CIPD

Championing better work and working lives

Policy report

November 2017

The graduate *employment gap:* expectations versus reality

The CIPD is the professional body for HR and people development. The not-for-profit organisation champions better work and working lives and has been setting the benchmark for excellence in people and organisation development for more than 100 years. It has more than 145,000 members across the world, provides thought leadership through independent research on the world of work, and offers professional training and accreditation for those working in HR and learning and development.

The graduate employment gap: expectations versus reality

Students in England are leaving university in considerable debt because of high fees and reliance on maintenance loans. The IFS (2017) has recently estimated that the average student will graduate with an estimated £50,000 debt – and students from more disadvantaged backgrounds, with more loans available to them, will build up debts of £57,000.[2] Under the new loans repayment system, it is estimated that the majority of graduates will never earn enough to fully repay their debts – with the IFS estimating that 77% will have some of their debt written off after the end of the 30-year repayment period.

A graduate's initial experience of the labour market is an important milestone and plays a role in shaping their future labour market experience. Against this stark backdrop of high fees and rising debt, it is worth considering the experience of recent graduates in the labour market: how well do they do, what types of jobs do they manage to get, and what salaries do they command? To do this we draw on the latest data on graduate destinations from the Higher Education Statistics Agency for 2015/16, which looks at graduate outcomes roughly six months after graduation. The rest of this short report considers, six months on:

- What proportion of recent graduates fail to find work?
- How many graduates find 'graduate level' jobs, and what salaries do they receive?
- How do outcomes differ by subject studied, gender and ethnicity?

The UK has a high proportion of graduates compared with other countries; however, this has not translated into higher workforce productivity…
According to the latest OECD figures,[3] the UK has the fifth highest proportion of residents educated to degree level[4] (36%), slightly ahead of the USA (35%) but behind Switzerland (41%), Luxembourg (38%), Iceland (38%) and Belgium (37%). However, this has not translated into higher productivity, with the UK languishing at sixteenth place in terms of GDP per hour worked in 2015 ($52.50 GDP per hour worked) – just marginally above the OECD average ($51.10) and considerably below countries such as Germany ($66.60) and France ($66.30).

Previous CIPD research has highlighted the challenge of graduate over-qualification…
In recent decades the UK has rapidly expanded its higher education sector. However, previous CIPD research has shown that the growth in graduate-level jobs has not kept pace with this expansion. The most recent report published in 2016 – *Alternative Pathways into the Labour Market*[5] – looked at 29 occupations, which account for almost a third of total employment, and found that while for many of these jobs the number of graduates has increased sharply over the last 30 years, the skills required for the job have not appreciably changed. For instance, 41% of new recruits in property, housing and estate management are graduates, compared with

'The combination of high fees and large maintenance loans contributes to English graduates having the highest student debts in the developed world (IFS 2017).[1]'

3.6% in 1979, and 35% of new bank and post office clerks are now graduates, compared with 1979 when just 3.5% of bank and post office clerks held degrees.

New data analysis shows that although only a small proportion of graduates are unemployed, rates vary considerably by subject of study…

Just 5% of recent graduates fail to find a job; this compares with a national unemployment rate of 4.9%[6] and represents an improvement on graduate unemployment (six months after graduation) in 2011/12, when the figure stood at 7%. However, this figure masks substantial differences, by subject studied, in recent graduates' performance in the labour market.

Interestingly – given the apparent prevalence of skills shortages[7] in this area – it is computer science graduates who are most likely to fail to secure a job six months after graduation, with almost one in ten ending up unemployed. In fact, given the importance placed by the Government on increasing the number of people with STEM skills,[8] it appears that individuals with those skills are not doing particularly well as they account for all but one of the subject areas with the highest proportion of unemployed graduates six months after graduation. Previous research[9] has suggested that many STEM graduates lack the experience and 'soft' skills employers are looking for.

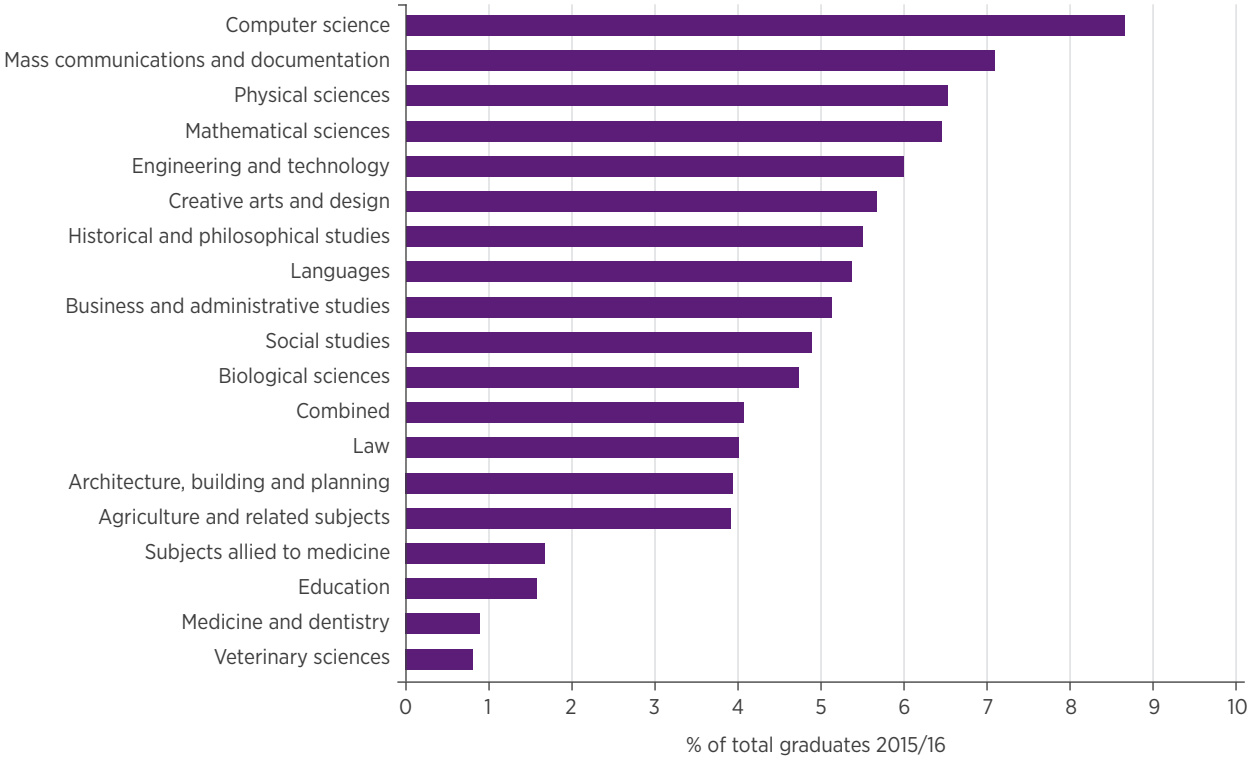
Interestingly, it seems that by international standards the UK has a healthy supply of STEM graduates relative to other countries (see Box 1): the UK's share of 'natural sciences, maths and statistics' graduates is more than double that of the OECD average.

The Government's definition of a 'graduate job' disguises the extent of graduate over-qualification…

On the Government's preferred measure, recent graduates appear to do very well in today's labour market, with just 5% ending up unemployed six months after graduation (slightly above the current national average of 4.9%) and 77% achieving a 'graduate job'.

Yet, as highlighted in the Edge Foundation report published in 2015,[11] the Higher Education Funding Council for England's (HEFCE) definition of a graduate

Figure 1: Proportion of recent graduates who are unemployed, by subject of study, 2015/16 (%)



Source: Destinations of Leavers from Higher Education 2015/16 (HESA 2017)[10]

Box 1: Graduates by field of study in selected OECD countries

Data from the OECD's *Education at a Glance 2017* suggests that the UK has an unusually high share of graduates in 'natural sciences, maths and statistics' (13% of graduates), more than double the OECD average (6% of graduates). We have about average levels of graduates in 'information and communication technologies' (4%) but are below the OECD average in the category of 'engineering, manufacturing and construction' (9% vs 14%). Overall across the three categories, the UK has 26% of graduates compared with an OECD average of 24%, while Germany has 37% of graduates, the USA has 18%, and France has 25%.

Table 1: Distribution of tertiary graduates, by field of study (2015) (%)

	France	Germany	Spain	United States	United Kingdom	OECD average
Education	3	10	16	7	10	10
Arts and humanities	9	12	9	20	15	10
Social sciences, journalism and information	8	7	7	12	12	10
Business, administration and law	34	23	19	20	22	24
Natural sciences, maths and statistics	7	10	5	7	13	6
Information and communication technologies	3	5	4	4	4	4
Engineering, manufacturing and construction	15	22	16	7	9	14
Agriculture, forestry, fisheries and veterinary	2	2	1	1	1	2
Health and welfare	16	7	15	17	13	15
Services	3	3	7	7	0	5

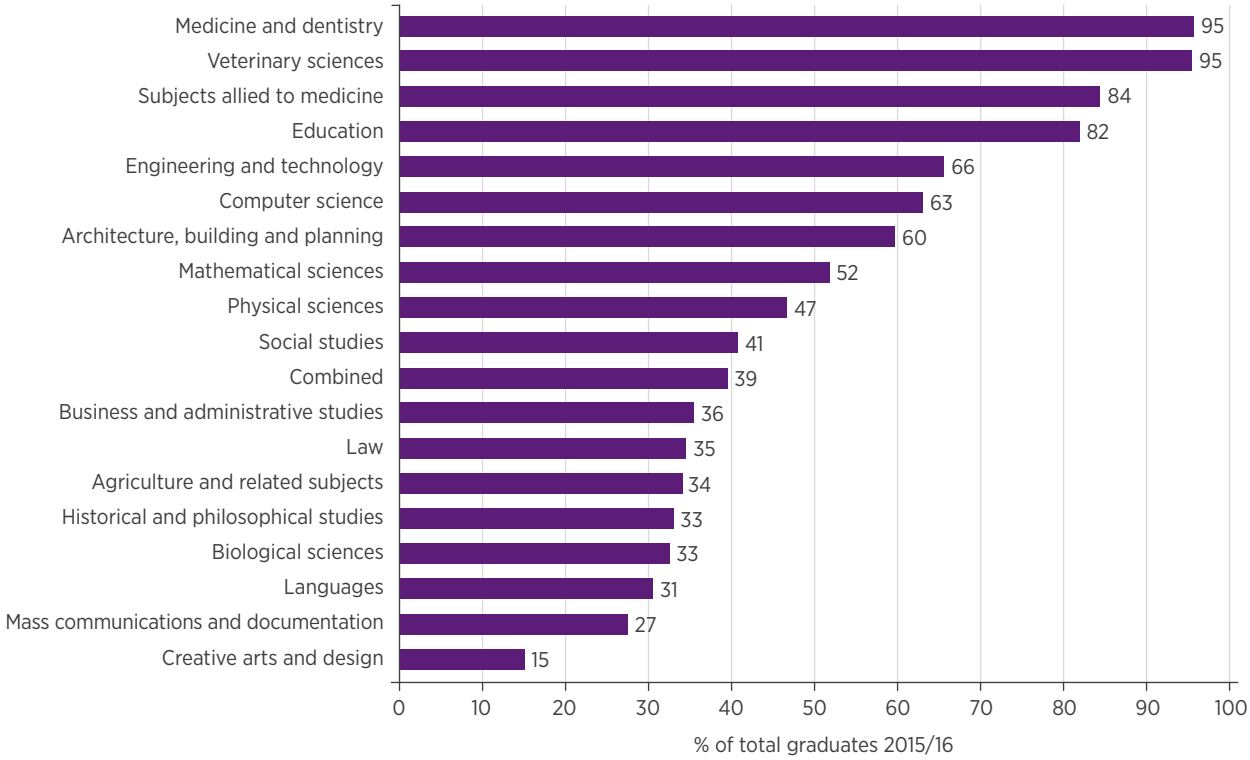
Note: Columns may not sum because of individual rounding.

Source: OECD. (2017) *Education at a glance 2017: OECD indicators*. Paris: OECD Publishing.

job includes not just professional and managerial occupations but also 'associate professional and technical occupations'. Associate professional and technical occupations, according to the Office for National Statistics (ONS), **do not require a degree** and include jobs such as dancers and choreographers, fitness instructors, youth and community workers, and IT user support technicians. Currently, a third of recent graduates are in associate professional and technical roles; if these are removed from the calculation, **the proportion in a 'graduate job' falls to just slightly over half** (52%).

Moreover, there is **considerable variation by subject area**, as demonstrated by Figure 2. For example, just 15% of creative arts and design graduates are in managerial or professional occupations six months after graduation, compared with almost all graduates in medicine and dentistry and veterinary sciences. The **variation by institution** is just as, if not more, pronounced, with students who attend a top institution being more than three times more likely to enter a graduate-level job.

Figure 2: Recent graduates in professional and managerial occupations (%)



Source: *Destinations of Leavers from Higher Education 2015/16* (HESA 2017)[12]

Almost a third of recent graduates end up in jobs that pay less than £20,000 a year, with two-thirds of law graduates falling in this category…

It is clear from salary data that many graduates fail to secure a well-paid job within six months of graduating. Almost a third (29%) of recent graduates are on salaries of less than £20,000, which is considerably below the current national average of £28,300[13] (median gross annual salary), while 78% of recent graduates earn less than £30,000. Again, there is huge variation by subject of study, as shown by Figure 3. Language and law graduates are the lowest earners, with 93% earning less than £30,000 a year.

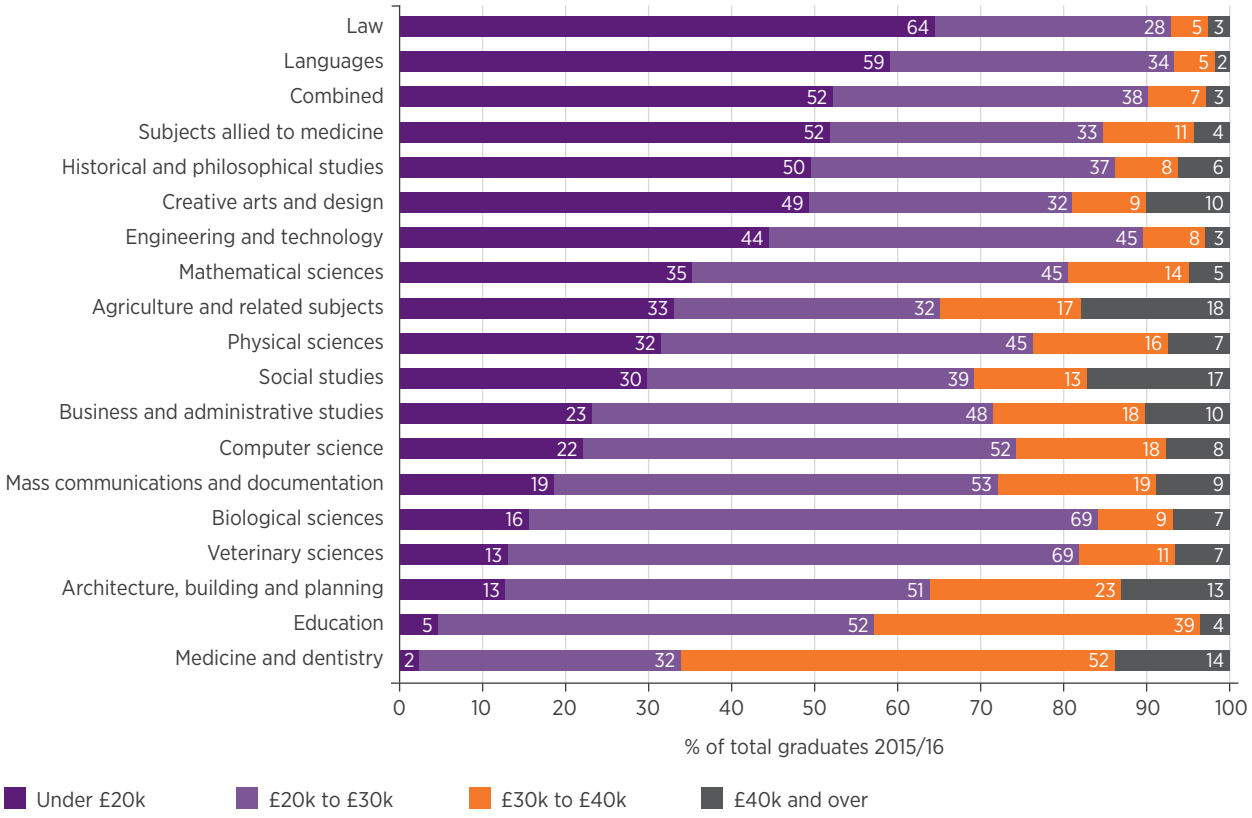
There is a substantial gender pay gap for female graduates across occupational outcomes and by broad subject area…

The average (mean) annual salary for recent graduates by gender is £21,500 for females compared with £24,000 for males. On average, female graduates are over-represented in lower salary bands and under-represented in higher salary bands. Women are more likely to earn less than £30,000 per year – 83% of recent female graduates are in this category compared with 71% of men.

Analysing the data by occupation reveals a stark gender divide in pay outcomes. Female graduates who managed to secure a job in the top occupational band (managers and senior officials) are almost twice as likely to be paid less than £20,000 as their male counterparts (25% of women in this category compared with 15% of men) and are much less likely to fall into the highest salary band of £70,000 or more (14% of men compared with just 6% of women). This pattern is repeated across professional occupations, with over a third of men earning more than £30,000 compared with under a fifth of women (23%).

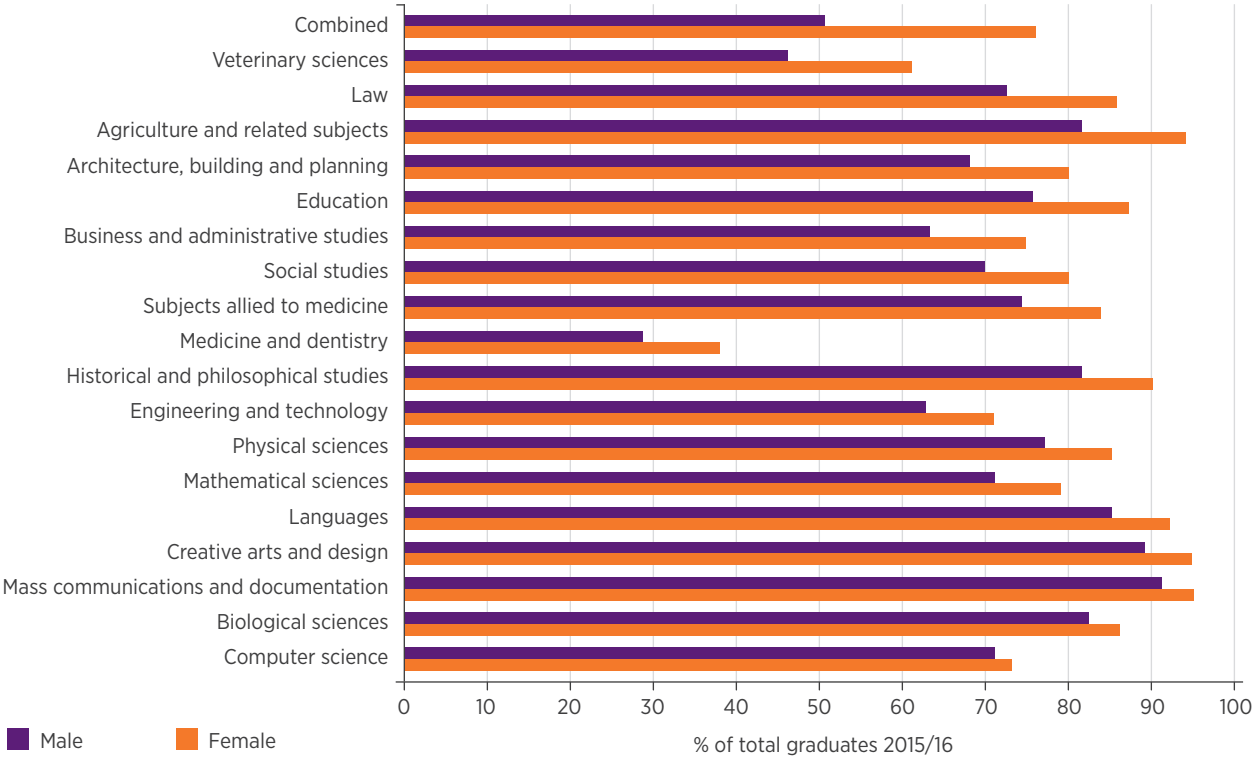
While this pattern has been previously explained by the gendered pattern of graduate subject area choice, analysis by subject of study reveals that the gender pay gaps exists regardless of subject area studied at university. The gap is particularly wide in combined degrees (76% of women earn less than £30,000 compared with just 51% of men) and veterinary studies (61% compared with 46%). The gender pay gap is smallest for graduates from computer science degrees (73% compared with 71%), biological sciences (86% compared with 82%), and mass communications and documentation (95% compared with 91%).

Figure 3: Recent graduate salary bands, by subject area, 2015/16 (%)



Source: *Destinations of Leavers from Higher Education 2015/16* (HESA 2017)[14]

Figure 4: Recent graduates earning less than £30,000, by gender and subject (%)



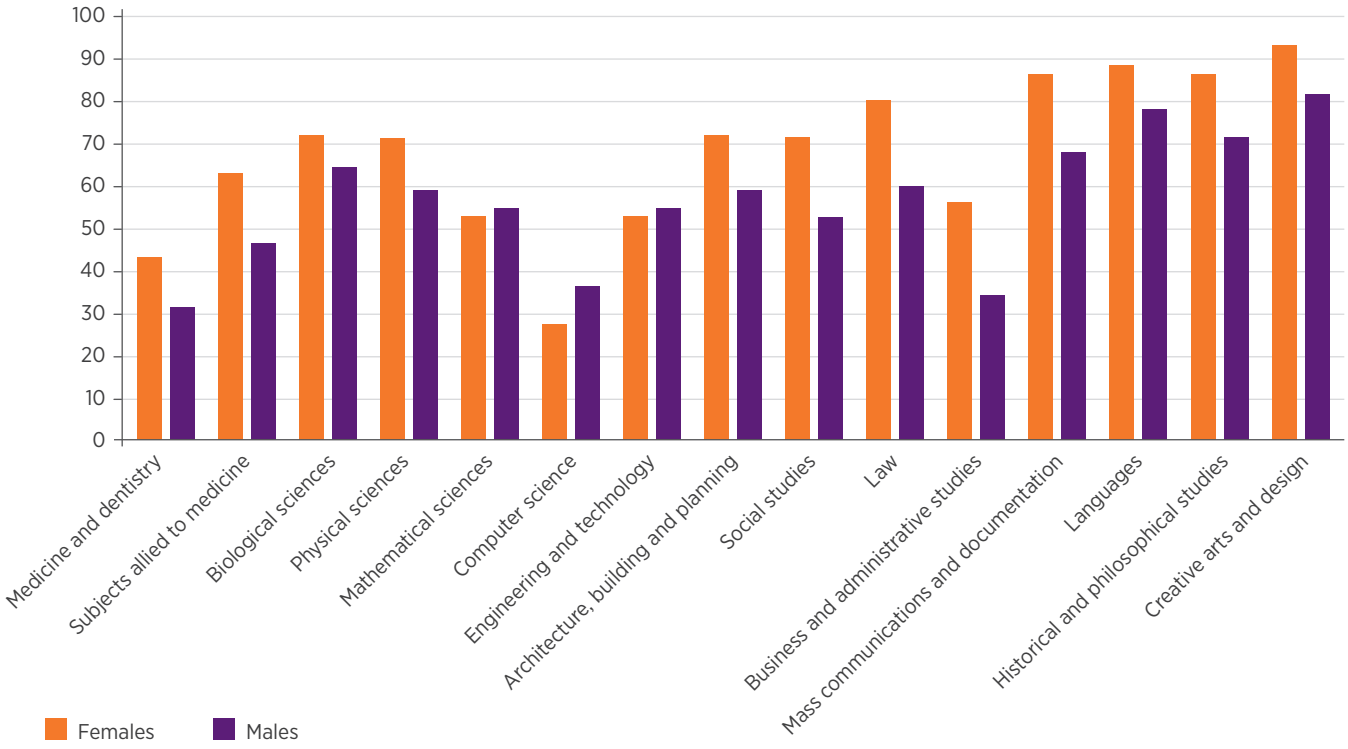
Source: *Destinations of Leavers from Higher Education 2015/16* (HESA 2017)[15]

This pay penalty exists even for female graduates from the UK's top ten institutions…
We have combined the salary band data by broad subject area for females and males who graduated from the UK's top ten institutions. The data shows that even if a women achieves a degree from one of the UK's top higher education institutions (HEIs), there is still a considerable gender pay penalty on entering the labour market.[16]

Figure 5 shows that for all but three subject areas (computer science, mathematical science, and engineering and technology), a much bigger proportion of women are concentrated in the lowest salary bands compared with men. The gender pay gap is widest amongst graduates from law (80% of women earn less than £30,000 compared with just 60% of men) and business and administrative studies (56% of women compared with 34% of men).

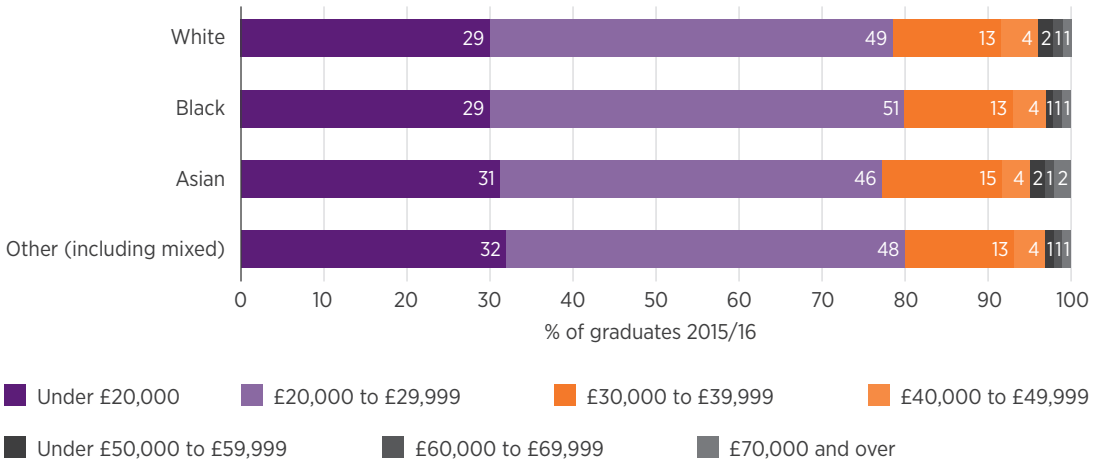
There are smaller differences between salary outcomes of graduates by ethnic group…
Compared with gender differences in salary outcomes, differences between broad ethnic groups are much smaller. Graduates of Asian and white ethnicity are slightly more concentrated in higher salary bands – with 23% and 22% respectively earning £30,000 or more six months after graduating – this compares with a figure of 20% for those from black and other/ mixed ethnic backgrounds.

Figure 5: Proportion earning less than £30,000 at top ten UK HEIs (%)



Source: *Destinations of Leavers from Higher Education 2015/16* (HESA 2017)[17]

Figure 6: Salary bands for recent graduates, by ethnic group (%)



Source: *Destinations of Leavers from Higher Education 2015/16* (HESA 2017)[18]

Final thoughts

Rising debt, fuelled by high fees and maintenance grants, coupled with huge disparities and poor outcomes for some graduates in the labour market post-university begs the question: *is getting a degree still worth it?*

For many the answer is undoubtedly yes. Graduates from vocational subjects such as medicine, dentistry, and veterinary studies command high salaries and almost all end up in professional-level occupations on leaving education. And although those studying STEM-related subjects are more likely to end up unemployed in the first six months, those who are working get paid more than other graduates and are more likely to be in a 'graduate job'. However, for many others the answer is far less certain and it is questionable whether the benefits of getting a degree outweigh the costs that high debts alongside delayed labour market entry bring.

It is clear that a more balanced offer of a high-quality academic pathway alongside a high-quality vocational offer is needed to more equitably share the costs of delivering the skills the UK needs. Alongside this, there is a need to provide better information, advice and guidance to inform learner choice and action to understand and tackle gender pay disparities.

Recommendations

- The Government should undertake a review to develop solutions to tackle the gender pay gap.
- The Government should consider linking tuition fees to graduate destinations data. Far too many higher education institutions are charging the top rate but are delivering poor outcomes for students.
- The upcoming careers strategy should include measures to improve longitudinal data on graduate outcomes by subject studied and institution.
- Employers should review their recruitment strategies to open up opportunities for non-graduates while ensuring that skills are better utilised for those roles that do require graduate skills.
- The Government must focus more on improving the quality and progression of apprenticeships – rather than increasing the quantity – in order to create a meaningful alternative route to university for young people and employers.
- A focus on the workplace, and in particular on improving management and leadership quality, must be a key plank of the forthcoming industrial strategy to ensure better job design and skills utilisation.

Endnotes

[1] INSTITUTE FOR FISCAL STUDIES. (2017) *Higher education funding in England: past present and options for the future.* IFS Briefing Note BN211. London: IFS. Available at: www.ifs.org.uk/uploads/publications/bns/BN211.pdf [Accessed 19 September 2017].

[2] INSTITUTE FOR FISCAL STUDIES (2017). See note 1.

[3] OECD. (2016) *Education at a glance 2016: OECD indicators*. Paris: OECD Publishing. Available at: http://dx.doi.org/10.1787/eag-2016-en [Accessed 19 September 2017].

[4] Includes bachelor, master's and doctoral tertiary education.

[5] CIPD. (2016) *Alternative pathways into the labour market.* London: Chartered Institute of Personnel and Development. Available at: www.cipd.co.uk/knowledge/work/trends/alternative-labour-market-pathways [Accessed 19 September 2017].

[6] Annual Population Survey (APS) April 2016 – March 2017, Office for National Statistics.

[7] BENNETT, M. (2016) What is the UK doing about its STEM skills shortfall? *Telegraph.* 28 November. Available at: www.telegraph.co.uk/business/ready-and-enabled/stem-skills-shortfall/ [Accessed 19 September 2017].

[8] DAWOOD, S. (2017) Theresa May focuses on STEM subjects in Government's industrial strategy. *Design Week*. 23 January. Available at: www.designweek.co.uk/issues/23-29-january-2017/theresa-may-focuses-stem-subjects-government-industrial-strategy/ [Accessed 19 September 2017].

[9] CBI. (2012) *Learning to grow: what employers need from education and skills: education and skills survey 2012.* London: Confederation of British Industry. Available at: www.ucml.ac.uk/sites/default/files/shapingthefuture/101/cbi_education_and_skills_survey_2012.pdf [Accessed 19 September 2017].

[10] HESA. (2017) *Destinations of leavers from higher education 2015/16*. Cheltenham: Higher Education Statistics Agency. Bespoke data request, data analysis by the CIPD.

[11] EDGE FOUNDATION. (2015) *The graduate labour market: an uncomfortable truth*. London: The Edge Foundation. Available at: www.edge.co.uk/sites/default/files/documents/graduate_employment_an_uncomfortable_truth.pdf [Accessed 19 September 2017].

[12] HESA (2017). See note 10.

[13] Annual Survey of Hours and Earnings (ASHE) 2016, Office for National Statistics. (2017).

[14] HESA (2017). See note 10.

[15] HESA (2017). See note 10.

[16] Drawing on the Complete University Guide's 2018 league tables. Available at: www.thecompleteuniversityguide.co.uk/league-tables/rankings [Accessed 19 September 2017].

[17] HESA (2017). See note 10.

CIPD

Chartered Institute of Personnel and Development
151 The Broadway London SW19 1JQ United Kingdom
T +44 (0)20 8612 6200 **F** +44 (0)20 8612 6201
E cipd@cipd.co.uk **W** cipd.co.uk

Incorporated by Royal Charter
Registered as a charity in England and Wales (1079797) and Scotland (SC045154)

Issued: November 2017 Reference: 7603