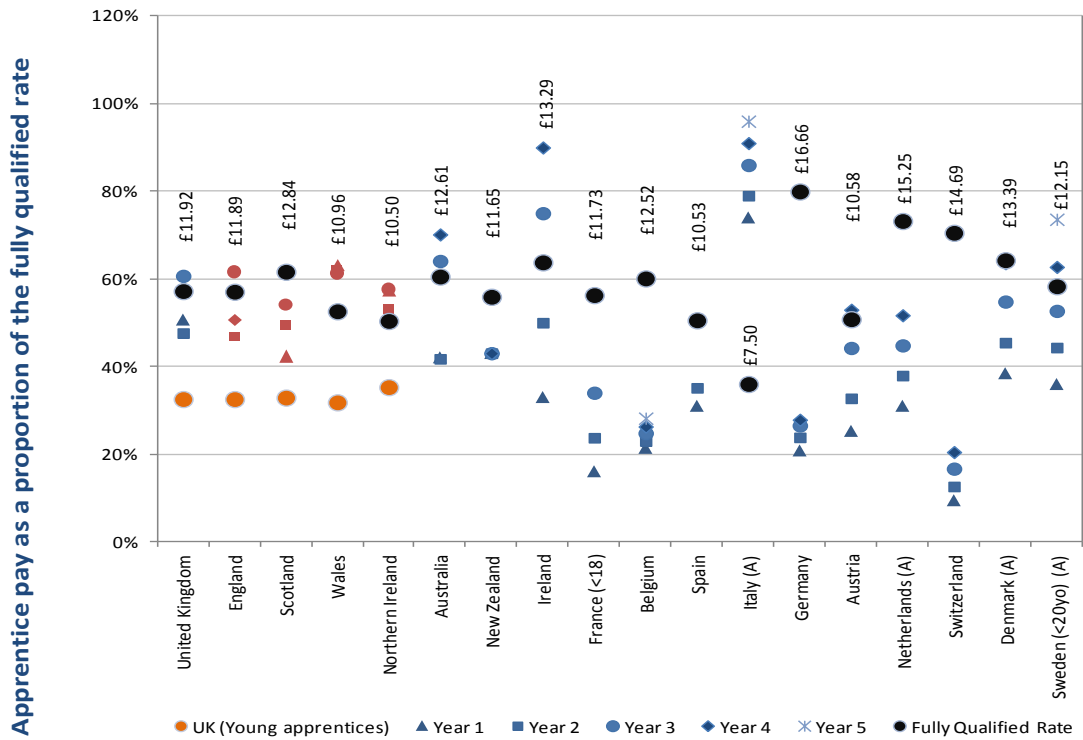
How does this compare with other jurisdictions?

- **Across all apprentices, the analysis suggests that the level of apprentice pay⁶ is higher in the United Kingdom than in those countries operating an established (Dual) apprenticeship system** (for example Austria, Germany, Switzerland). Apprentice pay in the United Kingdom is also significantly higher than in France and Belgium. UK apprentice pay is at generally comparable levels with apprentices in Denmark and Sweden (although there are more structured pay increments as training progresses in these countries), but substantially less than in Ireland. This information is presented in Figure 4.
- **Even considering apprentice pay amongst younger apprentices only, the levels of UK apprentice pay is still marginally higher than in those Northern/Central European countries operating the Dual Apprenticeship system.** For instance, for young apprentices, compared to apprentice pay standing at **32%** of the fully qualified rate in UK, the 'corresponding' estimate in Switzerland is approximately **10-20%**, while apprentices in Germany, France and Belgium earn approximately **20-30%** of the fully qualified rate over the course of their training. In contrast, apprentices in Denmark, Sweden, Austria and the Netherlands earn **30-60%** of the fully qualified rate over the course of their apprenticeship.
- The characteristics of apprenticeships (and apprentices) in the United Kingdom are fundamentally different from apprenticeships offered in a number of other countries. Firstly, both the duration and the quality of the training provided in the United Kingdom is lower than that provided in many of the other countries - especially those countries offering long- established and highly popular 3-4 year Dual apprenticeship training. In many senses, the level of compensation for apprentices in these Dual apprenticeships countries is understandably low, given
 - the quality of the training
 - the strong and stable returns to post apprenticeship completion, and
 - the commitment of these countries to vocational training more generally and its integration with work-based training, evidenced by relatively low unemployment rates amongst young people.

⁵ However, the source of the information is the Department for Business, Innovation and Skills *Apprentice Pay Survey* and it is important to note that the timing of the apprentice pay survey is in the final quarter of the year, which is around the same time that the relevant national minimum wage is up-rated. Therefore, there is some degree of uncertainty in relation to whether pay rates have been reported pre or post the annual up-rating.

⁶ controlling for differential price levels across country – either as a proportion of the relevant minimum wage or fully qualified rate.

Figure 4: Apprentice pay as a proportion of the fully qualified rate and minimum wage



Source: London Economics (2013)