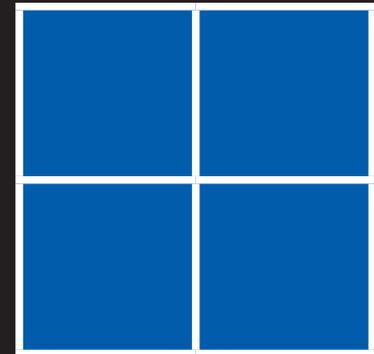


Gender Segregation, Apprenticeship, and the Raising of the Participation Age in England: are Young Women at a Disadvantage?

Alison Fuller and Lorna Unwin

LLAKES Research Paper 44



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Abstract

This paper argues that there is a continuing need for close monitoring of gender segregation in both the English labour market and in vocational education and training (VET) programmes. There is a new two-fold urgency for doing so in relation to the prospects facing young women. First, all young people in school in 2013 will be required to continue their participation in some form of government recognised education and/or training until they are 17 instead of the current age of 16. From 2015, this new 'participation age' will rise to 18. The numbers of young people remaining in full-time education from the age of 16 have been stuck under 70 percent since the mid-1990s. Latest data show the figure in 2012 was 67.7 percent. Young women are under-represented in work-based programmes and over-represented in full-time education compared with young men. To increase participation overall and meet the Raising the Participation Age (RPA) requirement, the numbers of males and females in both full-time education and work-based programmes (including apprenticeship) need to increase. Yet, as this paper indicates, young women are still far less likely than young men to access the best apprenticeships. Despite some reduction in the size of the gender imbalance in several of the service sectors since 2008-09, female apprentices are still much more likely to be found in the service sectors where pay, qualification levels and career prospects tend to be lower.

1. Introduction

Vocational education and training (VET) programmes and particularly apprenticeship understandably reflect the structure and occupational range of a country's labour market and, relatedly, the extent to which job roles are gendered. Whilst apprenticeship cannot be expected to resolve long-standing and systemic patterns of gender segregation in society as a whole, it is important to examine how far any country's VET system passively entrenches segregation or actively challenges it. In the European Union, female participation in the labour market has been rising substantially over many years, but women continue to fare worse than men in relation to pay, levels of involuntary part-time employment, and opportunities for career progression (see, *inter alia*, Eurofound, 2012; and Bettio and Veraschagina, 2009). Data for the United Kingdom (UK) in 2012 show the mean full-time and part-time gender pay gaps were 9.6 percent and 19.7 percent respectively for hourly earnings (excluding overtime) (Bovill, 2013).

This paper argues, therefore, that there is a continuing need for close monitoring of gender segregation in both the labour market and in VET systems. In England, there is a new two-fold urgency for doing so in relation to the prospects facing young women. First, as a result of legislation passed in 2008¹, all young people in school in 2013 will be required to continue their participation in some form of government recognised education and/or training until they are 17 instead of the current age of 16. From 2015, this new 'participation age' will rise to 18.² In 2012, the number of 16-18 year olds in full-time education stood at 67.7 percent, down from 68.6 percent in 2010, the first decrease since 2001 (DfE/National Statistics 2013). Of the total population of 16-18 year olds, 65 percent of males are in full-time education, compared to 70 percent of females. Of the total population of 16-18 year old females, 4.6 percent are participating in work-based programmes including apprenticeship, compared to 6.5 percent of the male population. Of the numbers of 16-18 year olds classified as Not in Education, Employment or Training (NEET), 55 percent are male and 45 percent are female. This means that girls are under-represented in the work-based programmes and over-represented in full-time education. To increase participation overall and meet the RPA requirement, the numbers in both full-time education and work-based programmes need to increase. Participation in full-time education has been stuck at under 70 percent since the

¹ Education and Skills Act 2008

² The term 'participation age' is being used because young people are not required to remain in school after 16, hence, this is not portrayed as a rise in the 'school leaving age'.

mid-1990s (see DfE/National Statistics 2013), so policymakers will need to look to the work-based route to absorb the new generation of full-time ‘participants’.

Second, the legislation on participation comes into force at a time when the youth labour market is continuing to shrink as a result of the continuing economic downturn and an underlying trend dating back to the mid-1990s (see Wolf, 2011). In May 2013, 20.9 percent of 16-24 year olds in the UK were classified as unemployed³ (ONS, 2013). The breakdown for men and women shows that 18.6 percent of women and 23 percent of men in this age group were unemployed (Mirza-Davies, 2013).

Data for England (DfE, 2013) indicate that by the end of 2011, just under a third (31.4%) of 16 year olds entered some form of VET (either work-based training, including apprenticeship, or a full-time course leading to a vocational qualification at Levels 1, 2 or 3 as defined in the National Qualifications Framework) after completing compulsory schooling and a further 1.1 percent entered jobs. At 17, a third (33.4%) are in VET and 3.7 percent enter jobs, whilst at 18, the proportion in VET provision falls to 23.1 percent and 16.0 percent enter jobs. The percentage of 16-18 year olds entering apprenticeship is 5.6 percent of which the majority (3.9%) are in the Intermediate Apprenticeship (Level 2) The figure for young people (16-18) classed as NEET (Not in Education, Employment or Training) was 9.9 percent at the end of 2011. (SFR 2013) These figures indicate the importance of VET programmes, including work-based training, for 16-18 year olds.

It is now 20 years since the announcement that a government-funded Modern Apprenticeship programme was to be introduced in the UK, a key aim of which was to increase participation in apprenticeship by females (Unwin and Wellington, 2001). As we write, the current government has announced the introduction of a Traineeship programme as a form of pre-apprenticeship in response to youth unemployment and the rise in the NEET population (DfE/DBIS 2013). We argue in this paper that without significant attempts to breakdown current forms of gender segregation in apprenticeship, this initiative and the raising of the participation age could further disadvantage young women. Furthermore, because the majority of apprentices in England are 19 years old or older when they start their apprenticeship, this disadvantage also affects older women as they attempt to improve their career prospects and life chances more generally.

³ The figure for 16-64 year olds was 7.80 per cent in May 2013 (ONS 2013)

As well as looking within the labour market for the causes of gender segregation, it is also necessary to consider the extent to which young people themselves reflect gendered attitudes towards their chosen pathways in life. Despite considerable advances in the life chances of women and the breaking down of barriers across the labour market, it is salutary to note how segregated some occupational areas remain. Part of this paper draws on data from a study of the attitudes of 14 and 15 year olds in England and Wales to the labour market in order to demonstrate the deep-rooted nature and continuing influence of gendered stereotypes in relation to what men and women can and can't do in the world of work. Much of the literature on the gendered nature of education and training and career choice focuses on the social justice dimension, but here, we also raise an economic argument. If young men and women continue to be reluctant to cross gender lines when it comes to forging their employment trajectories, it could be argued that employers are missing out on potential talent.

Following the Introduction, the paper is organised in six sections. In the next section, we provide an overview of critical issues and trends in relation to women and the labour market in the UK and internationally. In Sections Three and Four, we turn to apprenticeship in the UK and draw on statistical data to highlight ongoing gender segregation as well as linking trends in female participation and apprentice pay to changes in government supported apprenticeship policy. To help understand the persistent gender imbalance in apprenticeship participation, we discuss (Section Five) some of the key findings from previous research into 14 and 15 year olds' attitudes to apprenticeship which reinforce the scale of the challenge involved in overcoming their gender-stereotypical views. Section Six reviews a range of European initiatives that have been developed to challenge attitudes and to tackle gender segregation, before drawing together our conclusions in the final section (Seven).

2. Women and the labour market

The continued consequences of and fall-out from the recent economic crisis for female access to and participation in the labour market heighten both equity and economic concerns about gender balance. Female-dominated areas of the labour market such as health and social care, and clerical and administrative work, have been hit by the reduction in public sector jobs. There has been an overall decline in public sector employment of 4.5 percent from the first

quarter of 2011 to the first quarter of 2012. Within this overall figure, there have been falls of 7.2 percent in public administration, 3.1 percent in education, 1.9 percent in the National Health Service and 7.4 percent in other health and social work leading to strong rises in female unemployment (ONS 2012).

As we suggested at the start of this paper, the issues we are raising are common across many countries. Occhionero and Nocenzi (2009: 155), in their review of employment structures in the European Union, note, “structural factors and cultural stereotypes still contribute to a ‘gender divide’ in the workplace”. In the UK, women in full-time jobs now participate in more training than their male colleagues, though estimates always include short-term training activity such as induction programmes. However, this training advantage is wholly accounted for by the fact that almost twice as many women than men are employed in the public sector where the incidence of training and development is generally higher than in the private sector (Davies *et al*, 2012; Schuller, 2011). The sustainability of that advantage is threatened, therefore, by the continuing cuts to public sector employment. In their analysis of the effect of the 2008 economic crisis on women’s employment in the UK, Rubery and Rafferty (2013:421) argue that:

Once the dramatic 2010 budget cuts in the public sector, estimated to lead to over 330,000 lost jobs by 2014-15 (OBR, 29 November 2010) begin to bite, then women’s employment can be expected to fall further.

Female employment has to be placed in the context of continued horizontal segregation (jobs concentrated in certain industries and occupations) and vertical segregation (women restricted to certain levels). Yet, despite this reality, research suggests that the career aspirations of girls have been rising. A study of the career plans of high school students in OECD countries shows that ‘girls are determined to enter many occupations formerly thought of as strongly preferred by boys’ and, hence, ‘the traditional perceptions of the gender-typed occupational choices have ceased being an accurate representation of what young women aspire to’ (Sikora and Saha, 2009: 399). Nonetheless, the authors note the dangers of girls aiming too high (in contrast to boys who will opt for more vocationally oriented careers) as they will eventually confront the realities of gender differentiation in the labour market.

Research drawing on data from a range of industrialised countries shows that the greater the level of women’s education, the more likely they are to participate in the labour market, an effect that is much stronger for women than men (England *et al*, 2012). A study exploring

gender inequality in the Netherlands, Sweden and the United States has found that less educated women are less likely to enter paid work (Evertsson *et al*, 2009). The authors argue that women with more education can get better paid, more meaningful and interesting jobs because they have more exposure, through education, to discourses and role models of gender equality. This has major implications for VET as in most countries girls and young women (and their male peers) have limited exposure to debates about gender equality during their participation in VET programmes.

3. Apprenticeship and gender segregation in the UK

Apprenticeship, involving both males and females, has a long history in the UK stretching back to medieval times when craft guilds were formed in a range of occupations to both protect their skills and knowledge and train new entrants to ensure continuity and development. In relation to this paper, the contemporary manifestation of apprenticeship took shape in 1994 when the then Conservative government under the Prime Minister, John Major, decided that the State should play a much bigger role in the organisation and funding of apprenticeships. This followed long-standing concerns about the numbers of people in the UK with intermediate (technician level) skills as compared with other advanced industrial countries. To address this, Major's government introduced the 'Modern Apprenticeship' (MA). This was aimed at 16-24 year olds and was positioned as a Level Three (intermediate/technician) programme (see Unwin and Wellington, 2001).

The use of the term 'apprenticeship' was a deliberate attempt to set the new programme apart from existing 'youth training' schemes, which had struggled to shake off an image of low quality (Unwin, 2010; Gospel and Fuller, 1998). Importantly, the use of the term, 'Modern', was also chosen to signal that this new form of apprenticeship would break through the gendered nature of apprenticeship up to that point. The MA would be available to young women as well as young men, and would achieve this by being available in a much greater range of occupations (notably in the service sectors) than had previously been the case for apprenticeship. After the New Labour government came to power in 1997, it decided to abandon the previous government's policy and re-branded all youth training schemes, including what were then called National Traineeships, as 'Apprenticeships', thus

encompassing existing Level Two programmes.⁴ From the mid-2000s, it also extended the age limit beyond twenty-four, as well as introducing a ‘Young Apprenticeship’ programme for 14-16 year olds. Since the May 2010 general election, the Coalition Government has further increased government support for post-16 Apprenticeships, although in March 2011, the Department for Education (DfE) announced the withdrawal of funding for the Young Apprenticeship programme from September 2011 following a recommendation in the Wolf Review (2010) of 14-19 Vocational Education. Apprenticeship is the responsibility of the UK’s devolved administrations. In England, the following types of ‘apprenticeship’ are currently available for anyone aged 16 or over:

- Higher Apprenticeship (UK qualification Level 4/5/6)
- Advanced Apprenticeship (UK qualification Level 3)
- Intermediate Apprenticeship (UK qualification Level 2)

The vast majority of apprentices are pursuing either the Level 2 or 3 programme. Latest data, published in February 2013, show that one in four (25%) apprentices were in the 16-18 age group, 31 percent in the 19-24 age group, and the remaining 44 percent were aged 25 and over (Evans, 2013). The age profile of those starting apprenticeships has changed dramatically in the past few years. In 2004/05, the first year to include apprentices aged 25 or over, less than one percent of starts were in this age group, but six years later (2010/11) the proportion had risen to 44 percent. Within that same period the number of apprentice starts rose from 189,000 to 457,200, and now stands at 520,600 (*ibid*) due to the continued large increase in the older age group.

We have published critiques and analyses of the contemporary manifestation of apprenticeship in the UK over a number of years and we remain very concerned about the poor quality of many programmes (see, *inter alia*, Fuller and Unwin 2003, 2008, 2009, 2011). In order to concentrate on the gender dimension in this paper, we now provide a contemporary picture of the segregated nature of government supported apprenticeship. For the first time since official records began, the majority of those starting an apprenticeship in 2010/11 were female. After hovering at about 49 percent for several years, the increase in

⁴ Level 2 in the UK’s qualifications framework equates to the standard that 16 year old school leavers are expected to reach in order to be ready to enter the labour market. The proposed Traineeships, scheduled to begin in September 2013, mark a turning back of the clock to the youth training landscape prior to 2001. The Richard Review of Apprenticeship, published in 2012, recommended the reclassification of some Level 2 apprenticeships as traineeships - see: www.gov.uk/government/uploads/system/uploads/attachment_data/file/34708/richard-review-full.pdf

the female share of apprenticeship starts rose strongly to 54 percent in 2010/11 as a result of the increased availability of apprenticeships in the service sectors (SFR Feb 2012).⁵

Apprenticeships are available in over 150 occupational sectors, but the vast majority of apprentices are in 14 sectors. Table One presents the 14 sectors with the highest number of apprentices starting their programme in 2011/12 (with 2008/09 figures for comparison), and the proportion that are female. The period covers the four years since around the beginning of the economic crisis.

Table One: Starts in the 14 most populated apprenticeship sectors in 2011/12 by gender (England 2008-09 and 2011/12)

Sector Framework	2008-09			2011/12		
	Female	% female (rounded)	Total starts	Female	% Female	Total starts
Health & Social Care	10,600	86	12,300	58,600	83	70,820
Customer Service	15,520	69	22,500	36,990	62	59,090
Management	6,110	62	9,900	26,080	58	44,990
Business Administration	16,810	81	20,800	33,490	75	44,550
Hospitality & Catering	9,080	54	16,800	18,870	53	35,540
Retail	7,240	66	10,900	17,750	57	31,240
Children's care	16,730	97	17,200	24,050	93	25,840
Industrial Applications	80	1	1,170	2,240	12	18,800
Hairdressing	14,620	90	16,200	15,130	91	16,610
Active Leisure & Learning	2,750	35	7,740	4,270	27	15,640
Engineering	430	3	15,250	400	3	13,280
Construction	270	2	16,800	230	2	13,560
IT and Telecoms Professionals	410	9	4,600	1,200	10	11,600
Accountancy	3,540	68	5,200	5,250	62	8,410
Total	104,190	59	177,360	244,550	60	409,970

Source: Data Service SFR March 2013

http://www.thedataservice.org.uk/Statistics/fe_data_library/Apprenticeships/ accessed 3 June 2013

⁵ As we noted in the introduction to the paper, the current government continues to very actively promote apprenticeship as an important pathway for young people and, hence, the numbers of apprentices changes from month to month. The figures quoted here are the most up-to-date at the time of writing and have been compiled from a range of official data sources.

It can be seen from Table One that the largest numbers of apprentices, including female apprentices, are to be found in the service sectors. Growth in employment in the service sectors and a reduction in manufacturing and construction has been a feature of the UK economy for some years and is predicted to remain so over the next decade (Wilson and Homenidou, 2012). However, whilst the majority of apprentices are now female, the distribution across the sectors remains a major area of concern. Despite some reduction in the size of the gender imbalance in several of the service sectors since 2008-09, female apprentices are still much more likely to be found in the service sectors where pay, qualification levels and career prospects tend to be lower. Their participation in male dominated sectors remains very low.

In the past year, the numbers in some traditional craft and technical areas have dropped sharply, reflecting the stagnation in manufacturing and related occupations: for example, engineering numbers are down by 30 percent; construction by 18 percent; electrotechnical by 13 percent; and vehicle maintenance and repair by 12 percent. These numbers may of course increase as and when the economy improves, but for the moment they suggest that the prospects for young people wanting to pursue a career in a technical field are very restricted.

In 2003, the UK's Equal Opportunities Commission (EOC) launched a General Formal Investigation (GFI) into the gender segregation in apprenticeship in England, focusing on five sectors. Table Two shows the percentage of female apprentices in these five sectors for 2002/03, and 2011/12 (the frameworks for IT are not directly comparable).

Table Two: percentage of female apprentices in five sectors

Sector framework	2002-03 female %	2011-12 female %
Construction	1	1
Early years (childcare)	97	93
Engineering	5	3
IT services and development (02-03) IT and Telecoms Professional (11-12)	15	10
Plumbing	1	2

SFR March 2013

http://www.thedataservice.org.uk/Statistics/fe_data_library/Apprenticeships/

Source: Data Service accessed 3 June 2013

The findings presented in Table Two show that little progress has been made in changing gender stereotypical participation in the five occupational sectors that were included in the EOC's GFI nearly ten years ago. One sector, plumbing, indicates a slightly increasing female share, but the proportion of females starting an engineering apprenticeship has slightly decreased (both changes are from a very low base). In the case of IT, it is difficult to make an accurate comparison because of changes in the relevant apprenticeship frameworks and the way apprentices in IT are counted. Given the benefits (career prospects and financial) associated with those employed in sectors dominated by male participation, there is a strong equity case for renewing efforts to reduce the gender imbalance. The small (albeit slowly growing) proportion of males participating in childcare apprenticeships since 2002-03 continues to reflect deep-seated concerns in society about the risks of males working in childcare (e.g. in terms of potential child abuse) as well as wider issues relating to the status and salaries accruing to childcare workers (Beck *et al*, 2006a). As well as seeing increases in the Children's Care sector, two other top ten sectors have seen notable rises in the proportion of new apprentices that are male. In Customer Care, the proportion has risen from 31 to 38% and in Business Administration from seven to 25%. Since 2008-09, there has also been growth (albeit 5% or less) in male participation in other service sectors including Hospitality, Health and Social Care and Management. It is noteworthy that the growth in male participation in these sectors has not been matched by a similar expansion in female participation in sectors traditionally dominated by males.

Research by Fuller and Davey (2010) for the Equality and Human Rights Commission's Triennial Review focused on gender participation in apprenticeship in Scotland and Wales. In Scotland, government-supported apprenticeship is called the Modern Apprenticeship. At the time of Fuller and Davey's research, data was only available at Level 3⁶. The majority of participants are males aged 16-19. Participation in the MA in Scotland is more male dominated than the Advanced Apprenticeship in England. This is because the largest apprenticeship sectors in Scotland are Construction, Electrotechnical, Engineering, and Plumbing, all sectors traditionally dominated by males. The following tables (three and four) present participation by sector, age group and gender:

⁶ Scotland now offers four levels of Modern Apprenticeship from Level 2 through to Level 5, more information is available at <http://www.skillsdevelopmentscotland.co.uk/our-services/modern-apprenticeships/ma-frameworks.aspx> [accessed 5.8.2013]

Table Three: Modern Apprenticeship Scotland: 16-19, top 11 frameworks and gender - in training, 2008-09

Sector framework	Age 16-19 (number)	Female share (%)
Construction	6432	1
Engineering	3059	2
Electrotechnical	2585	1
Plumbing	1507	1
Business Administration	902	91
Early years care	784	99
Hospitality	387	46
Customer Service	371	67
Hairdressing	333	95
Health and Social Care	71	87
Management	43	35

Source: Fuller and Davey, 2010

Table Four: Modern Apprenticeship Scotland: aged 20+, top 11 frameworks and gender - in training, 2008-09

Sector framework	Age 20+ (number)	Female share (%)
Construction	1212	3
Electrotechnical	651	1
Engineering	568	3
Management	373	47
Plumbing	268	2
Health and Social Care	251	85
Hospitality	239	46
Early years care	168	98
Business Administration	87	87
Customer Service	54	67
Hairdressing	38	95

Source: Fuller and Davey (2010)

In Wales, government-supported apprenticeship is currently available to those aged 16 and over at Levels 2, 3 and 4/5, known as the Foundation Apprenticeship, Apprenticeship, and Higher Apprenticeship respectively. At the time of Fuller and Davey’s research, the majority of apprentices (60 percent) in Wales were participating in the Foundation Apprenticeship. In contrast with Scotland, the majority of apprentices are female (54%) and a minority of all apprentices are aged 16-19. Data on apprenticeship and gender and other equality groups in Wales (www.statswales.wales.gov.uk) are only available by broad sector subject areas rather than by sector frameworks as in Scotland and England. This means that the percentage share for females in Wales cannot be compared directly with the figures presented for the other two countries (see table five below). Nonetheless, the pattern of gender imbalance across sectors in Wales is similar to Scotland and England.

Table Five: Sector subject area by MA/FMA and gender in Wales (2007-08)

Sector subject area	MA	Female Share		FMA	Female Share	
		N	%		N	%
Retailing and customer service	1,230	875	71	4,910	3,240	66
Leisure, sport and travel	375	145	39	510	185	36
Hospitality	670	360	54	2,085	1,310	63
Hairdressing	500	465	93	1,495	1,365	91
Health care and public services	4,835	4,000	83	5,700	4,950	87
Media and design	30	25	83	*	*	
Agriculture	155	30	19	305	55	18
Construction	2,205	25	1	3,215	75	2
Engineering	2,410	70	3	1,480	135	9
Manufacturing	95	35	37	2,145	485	22
Transportation	35	*		180	5	3
Management and professional	2,290	1,395	61	850	465	55
Business administration	3,185	2,475	78	3,885	2,695	69
Sector unknown/not confirmed	270	5	2	680	100	15
Total	18,275	9,885	54	27,410	15,070	55

Source: Fuller and Davey, 2010

*Data cannot be verified for publication

4. Qualifications, pay and career prospects

In the UK, apprentices aged 16-18 are not eligible for the Minimum Wage, but, in the first year of their apprenticeship, employers are required to pay them and 19 year olds a minimum of £2.65 on an hour.⁷ This rate falls below the threshold for National Insurance contributions, which means that apprentices are not eligible for statutory sick pay or statutory maternity pay. A 2007 study of apprenticeship pay shows that, whilst the median pay gap between men and women for the whole economy was 11%, for apprentices it was 21% due to the low pay in service sector apprenticeships, notably hairdressing (Fong and Phelps, 2007).

The most recent survey of apprentice pay (Higton *et al*, 2012) undertaken in 2011 found that the mean weekly gross pay for apprentices in the UK was £212. This represented a decline in real terms from the previous survey in 2007 (£194 per week) (Higton *et al*, 2012: 34). Surprisingly, since minimum wage rules were introduced in 2010, five percent of apprentices in the UK (eight percent of those aged between 16 and 18) participating in the survey reported receiving no pay. Hairdressing, where over 91 percent of apprentices are female, remains the worst paid apprenticeship sector. Nearly half of all hairdressing apprentices reported being paid received less than they were entitled to in terms of the minimum wage for apprentices. Apprentices in ‘Children’s Care’ were most likely to report that they did not receive any pay at all. In the 2007 survey, Fong and Phelps found that the vast majority of apprentices in the two highest paid sectors (Electro-technical and Engineering) were male, whereas in the three lowest paid sectors (Hairdressing, Health and Social care, and Children’s Care), the vast majority of apprentices were female. They also found evidence that, within some sectors, some female apprentices were paid less than their male peers, and hairdressing and childcare, both female-dominated, had the highest rates (11%) of underpayment of apprentices.

There are similarities and differences in the more recent picture, created by Higton *et al*’s survey. Electrotechnical and Engineering remain amongst the better paid sectors with mean gross hourly rates of £6.99 and £6.26 respectively, but have been overtaken by Management as the highest paid sector with a mean gross hourly pay of £9.58. Children’s Care and Hairdressing remain in the bottom three sectors for pay. However, Health and Social Care

⁷ Government-supported apprenticeships (regardless of level) are required to last a minimum of 12 months, but there is no mandatory maximum length. Apprenticeships in engineering tend to last 3 years, whereas in services sectors they will tend not to last longer than 12 months.

has moved much nearer the top of the pay table with a higher mean gross hourly pay (£6.56) than Engineering. This is likely to be due to the fact that the majority of apprentices in Health and Social Care are already employed in the sector before they are ‘converted’ to apprentices. It is unlikely that these employees would accept a cut in salary to become apprentices.

According to Higon *et al*'s analysis, the key differentiator between male and female apprentices pay was the sector in which they were located, with sectors dominated by females tending to pay less. There were only two sectors which produced statistically significant within-sector differences between females and males. Women participating in Business Administration apprenticeships were paid more than men (£6.23: £5.30) and men participating in Health and Social Care apprenticeships received more than their female peers (£6.94: £6.48).

There are three inter-related factors that played a key role in determining apprentice pay: a) age; b) whether the apprentice worked for their employer immediately prior to becoming an apprentice; and c) the sector. Individuals starting apprenticeships between 16 and 18, often straight from school or college, are more likely to be located in traditional apprenticeship sectors including Electrotechnical, Engineering and Construction for the males and Hairdressing and Children's Care for the females. Those starting apprenticeships as ‘adults’, particularly those aged 25 or over on entry, are more likely to be located in service sectors (including Management and Health and Social Care) and, as the figures presented earlier indicated, those in service sector apprenticeships are more likely to be female. Older apprentices (aged 25 plus at the start) are also more likely to have been working for their employer prior to being ‘converted’ into apprentices (Fuller and Unwin, 2012a). Unfortunately, the data are not available that would allow the pay of apprentices who have been converted to be disaggregated from ‘new entrants’. It is highly unlikely that individuals falling into this category would be transferred to a lower level of pay at the start of their apprenticeship, so their inclusion is likely to be artificially boosting the overall figures on apprentice pay. Conversions are liable to have a distorting effect on male and female apprentice pay, masking potentially large differences in the pay levels for example between young new entrants on the minimum wage for apprentices and older apprentices drawn from the ranks of the existing workforce.

In addition to being financially disadvantaged, women are also more likely to be restricted to sectors where it is difficult to progress. The service sectors, where women dominate, tend to

offer far more Level 2 than Level 3 apprenticeships. To progress beyond Level 2 can be difficult in sectors where less value is placed on qualifications and where the vocational knowledge being deployed is less codified and the skills tend to be regarded as ‘soft’ or ‘interpersonal’ and, hence, equated with so-called feminine attributes. In the UK, the attainment of Level 3 is important in that it can provide access to advanced further education and, critically, to higher education (Fuller and Unwin, 2012b). This is a complicated picture due to the way in which vocational (and particularly competence-based qualifications) and academic (general education) qualifications are currently structured in the UK, but the point here is that apprentices in certain sectors are in danger of not acquiring the level and type of qualification that will enable them to progress both educationally and in the labour market.

Young People’s Attitudes to Apprenticeship and their Career Prospects

As well as looking for labour market explanations for the causes of gender imbalances, it is also worth focusing on the extent to which young people themselves reflect gendered attitudes towards their career decision-making. As part of the EOC’s investigation of gender segregation in apprenticeship, we carried out research with 14 and 15 year olds in schools in England and Wales, with employers who were recruiting and training apprentices, and with other key informants associated with apprenticeships and the transition of young people from education to the labour market. We conducted the research using both quantitative and qualitative methods (see Fuller *et al*, 2005a and b; Beck *et al*, 2006b). In England, we conducted a telephone survey of 162 employers, a questionnaire survey of 1,281 14 and 15 year olds in eight schools, and eight focus groups - one per school, and two group ‘events’ with a sample of employers, training providers and young people. Our research revealed the deep-rooted nature of the stereotypical attitudes still held by young people. The following quotations are indicative of the young people’s responses when asked why they thought ‘male jobs’ were better paid:

“...because they put more work in, the work is more physical. They are totally different jobs, so they should be paid better.” (male student)

“...it’s more technical stuff you need to learn...whereas more caring stuff you don’t need...to learn...but it’s more sort of inside you as well, it’s more built in to you so they don’t pay you much.” (female student)

These views were reinforced by the attitudes of some of the employers we interviewed, as the following comment illustrates:

“We want someone who’s got ... not exactly plumbing in their blood but real enthusiasm.” (plumbing employer)

The implication here is that the employer would think it more likely that a young man, perhaps with relatives in plumbing, would have plumbing ‘in his blood’. A vocational teacher emphasised the importance of generational attitudes: “...they’re very strong family traditions with fathers, sons, uncles, brothers all going into the family business.”

The young people in our research were able to articulate the strength of deep-rooted gender stereotyping, but also spoke about the realities of actually crossing gender lines. The survey responses showed that the majority of girls and boys agreed with the statement that apprenticeship is “equally suited to boys and girls”. Asked if they would consider entering non-traditional jobs, the majority of girls (80%) and boys (55%) said “yes.” In the focus groups, they also said that they would consider taking an apprenticeship in a non-traditional sector, but were not doing this because they didn’t want to. This raises the intriguing paradox that, on the one hand, young people believe they have the freedom to make a radical choice, but they stop short of actually doing so by justifying the choice they do make as being based on what they really want. This insight supports other research on young people’s decision-making which has found that despite their seemingly confident and assertive sense of having the autonomy to choose, ultimately, often as a result of peer pressure, they retreat back into traditional gendered pathways (Beck *et al* 2006 a and b; Lynch and Nowosenetz, 2009,; Fuller *et al*, 2013). Part of the problem lies with the limited provision in UK schools and colleges of careers advice and guidance, and of opportunities to discuss and debate the roles of men and women in society and equal opportunities more generally.

Many pupils, but particularly boys, held gender stereotyped attitudes towards a range of occupations, although they regarded some occupations and jobs as being much less stereotyped (e.g. teacher, shop worker, police officer). In the focus groups, girls and boys spoke of their fears about crossing gender lines, but boys were much more cautious: 63% of boys (37% girls) agreed that, “as a young person you don’t want to stand out from the crowd by doing a job normally done by the opposite sex”. Boys were worried about being teased, especially about their sexuality, if they trained for a traditionally female occupation (see also Simpson, 2004). One girl captured the fears of her male peers:

“It’s like if you had a twenty year old (boy) ... being like a child minder or like looking after two year olds or something, all his friends would be like ‘ha ha ha look at you looking after all these little people’ ... and you don’t

like talk to anyone and you don't get out enough and stuff you're like a wuss and stuff and they make you feel stupid.”

Our respondents said they would be more inclined to try out non-traditional occupations if:

- They received extra money to train
- The pay rates were better
- There was an opportunity (through ‘tasters’) to try out working and training in non-traditional sectors before making a commitment
- More of their sex made the same choice.

One of the most striking findings from our research was that none of the stakeholders in the education and training system in the UK appeared to have ultimate responsibility for tackling gender segregation in VET or education more generally. Nothing has changed to improve this situation since we carried out the research (2005/06) and it could be argued that the situation has deteriorated in England as a result of changes to the way careers advice and guidance is administered. The 2011 Education Act switched funding away from the existing careers service (then known as Connexions) in England to secondary schools, placing on them a statutory duty to “secure access to independent and impartial careers guidance” for pupils from September 2012. Following its inquiry into the first year of the new arrangements, the House of Commons Education Select Committee (2013: 3) stated that this decision had been wrong and stated:

We have heard evidence that there is already a worrying deterioration in the overall provision for young people. Urgent steps need to be taken by the Government to ensure that young people’s needs are met.

In Figure One, we show how the key stakeholders (other than the young people themselves) are focused on other priorities.

Figure One: Key Stakeholder Priorities

Government	Increase participation targets
Schools	Keep majority of young people in full-time education
Training Providers	Meet quotas/fill places
Targeted local authority services	Reduce NEET figures
Job Centre Plus (employment agency)	Place people in jobs
Employers	To recruit as needed
Parents	“Do what’s right for my child”

Tackling gender segregation

In order to help both girls and boys aspire to non-traditional areas of work (and, crucially, to select corresponding VET programmes), research suggests that they need to be exposed to gender awareness activities as early as possible in their school (possibly pre-school) careers. A review of gender-related work in UK primary schools found that a range of mixed strategies could be effective: single-sex settings help to increase the self-confidence of girls and/or encourage them to experiment with non-gender-traditional activities; or to provide a setting for boys to tackle aspects of traditional forms of masculine attitudes and behaviour; whilst mixed groups encouraged cross-gender friendships (EPPI, 2002). It also found that teachers could reduce stereotypical curriculum preferences, particularly with younger children, and could confront stereotypical attitudes and behaviour through discussion and awareness of the perspectives of the opposite sex.

A Danish EQUAL⁸ project (Youth, Gender and Career) was deliberately aimed at intervening at an early stage when young people ‘dream’ about their future careers. Courses were run for parents of students in years seven to ten of lower secondary school. They provided parents with information on current and future labour market trends and prospects to encourage them to adjust their stereotyped approaches to both work and educational choices. Parents and children filled in forms about their attitudes to gender stereotyping and these were used to trigger ‘family discussions’ about each other’s expectations. Similarly, in a Spanish EQUAL project in Barcelona, it was decided to introduce guidance and anti-stereotyping methods as early as kindergarten and primary school.

Young people are rational human beings and base their decisions on what Hodkinson *et al* (1996) usefully called their ‘horizons for action’. In asking girls and boys (or even adults) to consider breaking through the deep-rooted gender stereotyping of occupations, it is presumed they will be prepared to take risks. In a review of young people’s attitudes to gender equality and balance in 2000, Tinklin *et al* (2005) concluded that they did understand the equal opportunities message and believed that males and females should have the same opportunities and expectations in their future work and family lives. They were, however,

⁸ The EU funded EQUAL programme aimed to ‘focused on supporting innovative, transnational projects aimed at tackling discrimination and disadvantage in the labour market. These projects were created to generate and test new ideas with the aim of finding new ways of fighting all forms of discrimination and inequality within and beyond the labour market.’ This included a focus on improving gender equality. For more information including the results for participating member States go to: http://ec.europa.eu/employment_social/equal_consolidated/index.html [accessed 23.8. 2012]

very conscious of continuing inequalities, which they saw in the world around them and in their personal lives.

The career choices and perceptions of young people are influenced by a range of actors, including: parents, siblings, friends, teachers, and careers officers (see *inter alia*: Ball *et al* 2000; Archer and Yamashita, 2003; Reay *et al*, 2005). Friends appear to be particularly important, whilst the role of careers guidance practitioners can be over-estimated. The media and the Internet also play important role in the formation of young people's attitudes. These attitudes are often formed, however, in the absence of robust information about the realities of contemporary occupations and workplaces. To counter this, it is important to:

- bring 'role models' (adults working in non-traditional roles) into schools and colleges to show young people that, for example there are female engineers and construction workers as well as male carers and hairdressers
- develop work experience (or 'taster') opportunities that allow young people to try out non-traditional jobs
- develop short programmes that allow young people to sample different types of apprenticeships
- encourage schools and colleges to use their partnerships with employers to ensure teachers and careers guidance practitioners are up-to-date with their knowledge of the world of work (see Francis *et al*, 2005).

It is clear that the strategies listed above should be brought together so that a holistic package of methods can be delivered. A German EQUAL project, in an area of the country that has seen considerable economic change, introduced a multi-level strategy aimed at girls and young women: vocational information and guidance workshops at the end of lower secondary school; a training scheme for teachers to support them in encouraging non-traditional vocational choices; coaching and mentoring for female apprentices in technical occupations; and a programme to help trainers to provide optimal support to trainees. Similarly, an innovative EQUAL project in the Netherlands sought to reach out beyond educational settings and use television to target men and boys through the use of commercials.

Although many of the initiatives referred to above can have an impact on young people's attitudes, they can often be seen as tangential to the main areas of their school or college activity, and they will not, necessarily, extend beyond the classroom. A particularly innovative approach has been taken in an EQUAL project in Barcelona. This involved the development of a curriculum approach in primary and secondary schools to challenge

traditional gender roles. Gender issues were not ‘taught’, but introduced through household processes (e.g. cooking, baking or ironing) to explain certain phenomena in chemistry and physics. The project reports how boys realised the value of unpaid female work and the need for men to accept more responsibilities at home. Female pupils saw science as a possible career choice.

In many countries, schools and colleges are expected to take responsibility for ensuring they promote social inclusion and cohesion agendas. A review of gender equality in Scottish schools (Condie and Kane 2006) highlighted the way in which, ironically, consideration of gender issues can become marginalised within a broader inclusion agenda. This is where a whole-curriculum approach could be valuable so that the discussion of gender issues takes a natural place within teaching and learning more generally. The needs and concerns of teachers are, of course, central to such developments. The Scottish review found that teachers responded much more positively to tackling gender inequality when they had a degree of ownership over the development of gender awareness strategies and were supported by practical guidance and advice.

Conclusions

Despite the considerable attention in both policy-making (at all levels) and the research literature that has been and continues to be paid to gender equality and balance, there are no systematic international, comparative reviews of how to tackle inequality in education and training. The closest we have to an international overview are the documents produced by the EQUAL projects. EQUAL, which forms part of the EU’s strategy ‘for more and better jobs and for ensuring that no-one is denied access to them’, co-funds projects in all EU Member States. Since they began in 2001, some EQUAL projects have included a focus on young people’s career decision-making (see EQUAL, 2005, for a summary of evidence). In most cases, initiatives to encourage young people to consider non-traditional occupations form part of a broader project. It would be very valuable if EQUAL could produce a separate report which distils the evidence related to the initiatives aimed at young people so that the lessons and ideas could be made more visible for policymakers and practitioners concerned with gender equality and balance in VET.

Even within countries, there is surprisingly little publicly available evidence of what initiatives have been effective. Most studies are based on small-scale, localised initiatives. Whilst these are helpful in providing ideas for strategies, it is not possible to judge the extent to which they have a lasting influence as many are funded on a short-term basis. A further key problem is that there is

hardly any evidence about strategies aimed specifically at boys and young men. Despite these problems, however, it is possible to highlight a number of strategies that appear to have some common currency across countries.

The evidence presented here indicates that overcoming gender inequalities and helping young people to change their attitudes to the choices they make in relation to both education and careers requires a multi-faceted, innovative and sophisticated approach, beginning as early as possible and extending well into adult life. It requires the commitment and involvement of everyone in society, and continuous monitoring. Above all, young people's decisions need to be treated with respect for they often reflect an understanding of the realities of the world rather than ignorance. An EU Fifth Framework project (involving research in Germany, Finland, Greece, Portugal and the UK), completed in 2004, offers important insights into these complexities (see Heidegger *et al*, 2004). The research explored the part played by gender in the vocational education and training experiences of young adults entering specific occupations in childcare, electrical engineering and food preparation and service, and of adults changing occupations. It had a particular focus on studying the extent to which the development of key competences (and associated qualifications) in Europe plays a role in perpetuating gender imbalances; the concern here is that so-called interpersonal competences are also often held to be 'female skills'. It found that both VET institutes and workplaces need to do a great deal to improve their performance in relation to gender equality and balance (see also Evans, 2006).

As far as apprenticeship is concerned, the challenge of gender segregation has and always will be considerable due to the continued segregation in the labour market. As the consequences of the economic crisis continue to have an impact, this challenge will be even greater as government concentrates its efforts a) on reducing public sector employment and b) on trying to ensure apprenticeship places are available regardless of whether they are equally accessible to men and women. The statistical evidence indicates that the recent growth in apprenticeships has been accompanied by rises in male participation in previously female dominated sectors. However, we are yet to see major increases in female take up in sectors such as engineering which tend to offer the strongest platforms for educational and career progression.

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