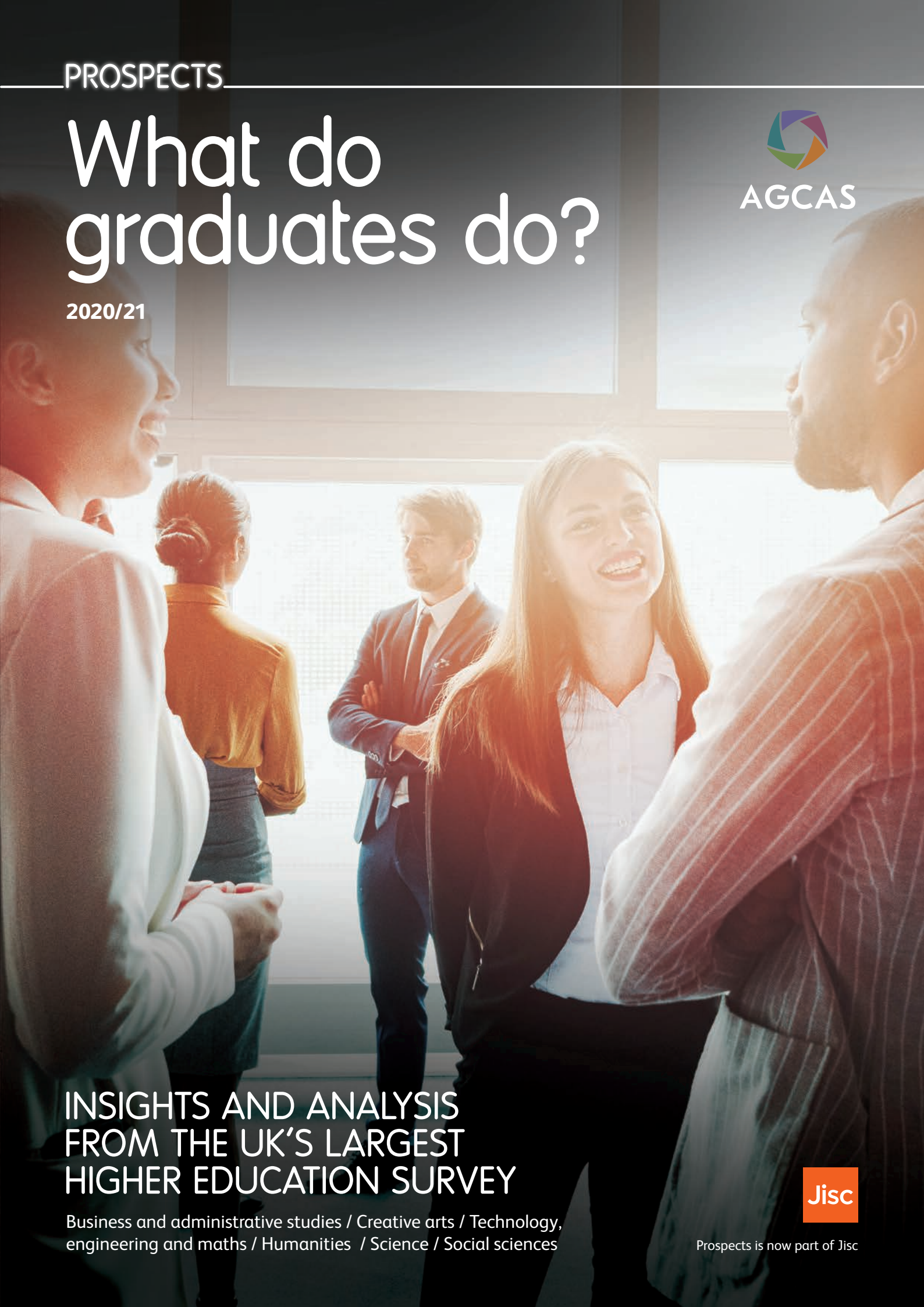
PROSPECTS

What do graduates do?

AGCAS

2020/21



INSIGHTS AND ANALYSIS FROM THE UK'S LARGEST HIGHER EDUCATION SURVEY

Business and administrative studies / Creative arts / Technology, engineering and maths / Humanities / Science / Social sciences

Jisc

Prospects is now part of Jisc

Forewords

HECSU Prospects merged with Jisc in May 2020 and this is the first edition of *What do graduates do?* to be published under the new arrangement. I am delighted to welcome recruiters and careers and employability professionals into the Jisc community.

This is also the first edition of *What do graduates do?* to be based on data from Graduate Outcomes conducted by HESA, surveying the 2017/18 graduating cohort. It is an indispensable resource for employers, policymakers and education providers.

There are two principal differences between Graduate Outcomes and its long-standing predecessor, Destinations of Leavers from Higher Education (DLHE). The first is the timeframe. DLHE surveyed graduates six months after they had finished their undergraduate course. Graduate Outcomes is based on their circumstances 15 months after leaving higher education. This gives a very different perspective on the graduate experience, with many respondents well established in their early careers and already starting to explore new opportunities.

The second is the voice of the graduates themselves. Graduates were present in DLHE but not audible. In Graduate Outcomes their voices weave around the data. This is not just what graduates do but what they think. Understanding the lived experiences of graduates is just as important as understanding where they work, what jobs they do and how much they earn.

The ongoing dialogue between students and graduates, universities, colleges and recruiters is the animating spirit of employability. This past year has emphasised the importance of that dialogue. In times of turmoil, connectivity is everything.

Clearly there are great challenges ahead. If universities and colleges are to continue to produce employable students and graduates, we must prepare them for a world of work where cyber-physical systems are prevalent across all industries. This is the context for Employability 4.0, our next programme of work that will seek to build a digital bridge between a rapidly-evolving education system and the Fourth Industrial Revolution.

What do graduates do? will continue to evolve as Graduate Outcomes matures and will be at the forefront of supporting policy and planning as it has done for decades. My sincere thanks go to our colleagues in the careers community for their continued support in producing the report. I do hope you enjoy reading it.

PAUL FELDMAN chief executive, Jisc

The world has changed substantially since the 2017/18 cohort graduated into a relatively buoyant labour market. Nonetheless, with Brexit looming, an increasing prevalence of precarious employment in some sectors and structural inequalities disadvantaging some groups of graduates, many will have faced significant challenges upon graduation.

This is reflected in the Graduate Outcomes data, with a gender pay gap between male and female graduates, lower full-time employment rates for disabled and BAME graduates, and higher proportions of some creative arts graduates working part time and in non-professional roles compared with graduates from other degree subjects. These statistics will not be a surprise to AGCAS members owing to their expertise and nuanced understanding of their graduates' journeys into the labour market.

I am pleased that the new Graduate Outcomes survey provides the sector with far more than just employment data. Students are at the heart of everything we do, but with the National Student Survey – one of the key ways that institutions hear the student voice – under review, it raises concerns that policymakers, and as a result the HE sector, will rely more heavily on salary and job title as a lens through which to view the value and quality of a university experience.

I won't be alone in believing that such a view homogenises graduate success and removes reflection on the barriers individuals faced to get to their 15-month destination, or even the reasons why they chose to go to university in the first place. Through this publication, the authors explore whether the Graduate Outcomes survey can act as a prism though which to show the nuance and complexity behind employment outcomes.

The Graduate Outcomes data was collected before the COVID-19 crisis. As a result, we do not know how the economic turbulence will affect this cohort as they continue to build their career, nor the long-term effect it will have on the students who are still to graduate into it. But this edition of *What do graduates do?* will provide the sector with an important benchmark to understand what graduates do in the wake of a crisis, and how it affects them. I am confident in the ability of AGCAS members to adapt and respond, in order to give their graduates the best chance of success – however they define it.

MARC LINTERN president, AGCAS

Welcome

WHAT DO GRADUATES DO? 2020/21

What do graduates do? is an essential resource for anyone wanting to understand the graduate labour market and the outcomes of UK first-degree graduates 15 months after finishing university.

This is the first edition to take an in-depth look at HESA's Graduate Outcomes survey, which provides a comprehensive picture of graduate activity post-graduation. This publication provides facts, context and insights from careers experts to answer important questions about the prospects for graduates after completing their studies.

We open with an overview of the graduate labour market by Charlie Ball, who also discusses how the Graduate Outcomes data can be used to help students and graduates navigate their way through an economy that has been disrupted by COVID-19.

This is followed by a breakdown of graduate destinations by subject area, with details of the industries and occupations these graduates entered. Complementary articles written by AGCAS-member careers and employability professionals are also featured, which provide the vital context to this data. An explanation of the data itself can be found on page 60.

The survey

Graduate destination surveys are a longstanding method of assessing employment trends. The new Graduate Outcomes survey takes place 15 months after graduation, and in 2017/18 it received 193,155 responses from UK-domiciled first-degree graduates.

Data from the Graduate Outcomes survey cannot be compared with data from its predecessor, Destinations of Leavers from Higher Education (DLHE), due to the change in methodology. This is the first *What do graduates do?* publication to use Graduate Outcomes data, and therefore its conclusions cannot be compared to any previous editions, which used DLHE data.

Contributors from Prospects (now part of Jisc) and AGCAS have collaborated to create the best source of information about graduates and their employment outcomes, and the information will be valuable for the next generation of graduates who wish to understand the nature of the labour market they are preparing to enter, as well as anyone who supports them in achieving their goals.

LAURA GREAVES editor

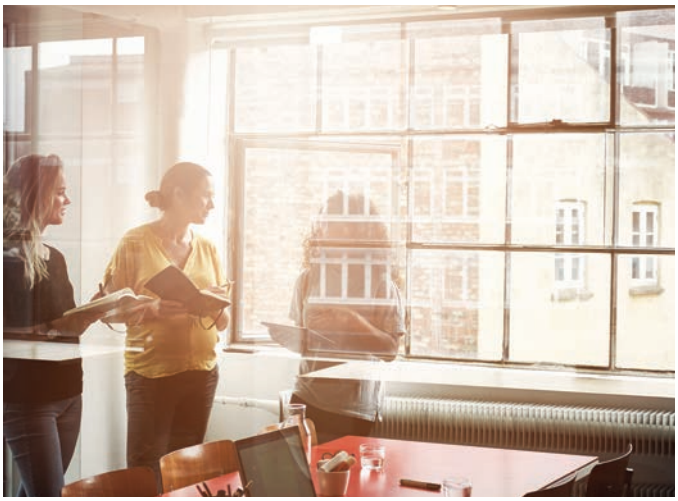
The Graduate Outcomes survey – the UK's biggest annual social survey – not only provides us with data examining which degrees lead to what type of jobs and salaries, but also an understanding of how our graduates feel about their lives 15 months after graduation.

At my institution, Staffordshire University, we see first-hand how our university is a vehicle for social mobility and the vital civic value it has to employers and the communities in which we operate. This edition of *What do graduates do?* aims to use the data to illustrate how graduates have different starting points, ambitions, journeys and destinations. We hope it inspires HE professionals to use the multitude of different datasets on offer to be data-informed, not just data-driven.

MARTIN PERFECT head of student and graduate employability at Staffordshire University, on behalf of the AGCAS *What do graduates do?* steering group

What's inside

WHAT DO GRADUATES DO? 2020/21



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Prospects are the experts in graduate careers. We help to guide students and graduates to a bright future with unrivalled information, advice and opportunities. We provide a market-leading portfolio of graduate career and postgraduate study recruitment options. We use our unique insight into what graduates do, where they go and what their motivations are to guide and inspire career choices throughout the student journey. Prospects is now part of Jisc, the UK's technology solutions organisation for higher and further education. Jisc is funded by the UK higher and further education and research funding bodies and member institutions. Our established position in the sector, along with an unparalleled knowledge of graduate careers helps us to manage a range of key initiatives within higher education. What do graduates do? 2020/21 © Jisc/AGCAS 2020

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Graduate labour market overview

CHARLIE BALL head of HE intelligence, Prospects

This article looks at the data in *What do graduates do?*, puts it into a wider context and discusses how, in an economy that has been upended by the COVID-19 pandemic, the information in this publication can be used to help advise and guide students and graduates.

What did 2017/18 graduates do?

This is the first ever edition of *What do graduates do?* to use the new Graduate Outcomes data, which examines graduate destinations after 15 months rather than six months as in the past. For this reason, there is little point making comparisons with previous outcomes data – this is a new start with a new survey and although much of the data looks quite similar to previous reports, there are crucial differences.

Overall, Table 1 summarises detailed graduate outcomes for this 2017/18 UK-domiciled first-degree graduating cohort 15 months after graduation by full-time and part-time degree status.

The majority of graduates were employed – this group will be covered in the next section of this analysis. Self-employment, either on a contract/freelance basis or running a business, accounted for about 4% of the cohort, although in total around 7.7% of graduates reported some form of self-employment as either their main or an activity supplementing their main activity. Those who had studied part time were more likely to be involved in self-employment and 9.5% of the part-time cohort reported some form of self-employment activity.

Around one in eight graduates (12.4%) were in further study, around half taking a Masters. Note that the timing of the survey means that a graduate who took a one-year postgraduate course immediately on graduation will have completed that course by the time of the data collection. Around 18% of the cohort reported having taken further study at some point since graduation.

Unemployment stood at 5.5%, with part-time graduates much less likely than full-time graduates to be unemployed. Interestingly, at subject level there was a lot less variation in unemployment rates than in data after six months, with law (7.3%), biology (7.1%) and history (7.1%) having the highest rates of the subjects in this publication and sports science (4.0%), architecture and building (4.1%) and performing arts (4.5%) having the lowest.

These figures give a view of a graduate labour market that was quite robust and where opportunities for graduates were not particularly limited by subject choice. This is borne out by data from the Office of National Statistics' Annual Population Survey, which shows that by the end of 2019, the UK employed 15.3m workers in graduate-level roles, and that the number of professional-level jobs in the UK rose by 520,300 from 2018. The COVID-19 pandemic will obviously have a profound effect.

Graduate employment

The majority of UK-domiciled graduates were in work 15 months after graduation. Of those in work 71.8% were in occupations classed as 'professional level' using the 2010 Standard Occupational Classification (SOC), although a new SOC will be introduced from next year that takes into account occupational change over the last decade and is likely to see an upward revision of this data when it is recoded using the new classification in 2021.

Health was the most common occupational group for graduates, with nursing the most common occupation. The ten most common jobs for graduates in this group are listed in Table 2.

Of these jobs, sales and retail assistants and 'other administrative occupations not elsewhere classified (n.e.c.)' are not graduate-level roles in SOC 2010, although it may be that some of the administration roles – various kinds of general and niche office workers that are often difficult to code – will fall under other business professions in the new classifications. In any case, many of these latter roles work alongside graduate-level employees and traditionally progression out of these administrative jobs can be more rapid than for some other jobs considered below graduate level.

Marketing roles have grown in prominence in the last few years, spurred by the explosion of jobs in the digital economy, and this covers a very wide range of potential opportunities from jobs dealing with big data that need a lot of maths skills to positions at the very creative end of digital marketing that can require highly developed design and even audio-visual skills. It would be a mistake to think that all of these jobs require a marketing degree, and indeed although marketing was the most common degree, the large majority of entrants had studied other subjects.

Looking at industry of employment, health is again the largest employer, with education, business and finance, retail, construction and manufacturing all employing at least 10,000 new graduates last year. Table 3 shows the most important specific industries for graduate employment – manufacturing is not on here, for example, as it is made up of many different industries, the largest of which was the aerospace industry for 2017/18 graduates.

Where do graduates work?

London is the most important location for this cohort, with around a quarter of those with known UK location of employment (25.5%) working there after 15 months. Outside London, Greater Manchester, the West Midlands city

Table 1: Full outcomes for UK-domiciled first-degree graduates from 2017/18

Leavers main activity	Full time	Part time	All grads
Paid work for an employer	68.6%	71.5%	68.8%
Self-employment/freelancing	3.0%	3.3%	3.1%
Running my own business	1.2%	2.7%	1.3%
Developing a creative, artistic or professional portfolio	2.3%	1.4%	2.3%
Voluntary/unpaid work for an employer	1.4%	1.6%	1.4%
Engaged in a course of study, training or research	12.8%	6.9%	12.4%
Taking time out to travel - not including short-term holidays	1.6%	0.6%	1.5%
Caring for someone (unpaid)	0.8%	3.0%	1.0%
Retired	0.1%	2.5%	0.2%
Unemployed and looking for work	5.7%	3.4%	5.5%
Doing something else	2.5%	3.0%	2.5%

> The labour market has been profoundly affected by COVID, but the graduate labour market has been, with certain exceptions in the arts and media, the least affected part of the economy

region (around Birmingham), West Yorkshire, Glasgow, Merseyside, South Yorkshire (around Sheffield), Bristol and Edinburgh were the most important locations of employment.

Outside the UK, the most common countries for UK graduates to be working in were Spain, Ireland, the US, Australia, Germany, France, China and the Netherlands.

Overall, 66.3% of UK graduates of known domicile and location of employment were working in their home region, and 53.7% in the region where they'd attended university.

The current UK labour market and COVID-19

This article is being written in October 2020, with the UK in measures to tackle the COVID-19 pandemic. COVID has been the most disruptive event to the UK jobs market in peacetime in living memory, and readers can be forgiven for wondering if the data in this publication is at all relevant to the experiences of those studying and graduating in the future.

The answer to this question is complex. The labour market has been profoundly affected by COVID, but the graduate labour market has been, with certain exceptions in the arts and media, the least affected part of the economy. Health – much the largest graduate employer in the UK – has been relatively lightly affected and in some areas demand for graduates has held up or even strengthened as shortages of nurses, doctors, therapists and allied professionals have become critical.

Many areas of business services, IT and tech have switched to more remote working without losing workforce and a recent report from the Confederation of British Industry and the LSE made it plain that many businesses felt that the changes they had made to combat COVID had made a positive impact on performance, and were not going to cost jobs.[1]

At present, vacancy levels are running at around 55% of the usual annual level, but most areas of the graduate labour market are performing better, and PWC are among the forecasters that expect the economy to rebound to an extent in 2021 even if the pandemic is not curbed.[2]

So while the graduate labour market in 2021 and beyond will not look exactly like that described in this publication, this data remains a useful guide to the opportunities that will remain available to graduates and to the range of options they can take up with their qualifications when they graduate into what we hope will be a less difficult labour market than that in the latter half of 2020.

Table 2: Most common jobs for 2017/18 graduates after 15 months

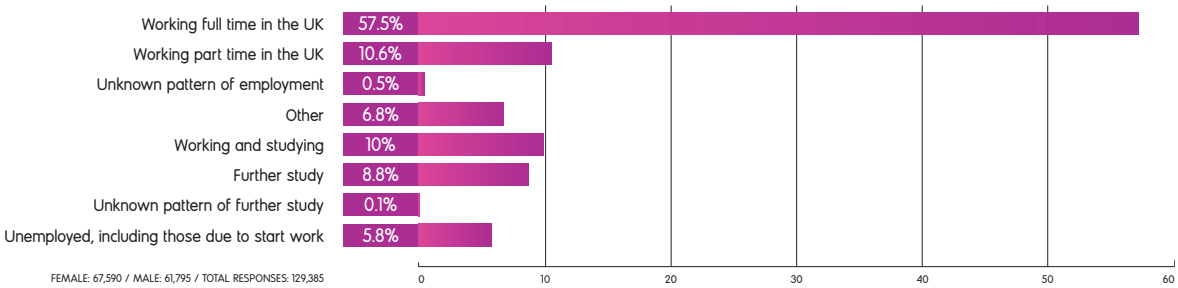
Occupation	Number of graduates
Nurses	9,800
Marketing associate professionals	4,575
Sales and retail assistants	4,305
Primary and nursery education teaching professionals	4,295
Programmers and software development professionals	4,160
Medical practitioners	3,755
Secondary education teaching professionals	3,095
Business and related associate professionals not elsewhere classified	2,845
Chartered and certified accountants	2,640
Other administrative occupations n.e.c.	2,475

Table 3: Most common industry of employment for 2017/18 graduates after 15 months

Industry of employment	Number of graduates
Hospital activities	15,870
Other human health activities (GP, clinics etc.)	6,005
Primary education	5,150
Secondary education	4,575
Accounting, bookkeeping and auditing activities; tax consultancy	3,465
Local and central government	3,400
Computer programming activities	3,255
Social work	2,675
Law	2,610
Banking and financial intermediation	2,555

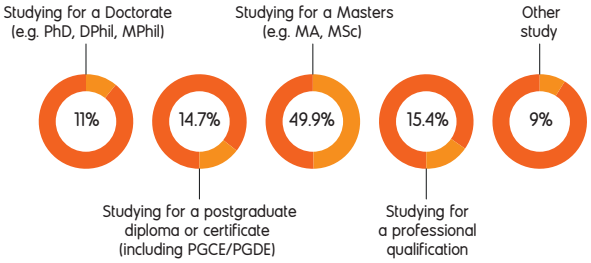
First-degree graduates

Outcomes 15 months after graduation



FEMALE: 67,590 / MALE: 61,795 / TOTAL RESPONSES: 129,385

Type of course for those in further study

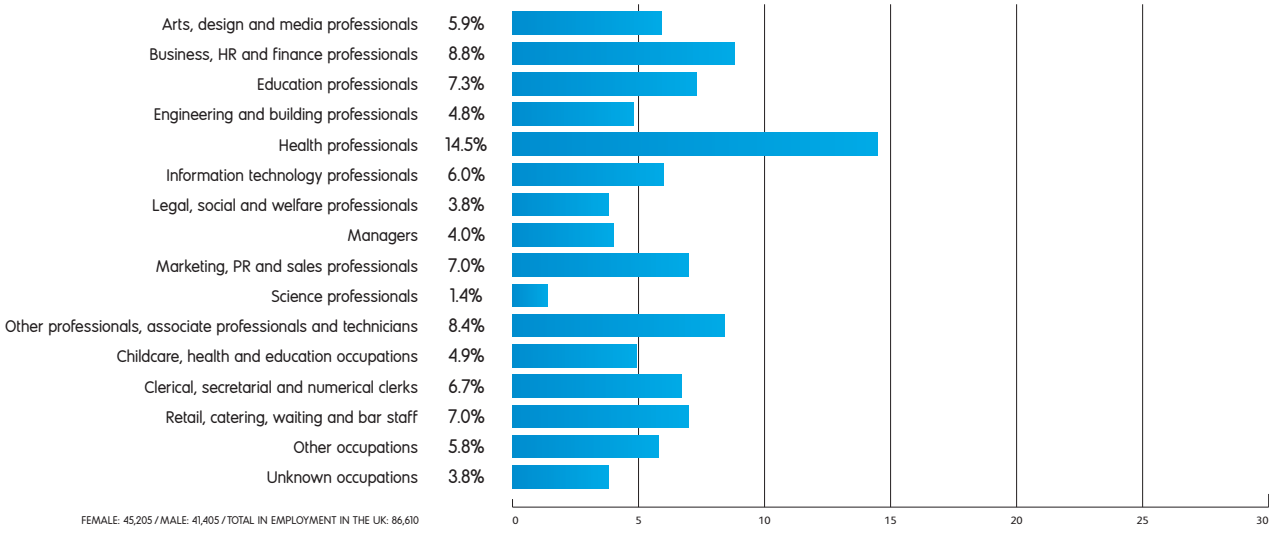


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 22,780

Top 10 professional jobs

Nurses	9.9%
Marketing associate professionals	4.4%
Primary and nursery education teaching professionals	4.3%
Programmers and software development professionals	4.0%
Medical practitioners	3.9%
Secondary education teaching professionals	3.2%
Business and related associate professionals n.e.c.	2.8%
Chartered and certified accountants	2.7%
Finance and investment analysts and advisers	2.2%
Human resources and industrial relations officers	2.1%

Type of work for those in employment



FEMALE: 45,205 / MALE: 41,405 / TOTAL IN EMPLOYMENT IN THE UK: 86,610

Recognising the changing labour market

TRISTRAM HOOLEY chief research officer, Institute of Student Employers

The last couple of years have been politically and economically tumultuous. Debates raged over Brexit, prime ministers fell and rose, elections took place, the pandemic emerged and the economy was locked down. All of these factors had an impact on the graduate labour market.

Although people often discuss the 'changing world of work', things actually tend to change slowly. In 1980 about 70% of the UK population were in employment, 40 years later it is about 76%.[1] Of course this figure has gone up and down over the years, but the overall pattern is one of stability. Most people in Britain are working for a living and this is even more true of graduates, who are typically about 15 percentage points more likely to be in employment than the rest of the population.[2]

Given this, it is important not to go into panic mode. The economic situation is currently deteriorating, graduate jobs are getting more competitive, but this doesn't mean that there are no jobs available for graduates.

Graduating in 2018

If you were graduating in 2018 you joined a labour market in which there was pretty much full employment. In the ISE's survey of large graduate employers we found a 7% increase in the number of graduate hires on the previous year.[3] Salaries were rising, and although things weren't necessarily back to their recession high point, things were getting better for graduates.

Of course there was the uncertainty of Brexit still hovering on the horizon, Theresa May was still prime minister and the government was wobbling fairly regularly. Despite this, and despite some concern from employers, for the most part they continued to recruit. This was also true in 2019 when ISE employers reported a 10% increase in graduate recruitment.[4]

For the graduating class of 2018 times were pretty good and the first year or so of their careers were conducted in relative boom time.

Christmas 2019

By Christmas 2019 Boris Johnson was back in Downing Street with a huge mandate to 'get Brexit done'. About 78% of students responding to the Graduate Outcomes survey were in some form of employment and less than 4% unemployed with no immediate prospects of a job.

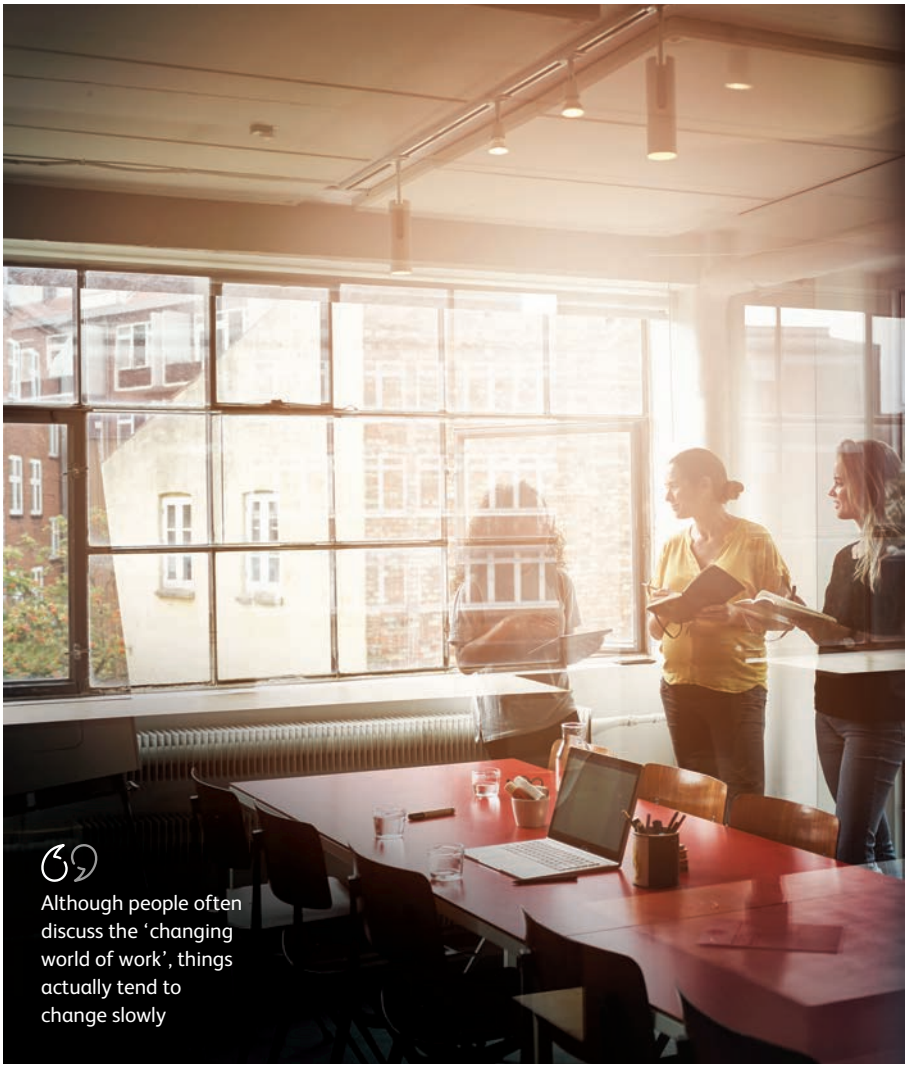
The UK was still enjoying historically high levels of employment, but there was clearly some uncertainty on the horizon. We asked ISE employers how they felt about the economic climate at the time and most reported that they were adopting a 'wait and see' stance.[5] As we entered 2020 we were predicting that graduate recruitment would stagnate, but probably not decline over the next year.

The rest is history. COVID-19 has hit the economy hard and we've seen a 12% drop in graduate recruitment this year.[6] The impacts of the COVID recession are very sectoral with areas like retail (where about 10% of 2018 graduates were working at Christmas 2019) and the built environment (about 8% of graduates) being more seriously hit. Those students graduating in 2020 are entering the labour market in much worse circumstances than the 2018 cohort. Predictions are still difficult but we are currently anticipating another, hopefully smaller, drop in the number of graduate jobs next year.

Responding to change

Graduates and current students will already be aware that times are tough. But it is important for them to put the decline in graduate jobs in context. The cohort who graduated in 2018 entered an unusually buoyant labour market. Although it is likely to be more difficult to get a job for the next few years, the overwhelming majority of graduates will still find work and many of them will still find good work.

Careers professionals need to try and help students to arrive at a balanced take on the current state of the labour market. There are good reasons to be concerned, but there are also reasons to be optimistic and resilient. This is why it is so critical for universities and the government to make sure that they support graduates to stay engaged and make as rapid a transition into their careers as possible.



Although people often discuss the 'changing world of work', things actually tend to change slowly

It does matter if you're black or white

IWI UGIAGBE-GREEN
associate professor and head of year, University of Leeds

GIANINA HARVEY-BREWIN
AGCAS Equality and Diversity Advisory Group

KENZA BEHIH
student and Laidlaw scholar

It's hard to ignore that there is an employment outcomes gap between white and BAME graduates, and that gap is eight percentage points according to the latest Graduate Outcomes data.

Sociologically, 'BAME' as a collective term is problematic. Additionally, and importantly in the context of *What do graduates do?*, it is also problematic from a data analysis perspective. The complexity and specificity of issues relating to a wide range of different ethnic graduate groups is lost by reporting on non-white groups together.

The aggregation of non-white groups into one category in this way masks larger disparities, particularly those impacting Black and Asian graduates. The persistent use of 'BAME' in policy conversations and reports to frame outcomes of ethnically minoritised graduates, is in fact one that further disenfranchises and erodes a sense of belonging of non-white graduates.

This an opportunity for policymakers to reconsider the use of 'BAME' in reporting data of non-white groups in future policy reviews.

Minding the gap

The data tells a frustratingly familiar story about the gaps between white and BAME students that persists through the student journey and into the graduate labour market. In fact 61.6% of white graduates from 2017/18 gained full-time employment 15 months after graduation, compared with 53.5% of BAME graduates. 'Other black students' are the ethnic group with the lowest proportion of graduates (47.4%) in full-time employment.

More Asian (27.3%) and Black (21.7%) 2017/18 graduates went into further education than any other ethnic groups. Despite this, a white male undergraduate still earns more than a Black postgraduate at the same point of their student lifecycle. Black graduates across all age groups are the lowest paid, with median earnings of £25,500 compared with the median of £35,000 for white graduates.[1]

So-called 'culture wars'

Historically, the gaps created by structural inequalities have been linked to a lack of aspiration and participation in higher education. For POLAR 1 (local areas with the lowest participation in HE), the employment gap was seven percentage points – some 60.9% of white 2017/18 graduates compared with 54.2% of BAME 2017/18 graduates were in full-time employment, while 7.5% of Black male graduates in POLAR 1 were unemployed, compared with 5.1% of white male graduates in POLAR 1.

Given that overall, there is an eight percentage point employment gap between white graduates and Black graduates, it is unlikely that ethnicity is the reason for white male graduates' unemployment.

The myth of meritocracy

The graduate outcomes of BAME students challenge the concept of meritocracy. Meritocracy can only work in a system where there is equality of opportunity. BAME students often lack 'social' and 'identity' capitals, which are often masked by arguments like the student deficit model.

Too much accountability is then placed on BAME students and they face obstacles such as stereotype threat or self-fulfilling prophecy. The myth of meritocracy prevents institutions seeing the barriers and issues of attainment for BAME students and this maintains the ethnicity pay gap.

Structural reform

Research from organisations like the Institute of Student Employers (ISE) and the Bridge Group have presented both a moral and business case for equality, diversity and inclusion for employers to reflect on. Key recommendations include:

- An increase in strengths-based and situational judgement test assessment – assessing potential rather than competency helps to redress the imbalance of past opportunities and access, and goes some way to levelling the playing field.
- Contextualised recruitment – Rare Recruitment is a pioneer of this technique, boasting a 61% increase in BAME hires for their clients and there are other organisations in the graduate recruitment market developing similar products. By combining both attainment and progression data from students, a more accurate picture of students' potential can be presented to employers.
- Targeted internships/work experience schemes – the Civil Service Diversity Internship Programmes were launched in 2015. Their most recent report boasts an 80% majority of BAME applicants to the scheme. More importantly, the impact of the scheme is a success story, with a year-on-year increase in percentage of BAME participants being recommended for further appointment. Elsewhere, #100BLACKINTERNS seeks to offer internships in investment management.[2] Internships are used to provide a transformational experience for students. They enhance employment, network and identity capital.

Serious questions need to be asked of universities and employers who perpetuate systems and processes that create inequity of opportunity for BAME students. Gaps persist, not because of lack of talent or aspiration, but because meritocracy is based on value systems that inherently favour certain student groups – usually white and male.

Understanding graduates' feelings through data

REBECCA FIELDING founder and MD, Gradconsult · **ROSIE TRESSLER** CEO, Student Minds · **ONSHELL RELF** research assistant, Student Minds

The inclusion of the subjective wellbeing questions in the Graduate Outcomes survey has been the subject of much discussion and debate amongst the HE careers community.[1,2] While acknowledging the experimental nature of this first dataset and concerns about the inclusion of these questions, we do for the first time have a measure of graduate outcomes beyond simply careers and salaries.

The value of a degree has been framed in recent years as simply a measure of financial return. These questions allow us to start to re-frame that conversation in terms of enabling graduates to feel happy, well and satisfied in their lives after graduation.

While huge amounts of work, research, energy and effort is placed every year into the transition into university, very little is done comparatively on the transition out of university into the world of work – a transition that is complex and challenging for many students. So, what does the data (from graduates of a pre-COVID world) tell us?

Most striking at a sector level are these three key findings which, for this large if experimental sample, run counter to some of the current rhetoric around graduates and graduate careers:

1. The vast majority of graduate respondents are happy with their life after graduation, with over three quarters (76%) reporting high or very high scores for how happy they are with their life nowadays.

2. When we look at levels of happiness, anxiety and whether graduates feel they are doing worthwhile work, there is very little difference between science versus non-science subjects (other than a minor statistically significant difference between reports of 'low' anxiety between science 24.8% and non-science graduates 22.8%).

3. There are no significant variances in the responses to the graduate wellbeing questions when analysed by gender, domicile or degree classification. Respondents with a Third, 2:2, or 2:1 degree classification are generally as well and satisfied with their lives post-graduation as those who have a First.

These are important messages for professionals and policymakers across the sector to take note of and make use of in communications to students, particularly given that the number of students who feel they are experiencing difficulties is increasing. In the past ten years universities have experienced significant increases in demand for counselling and disability services and we are seeing an increase in symptoms of depression and anxiety among young women.

There are however some interesting and wide variances at a subject level, notably:

- The question 'How satisfied are you with your life nowadays?' elicited a high or very high response from just 66% of respondents from mass communication and documentation subjects compared with 86% of medicine and dentistry respondents.
- The question 'To what extent do you think the things you do in life are worthwhile?' elicited a high or very high response from just 69% of respondents from mass communication and documentation subjects compared to 92% of medicine and dentistry respondents.
- The question 'How anxious did you feel yesterday?' elicited a high or very high response from 62% of respondents from veterinary science compared to 43% of engineering and technology respondents.
- The question 'How happy did you feel yesterday?' elicited a high or very high response from just 65% of respondents from creative arts and design, mass communication and documentation subjects compared with 78% of medicine and dentistry respondents.

These are sizeable and significant differences by subject group and worthy of further monitoring, research and exploration as more is known about the wellbeing of professionals in different professions and sectors generally, which will be invaluable for careers guidance professionals.

It's important that mental health outcomes are being included in this sort of work. By listening to students and building research partnerships we can start to address factors that negatively affect our health and wellbeing and make a positive step towards a mentally healthy future for all of us.

Light at the end of the 'value for money' tunnel

MARK STOW advocacy director, AGCAS · **PAUL GRATRICK** regionalisation director, AGCAS

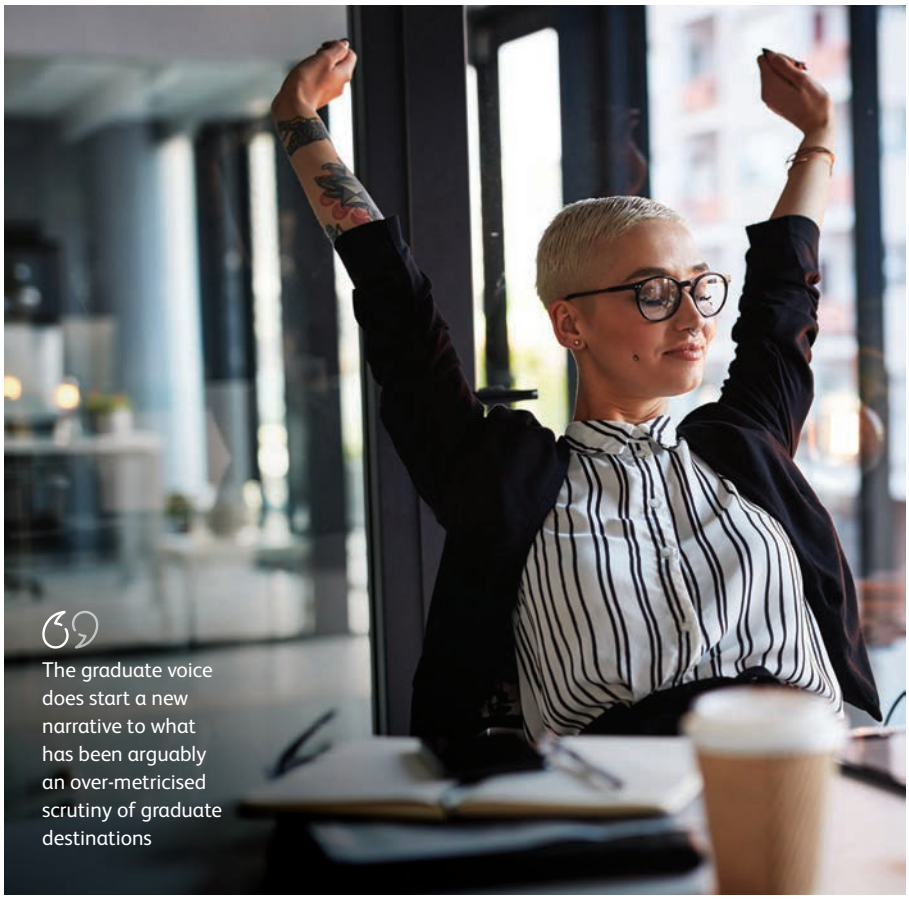
The term 'value for money' hasn't so much crept into higher education discourse in the past few years as waded right in and sat itself at the top table. Value for money (VfM) has become a central aspect of conversations around what students and the economy at large 'receive' from universities, and it is certainly framed in this reciprocal and transactional language. The current prescription of value in HE is essentially dictated by a standard occupational code (SOC) and a salary figure, and herein lies the problem.

Value is a complex construct and 'highly personal and idiosyncratic'.[1] It is determined by aspects such as price and what you get for that, what we want from any 'product', and its overall quality. All of these factors are at the mercy of our subjective perceptions of them, and these stem from our previous experiences of similar and other purchases and services. For any student their prior experience will vary greatly, and as such so will their perceptions of the value that tuition fees give them – both at the time of their studies and in the years afterwards.

For years, HE careers and employability professionals have been advocating that defining a graduate-level job through the application of a rigid coding manual is not commensurate with our age of increased HE provision, an increasing graduate population and an ever evolving labour market. Regardless, it is clear that the impersonal application of SOC codes to define 'value' fundamentally is founded on the implicit assumption that all who attend university are motivated by objective success – that is the societal expectation and norms of a hierarchical labour market defined by salary and status.

For those of us that work in universities (and may have researched the topic) we know unequivocally that this is not always the case. Students are not a homogenous group. In an age in which we are asked to focus on differentiation it is surely better that we consider what success may mean to our students as individuals. Subjective success is founded on a deeper sense of balance and purpose, perceiving any career as more than the job and status, but rather as an intrinsic component in a broader set of life goals – family, house, location, balance.

This is where the new Graduate Outcomes survey may add its own contribution to the VfM debate. For the first time we have been able to gather the graduate voice, ensuring we are able to assess whether graduates themselves 'value' their education, whether and how they perceive that they are applying their learning in their work, and whether their career measured as a snapshot in time is a part of their plan. Critically, this new aspect of capturing our graduates' destinations could be the first clear measure of our graduates' subjective success, supporting our long-held belief that the value of higher education is more than the sum of what can be measured by non-contextualised metrics and implicit, sweeping assumptions of success.



> The graduate voice does start a new narrative to what has been arguably an over-metricised scrutiny of graduate destinations

A quick preview of the results shows a clear picture of student values and perceptions with 82% either agreeing or strongly agreeing that their current activity is 'meaningful', and furthermore 74% agreeing or strongly agreeing that their current activity 'fits with their future plans'. This would suggest that the majority of our graduates hold real value in their current employment status and perceive that they are keeping track with their plans for their future. However, there is a somewhat noticeable dip to 66% when asked if they are utilising 'what they learnt in their studies'. While still demonstrating that nearly two thirds of students agreed or strongly agreed with the statement, it would be useful to explore a graduate response to a slightly re-crafted question, which asks to what extent graduates feel they are utilising the 'skills' they have developed during their studies.

Rather unsurprisingly, there is a marked differentiation in the responses when we split by professional and non-professional categories. Here we see that a lower proportion of graduates in non-professional occupations agree or strongly agree that their current activity is meaningful (65%), fits with their future plans (48%), or that they are utilising what they learnt (40%) as opposed to 89%, 86% and 75% respectively, for those in professional occupations.

So, it would appear at first glance that the graduate voice does start a new narrative to what has been arguably an over-metricised scrutiny of graduate destinations. It demonstrates a real opportunity to draw a subjective narrative of value and success to our understanding of what our graduates progress into. The question remains to what extent such rich information will be utilised across the sector to reinvent how we project the value of higher education for our prospective students. Building a true graduate voice of value and success has to count for something – and why shouldn't it?

Insights into graduate entrepreneurship

ELLI WHITEFOOT assistant careers, employability and enterprise manager, Leeds Arts University
EMMA FOROUZAN, student enterprise manager, University of South Wales
HELEN HOOK, Enterprise and Entrepreneurship Task Group, AGCAS

The Graduate Outcomes survey supplies a range of data around entrepreneurship that provides far more insight into this career choice than was ever available under its predecessor, DLHE. As this is the first data set, the years ahead will provide far more scope to reflect on emerging patterns.

It should be noted that although leavers are asked to select all their activities within the survey, only those who selected 'self-employment', 'running my own business' or 'developing a creative/professional portfolio' as their main activity are represented in this data. The true number of entrepreneurs is likely to be underrepresented as many will have identified other forms of work as their main activity.

Gender
The gender split was broadly consistent across the three types of entrepreneurship with higher percentages of males than females. The largest identified difference was 'Running own business' with twice as many males (1.8%) compared with females (0.9%).

Age
The distribution of entrepreneurs typically increased in line with age, with those aged 40+ forming the highest percentage of graduate entrepreneurs, followed quite closely on average by the 30 to 39 age group. This is likely to be linked to experience, savings, access to finance and networks which typically increase with age.

Industry sector
The most common occupations for 'self-employment' were from the creative arts, teaching, dentists, and pharmacists.'Running a business' included retail owners, IT manufacturing, restaurants/catering and property.

Ethnicity
BAME entrepreneurs feature as a higher percent across all three entrepreneurial areas than white entrepreneurs ranging between 0.2-0.5% higher. There are many factors behind these figures and as accessibility, bias, stereotypes, discrimination, and inequality continues to be challenged in higher education the percentage of BAME entrepreneurs may well increase.

Funding sources
Only 17.8% of respondents accessed external funding to start and develop their business, with the majority funded through self and family. This may be linked to the type of business, for example 'Creative self-employed' graduates often require little or no funding to start. Adding to debt and availability/awareness of suitable funding may also be factors.

Incubation
As many as 97.6% reported they had not engaged in university incubation which may be down to a mixture of reasons including whether incubation is available, the facilities and fees and whether the graduate business remains local to institution.

All data serves to remind us to 'challenge' and work towards narrowing the gender gap, inspire younger graduates, offer inclusive activity, and offer ongoing graduate support regardless of location.

Since the data was collected a global pandemic has ensued and presented an opportunity for both graduates and higher education in terms of enterprise and entrepreneurship. Pivoting of careers, innovative ideas, side hustles and business creation will be necessary and attractive to individuals with the right mindset, motivation, and support.

What can universities do to nurture entrepreneurial graduate outcomes?

- **Embed enterprise education within the curriculum** across all courses, increasing entrepreneurial aspirations and skills across a wider range and number of students. Experiential learning experiences and sector partnerships are key – the ETC Toolkit provides a wealth of case examples.[1]
- **Cross-HEI collaborations** to share expertise, resources and to leverage greater opportunities for students and graduates. Technology has removed locational barriers for both staff, students, graduates and industry partners to work together in increasingly creative and collaborative ways, transforming entrepreneurship support and networks available.

Graduates from business and management studies, economics and finance and accountancy all earned above the average

Business and administrative studies overview

SIWAN TYACK faculty engagement and careers guidance manager, University of Plymouth

This year's Graduate Outcomes data shows that of all UK-domiciled first-degree graduates surveyed, 59.8% were in full-time employment 15 months after graduating and 7.9% were in full-time further study. For business and administrative studies these figures were 66.4% and 4.1% respectively.

Destinations

Below is a breakdown of the 2017/18 data for business and administrative studies, which includes the following subjects:

- business and management studies (11,315 respondents)
- economics (3,940 respondents)
- finance and accountancy (4,520 respondents)
- hospitality, leisure, tourism and transport (2,365 respondents)
- marketing (2,275 respondents).

All business and administrative studies subjects showed higher numbers of graduates in full-time employment than the average across all subjects with a range from 61.8% for finance and accountancy to 73.4% for marketing.

High numbers of graduates from business and management studies (21%), hospitality, leisure, tourism and transport (26.2%) and marketing (56.3%) went in to jobs in marketing, PR and sales compared with 7% from all subjects.

Among finance and accountancy, business and management studies, and economics graduates, 54.9%, 22.6% and 58.2% respectively entered business, HR and finance professions. This is significantly higher than the figure of 8.8% for all graduates as might be expected.

Undertaking a business and administrative studies degree subject allows students to develop an understanding of business organisations and the markets and frameworks they operate within. Students acquire knowledge concerning customers, operations, communication, policy and strategy and how all of these are connected.

Graduates will develop the following skills and attributes through their studies, making them highly employable:

- communication, project management, leadership and interpersonal skills
- effective listening, negotiating and influencing skills
- self-awareness, self-management and a sensitivity to the diversity of people, cultures, business and management issues
- research and analytical skills with the ability to create, evaluate and assess options and apply ideas to a range of situations
- organisational and time management skills.

Salary

The average salaries for graduates from hospitality, leisure, tourism and transport with no significant further study since graduating are the lowest, as Table 1 shows. This may be explained in part by the make-up of this sector. Research by Economic Insight for the Department for Digital, Culture, Media and Sport in 2019 found that 'most hospitality and tourism establishments are small or medium-sized businesses, with around 9 in every 10 (90%) hospitality and tourism establishments employing less than 25 people'.[1] The report goes on to state that hospitality and tourism wages are below the UK average.

Graduates from business and management studies, economics and finance and accountancy all earned above the average for all subjects.

Table 1: Average salaries of business and administrative studies graduates 15 months after graduation

	Significant further study since graduating	No significant further study since graduating
Business and management studies	£25,017–£25,141	£24,478–£25,922
Economics	£29,842	£29,663
Finance and accountancy	£25,257–£27,066	£24,181–£25,543
Hospitality, leisure, tourism and transport	£22,014	£21,453
Marketing	£21,731	£22,934
All Subjects	£24,478	£24,217

Unemployment

Total unemployment for business and administrative studies graduates was 5.5% against 5.1% for all subjects. This includes those who were unemployed and due to start work/further study. This ranges from 4.9% for economics to 5.8% for finance and accountancy.

Further study

In total, 22,780 (8.8%) graduates were undertaking full or part-time further study. For graduates from business and administrative studies subjects this figure ranges from 2.6% for marketing to 7.5% for economics. Of those in further study from all subjects, 46.8% were undertaking a Masters programme while for business and administrative studies subjects the figure for those undertaking a Masters ranges from 23% for finance and accountancy to 56% for marketing.

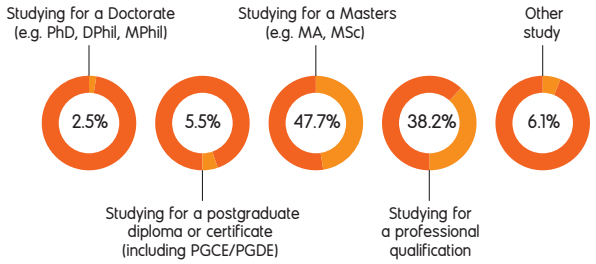
It is worth noting that 66.5% of finance and accountancy graduates and 38.2% of economics graduates were studying for a professional qualification against 14.9% of all graduates. This is reflective of the need for professional qualifications in the finance sector through chartered institutions such as CIMA and ICAEW.

The continued growth of automation is changing the job landscape resulting in a growing demand for jobs such as digital marketing and strategy specialists, and business development professionals.[2]

LinkedIn Learning reports that the need for business analysis skills has made the most significant jump on its list of hard skills that companies need most, from 16th to 6th.[3] By developing the skills identified above, business and administrative studies graduates will be well placed to respond to this changing landscape.

Economics

Type of course for those in further study

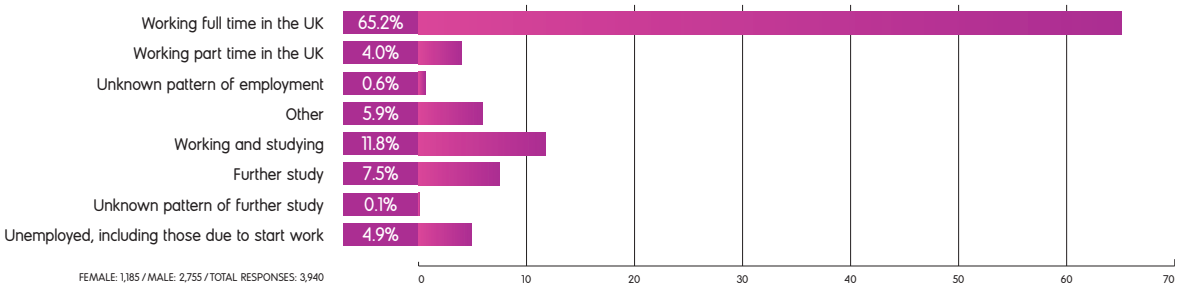


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 730

Top 10 professional jobs

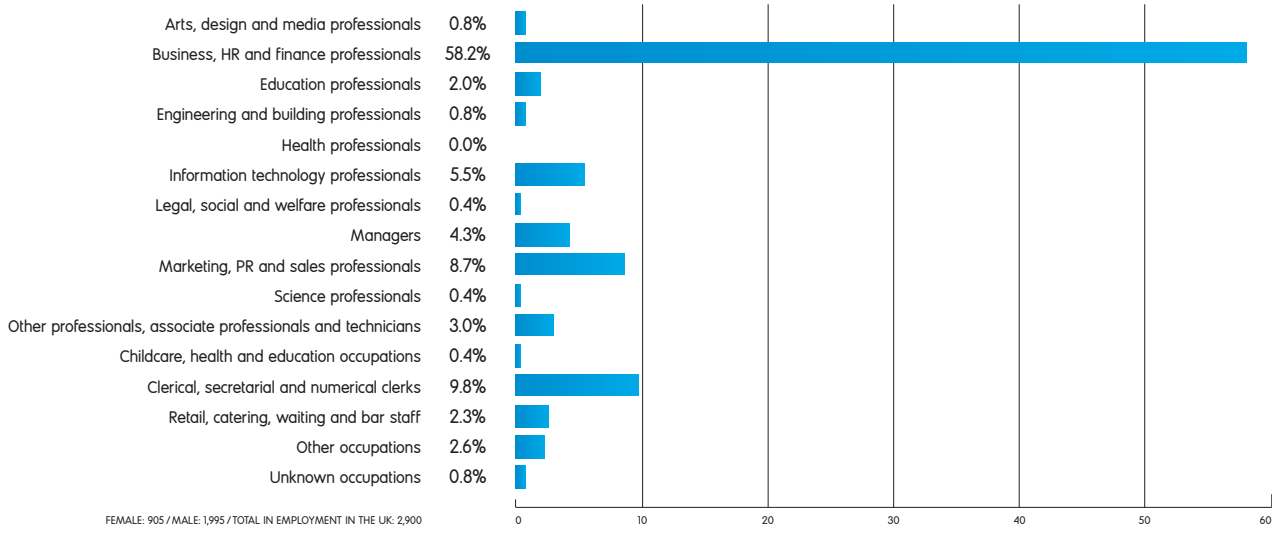
Finance and investment analysts and advisers	20.5%
Chartered and certified accountants	15.6%
Business and related associate professionals n.e.c.	7.3%
Management consultants and business analysts	7.2%
Economists	6.8%
Marketing associate professionals	4.8%
Financial accounts managers	2.9%
Brokers	2.5%
Business sales executives	2.2%
Information technology and telecommunications professionals n.e.c.	2.0%

Outcomes 15 months after graduation



FEMALE: 1,185 / MALE: 2,755 / TOTAL RESPONSES: 3,940

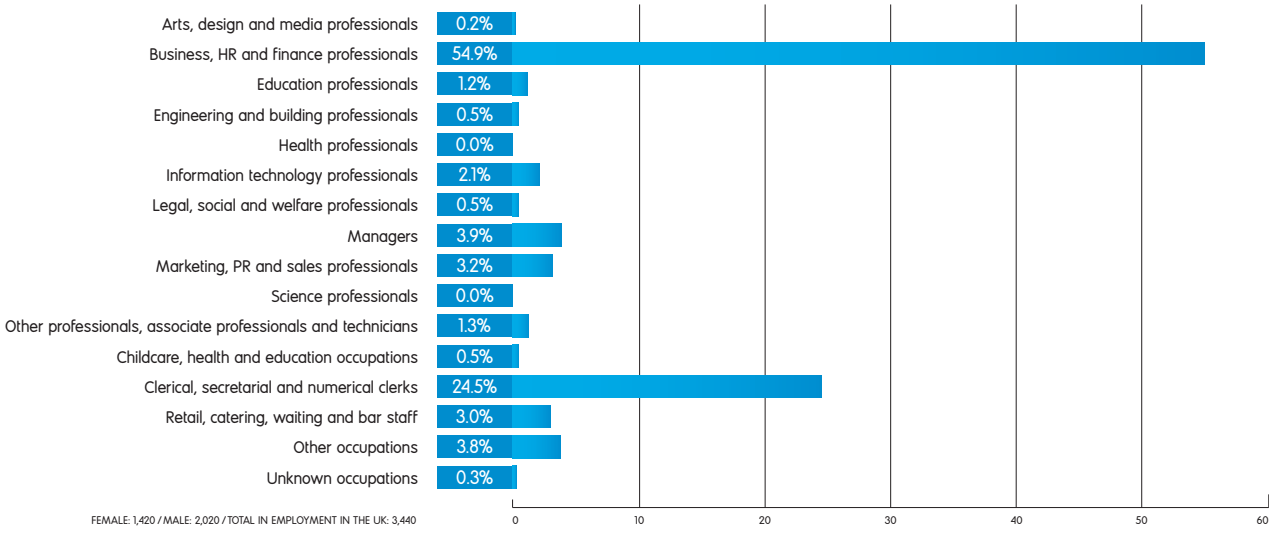
Type of work for those in employment



FEMALE: 905 / MALE: 1,995 / TOTAL IN EMPLOYMENT IN THE UK: 2,900

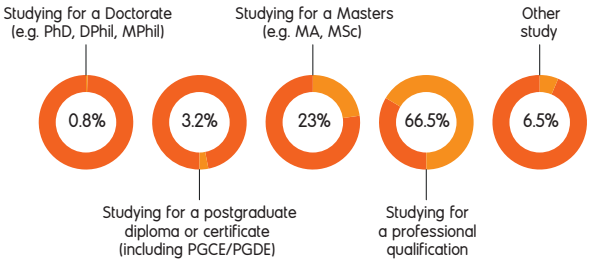
Finance and accountancy

Type of work for those in employment



FEMALE: 1,420 / MALE: 2,020 / TOTAL IN EMPLOYMENT IN THE UK: 3,440

Type of course for those in further study

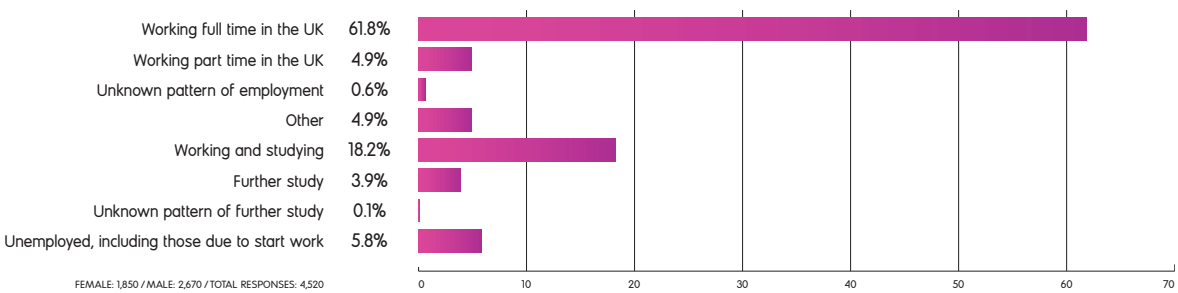


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 950

Top 10 professional jobs

Chartered and certified accountants	48.1%
Finance and investment analysts and advisers	15.8%
Taxation experts	5.3%
Business and related associate professionals n.e.c.	3.2%
Management consultants and business analysts	2.7%
Financial accounts managers	2.0%
Actuaries	1.3%
Business sales executives	1.3%
Sales accounts and business development managers	1.2%
Marketing associate professionals	1.2%

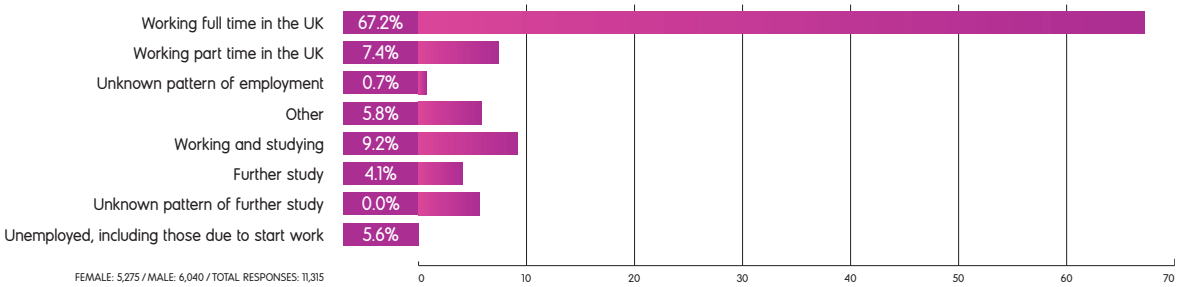
Outcomes 15 months after graduation



FEMALE: 1,850 / MALE: 2,670 / TOTAL RESPONSES: 4,520

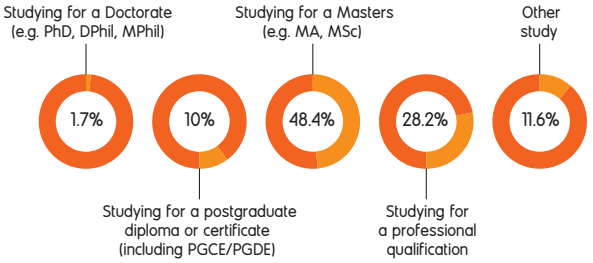
Business and management

Outcomes 15 months after graduation



FEMALE: 5,275 / MALE: 6,040 / TOTAL RESPONSES: 11,315

Type of course for those in further study

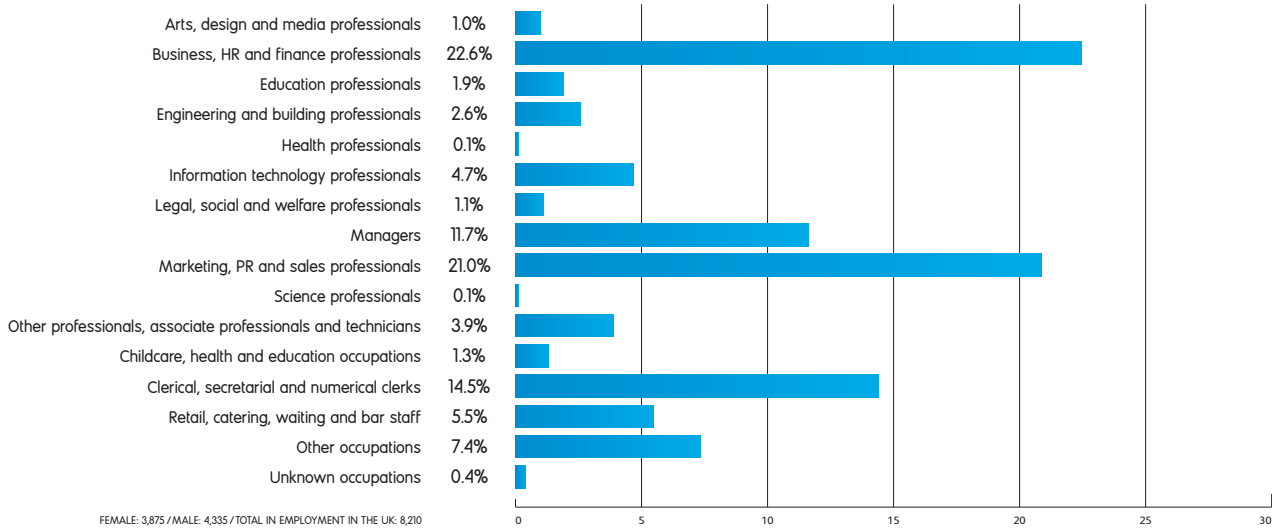


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 1,375

Top 10 professional jobs

Marketing associate professionals	12.4%
Human resources and industrial relations officers	7.1%
Sales accounts and business development managers	6.2%
Business and related associate professionals n.e.c.	5.9%
Chartered and certified accountants	5.3%
Business sales executives	5.2%
Finance and investment analysts and advisers	5.1%
Management consultants and business analysts	3.8%
Buyers and procurement officers	2.6%
Managers and directors in retail and wholesale	2.5%

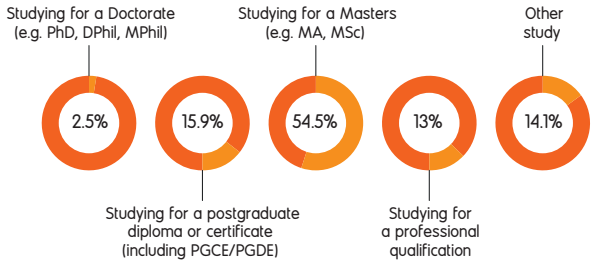
Type of work for those in employment



FEMALE: 3,875 / MALE: 4,335 / TOTAL IN EMPLOYMENT IN THE UK: 8,210

Hospitality, leisure, tourism and transport

Type of course for those in further study

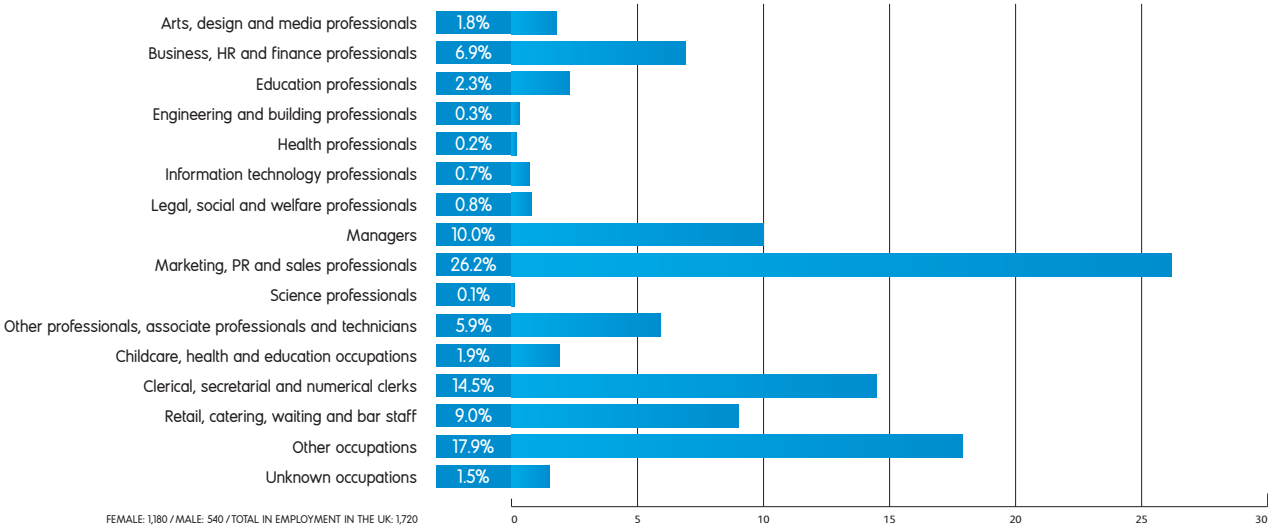


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 200

Top 10 professional jobs

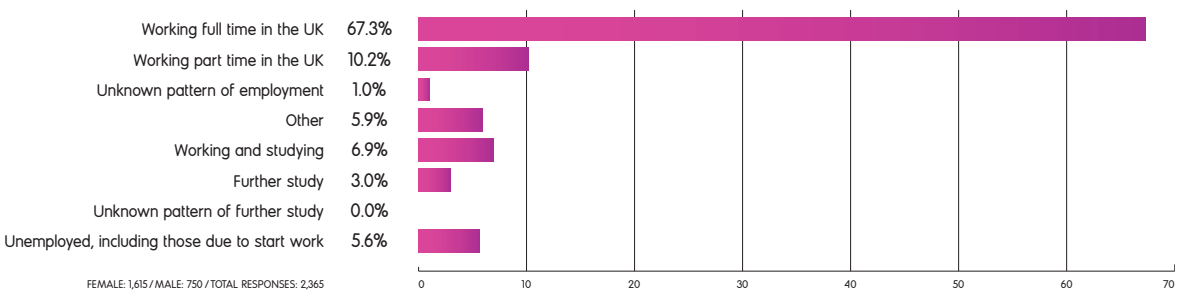
Conference and exhibition managers and organisers	28.4%
Marketing associate professionals	10.6%
Human resources and industrial relations officers	5.0%
Business sales executives	4.5%
Sports coaches, instructors and officials	3.8%
Business and related associate professionals	3.8%
Hotel and accommodation managers and proprietors	3.5%
Sales accounts and business development managers	3.3%
Restaurant and catering establishment managers and proprietors	3.1%
Aircraft pilots and flight engineers	3.0%

Type of work for those in employment



FEMALE: 1,180 / MALE: 540 / TOTAL IN EMPLOYMENT IN THE UK: 1,720

Outcomes 15 months after graduation

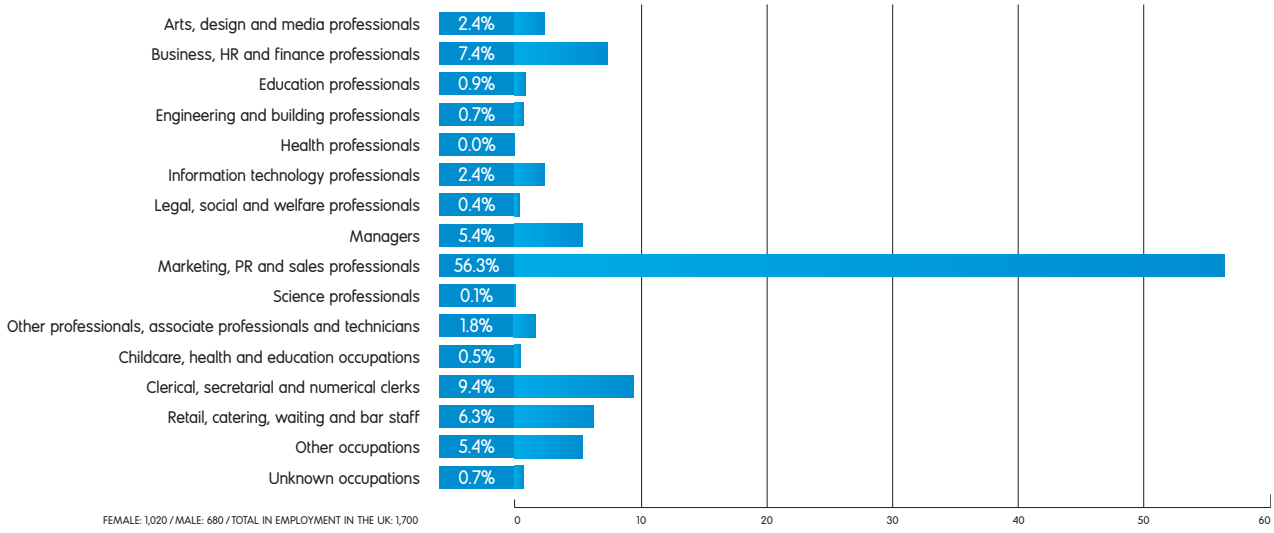


FEMALE: 1,615 / MALE: 750 / TOTAL RESPONSES: 2,365

BUSINESS AND ADMINISTRATIVE STUDIES

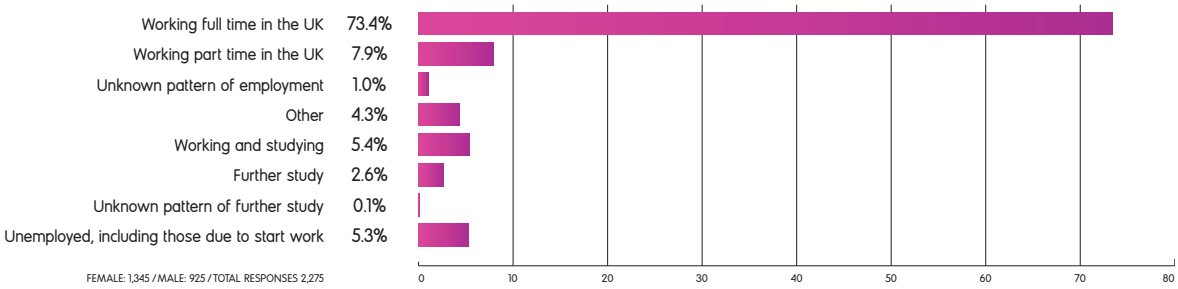
Marketing

Type of work for those in employment



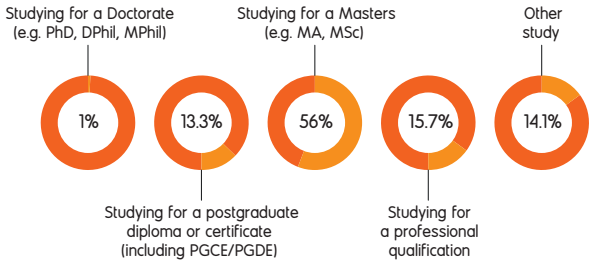
FEMALE: 1,020 / MALE: 680 / TOTAL IN EMPLOYMENT IN THE UK: 1,700

Outcomes 15 months after graduation



FEMALE: 1,345 / MALE: 925 / TOTAL RESPONSES 2,275

Type of course for those in further study



TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 160

Top 10 professional jobs

Marketing associate professionals	45.4%
Sales accounts and business development managers	9.0%
Public relations professionals	6.9%
Business sales executives	5.8%
Buyers and procurement officers	3.3%
Human resources and industrial relations officers	2.6%
Business and related associate professionals n.e.c.	2.5%
Conference and exhibition managers and organisers	1.8%
Advertising accounts managers and creative directors	1.8%
Management consultants and business analysts	1.2%

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Creative arts overview

BEN ROBERTSON AND RISH BARUAH Creative Industries Task Group, AGCAS

For the purposes of this report, creative arts comprises the following subject areas:

- Cinematics and photography
- Design
- Fine arts
- Media studies
- Performing arts

There were 21,420 survey respondents from the creative arts subject area, of whom 37.2% were male and 63.7% female. Overall, 16.6% of respondents had studied subjects in creative arts (out of a total survey response of 193,155).

One third of creative arts graduates were working in arts, design and media professions – all areas directly related to their degree.

Overall, 50.2% of respondents were in full-time employment, with 20.6% stating that they were in part-time employment. This compares to 59.8% of respondents from all subjects stating that they were in full-time employment, and 10% working part-time.

Among these subjects, performing arts saw the lowest rate of unemployment. The unemployment rate for the creative arts was 5.4%, comparable with an unemployment figure of 5.1% across all subjects in the Graduate Outcomes survey.

Meanwhile 3.9% of creative arts respondents reported that they were undertaking further study (compared with 8.4% of respondents from all subjects), with 7.4% engaged in work and study (compared with 9.5% from all subject areas).

Employment by subject

Across the creative arts, the top occupation was clearly related to subject of study, as Table 2 shows.

Two-and-a-half times the number of creative arts graduates were working part time compared with graduates from other disciplines, with fine arts having the highest percentage of graduates working part time at 29.7%

Fine arts had the lowest number in full-time employment (36.5%) and design the highest at 60.6%. Some 55.9% of media studies graduates were in full-time employment, with performing arts at 46.9%. These figures are comparable to graduates from other subjects across social sciences and humanities, although fine arts and performing arts were significantly lower than the overall average for graduates employed full time.

In terms of professional-level employment, design had the highest figure at 68.3% and fine arts the lowest with 48.1%. However, this may have been influenced by how the graduate answered the survey. Due to their portfolio-style working life, creative graduates may report their 'steady' employment (for example retail, catering, waiting and bar staff occupations) as opposed to championing their creative work.

Of all the subjects, design graduates were most likely to stay in the sector, with 41.1% finding employment in arts, design, and media professions. Media studies was the only subject that saw a significant number move into another professional-level sector, with 17.6% in marketing, PR, and sales professions.

Self-employment and contract-based work

Self-employment, enterprise and freelance activities were common outcomes for creative arts graduates. The number of graduates working for themselves was high across all subjects, with 9.7% of respondents from performing arts classing themselves as self-employed or freelance. Even the lowest figure (design studies at 3.5%) is higher than the general graduate population, where the figure was 1.1% in self-employment.

Table 1: UK-domiciled creative arts graduates employed in the UK

Arts, design and media professionals	29.5%
Retail, catering, waiting and bar staff	18.6%
Other occupations	11.7%
Marketing, PR and sales professionals	9.4%
Numerical clerk, clerical & secretary occupations	7.9%

These figures reinforce the message that creative graduates are expected to be enterprising and ready to create their own opportunities in industry, while being less likely to have a permanent contract of employment than the average (70.3%). Creative arts graduates were more likely to be on a fixed-term employment contract of less than 12-months (7.4%) than the average (4.5%) and the number of creative graduates on a zero hours contract was twice the average. This pattern is likely to continue, as creative professionals face the high level of precarity characterising creative work.[1]

Self-employment/freelancing top occupations include:

- photographers, audio-visual and broadcasting equipment operators
- actors, entertainers and presenters
- arts officers, producers and directors.

Developing a creative, artistic or professional portfolio top occupations include:

- artists
- photographers, audio-visual and broadcasting equipment operators
- actors, entertainers and presenters.

For all subject areas, retail and sales occupations were highly reported areas of employment and sales and retail assistants was the top paid occupation. Again, this could be due to graduates completing the survey with permanent contract employment in mind as opposed to championing the creative work they may be involved in.

As the Graduate Outcomes survey is conducted 15 months after graduation, many creative graduates may still be developing ideas, working on projects and building industry connections in order to develop their creative practice.

Table 2: Top occupations of creative arts graduates by subject

Media studies	Arts officers, producers and directors 12.4%
Fine arts	Artists 15.3%
Design	Graphic designers 18.5%
Performing arts	Actors, entertainers and presenters 10.0%
Cinematics and photography	Photographers, audio-visual and broadcasting equipment operators 17.3%

> Creative graduates are arguably well placed to deal with labour market uncertainty – they may even be in a position of strength

Salary

Creative arts graduates without further study reported a salary range of £18,061 to £20,447, compared with £24,217 across all subjects, as shown in Table 3. For those who had undertaken further study their salary increased slightly (£19,029 to £22,628). This correlates with PEC's findings 'that when controlling for demographic, attainment and work-related characteristics, the negative effect of taking a creative degree, as opposed to a non-creative degree is approximately £3,000 a year'.[2]

For some subjects, undertaking further study since graduation created a significant salary uplift, for example fine arts and performing arts. However, in cinematics and photography, further study created a downward pressure on average salary. On average, performing arts graduates reported the highest salaries from the creative arts, although the differential between the highest and lowest figures was less than 10%.

There has also been historic evidence that creative arts graduates working in the creative industries report higher salaries than those working in other sectors[3], and some correlation between salary and self-employment; graduates in employment often tend to report higher salary figures than those working for themselves.

Value to the labour market

Prior to COVID-19, the UK's creative sector was growing at five times the rate of the wider economy, employing over two million people (an increase of 34.5% since 2011), and contributing £111.7billion to the economy – more than the automotive, aerospace, life sciences and oil and gas industries combined.[4]

The Projected Economic Impact of Covid-19 on the UK Creative Industries report, suggests that the creative sector will be hit twice as hard as the wider economy in 2020, with a projected GVA shortfall of £29billion. The report projects that 122,000 permanent creative workers will be made redundant by the end of the year. This impact is set to be felt twice as hard by creative freelancers with 287,000 freelance roles expected to be terminated by the end of 2020.[5]

This will present significant challenges for creative arts graduates entering the industry. However, many have demonstrated their versatility by finding employment in a range of key economic sectors. This trend is likely to continue, demonstrating that working in alternative sectors should not represent a failure of artistic talent, lack of commitment to artistic principles or career guilt. On the contrary, transferable skills developed in creative higher education are valued and can be meaningfully applied to other sectors.[6]

Creative graduates are arguably well placed to deal with labour market uncertainty – they may even be in a position of strength in developing new opportunities due to their creative talents, enterprising nature and ability to continually self-promote, creating their own unique career cartographies. Current labour market contraction in this sector cannot be dismissed, but creative graduates' wide range of transferable skills, technological acumen and ability to network effectively may prove to be key attributes for navigating the future world of work.

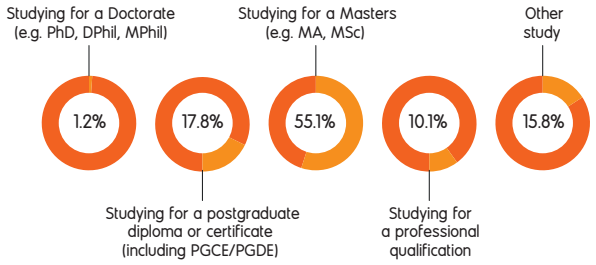
Creative graduates may also take solace from the WEF Future of Jobs report 2016 that identified that 'creativity' will become one of the top three skills workers will need to thrive in the Fourth Industrial Revolution.[7] The report highlighted that due to disruptive new technologies and new ways of working, workers are going to have to become more creative in order to benefit from these changes.

Table 3:
Average salary by subject

	No significant further study since graduating	Significant further study since graduating
Fine arts	£18,061	£22,417
Design	£20,447	£21,293
Performing arts	£18,507–£19,722	£21.295–£22,628
Cinematics and photography	£20,090	£19,029
Media studies	£20,045	£20,227
Creative arts	£20,256	£21,528
All subjects	£24,217	£24,478

Fine arts

Type of course for those in further study

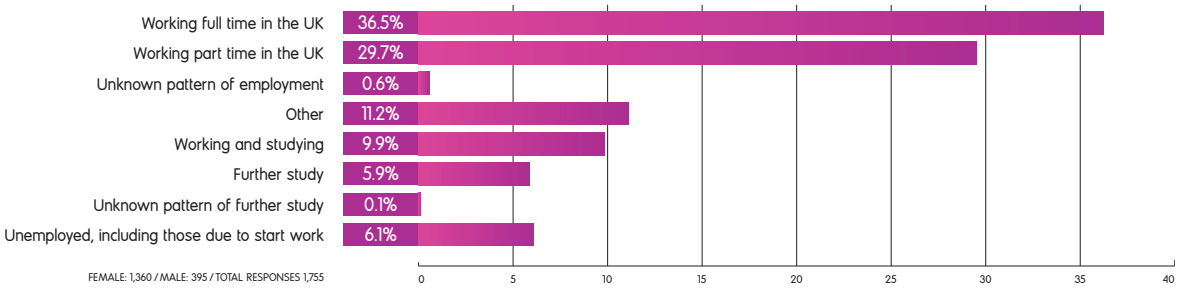


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 245

Top 10 professional jobs

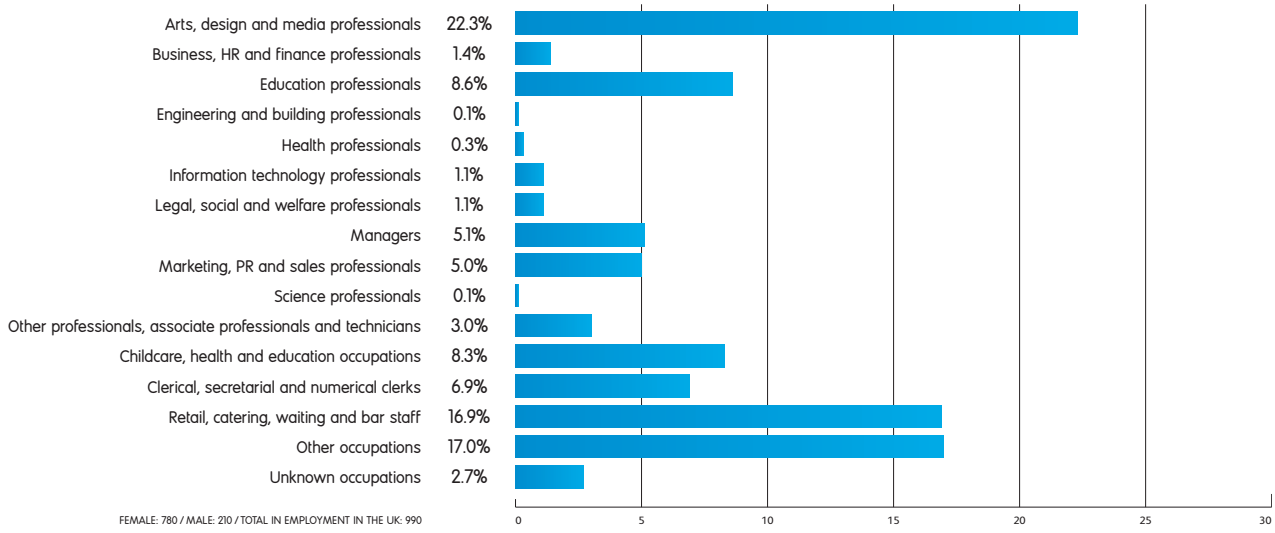
Artists	23.2%
Secondary education teaching professionals	8.3%
Teaching and other educational professionals n.e.c.	5.4%
Marketing associate professionals	5.3%
Arts officers, producers and directors	3.8%
Conference and exhibition managers and organisers	3.6%
Primary and nursery education teaching professionals	3.2%
Photographers, audio-visual and broadcasting equipment operators	3.1%
Archivists and curators	2.8%
Graphic designers	2.5%

Outcomes 15 months after graduation



FEMALE: 1,360 / MALE: 395 / TOTAL RESPONSES 1,755

Type of work for those in employment

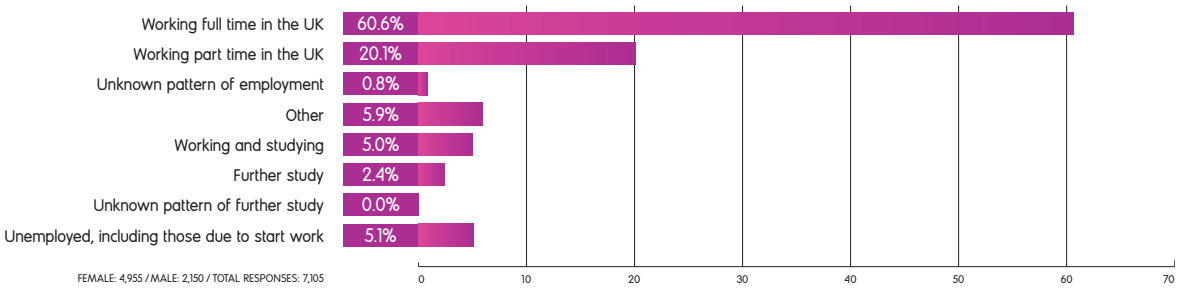


FEMALE: 780 / MALE: 210 / TOTAL IN EMPLOYMENT IN THE UK: 990

CREATIVE ARTS

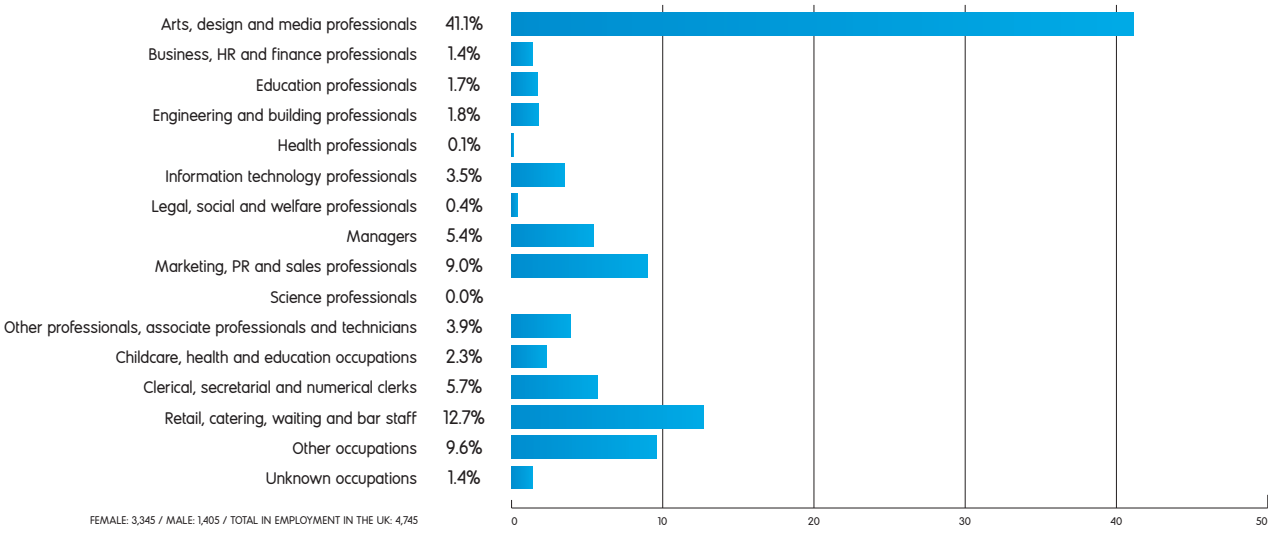
Design

Outcomes 15 months after graduation



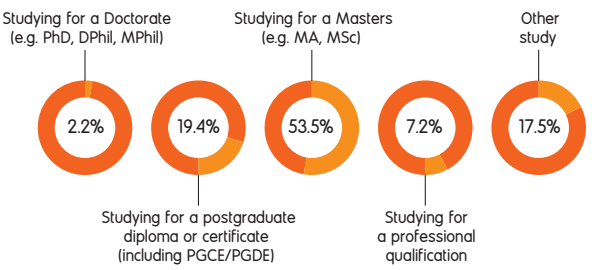
FEMALE: 4,955 / MALE: 2,150 / TOTAL RESPONSES: 7,105

Type of work for those in employment



FEMALE: 3,345 / MALE: 1,405 / TOTAL IN EMPLOYMENT IN THE UK: 4,745

Type of course for those in further study



TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 450

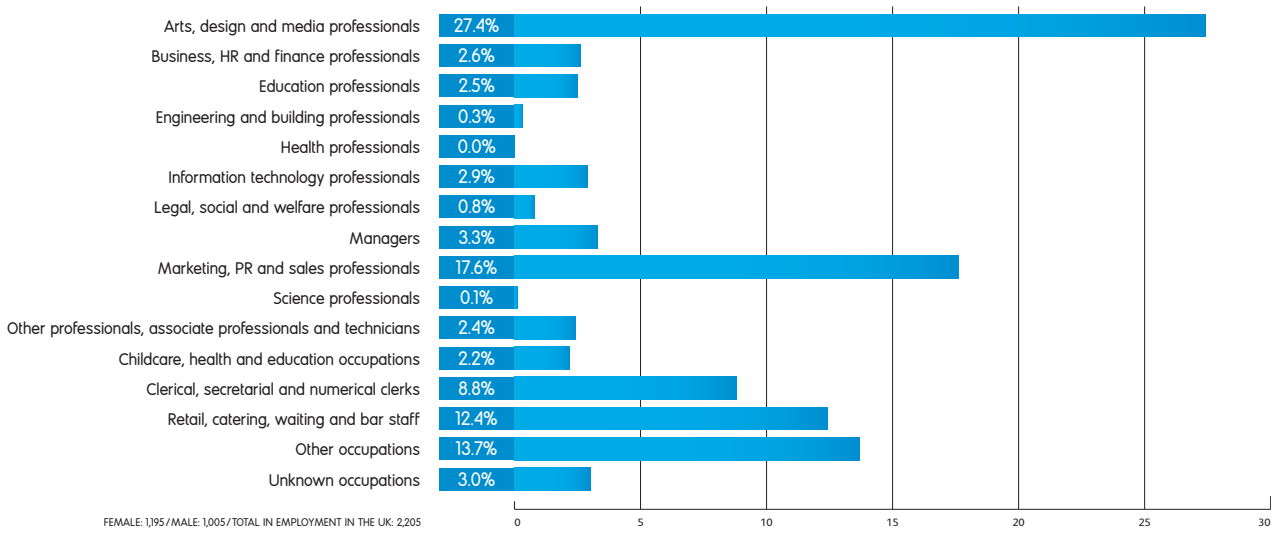
Top 10 professional jobs

Graphic designers	28.5%
Marketing associate professionals	7.3%
Clothing designers	5.7%
Interior decoration designers	5.7%
Product, clothing and related designers n.e.c.	3.9%
Artists	3.7%
Web design and development professionals	3.6%
Industrial designers	2.7%
Commercial artists	2.4%
Draughtspersons	2.3%

CREATIVE ARTS

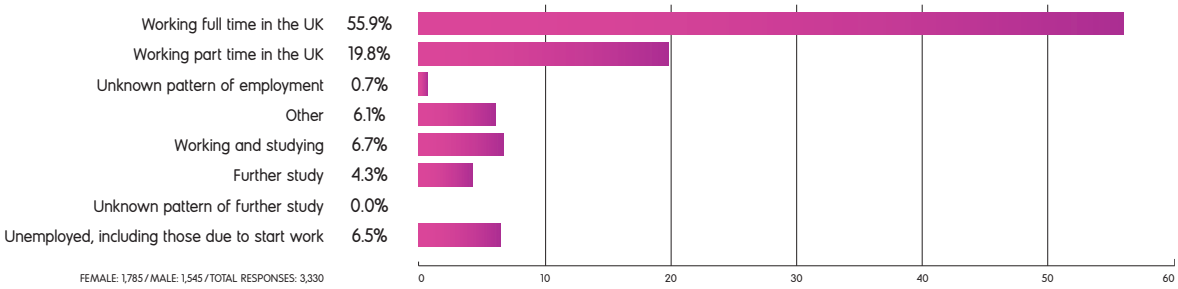
Media studies

Type of work for those in employment



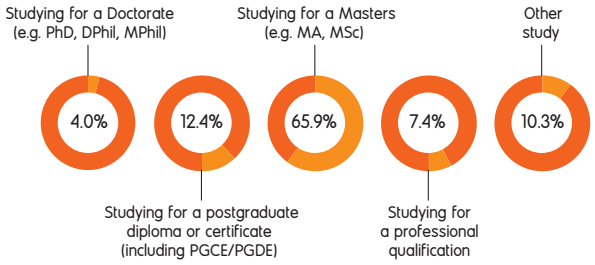
FEMALE: 1,195 / MALE: 1,005 / TOTAL IN EMPLOYMENT IN THE UK: 2,205

Outcomes 15 months after graduation



FEMALE: 1,785 / MALE: 1,545 / TOTAL RESPONSES: 3,330

Type of course for those in further study



TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 325

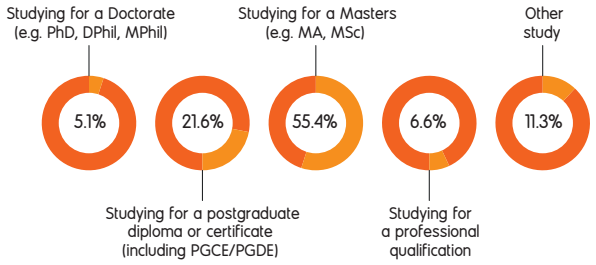
Top 10 professional jobs

Arts officers, producers and directors	19.6%
Marketing associate professionals	17.0%
Photographers, audio-visual and broadcasting equipment operators	12.0%
Public relations professionals	8.6%
Graphic designers	2.8%
Business sales executives	2.6%
Sales accounts and business development managers	2.4%
Conference and exhibition managers and organisers	2.2%
Web design and development professionals	2.1%
Human resources and industrial relations officers	1.7%

CREATIVE ARTS

Performing arts

Type of course for those in further study

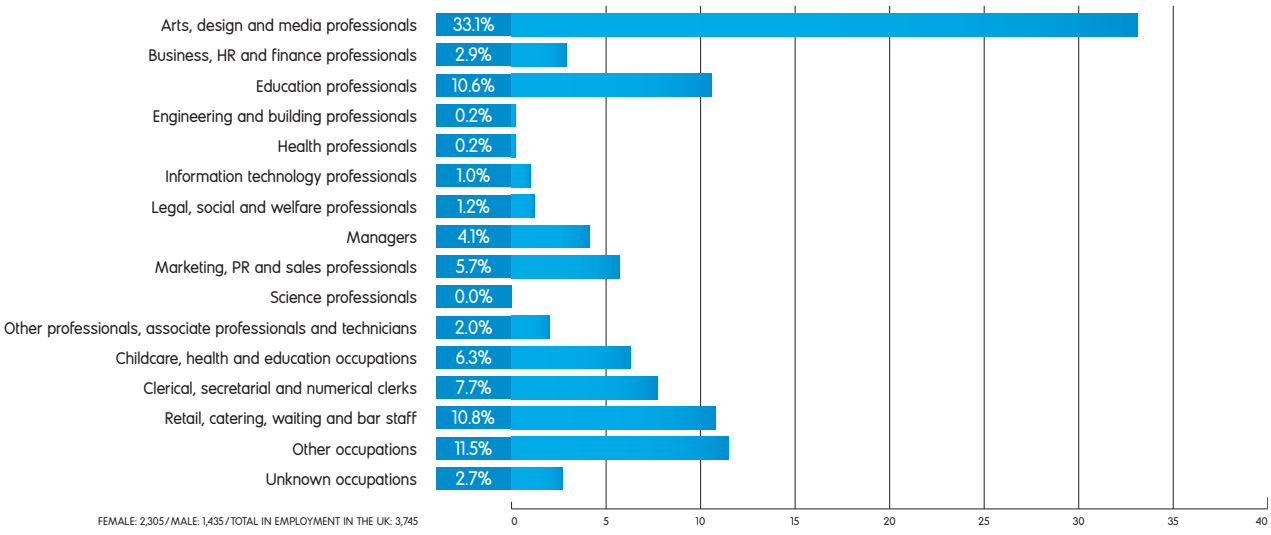


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 850

Top 10 professional jobs

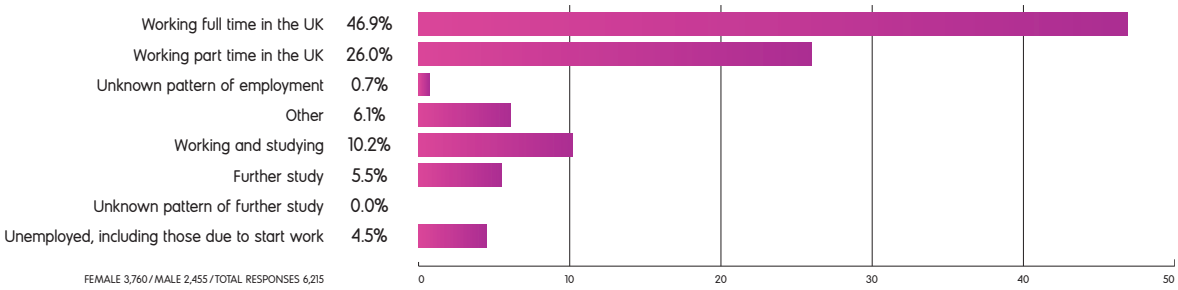
Actors, entertainers and presenters	13.2%
Musicians	9.3%
Teaching and other educational professionals	7.9%
Arts officers, producers and directors	7.8%
Photographers, audio-visual and broadcasting equipment operators	7.4%
Secondary education teaching professionals	6.3%
Marketing associate professionals	4.7%
Dancers and choreographers	4.4%
Conference and exhibition managers and organisers	2.7%
Primary and nursery education teaching professionals	2.3%

Type of work for those in employment



FEMALE: 2,305 / MALE: 1,435 / TOTAL IN EMPLOYMENT IN THE UK: 3,745

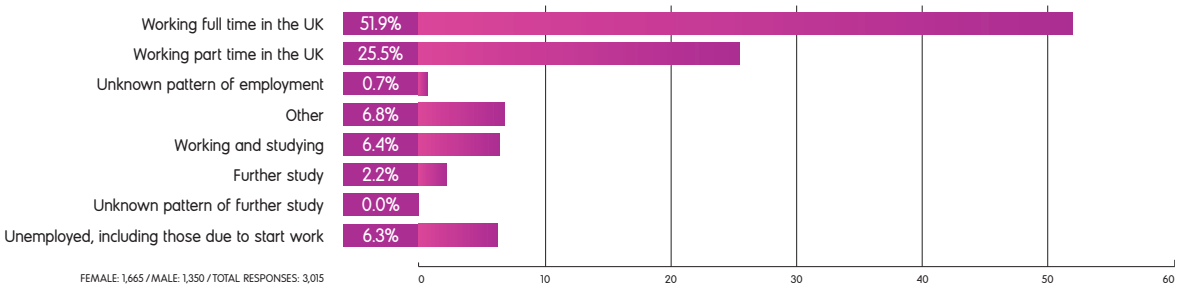
Outcomes 15 months after graduation



FEMALE 3,760 / MALE 2,455 / TOTAL RESPONSES 6,215

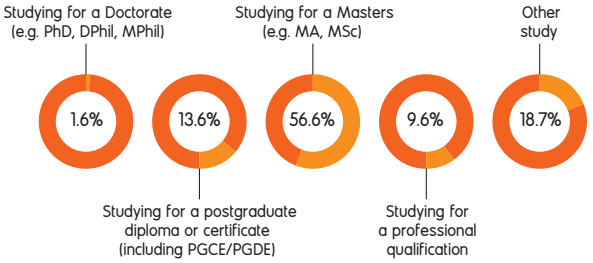
Cinematics and photography

Outcomes 15 months after graduation



FEMALE: 1,665 / MALE: 1,350 / TOTAL RESPONSES: 3,015

Type of course for those in further study

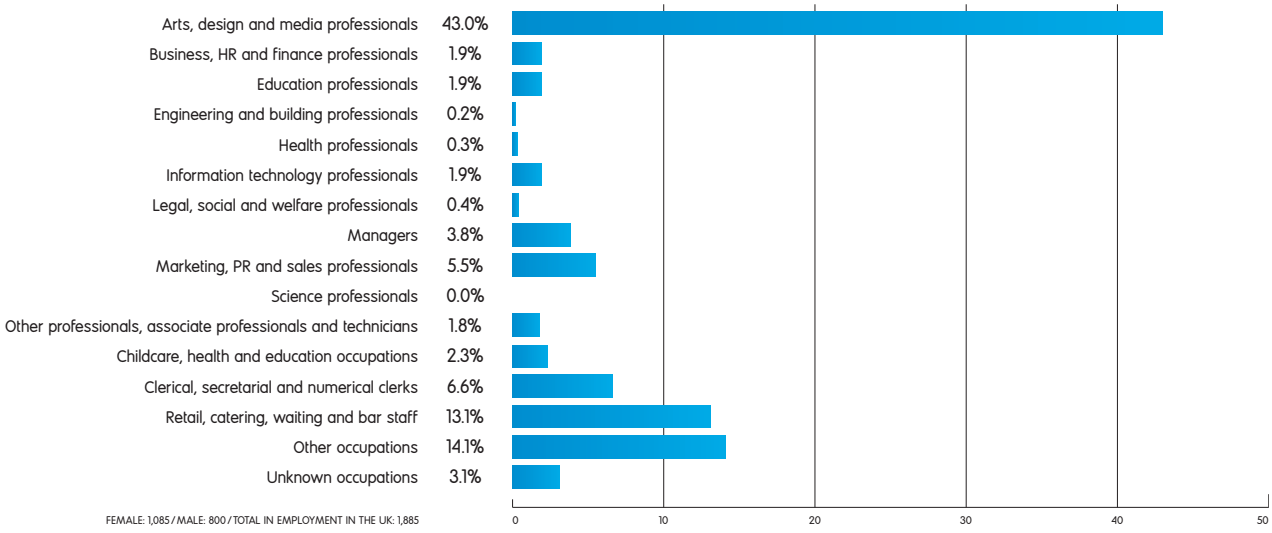


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 225

Top 10 professional jobs

Photographers, audio-visual and broadcasting equipment operators	26.7%
Arts officers, producers and directors	18.5%
Graphic designers	9.9%
Marketing associate professionals	5.5%
Commercial artists	5.0%
Artists	3.3%
IT operations technicians	1.8%
Public relations professionals	1.8%
Authors, writers and translators	1.4%
Human resources and industrial relations officers	1.3%

Type of work for those in employment



FEMALE: 1,085 / MALE: 800 / TOTAL IN EMPLOYMENT IN THE UK: 1,885

PROSPECTS
Luminate
A fresh voice for the sector

Luminate is an online resource for student and graduate labour market information, featuring advice, views and trends. Luminate dissects the latest research, making it easier to apply and use in a work context.

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Technology, engineering and maths overview

GAGAN DOSANJH careers adviser, University of Birmingham

> Of those that graduated with a technology, engineering, or maths degree, only 21% were female.

Technology, engineering, and maths graduates are highly sought after by employers and this is reflected in the high number of graduates that were in full-time work 15 months after graduation.

Science, technology, engineering and maths (STEM) skills are crucial for the UK's productivity, and the introduction of a number of STEM Inspiration programmes funded by government, such as the CREST awards and STEM Awards, is testament to how highly regarded these skills are. But even with such incentives, the UK still needs to do more.

In 2017, the annual shortfall of the right engineering skills was anywhere between 25,500 (level 3) and up to 60,000 (over level 4 skills).[1] Nearly two thirds (61%) of engineering employers say the recruitment of engineering and technical staff with the right skills is a barrier to business.[2] The high employment rate and salaries experienced by these graduates is likely to be a result of both the needs of the labour market and the fact that employers value the technical skills possessed by these graduates, as well as their critical thinking, analysis and problem-solving abilities.

Destinations

The subjects studied by these graduates are relatively varied and include IT, mathematics, architecture and building, civil engineering, electrical and electronic engineering and mechanical engineering. Graduates of all these disciplines are more likely to be in full-time employment than the all-graduate average (59.8%).

Perhaps unsurprisingly due to the critical skills shortages present in the UK construction sector, we saw the highest rate of full-time employment for civil engineering graduates, at 73.2%, followed by mechanical engineering (71.9%), electrical and electronic engineering (71.4%), architecture and building (71.4%) and IT graduates (68.6%).[3]

Maths graduates were less likely to be in full-time employment (60.1%) than other graduates in this group, though this is still higher than the figure for all graduates. Conversely, they were the most likely of this group to be in further study, with just under a quarter (22.4%) either in further study or working and studying. This is a greater number than the average across all graduates (17.9%).

A greater proportion of maths graduates were studying for a postgraduate diploma or certificate (including PGCE/PGDE) (14.9% of those in further study) or studying for a professional qualification (23.7% of those in further study) than any other technology or engineering graduates. This makes sense when we consider that the three most common occupations for maths graduates were business, HR and finance professionals (38.6% of employed graduates), information technology professionals (20.3%) and education professionals (12.6%) – since many business, HR and finance professionals will be required to undertake work-based learning, such as accountancy qualifications with the ACCA or CIMA, or HR/management qualifications with the CIPD or CMI. Similarly, education professionals often require PGCEs, which may be studied full-time at university or via on-the-job training.

While graduates from maths degrees enter a range of job roles, IT graduates predominantly work as information technology professionals (71.3%). Less than 5% of IT graduates work in the next most common occupations – 'other' (4.9%), as arts, design and media professionals (4.4%) or as retail, catering, waiting and bar staff (4%). The picture is similar for civil engineering graduates, who were mostly working as engineering and building professionals (78.3%), and mechanical engineering graduates, over half of whom were working as engineering and building professionals (57%).

In contrast, electrical and electronic engineering graduates typically work as either engineering and building professionals (41%), or as IT professionals (23%). This demonstrates the transferrable nature of electrical and electronic engineering skills to both IT and engineering roles.

Architecture and building graduates also commonly work as engineering and building professionals (42.2%), though a significant percentage were working as other professionals, associate professionals and technicians (29.3%). This may represent graduates working as architectural technologists or in other roles to gain experience for a RIBA qualification.[4] This conclusion is supported by the fact that 8.3% of architecture and building graduates are in work and further study. Of those in further study, most were pursuing a Masters (54.5%) but significant numbers were studying for a postgraduate diploma or certificate (including PGCE/PGDE) (18.7%) or a professional qualification (16%).

Sectors

Unsurprisingly, given the nature of their degree and the job roles they enter, most architecture and building graduates (71.4%) and civil engineering graduates (78.7%) work in the engineering, construction and R&D industry. The sectors in which other engineering graduates are employed is somewhat less homogenous, with mechanical engineering graduates commonly working in the manufacturing (46%) or engineering, construction and R&D sector (24.7%) and most electrical and electronic engineering graduates working in either the manufacturing (35.4%), engineering, construction and R&D (19.3%) or the IT and telecoms (14.7%) industries.

IT and maths graduates work in an even greater variety of sectors. Over half of all IT graduates were employed in either the IT and telecoms industry (41.5%) or other business or finance (11.5%), with the other 50% working in sectors such as retail (8.8%) and manufacturing (7.7%). Just under a quarter of maths graduates in work were employed in the business or finance sector (24.3 %), but the education industry (15.2%), IT and telecoms industry (14.5%) and legal and accountancy industry (10.7%) were also popular with these graduates.

Salary

Graduate salaries for technology, engineering, and maths graduates varied slightly, depending on significant further study undertaken. Graduates who undertook significant further study had an average salary range of £20,232 to £28,907, depending on subject studied. Those without significant further study had a salary range of 22,019 to £28,642. Interestingly, maths graduates with significant further study (£26,470) earned less than their peers without further study (£27,302).

Of technology, engineering and maths graduates, electrical and electronic engineering graduates with further study earned the most on average (£28,907), followed by electrical and electronic engineering graduates without significant further study (£28,642). It is important to note that both IT and architecture and building are umbrella groups with a number of subjects within them. For example, 'IT graduates with no further study' who have studied computer science courses earned £28,268, while those who have studied games-related degrees earned £22,019. Similarly, building graduates with significant extra study earned £27,406, whilst those that studied architecture earned £22,099.

Gender

A STEM Returners report on *The Hidden Workforce* sampled 350 returning engineers – engineers who had taken a career break, for instance in the case of maternity leave or due to caring responsibilities – and found that 63% of engineers returning to the sector believe the biggest barrier to restarting a career is bias in the recruitment process that puts them at a disadvantage for taking a career break.[5] This is likely to affect female engineers more than male engineers. However, the Graduate Outcomes data shows that there is an unequal gender balance far earlier than the workplace.

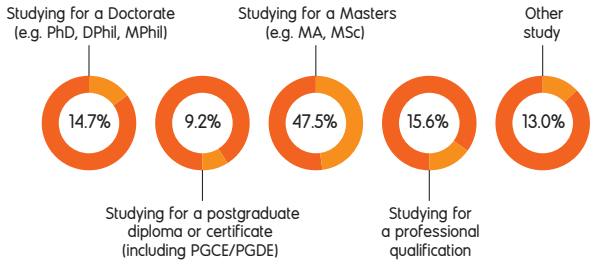
Technology, engineering, and maths graduates made up 11.8% of overall UK first-degree responses across all subjects. Of those that graduated with a technology, engineering, or maths degree, only 21% were female. At 39%, maths had the greatest proportion of female respondents, followed by architecture and building (32%). Conversely, female respondents made up only 9% of electrical and electronic engineering, 10% of mechanical engineering and 15% of IT graduates. Research from the *Engineering UK 2018* report reveals that the number of girls considering a career in engineering decreases as they move through secondary school, from 46.4% of girls 11-14 who would consider a career in engineering to 25.4% of girls aged 16-18.[6]

As a result of the COVID-19 pandemic, we have seen a greater focus on technology in the workplace – whether in offices or homes – than perhaps ever before. Combined with developments in artificial intelligence, cloud computing, big data and e-commerce, it is likely that the UK will need even greater numbers of technology, engineering and maths graduates than current levels. Yet research from the Institute of Engineering Technology (IET) suggests that we need to double, at least, the number of UK based university engineering students in order to meet the engineering industry's current skills needs.[7]

Increasing the number of women studying engineering at university could be one way to achieve this aim. Evidence shows that young people attending a STEM careers activity in the previous 12 months were over three times more likely to consider a career in engineering than those who had not.[8] The same research found that salary ranks as an important factor in young people's career choices, over and above 'enjoyment', 'job security' and 'something that challenges me'. Perhaps Graduate Outcomes salary data discussed in this publication combined with STEM outreach activities could be effective in maintaining girls' interest in a career in engineering or technology before the critical point where they pick their A-level subjects.

IT

Type of course for those in further study

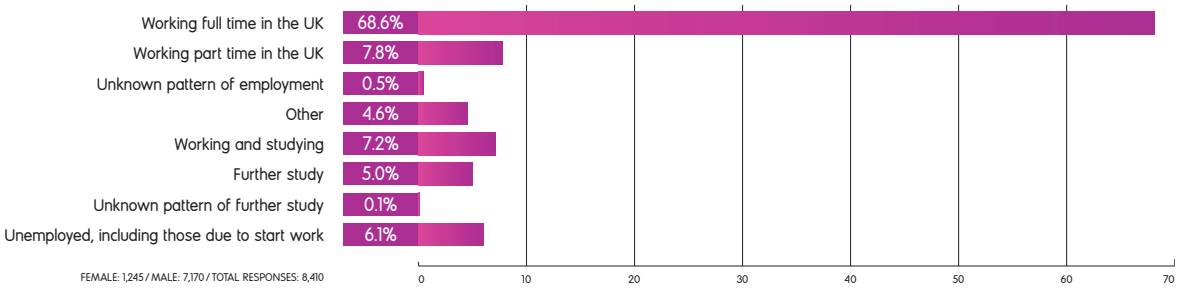


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 900

Top 10 professional jobs

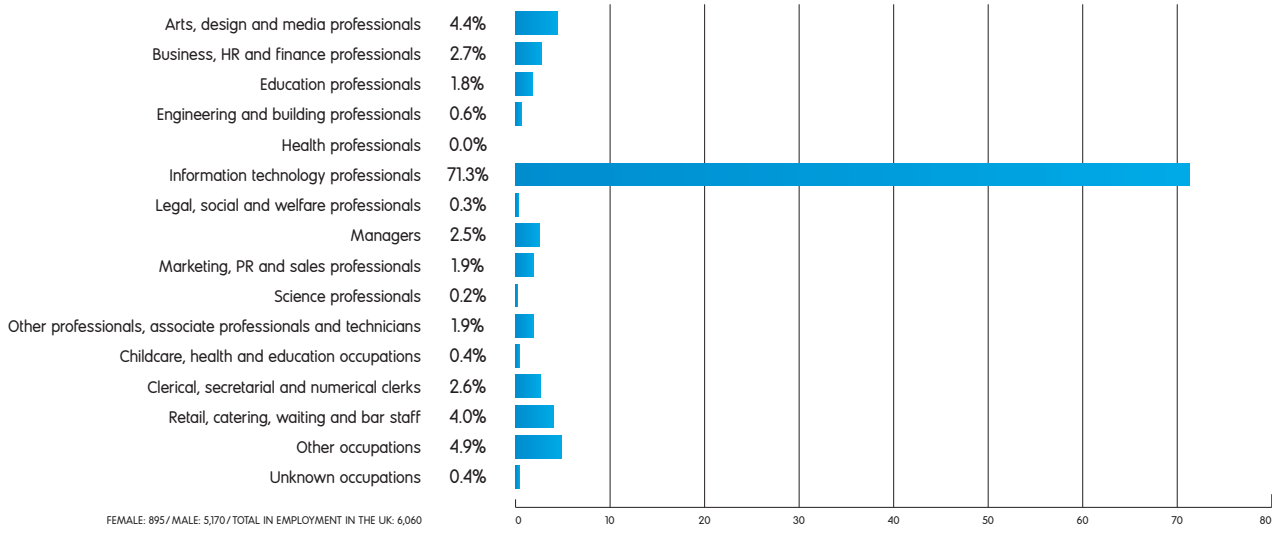
Programmers and software development professionals	48.1%
Information technology and telecommunications professionals n.e.c.	10.4%
IT user support technicians	7.5%
Web design and development professionals	6.1%
IT business analysts, architects and systems designers	5.3%
IT operations technicians	4.1%
Graphic designers	1.4%
Commercial artists	1.3%
Business and related associate professionals n.e.c.	1.2%
IT specialist managers	1.2%

Outcomes 15 months after graduation



FEMALE: 1,245 / MALE: 7,170 / TOTAL RESPONSES: 8,410

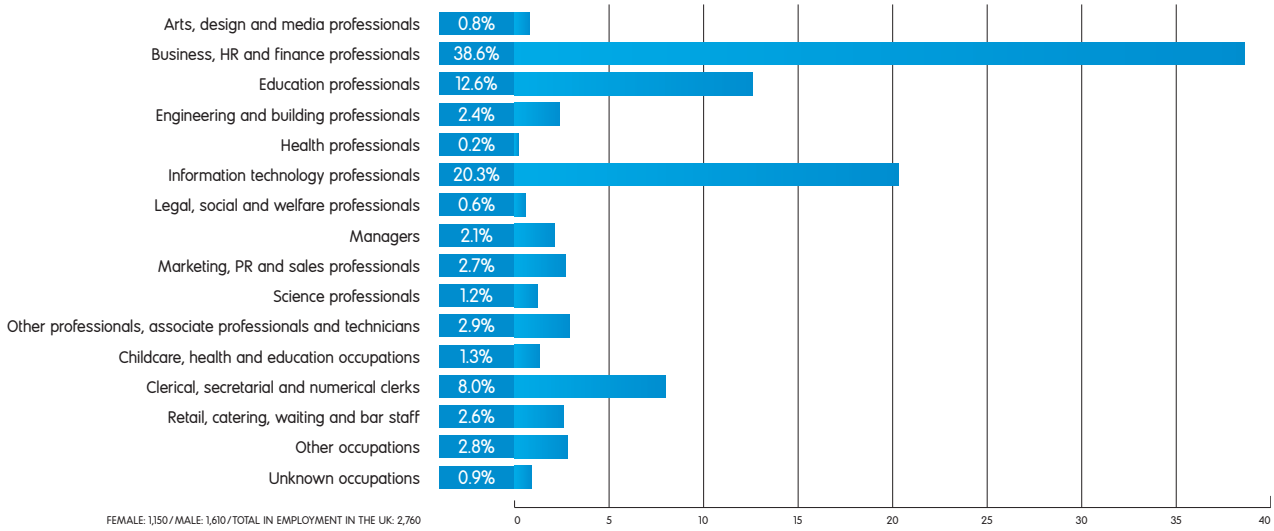
Type of work for those in employment



FEMALE: 895 / MALE: 5,170 / TOTAL IN EMPLOYMENT IN THE UK: 6,060

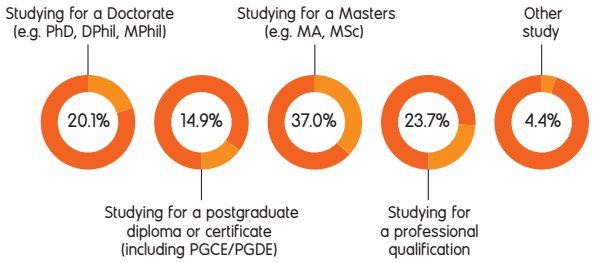
Mathematics

Type of work for those in employment



FEMALE: 1,150 / MALE: 1,610 / TOTAL IN EMPLOYMENT IN THE UK: 2,760

Type of course for those in further study

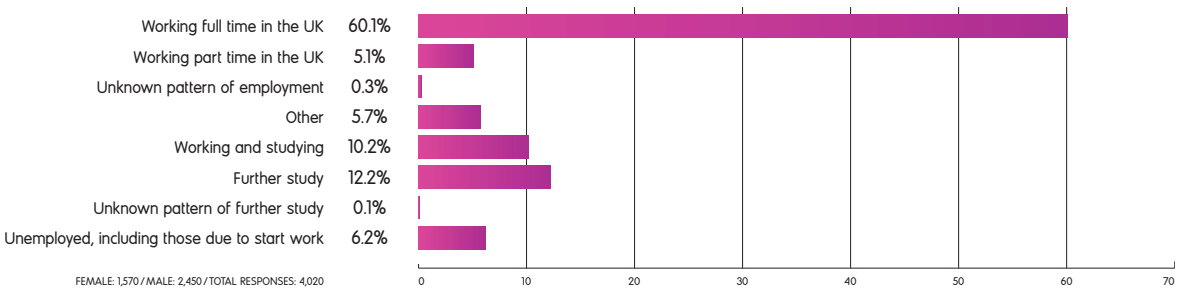


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 855

Top 10 professional jobs

Programmers and software development professionals	13.7%
Finance and investment analysts and advisers	10.7%
Secondary education teaching professionals	10.6%
Business and related associate professionals n.e.c.	8.3%
Chartered and certified accountants	7.7%
Actuaries	7.3%
Management consultants and business analysts	4.5%
IT business analysts, architects and systems designers	4.5%
Information technology and telecommunications professionals n.e.c.	3.7%
Primary and nursery education teaching professionals	1.8%

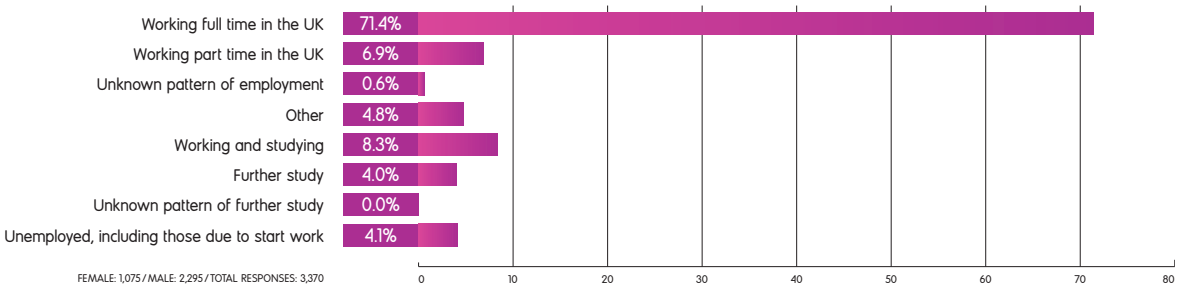
Outcomes 15 months after graduation



FEMALE: 1,570 / MALE: 2,450 / TOTAL RESPONSES: 4,020

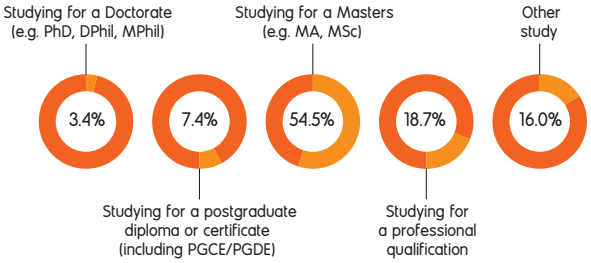
Architecture and building

Outcomes 15 months after graduation



FEMALE: 1,075 / MALE: 2,295 / TOTAL RESPONSES: 3,370

Type of course for those in further study

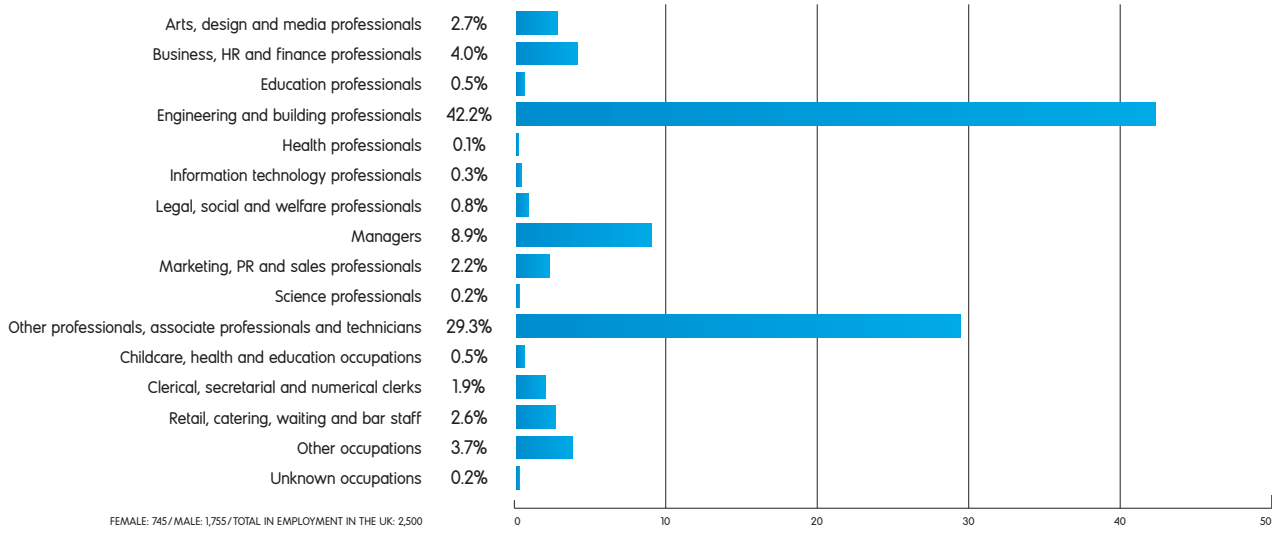


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 380

Top 10 professional jobs

Architectural and town planning technicians	31.1%
Quantity surveyors	20.7%
Chartered surveyors	8.8%
Production managers and directors in construction	5.4%
Construction project managers and related professionals	5.1%
Chartered architectural technologists	4.9%
Civil engineers	2.5%
Architects	2.1%
Interior decoration designers	1.7%
Draughtspersons	1.6%

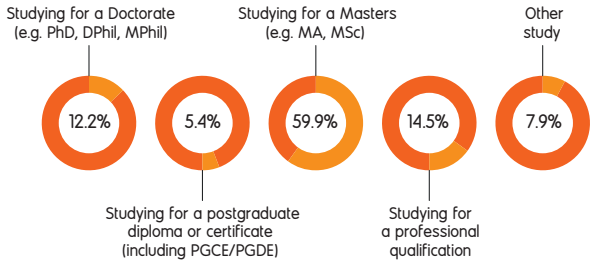
Type of work for those in employment



FEMALE: 745 / MALE: 1,755 / TOTAL IN EMPLOYMENT IN THE UK: 2,500

Civil engineering

Type of course for those in further study

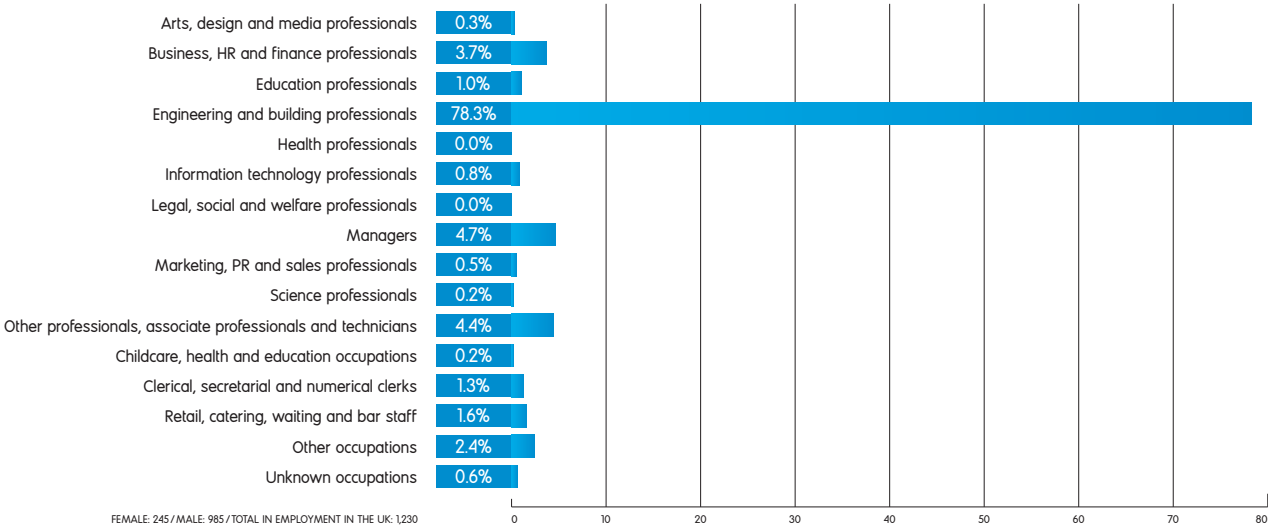


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 200

Top 10 professional jobs

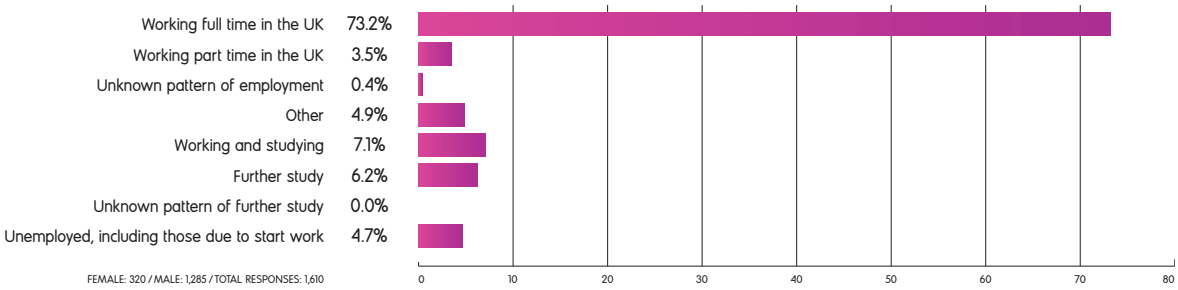
Civil engineers	72.0%
Engineering professionals n.e.c.	4.5%
Construction project managers and related professionals	3.2%
Production managers and directors in construction	2.5%
Design and development engineers	1.4%
Quantity surveyors	1.3%
Business and related associate professionals n.e.c.	1.1%
Chartered surveyors	0.9%
Building and civil engineering technicians	0.9%
Management consultants and business analysts	0.8%

Type of work for those in employment



FEMALE: 245 / MALE: 985 / TOTAL IN EMPLOYMENT IN THE UK: 1,230

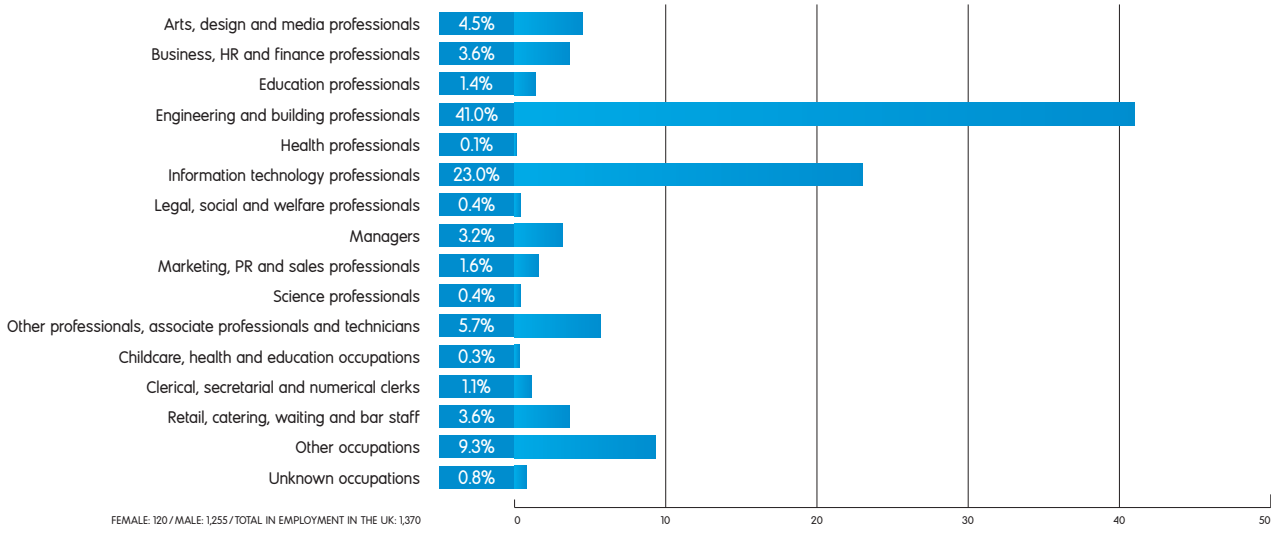
Outcomes 15 months after graduation



FEMALE: 320 / MALE: 1,285 / TOTAL RESPONSES: 1,610

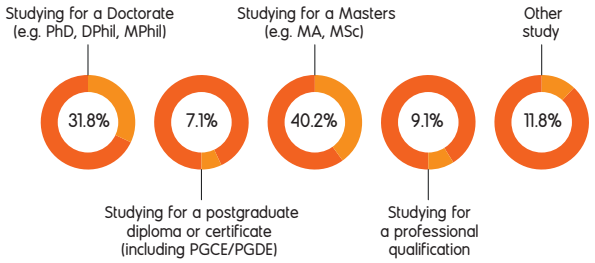
Electrical and electronic engineering

Type of work for those in employment



FEMALE: 120 / MALE: 1,255 / TOTAL IN EMPLOYMENT IN THE UK: 1,370

Type of course for those in further study

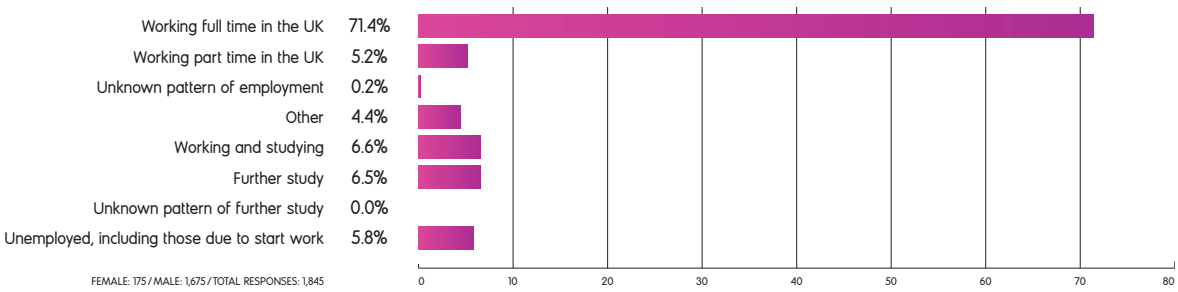


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 210

Top 10 professional jobs

Electrical engineers	15.3%
Programmers and software development professionals	15.3%
Electronics engineers	12.0%
Design and development engineers	11.1%
Engineering professionals n.e.c.	7.8%
Information technology and telecommunications professionals n.e.c.	4.3%
IT business analysts, architects and systems designers	2.9%
IT user support technicians	2.6%
Photographers, audio-visual and broadcasting equipment operators	2.6%
Engineering technicians	2.4%

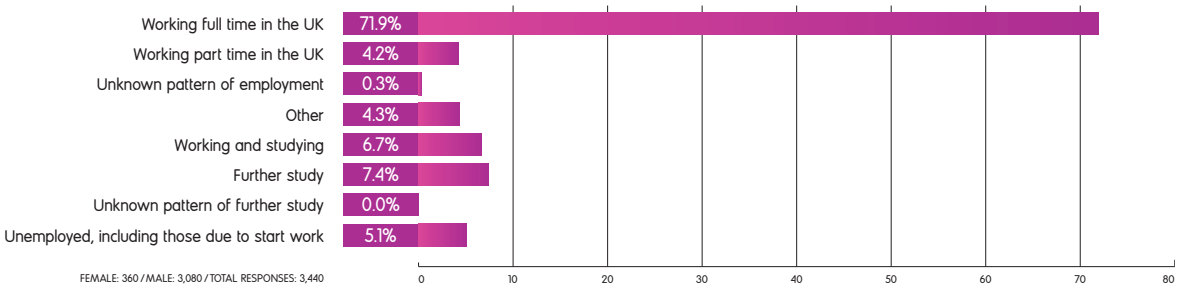
Outcomes 15 months after graduation



FEMALE: 175 / MALE: 1,675 / TOTAL RESPONSES: 1,845

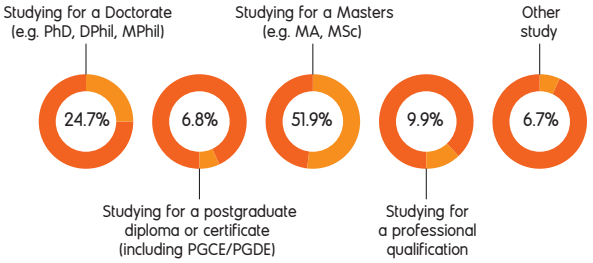
Mechanical engineering

Outcomes 15 months after graduation



FEMALE: 360 / MALE: 3,080 / TOTAL RESPONSES: 3,440

Type of course for those in further study

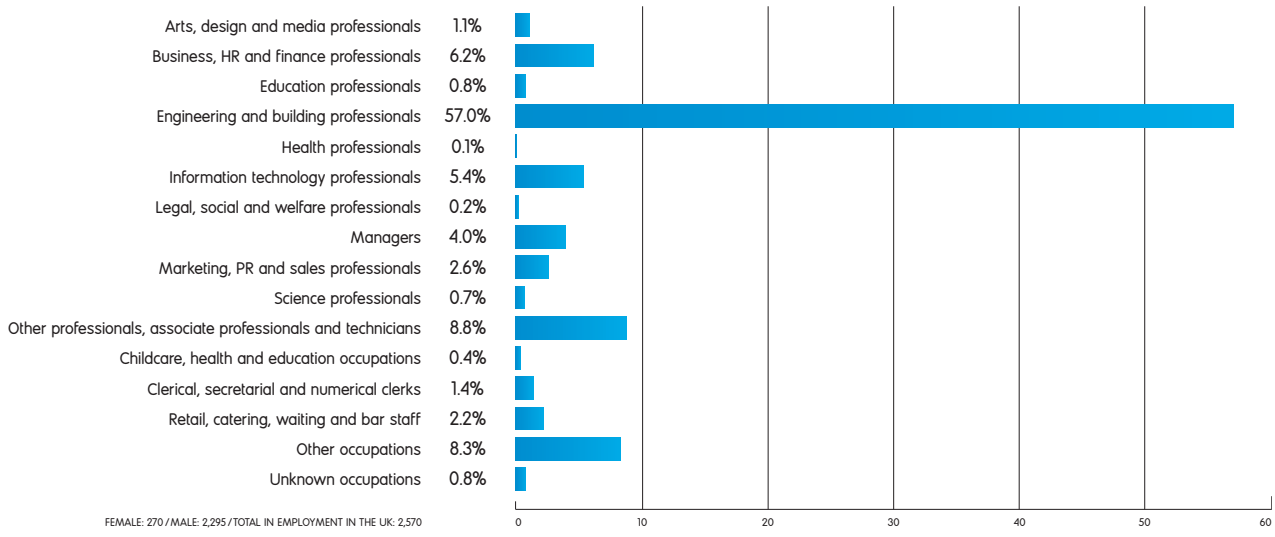


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 440

Top 10 professional jobs

Mechanical engineers	21.5%
Design and development engineers	21.0%
Engineering professionals n.e.c.	16.2%
Engineering technicians	4.4%
Production and process engineers	3.3%
Programmers and software development professionals	3.1%
Civil engineers	2.6%
Business sales executives	1.7%
Business and related associate professionals n.e.c.	1.6%
Management consultants and business analysts	1.6%

Type of work for those in employment



FEMALE: 270 / MALE: 2,295 / TOTAL IN EMPLOYMENT IN THE UK: 2,570

Humanities overview

JUDITH HANLEY careers adviser, Solent University

In this section the subjects being focused on are English, history, languages and philosophy. Due to their non-vocational nature, this group of subjects offers graduates a wide range of career options. As Professor A. C. Grayling from New College of the Humanities (NCH) has said, 'a good degree in the humanities is a platform for setting out on successful careers in a wide range of fields'.[1]

Despite this, according to the 2017/18 Graduate Outcomes survey, a significant percentage of humanities graduates entered similar occupational areas, with the most popular ones being education; marketing, PR and sales professionals; business, HR and finance professionals and clerical, secretarial and numerical clerks.

Destinations

The percentage of those in full-time employment was lower for humanities graduates than those from other subjects, at 54.3% for languages down to 48.8% for history. The average among other subjects was 59.8%. These figures though are unsurprising – partly because a higher than average number of humanities graduates chose to progress onto further study than graduates from most other subjects.

Nearly a quarter of all English graduates, 15 months after graduation, chose to work within education. This was overwhelmingly the top choice of industry for all humanities graduates, with English at 24.4% down to 17% for philosophy, which was still well above the all-subject average of 12.7%. Business and finance followed by retail were the second and third most popular industries for humanities graduates to enter, with media and publishing coming in at fourth place.

On closer inspection, we can see the main occupations these graduates have chosen to go into 15 months after graduating from their humanities degree. For English graduates, 17.8% have chosen to become marketing, PR and sales professionals, 17.5% education professionals and 13.4% clerical, secretarial and numerical clerks. History graduates entered occupations including clerical, secretarial and numerical clerks (14.5%), business, HR and finance professionals (14.1%) and marketing, PR and sales professionals (13.9%).

The top occupations for both language (17.2%) and philosophy (19.2%) graduates were in business, HR and finance roles. Most other language graduates chose to enter marketing, PR and sales (16.4%) or educational (13.6%) occupations. The majority of the remaining philosophy graduates entered clerical, secretarial and numerical clerk (12.8%) and marketing, PR and sales (11.5%) occupations.

Employability

As a result of the non-vocational nature of humanities subjects, graduates from these subjects possess numerous transferable skills, such as communication, collaboration, analysis and decision making, which makes them highly employable. Professor Grayling has said, 'To think with clarity, acuity and versatility, to acquire understanding with wide scope, to combine a breadth of knowledge with an ability to be precise and penetrating – these are the outcomes of an advanced education in the humanities.'[2]

Very little has been done to encourage men into the humanities

A report by the British Academy indicates that, due to high levels of employability and transferable skills, graduates from arts, humanities and social science (AHSS) subjects would be more resilient and adaptable in the face of change.[3] These are essential qualities, especially in the current climate of economic uncertainly in the UK.

Gender and salary

There was a significant difference between the number of female and male survey respondents graduating from humanities subjects. English was the most popular subject among females with 79.8% (4,515 out of 5,655) choosing this. The course showing the least amount of gender difference was philosophy with 53.2% (690 out of 1,299) being female and the remaining 610 males. Languages showed a difference of 3,240 females to 1,400 males from a total figure of 4,635 and history had 54.8% (3,540) female graduates compared with 2,915 males from a total of 6,455.

There could be numerous explanations for why humanities subjects are so popular among females, but there is little evidence to suggest that anything is being done to redress the balance. Many projects and schemes have been implemented to encourage women into STEM subjects, but very little has been done to encourage men into the humanities.

In fact, an article published in Inside Higher Ed asks, 'would greater exposure to such fields [...] help men make better decisions and become stronger citizens, workers and leaders?'[4] This argument has been reinforced by a statistic cited in All About Careers revealing that '60% of the UK's industry leaders have a humanities degree', which contrasts with the 15% who had studied STEM subjects at university.[5]

For those humanities graduates in employment the gender pay gap was considerable. An article published by Prospects Luminate stated that 'women are more likely to enrol onto courses associated with lower returns'.[6] Humanities are a prime example due the significant number of females studying these subjects. Another factor cited within the article was the 'motherhood factor' and for this reason 'both economic inactivity and part-time work become much more prevalent among female graduates'. This was certainly reflected in the survey outcomes for English which show that 12.8% of graduates, 2.2 percentage points more than all subjects, were in part-time work 15 months after graduation. This figure wasn't broken down by gender but as we have already seen, English was the most popular of the humanities subjects amongst those who identify as female.

In general, those working part time tend to earn less and it can sometimes have a negative effect on chances of promotion. This is not to say that the picture was entirely optimistic for their male counterparts. According to an article by the Institute of Fiscal Studies 'for men, studying creative arts, English or philosophy actually results in lower earnings on average at age 29 than people with similar background characteristics who did not go to HE at all' – although a higher salary is not, of course, the only factor that makes a degree worthwhile.[7]

Regardless of gender, the figures from the Graduate Outcomes survey indicated that, to be earning a salary close to average for all subjects, humanities graduates would need to undertake significant postgraduate study. The average UK salary for all 2017/18 graduates from all subjects was between £24,217 and £24,478, with the higher figure being the average amount earned by those who had undertaken postgraduate study. Graduates from all humanities subjects except languages were earning less than the average for those who had undertaken significant postgraduate study. Their averages were £22,461 (English), £22,644 (history) and £24,238 (philosophy). Language graduates straddled the average with their salary range being between £22,750 and £28,050 depending on precisely which language degree they studied.

Further study

The Graduate Outcomes survey showed that a higher percentage of humanities graduates, compared to those from other subjects, decided to undertake full or part-time further study after completing their undergraduate degree. The percentages ranged from 14% (history) to 11.3% (English) compared to an average of 8.4% across all other subjects.

Choosing to enter a career within education was a popular choice amongst humanities graduates, ranging from 17.5% for English to 10.5% for philosophy. This directly correlates with the higher than average number of humanities graduates opting to undertake a postgraduate diploma or certificate (including PGCE/PGDE). This option was most popular with language graduates at 24.5% down to 15.2% for philosophy graduates, which was still higher than the average amongst other subjects at 14.8%.

Choosing to complete a PGCE in order to enter a career in education would be considered by some a wise decision since, according to the Complete University Guide, education tops the list of best subjects for postgraduate employability at 93%.[8] Studying an MA or MSc was also a popular choice among humanities graduates with 59.1% of history, 58.2% of English, 52.2% of philosophy and 49.1% of languages graduates following this route.

Conclusion

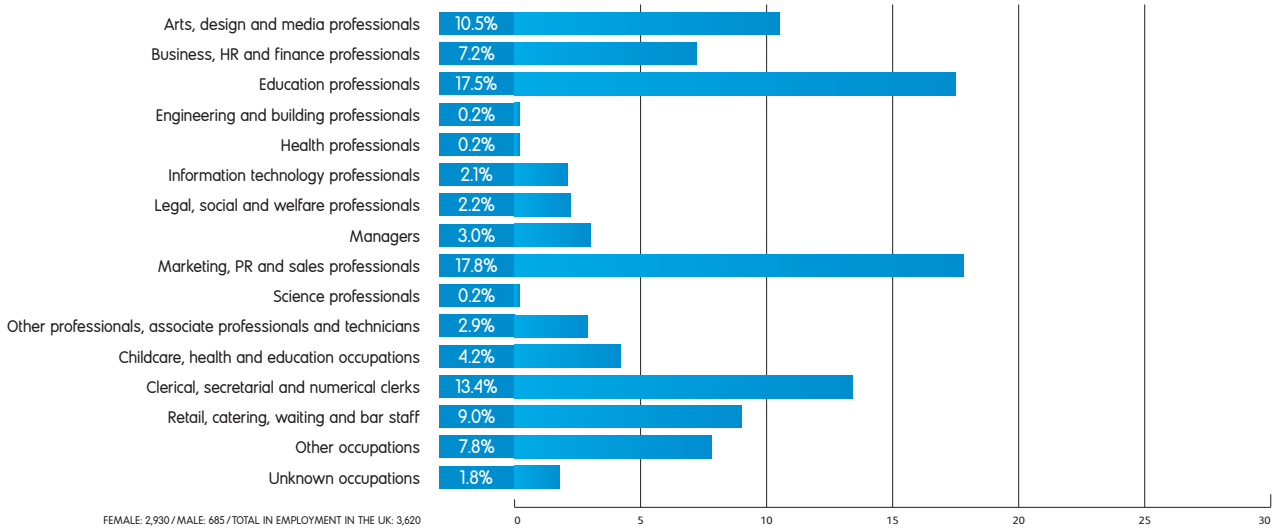
With the cost of studying at university going up, it would seem natural that students would want to choose subjects that gave them the best return on their investment. On the face of it, it could be argued that humanities subjects would therefore be the losers. But, with their broad nature, numerous transferable skills and adaptability, rather than being unnecessary, humanities subjects could be more important than ever moving forward.

This claim is ratified by two of Microsoft's top CEOs, who were quoted in Business Insider as saying 'as computers behave more like humans, the social sciences and humanities will become even more important. Languages, art, history, economics, ethics, philosophy, psychology and human development courses can teach critical, philosophical and ethics-based skills that will be instrumental in the development and management of AI solutions.'[9]

HUMANITIES

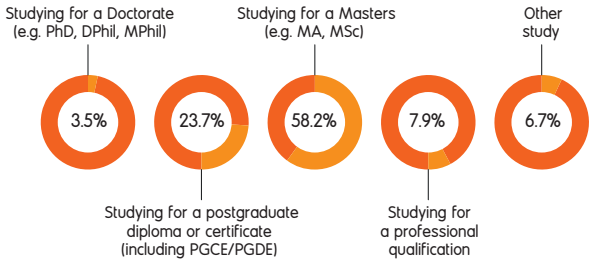
English

Type of work for those in employment



FEMALE: 2,930 / MALE: 685 / TOTAL IN EMPLOYMENT IN THE UK: 3,620

Type of course for those in further study

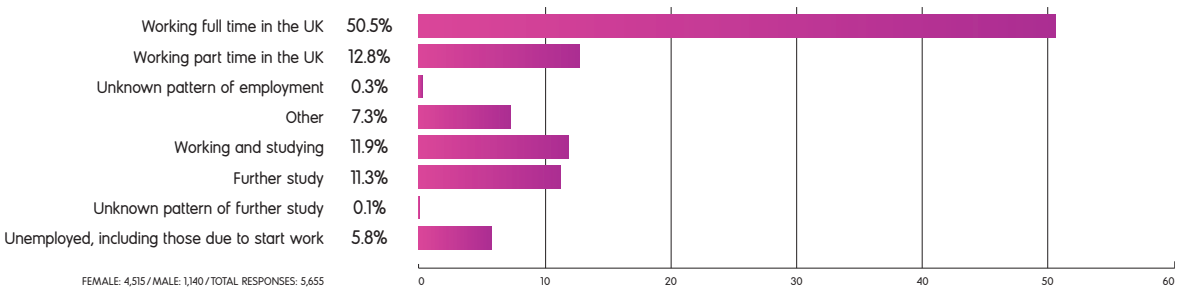


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 1,250

Top 10 professional jobs

Marketing associate professionals	14.7%
Secondary education teaching professionals	14.4%
Public relations professionals	8.2%
Primary and nursery education teaching professionals	6.9%
Authors, writers and translators	5.0%
Journalists, newspaper and periodical editors	4.6%
Human resources and industrial relations officers	3.8%
Business and related associate professionals n.e.c.	3.2%
Teaching and other educational professionals n.e.c.	2.8%
Arts officers, producers and directors	2.2%

Outcomes 15 months after graduation

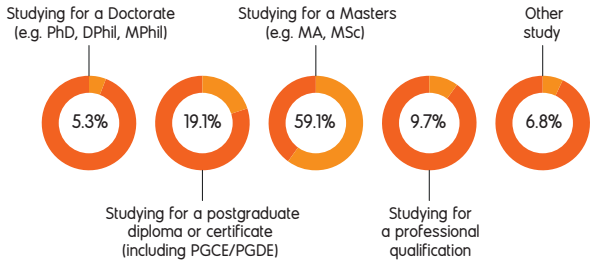


FEMALE: 4,515 / MALE: 1,140 / TOTAL RESPONSES: 5,655

HUMANITIES

History

Type of course for those in further study

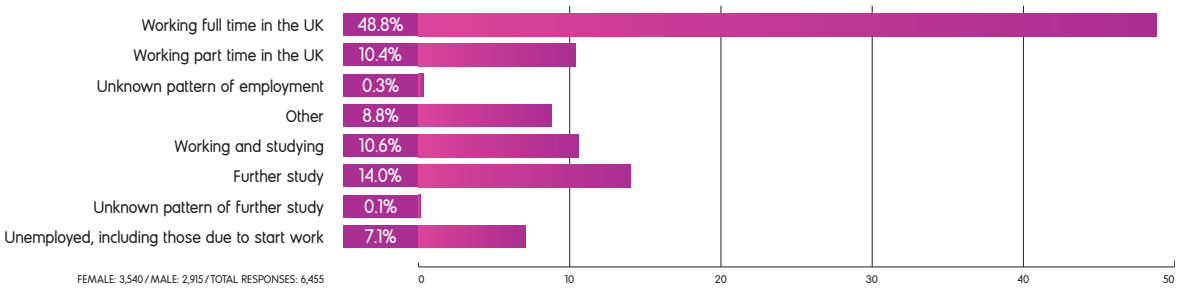


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 1,535

Top 10 professional jobs

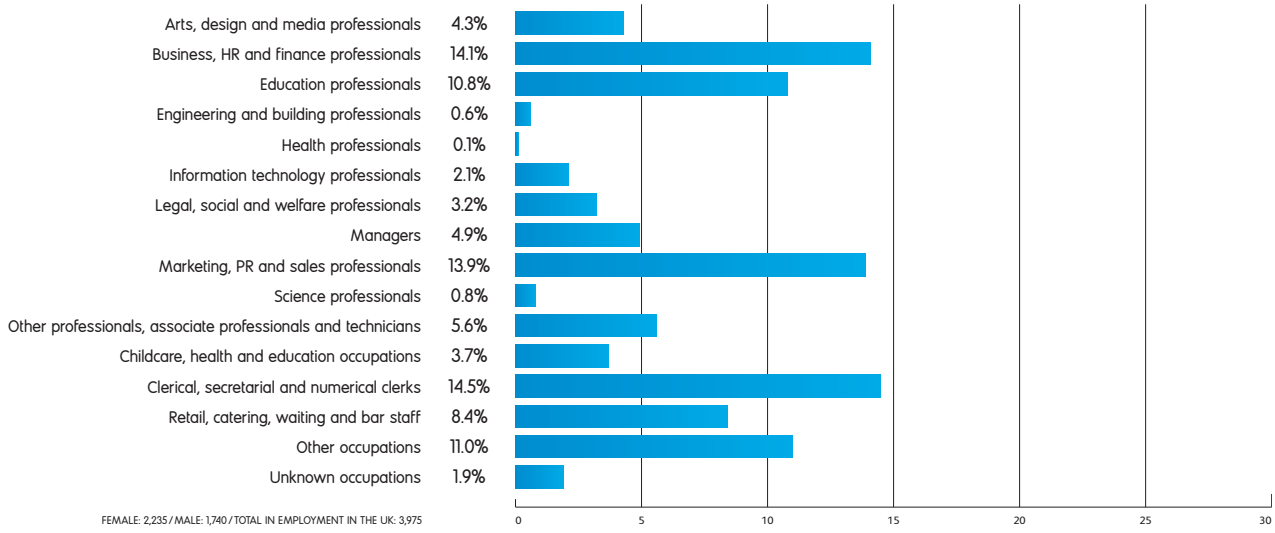
Marketing associate professionals	9.9%
Secondary education teaching professionals	9.4%
Human resources and industrial relations officers	5.9%
Public relations professionals	4.8%
Business and related associate professionals n.e.c.	4.6%
Primary and nursery education teaching professionals	3.3%
Business sales executives	3.3%
Finance and investment analysts and advisers	2.7%
Business, research and administrative professionals n.e.c.	2.7%
Public services associate professionals	2.5%

Outcomes 15 months after graduation



FEMALE: 3,540 / MALE: 2,915 / TOTAL RESPONSES: 6,455

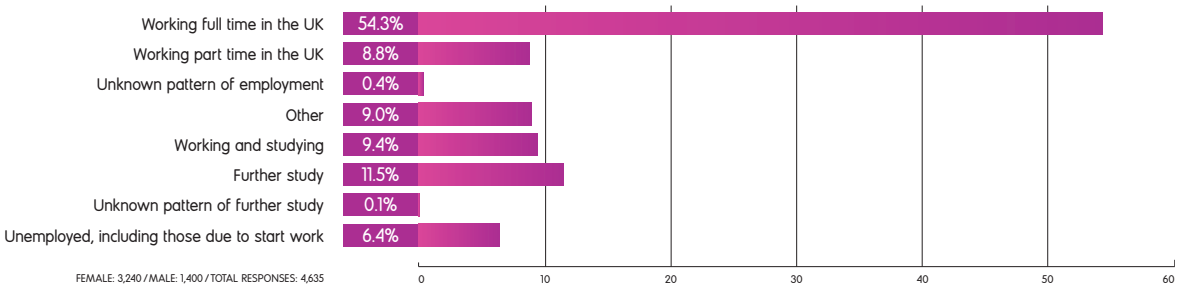
Type of work for those in employment



FEMALE: 2,235 / MALE: 1,740 / TOTAL IN EMPLOYMENT IN THE UK: 3,975

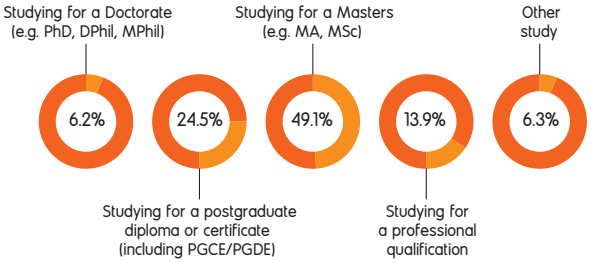
Languages

Outcomes 15 months after graduation



FEMALE: 3,240 / MALE: 1,400 / TOTAL RESPONSES: 4,635

Type of course for those in further study

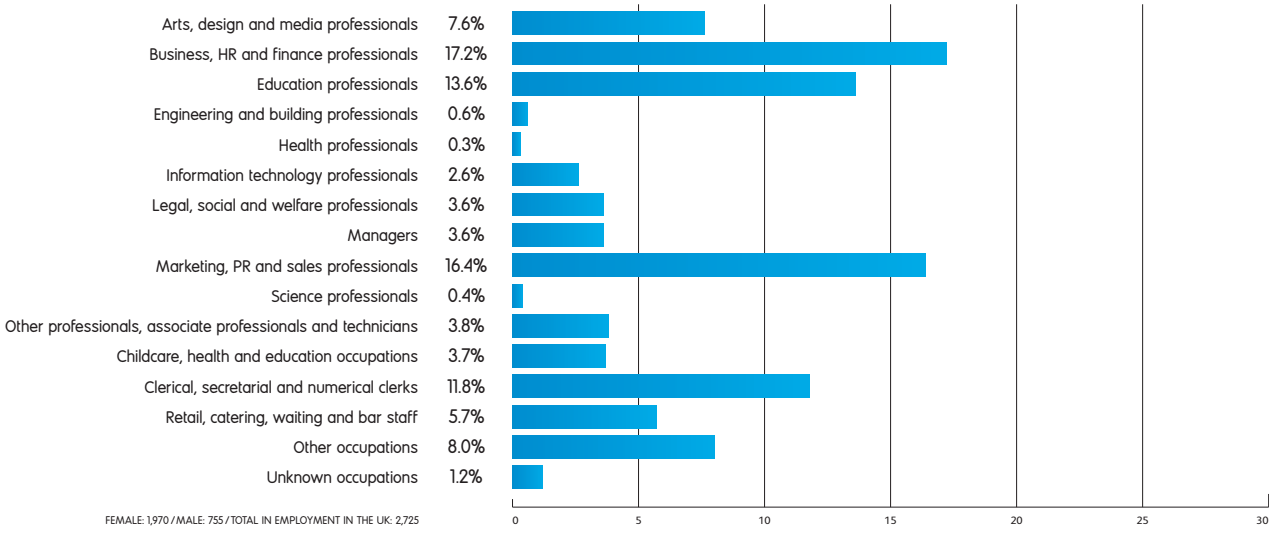


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 920

Top 10 professional jobs

Marketing associate professionals	12.1%
Secondary education teaching professionals	10.2%
Business and related associate professionals n.e.c.	6.6%
Human resources and industrial relations officers	5.7%
Public relations professionals	4.2%
Business sales executives	3.6%
Authors, writers and translators	3.5%
Sales accounts and business development managers	2.9%
Management consultants and business analysts	2.6%
Finance and investment analysts and advisers	2.5%

Type of work for those in employment

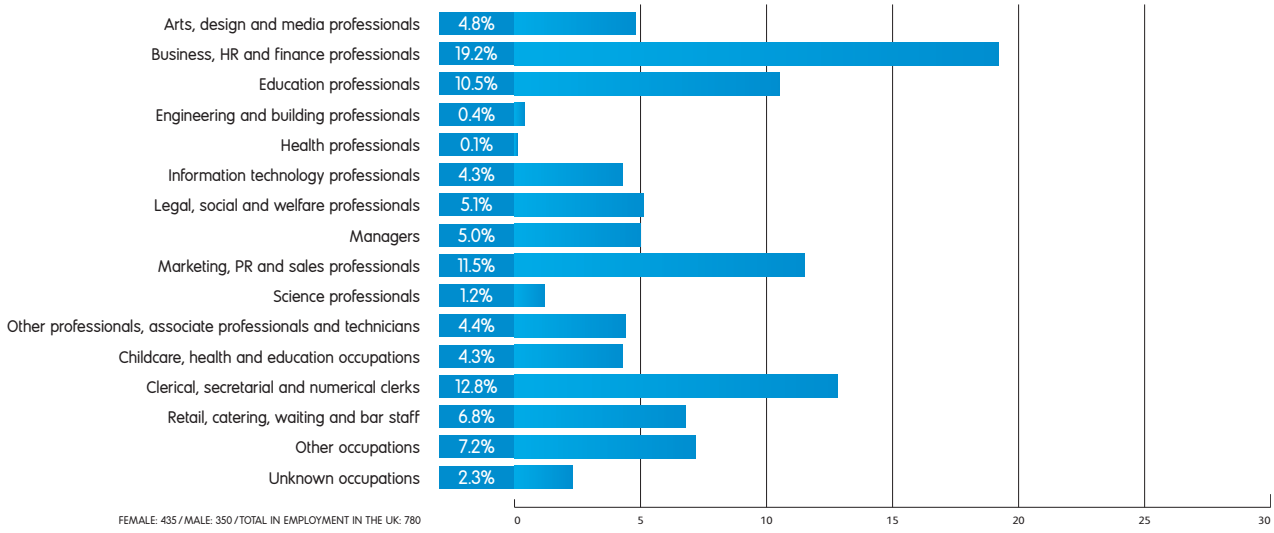


FEMALE: 1,970 / MALE: 755 / TOTAL IN EMPLOYMENT IN THE UK: 2,725

HUMANITIES

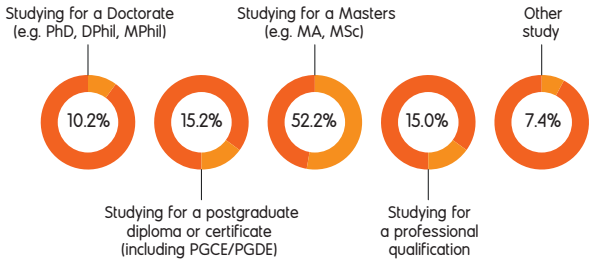
Philosophy

Type of work for those in employment



FEMALE: 435 / MALE: 350 / TOTAL IN EMPLOYMENT IN THE UK: 780

Type of course for those in further study

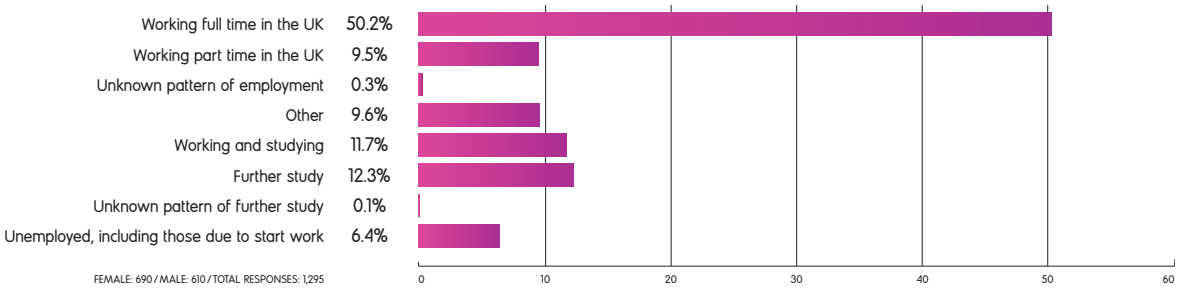


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 350

Top 10 professional jobs

Marketing associate professionals	8.6%
Secondary education teaching professional	8.1%
Business and related associate professionals n.e.c.	5.9%
Human resources and industrial relations officers	5.7%
Finance and investment analysts and advisers	4.0%
Management consultants and business analysts	3.7%
Welfare and housing associate professionals n.e.c.	3.3%
Chartered and certified accountants	3.1%
Business, research and administrative professionals n.e.c.	3.0%
Business sales executives	2.9%

Outcomes 15 months after graduation



FEMALE: 690 / MALE: 610 / TOTAL RESPONSES: 1,295

Science overview

JANICE MONTGOMERY careers adviser, University of Aberdeen

Science students who graduated in 2017/18 are now contributing to a sector at the very forefront of scientific development and a key driver in the UK economy.[1] Science, technology, engineering and maths (STEM) graduates are vital to addressing the needs of future generations – from supporting food production for a growing population to fighting antimicrobial resistance or helping life on Earth to adapt to climate change.[2]

Companies in the UK increasingly need ethical hackers, atmospheric scientists, virtual world creators, artificial intelligence trainers, sustainability experts, climatologists and many more.[3] There is therefore a vital role to play for graduates from biological sciences, chemistry, physics, physical and geographical sciences and sports science.

Students from this cohort graduated into a time of low unemployment for graduates (5.8%) and considerable economic growth. Mining, engineering and water, information and communications, science and education were all growing from the levels recorded in 2016 to current levels in 2020.[4]

Despite this exponential growth – or perhaps because of it – there continue to be governmental and industry concerns about a skills shortage that might hinder further expansion. The House of Commons Public Accounts Committee has estimated that there was a shortfall of 173,000 skilled workers in 2018 and this shortfall cost the STEM sector £1.5billion in lost productivity.[5] The gender gap is also a huge cause for concern both for the UK government and for national institutes such as the Royal Society for Chemistry (RSC), the Royal Society for Biology (RSB) the Institute of Physics (IOP).[6,7,8]

Types of work and further study

The spread of careers across these five academic disciplines was hugely diverse.

SPORTS SCIENCE: Sports scientists were the most likely of all the disciplines (at almost a third) to become teachers but also became education professionals (16.5%) as sports coaches, personal trainers and sports development officers with local authorities and national sporting associations.[9] Nearly 10% became health and education specialists and 6% health professionals with opportunities in fields such as health and fitness promotion and assistant physiotherapy roles.

Only 10% of sports science students went on to full or part-time further study reflecting the practical nature of the careers they embraced – but of those who did, one in five undertook a teaching qualification while almost a half took a Masters qualification in subjects such as nutrition, psychology, sports coaching or journalism.[10]

BIOLOGICAL SCIENCES: Biological science graduates were eligible for roles as diverse as researching human health to climate change and ecological conservation. Over 30% became science professionals e.g. researchers, or associate professional and technicians such as laboratory technicians, ecologists, environmental scientists or countryside rangers. A considerable proportion (25%) worked in manufacturing, construction or research and development, reflecting research opportunities in food production and brewing, ecological advising to the building sector and research into human and animal health. Nearly 10% became HR and finance professionals working with banks and finance companies and a further 7% in marketing and sales.

The unemployment rate of 7.1% was high compared to the average of 5.1% across all disciplines and may reflect a disjunct between graduates' aspirations to certain careers such as roles in conservation, and the availability of graduate positions in those areas.

One in five biology graduates went straight on to full or part-time further study reflecting a need for higher level qualifications (in addition to work experience) to move into careers such as environmental management, conservation, consultancy or human health.

PHYSICS: Physics graduates were highly likely to become IT professionals (32%) or undertake roles in business, finance and HR (17%). In both cases they are valued for the advanced computing and analytical skills developed throughout their degree studies. Nearly one in four worked in manufacturing or construction reflecting high-level technical skills and one in five in IT and telecoms with an additional 13% working in the business and finance sectors. Less than 8% worked as science professionals. Given the skills shortage this makes for an interesting question – why so few? It may simply be that the IT and financial sectors are simply better at advertising to students and offer higher salaries.[11] Only 7.6% became education professionals leading to shortages of science teachers across the UK despite incentives to science graduates from the government to train as teachers.[12]

> Science, technology, engineering and maths (STEM) graduates are vital to addressing the needs of future generations

One in four graduates undertook full or part-time further study. Interestingly, physics graduates had very high levels of PhD level study – on a par with chemistry graduates – reflecting an enthusiasm for academic research and development, leading to careers in academia or industry.

PHYSICAL AND GEOGRAPHICAL SCIENCE: Students from these disciplines study a wide range of subjects such as geology, oceanography, environmental geography, astronomy, topography and geographical information systems. Nearly 9% became engineering and building professionals and nearly 18% undertook other professional or technical roles. Careers included mudloggers, wellsite geologists, environmental consultants, minerals surveyors, sustainability advisers and construction engineers.[13]

Construction employed over 20% of these graduates and manufacturing a further 8%. A considerable proportion of these graduates embraced opportunities in business and finance (nearly 18%) where the salaries are highly competitive and organisations are very proactive in trying to recruit technical graduates with a flair for maths and highly developed analytical skills.[14] One in five undertook a postgraduate diploma either in teaching or another technical discipline while 285 graduates went on to a Masters

(62%). Only 8% of those who proceeded to postgraduate study were undertaking a PhD at the time of the survey.

CHEMISTRY: Chemistry graduates were not only the second most likely group within this cohort to undertake further study but had the highest level of study at PhD level at nearly 58.5% of all postgraduates from this discipline. This clearly reflects the need for higher level attainment for positions in academic research, analytical chemistry, pharmacology, toxicology and industrial research and development.

Even without further study, nearly 40% of all chemistry graduates became science professionals or associate professionals and technicians with roles in research and development in agrochemicals, petrochemicals, pharmaceuticals, plastics and toiletries.[15] As a result, 30% secured employment working in manufacturing of one kind or another with over 15% in research and development and 12% in education. Like many of the other sciences, a substantial number of these graduates accepted positions in business and finance where their analytical skills are highly valued.

Salaries

Fifteen months after graduation from their undergraduate degree programmes, the average salaries were broadly similar varying across the five disciplines from £20,226 for sports sciences with no additional study, to £27,156 for physics graduates with an additional qualification e.g. a Masters degree.

Gender

This is a topic of considerable interest to the UK government, umbrella organisations such as the Royal Society for Biology (RSB) and individual firms looking to bring in graduates with a broad base of experience and perspective. Whereas chemistry and the physical and geographical sciences are broadly balanced between men and women, biology attracts nearly twice as many women as men and both sports science and physics are heavily weighted toward male students – in the case of physics, by a ratio of four men to every female graduate. In physics, these numbers reflect school attainment where only 1.9% of young women took A-level Physics in 2016 compared with 5.6% of young men.

In a recent report *Why not physics?* the IOP suggests that losing all this talent is not only injurious to women's career horizons but also contributes to the oft quoted skills shortage in the UK.[16] The report points out that if this gender imbalance could be addressed then there would be 1.2 million female physicists in the UK as opposed to the current 462,000. A similar story is found in chemistry where only 9% of chemistry professors in universities are women compared to 35% of graduates.

There are specific issues around academic career progression for women including adverse funding structures and issues around work/life balance but if the choices are influenced at a much earlier stage – when young women are considering A-level or Higher options – then more could be done.[17] The IOP report suggests that more needs to be done at school level in terms of monitoring and publishing numbers of A-level candidates, providing more effective careers support and including gender equality in Ofsted reports to promote active change. The Institute of Physics is currently running Improving Gender Balance initiatives in the four home nations and London while the RSB is looking to mandate inclusion metrics for all its committees.[18,19]

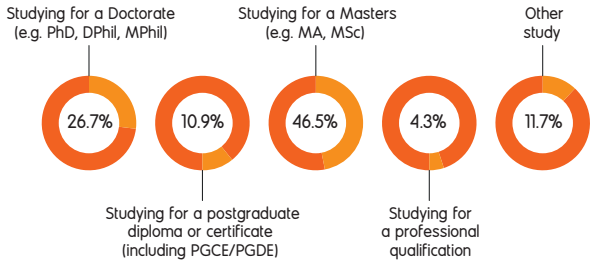
Looking ahead

As of late 2020, in the midst of a global pandemic and the uncertainty of a looming Brexit, what might the future hold for graduates from these disciplines? Growing dependence on information technology, the possibility of green recovery and a green Brexit, a growing need for health research and biodiversity planning as well as a prospective boom in housing and construction would indicate a growing need into the foreseeable future, for science graduates with the correct academic background and appropriate skills and experience.

SCIENCE

Biology

Type of course for those in further study

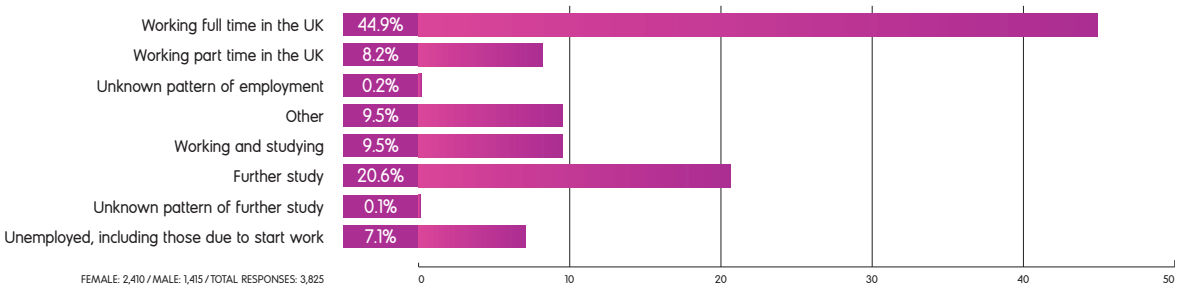


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 1,110

Top 10 professional jobs

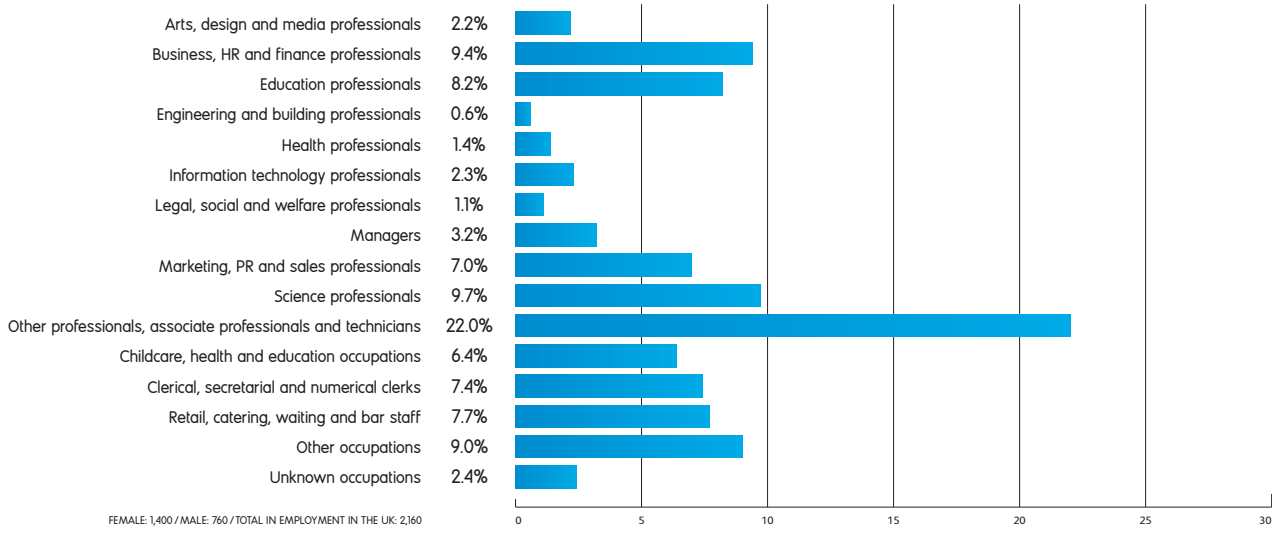
Laboratory technicians	15.4%
Secondary education teaching professionals	7.9%
Biochemists, medical scientists	5.8%
Business and related associate professionals n.e.c.	5.1%
Conservation professionals	4.1%
Marketing associate professionals	3.7%
Business sales executives	2.8%
Chartered and certified accountants	2.3%
Conservation and environmental associate professionals	2.2%
Natural and social science professionals n.e.c.	2.0%

Outcomes 15 months after graduation



FEMALE: 2,410 / MALE: 1,415 / TOTAL RESPONSES: 3,825

Type of work for those in employment

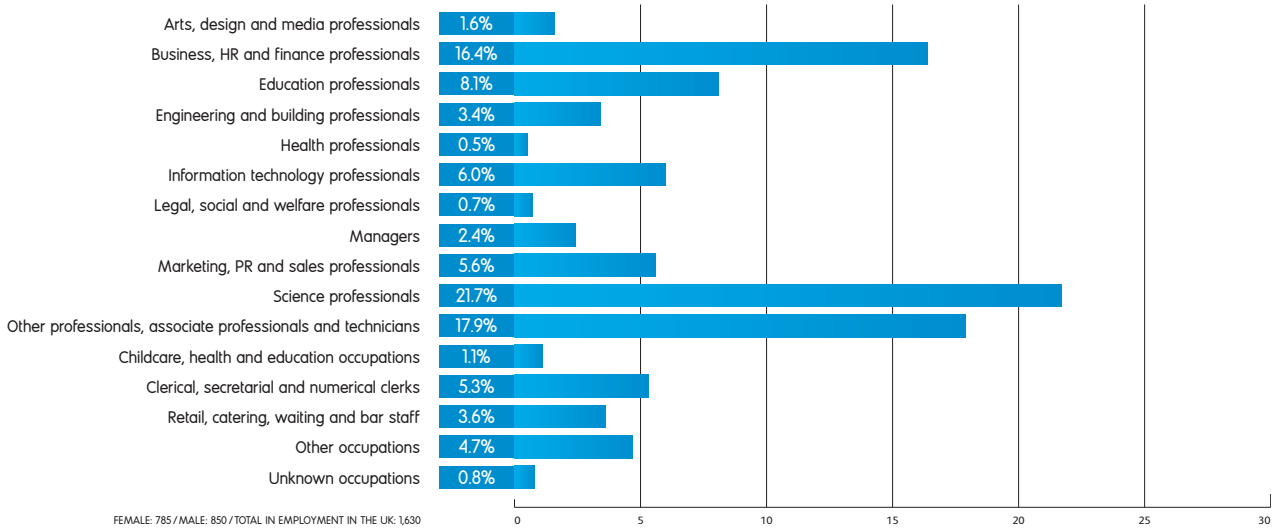


FEMALE: 1,400 / MALE: 760 / TOTAL IN EMPLOYMENT IN THE UK: 2,160

SCIENCE

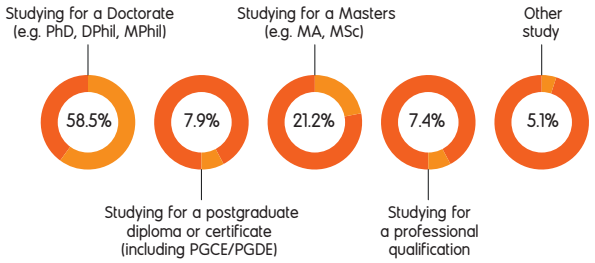
Chemistry

Type of work for those in employment



FEMALE: 785 / MALE: 850 / TOTAL IN EMPLOYMENT IN THE UK: 1,630

Type of course for those in further study

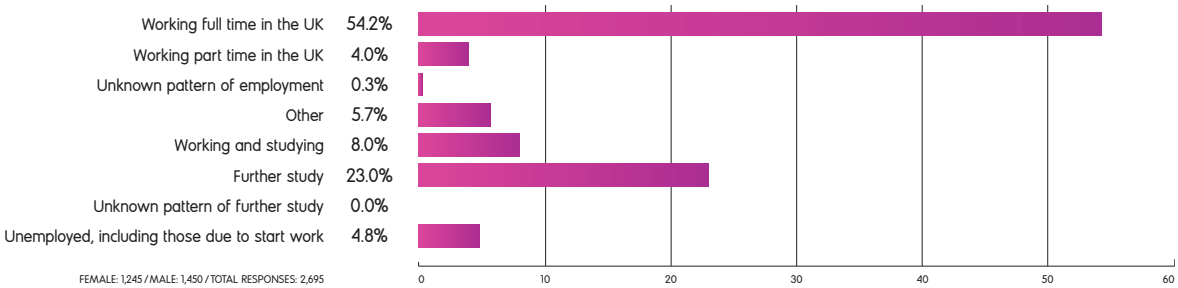


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 815

Top 10 professional jobs

Laboratory technicians	9.9%
Secondary education teaching professionals	7.6%
Analytical chemists	6.3%
Research/ development chemists	6.1%
Chemists	5.6%
Chartered and certified accountants	5.3%
Natural and social science professionals n.e.c.	4.7%
Business and related associate professionals n.e.c.	4.5%
Quality assurance technicians	3.6%
Finance and investment analysts and advisers	3.5%

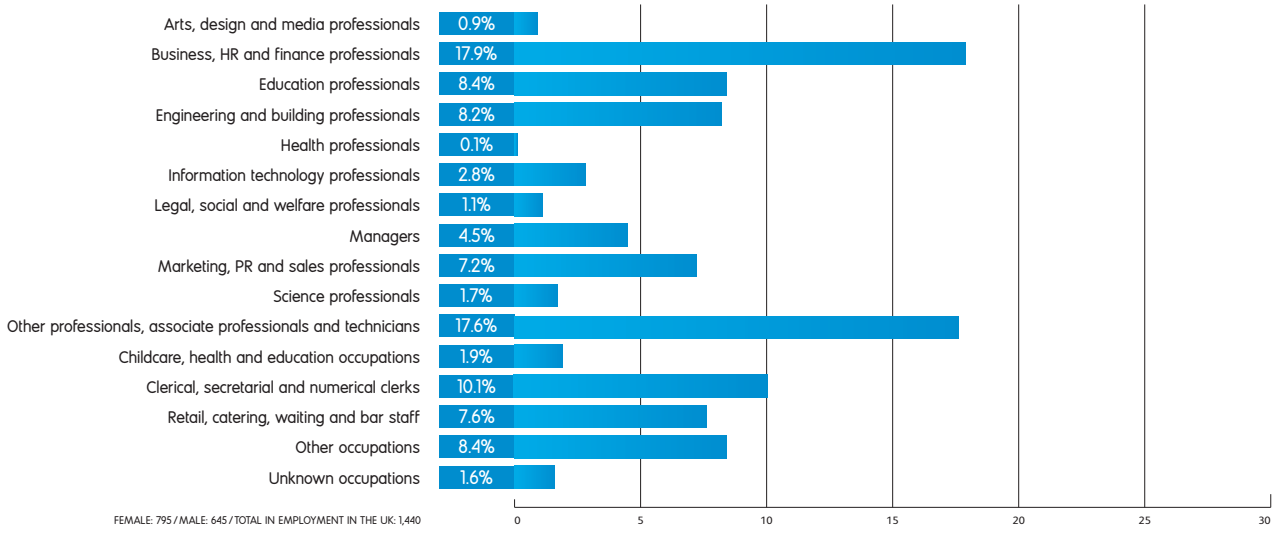
Outcomes 15 months after graduation



FEMALE: 1,245 / MALE: 1,450 / TOTAL RESPONSES: 2,695

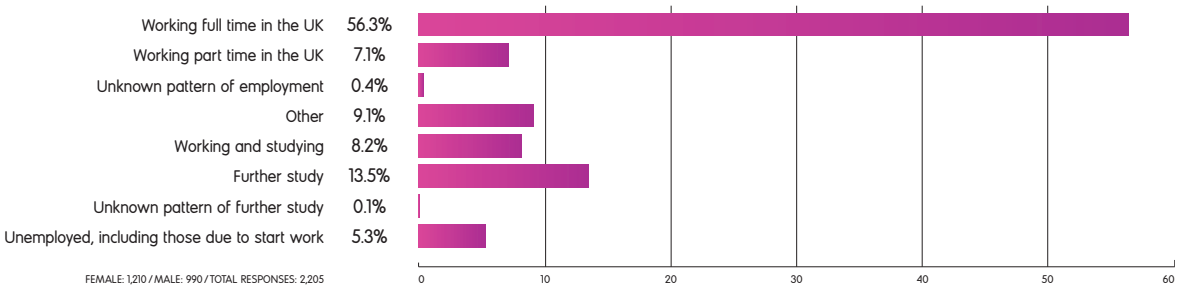
Physical and geographical sciences

Type of work for those in employment



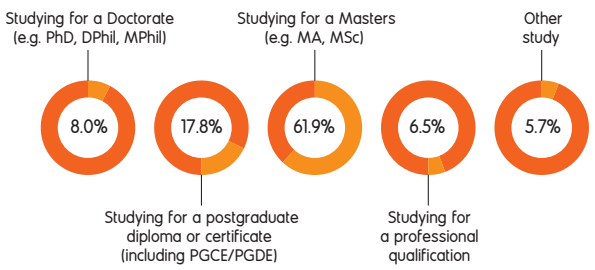
FEMALE: 795 / MALE: 645 / TOTAL IN EMPLOYMENT IN THE UK: 1,440

Outcomes 15 months after graduation



FEMALE: 1,210 / MALE: 990 / TOTAL RESPONSES: 2,205

Type of course for those in further study



TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 460

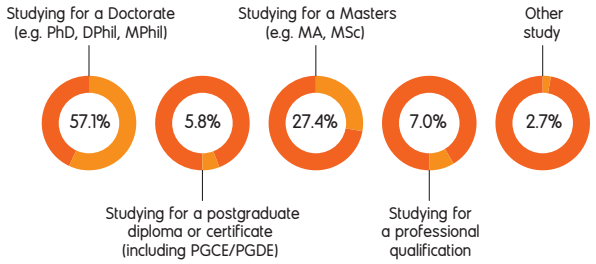
Top 10 professional jobs

Business and related associate professionals n.e.c.	10.9%
Environment professionals	10.6%
Secondary education teaching professionals	7.3%
Marketing associate professionals	4.1%
Human resources and industrial relations officers	3.3%
Construction project managers and related professionals	3.1%
Town planning officers	2.5%
Sales accounts and business development managers	2.3%
Chartered surveyors	2.2%
Civil engineers	2.2%

SCIENCE

Physics

Type of course for those in further study

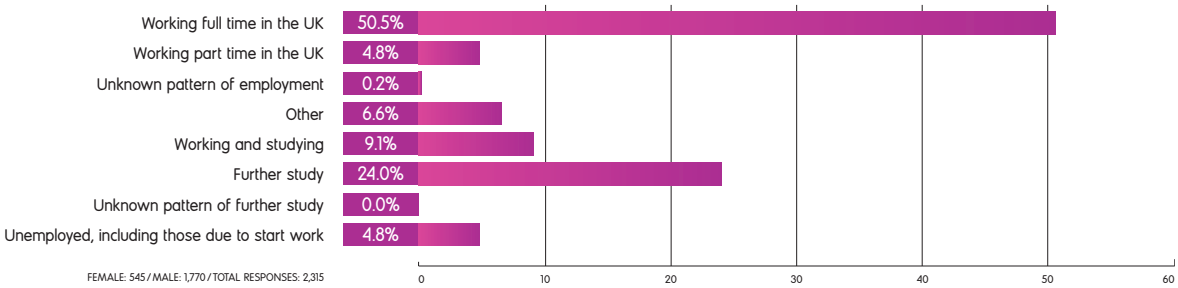


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 745

Top 10 professional jobs

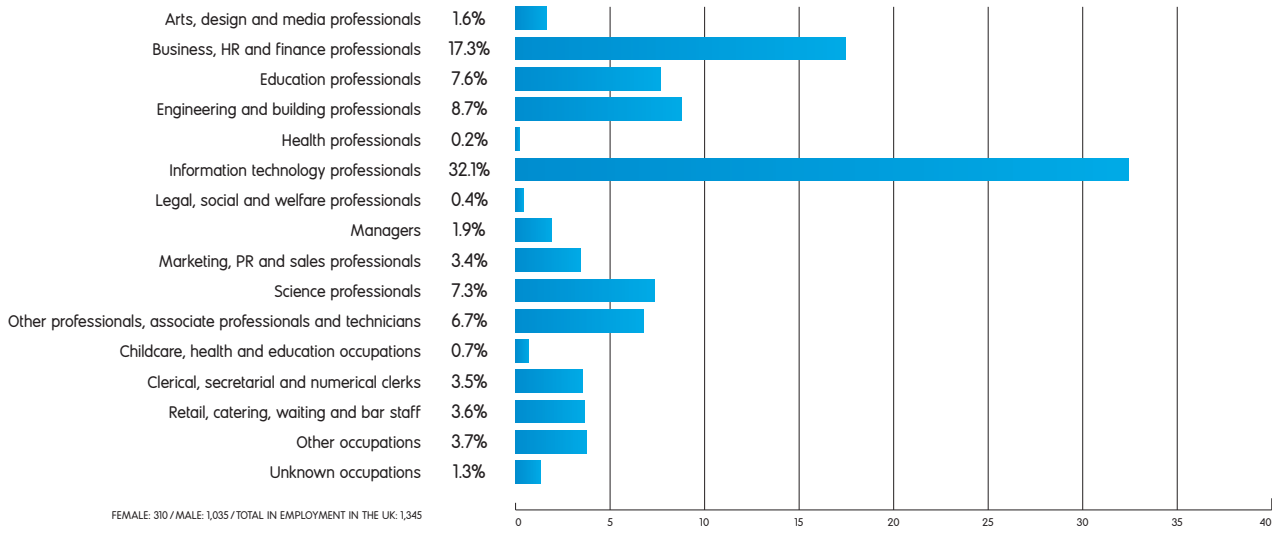
Programmers and software development professionals	21.8%
IT business analysts, architects and systems designers	7.4%
Secondary education teaching professionals	6.3%
Business and related associate professionals n.e.c.	6.1%
Information technology and telecommunications professionals n.e.c.	5.0%
Engineering professionals n.e.c.	4.4%
Physicists	4.3%
Finance and investment analysts and advisers	4.1%
Chartered and certified accountants	3.0%
Management consultants and business analysts	2.4%

Outcomes 15 months after graduation



FEMALE: 545 / MALE: 1,770 / TOTAL RESPONSES: 2,315

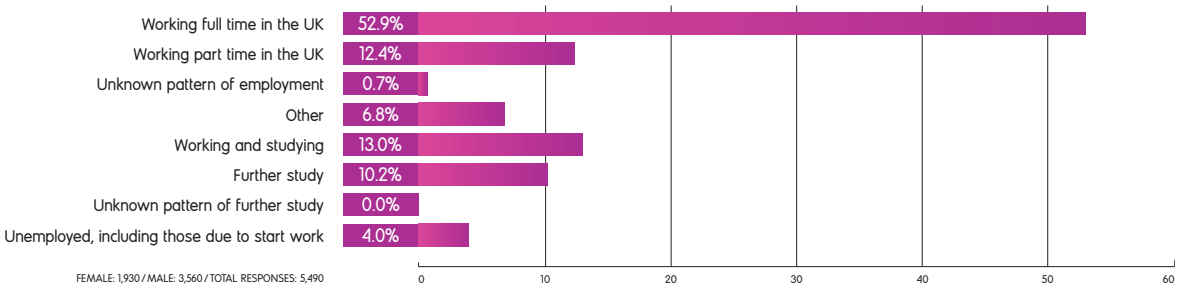
Type of work for those in employment



FEMALE: 310 / MALE: 1,035 / TOTAL IN EMPLOYMENT IN THE UK: 1,345

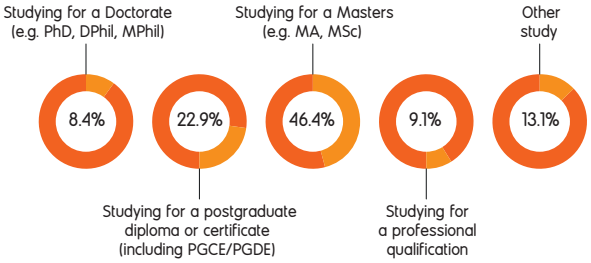
Sports science

Outcomes 15 months after graduation



FEMALE: 1,930 / MALE: 3,560 / TOTAL RESPONSES: 5,490

Type of course for those in further study

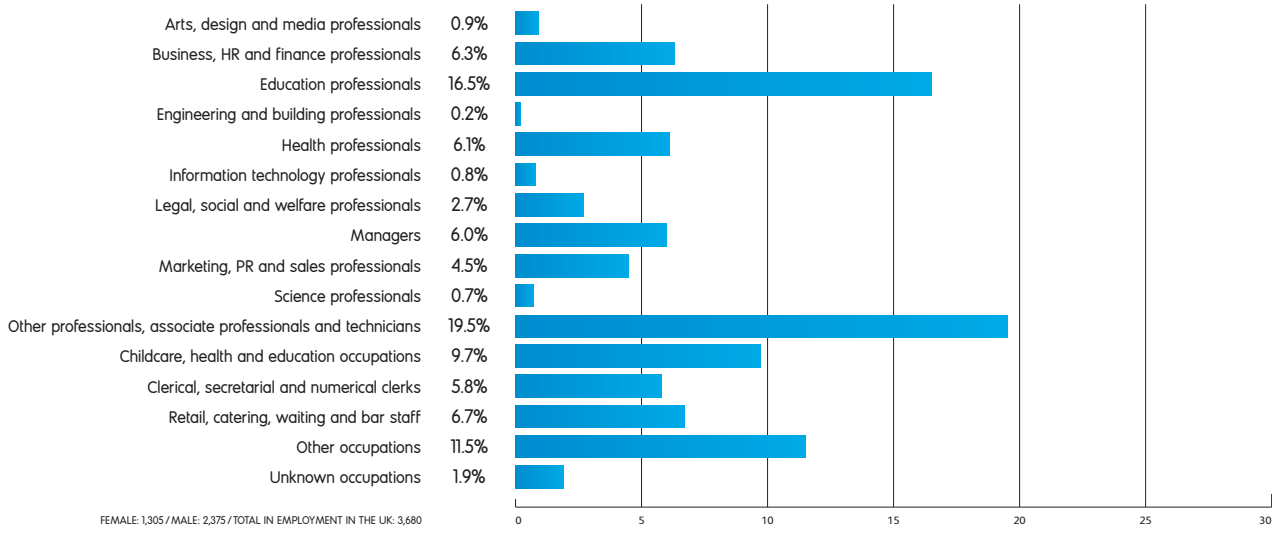


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 1,225

Top 10 professional jobs

Sports coaches, instructors and officials	16.6%
Secondary education teaching professionals	16.2%
Fitness instructors	7.0%
Health associate professionals n.e.c.	6.0%
Primary and nursery education teaching professionals	5.7%
Human resources and industrial relations officers	3.9%
Business and related associate professionals n.e.c.	3.2%
Teaching and other educational professionals n.e.c.	3.0%
Welfare and housing associate professionals n.e.c.	2.7%
Leisure and sports managers	2.5%

Type of work for those in employment



FEMALE: 1,305 / MALE: 2,375 / TOTAL IN EMPLOYMENT IN THE UK: 3,680

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Social sciences overview

HOLLY DELAFIELD social sciences and law employability consultant, University of Bristol
ELLEN GRACE faculty employability manager, University of Bristol

For the purposes of this article, 'social sciences' refer to politics, sociology, psychology, law and geography – a diverse group of disciplines, but all of which involve the study of human society and social relationships. Recent years have seen an increased spotlight on the employability and destinations of graduates from these disciplines, along with those from the arts and humanities, and a growing challenge to the narrative that science, technology, engineering and maths (STEM) students are more in demand in the labour market.

As research by the British Academy has demonstrated, social science graduates are employable across a range of sectors and roles, with skills in demand in the current and predicted future economy.[1] This is seen in the 2017/18 Graduate Outcomes data.

Just over half (51.7%) of graduates from social science disciplines were in full-time employment, of which geography had the highest number (58.9%) and psychology the lowest (47.7%). Conversely, psychology graduates were much more likely to be in part-time employment (11.3%) or combining work and study (14.1%). This is higher than the average for social sciences and across all subjects.

Combining work and study was a popular destination across all social science disciplines, with 12.6% of graduates doing this compared with the average across all subjects of 9.5% – and more were doing this than studying full time (10.2%).

Of those in work, 60.8% were in professional-level jobs, which is lower than the average for all subjects (74.1%). Of the social science subjects, the rate was higher for politics, geography and law students (70.1%, 74.8% and 73.3% respectively) and lower for sociology and psychology (49.9% and 50.8%). This could be because sociology and psychology students were more likely to go into social care, education or health-related professions – many of which require work experience and or further qualifications to access qualified or professional level roles. This also aligns with these subjects seeing the highest numbers of graduates working part time and engaged in unpaid or voluntary work.

Although a smaller proportion of social science graduates were in professional-level roles, we saw comparability with other subjects in the 'graduate voice' questions. For example 81.7% of social science graduates agreed or strongly agreed that their current activity was 'meaningful' – comparable to the average and higher than humanities, creative arts, technology, engineering and maths graduates. Meanwhile 70.9% felt their activity fitted with their future plans – again comparable to the other subject areas.

Further study

Further study is a popular route for all social science disciplines – a continuing trend from previous years. The proportion of students engaged in a course of study, training or research as their main activity was higher for all social science subjects than the average overall.

This could be due to the non-vocational nature of the social science subjects (especially sociology, politics and geography), combined with the fact that common occupations for these graduates (e.g. roles in law, finance or in psychology) often require further study and professional qualifications. Law and psychology had the highest numbers in further study, although there was a lower proportion of law graduates in further study compared with previous years. This is likely due to the change in destinations survey date from six to 15 months after graduation, meaning that more 2017/18 law graduates would have completed the initial stage of their postgraduate qualification (i.e. the LPC or BPTC) by this point.

A Masters was the most popular type of further study, representing the largest proportion for all social science disciplines. Law graduates were more likely than others to be undertaking professional qualifications – 26%, significantly higher than the 14.9% average. This corresponds with the most popular destination for law graduates being the legal and accountancy industry, roles which often require professional qualifications.

Skills

Studying a social science discipline develops a set of highly valuable core skills and behaviours. These have been celebrated by research carried out by the British Academy in recent years, including their 2017 report *The Right Skills: Celebrating Skills in the Arts, Humanities and Social Sciences (AHSS)* where they highlighted the following key skills (among others):

- **Communication and collaboration** – describing, contextualising and conveying information for a range of audiences, understanding and working with others.
- **Research and analysis** – designing and carrying out analysis.
- **Independence and adaptability** – solving problems, working with complex and ambiguous information.

This report emphasises the distinct contribution that social science graduates bring to employers, thanks to their understanding of the human and social dimension in which these skills are applied.[2] The value of social science graduates has also been recognised more broadly, with a recent survey by the Campaign for Social Science demonstrating the importance of social science knowledge and skills for private sector

Further study is a popular route for all social science disciplines – a continuing trend from previous years

business.[3] The ability to understand and engage with markets, clients and customers, to analyse and manage risk and long-term strategies, and to develop new products or ways of working, were all identified amongst the strengths of social science graduates.[4]

Destinations

The broad applicability of social science skills is seen in the wide range of 2017/18 graduate destinations.

Roles in business, HR and finance were popular destinations across all social science disciplines, but most notably for politics (24.1%) and geography (21.3%) graduates. Marketing, PR and sales was the second most popular occupation for both politics (15.5%) and geography (13.1%) graduates. This appetite for roles in commerce was also reflected in the proportion of graduates in the business and finance industry, accounting for between 10% and 15% across all social sciences. Research into the value of social science skills for businesses emphasises curiosity, understanding of people and their behaviours, and the ability to analyse evidence and draw conclusions as strengths of these graduates.[5]

Clerical, secretarial and numerical clerk work were other common destinations for all social science graduates, but particularly sociology (16%) and politics (13.6%). Graduates of politics (18.5%) and sociology (17.5%) both favoured roles within local and central government, demonstrating the continuing appeal of the public sector for these subjects.

Legal, social and welfare professions were unsurprisingly a key occupation for graduates of law (45.4%), as well as psychology (13.5%) and sociology (12.7%). Education and social care were popular industries for both psychology and sociology graduates, and at least one in five psychology graduates and one in ten sociology graduates went on to work in a childcare, health or education occupation. As health and social care remain among the most buoyant sectors of the graduate recruitment market, this is a positive trend.[6]

A lower than average number of social science graduates went into information technology roles – only 1.6%, compared with 6% across all subjects. As a rapidly expanding area of the economy with significant potential for new roles, it will be interesting to see whether this proportion increases.[7]

Salaries

Of those who went straight into full-time work, politics graduates saw the highest average salary of £24,740 – also above the average for graduates across all subject areas. For psychology and sociology graduates the average salaries were £20,543 and £20,790 respectively. Salaries were higher for all subjects following further study, but most significantly for law graduates with an average salary after further study of £25,410.

Looking ahead

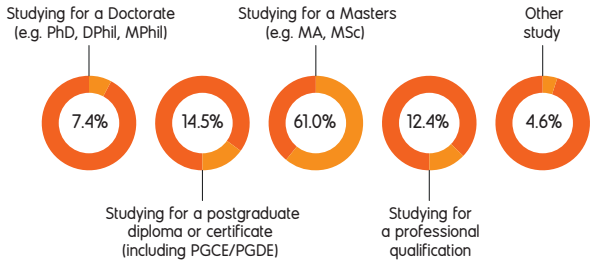
Evidence suggests that there will be a continued demand for social science skills and knowledge, which are recognised as key to the UK's future economic growth. The Campaign for Social Science recognises the social sciences as vital to achieving the UK's industrial strategy, whilst the British Academy has identified social science subjects (e.g. sociology, geography, psychology, and law) as forming part of the knowledge shortage to be filled in order to meet the economy's future needs.[8,9]

The COVID-19 pandemic has only emphasised the value of the social sciences, with the Academy of Social Science explaining the fundamental role of these disciplines in both mitigating virus spread and also informing our social and economic recovery.[10] While it remains unclear how the labour market will develop over the coming months and years, we can be confident that a social science degree prepares graduates to maximise the opportunities that arise.

SOCIAL SCIENCES

Geography

Type of course for those in further study

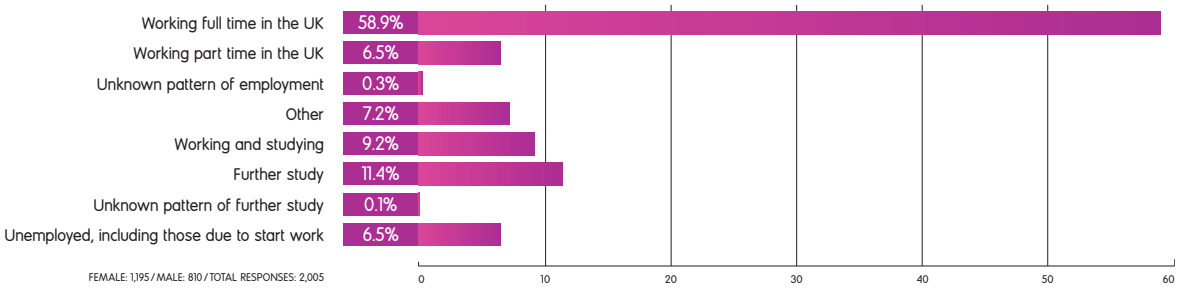


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 395

Top 10 professional jobs

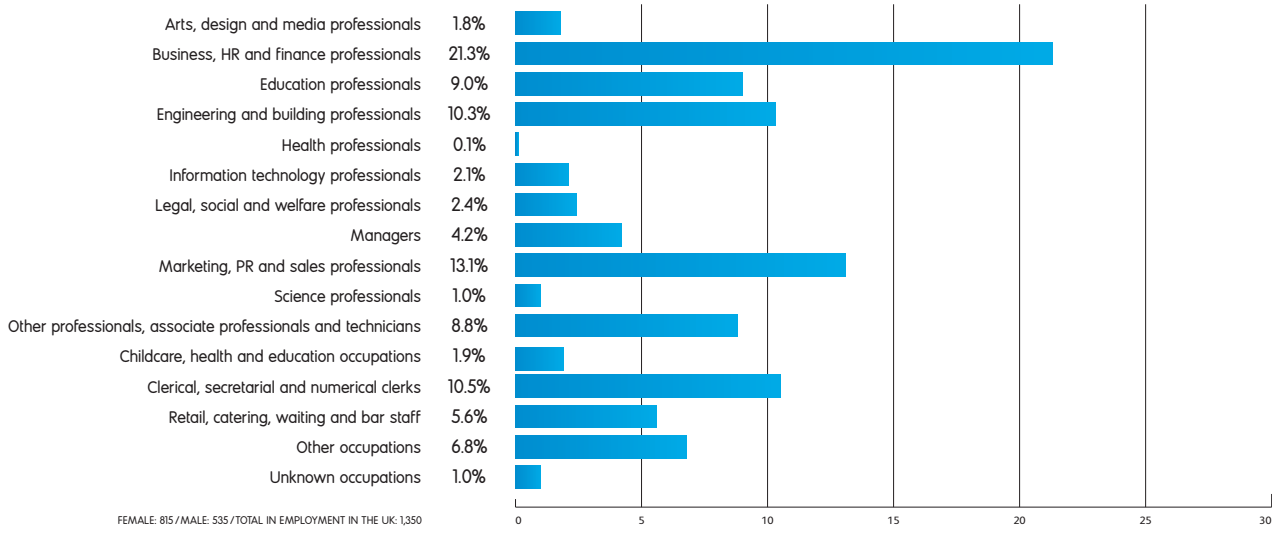
Business and related associate professionals n.e.c.	8.3%
Secondary education teaching professionals	8.2%
Marketing associate professionals	6.9%
Town planning officers	5.8%
Construction project managers and related professionals	4.7%
Human resources and industrial relations officers	4.6%
Chartered and certified accountants	3.4%
Business, research and administrative professionals n.e.c.	2.5%
Sales accounts and business development managers	2.4%
Business sales executives	2.4%

Outcomes 15 months after graduation



FEMALE: 1,195 / MALE: 810 / TOTAL RESPONSES: 2,005

Type of work for those in employment

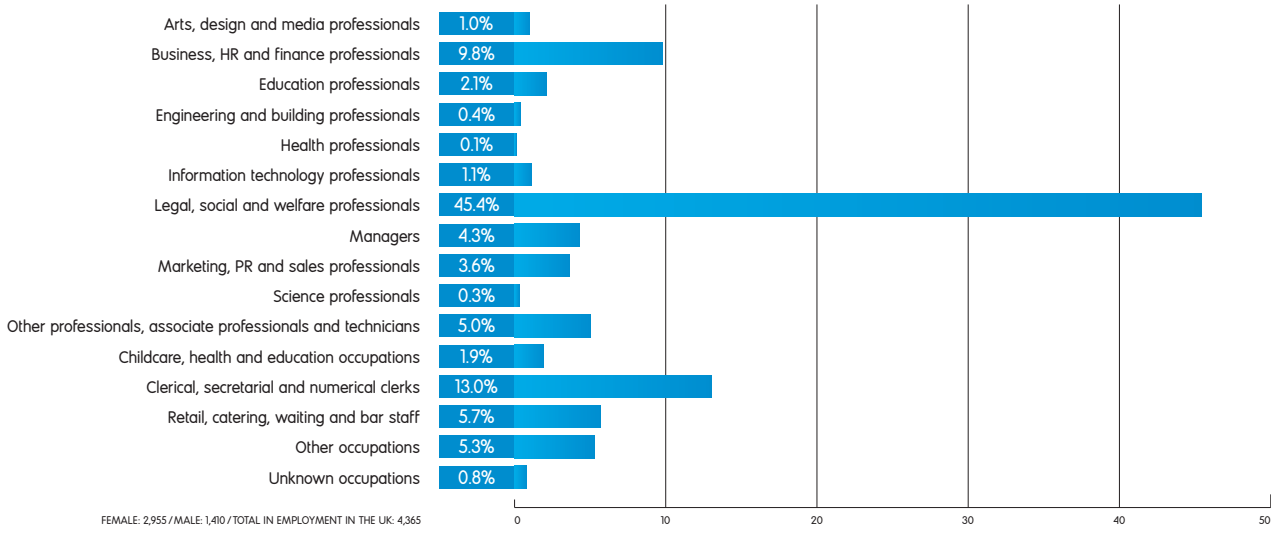


FEMALE: 815 / MALE: 535 / TOTAL IN EMPLOYMENT IN THE UK: 1,350

SOCIAL SCIENCES

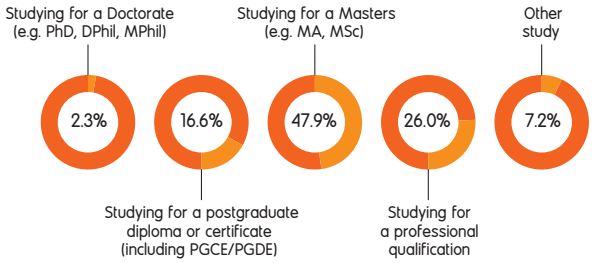
Law

Type of work for those in employment



FEMALE: 2,955 / MALE: 1,410 / TOTAL IN EMPLOYMENT IN THE UK: 4,365

Type of course for those in further study

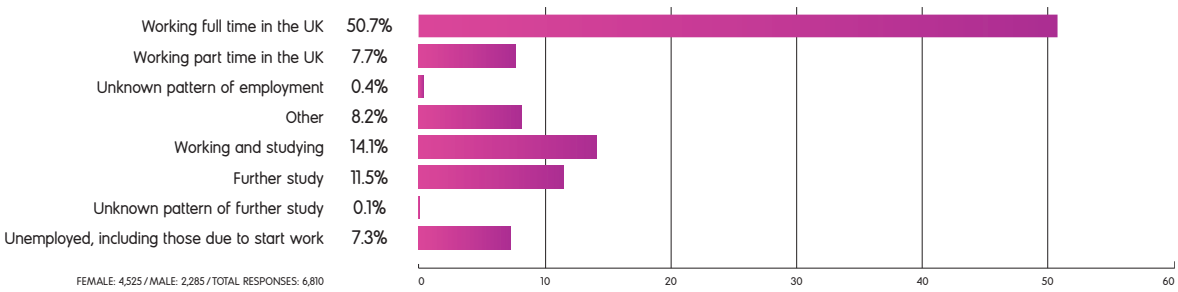


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 1,670

Top 10 professional jobs

Legal associate professionals	41.0%
Solicitors	15.8%
Legal professionals n.e.c.	3.2%
Human resources and industrial relations officers	3.1%
Business and related associate professionals n.e.c.	2.5%
Police officers (sergeant and below)	2.1%
Welfare and housing associate professionals n.e.c.	1.8%
Marketing associate professionals	1.5%
Finance and investment analysts and advisers	1.4%
Protective service associate professionals n.e.c.	1.3%

Outcomes 15 months after graduation

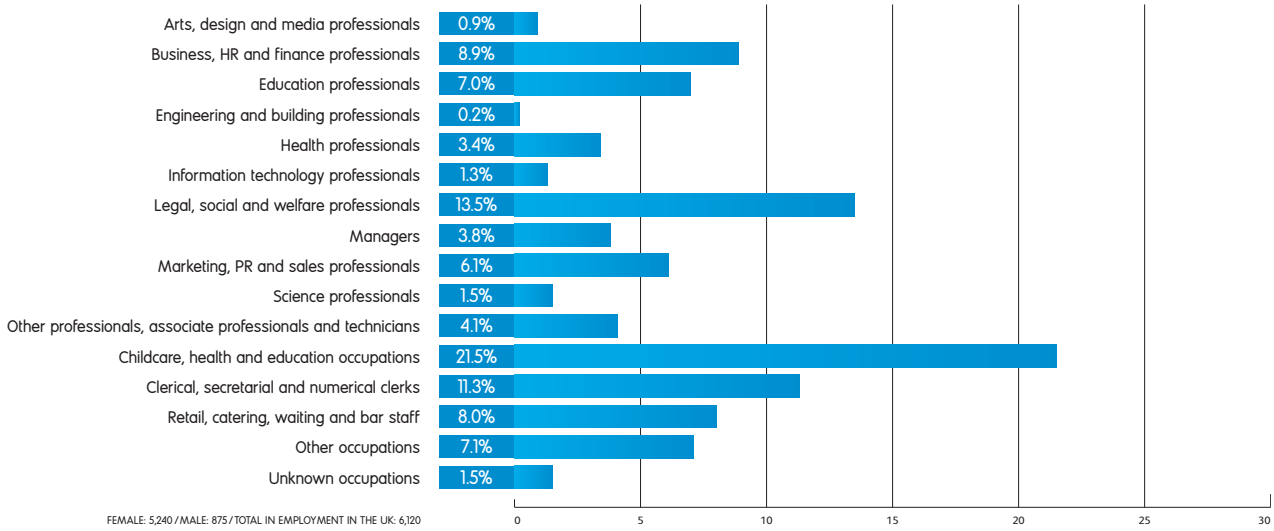


FEMALE: 4,525 / MALE: 2,285 / TOTAL RESPONSES: 6,810

SOCIAL SCIENCES

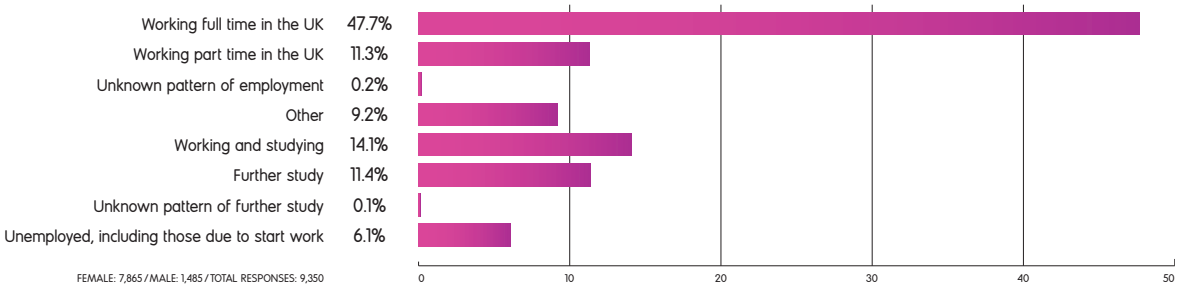
Psychology

Type of work for those in employment



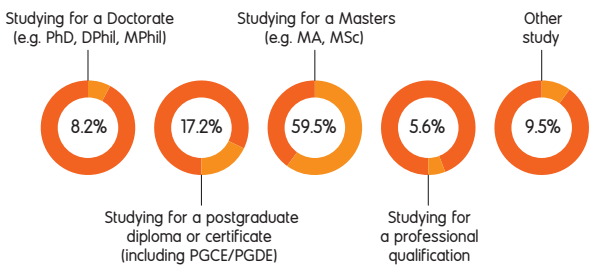
FEMALE: 5,240 / MALE: 875 / TOTAL IN EMPLOYMENT IN THE UK: 6,120

Outcomes 15 months after graduation



FEMALE: 7,865 / MALE: 1,485 / TOTAL RESPONSES: 9,350

Type of course for those in further study



TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 2,280

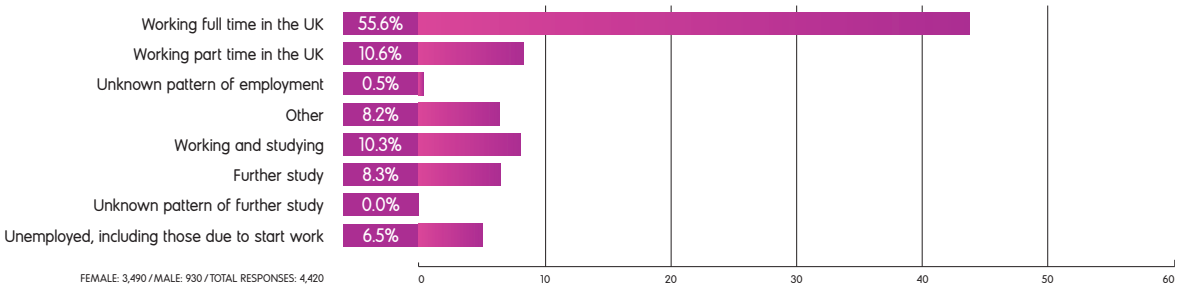
Top 10 professional jobs

Welfare and housing associate professionals n.e.c.	11.1%
Psychologists	7.5%
Human resources and industrial relations officers	7.4%
Marketing associate professionals	6.7%
Primary and nursery education teaching professionals	5.4%
Therapy professionals n.e.c.	4.7%
Business and related associate professionals n.e.c.	4.0%
Secondary education teaching professionals	3.1%
Youth and community workers	2.4%
Senior professionals of educational establishments	1.7%

SOCIAL SCIENCES

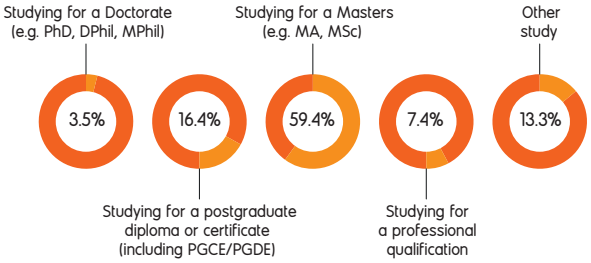
Sociology

Outcomes 15 months after graduation



FEMALE: 3,490 / MALE: 930 / TOTAL RESPONSES: 4,420

Type of course for those in further study

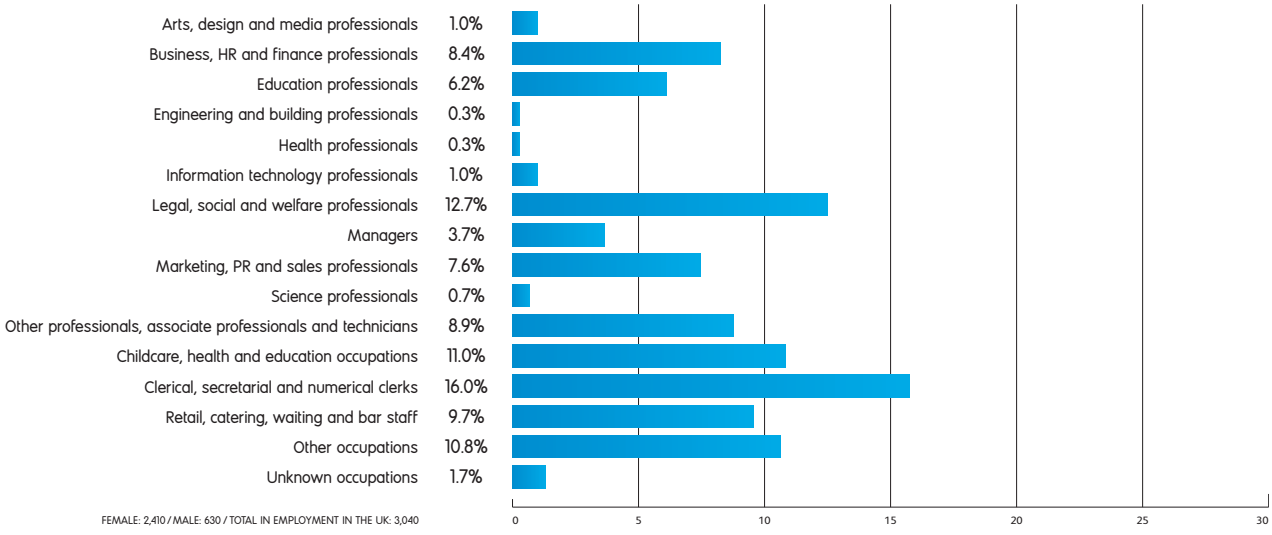


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 785

Top 10 professional jobs

Welfare and housing associate professionals n.e.c.	10.9%
Marketing associate professionals	6.5%
Police officers (sergeant and below)	6.3%
Human resources and industrial relations officers	5.6%
Business and related associate professionals n.e.c.	4.1%
Legal associate professionals	4.1%
Primary and nursery education teaching professionals	3.9%
Secondary education teaching professionals	3.3%
Prison service officers (below principal officer)	3.2%
Youth and community workers	3.0%

Type of work for those in employment

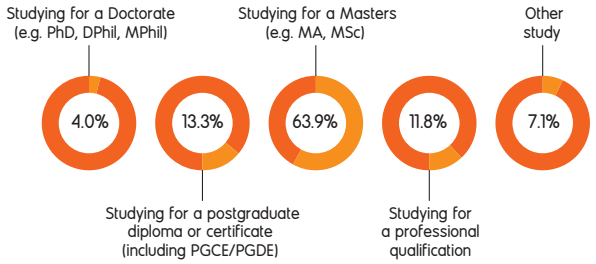


FEMALE: 2,410 / MALE: 630 / TOTAL IN EMPLOYMENT IN THE UK: 3,040

SOCIAL SCIENCES

Politics

Type of course for those in further study

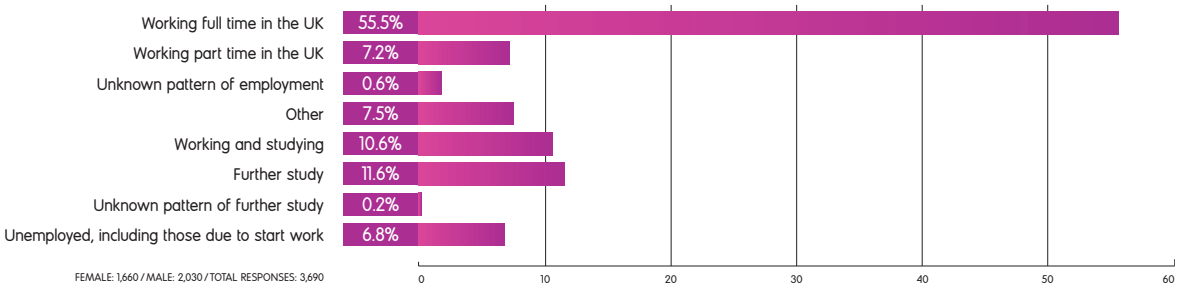


TOTAL NUMBER OF GRADUATES IN FURTHER STUDY: 790

Top 10 professional jobs

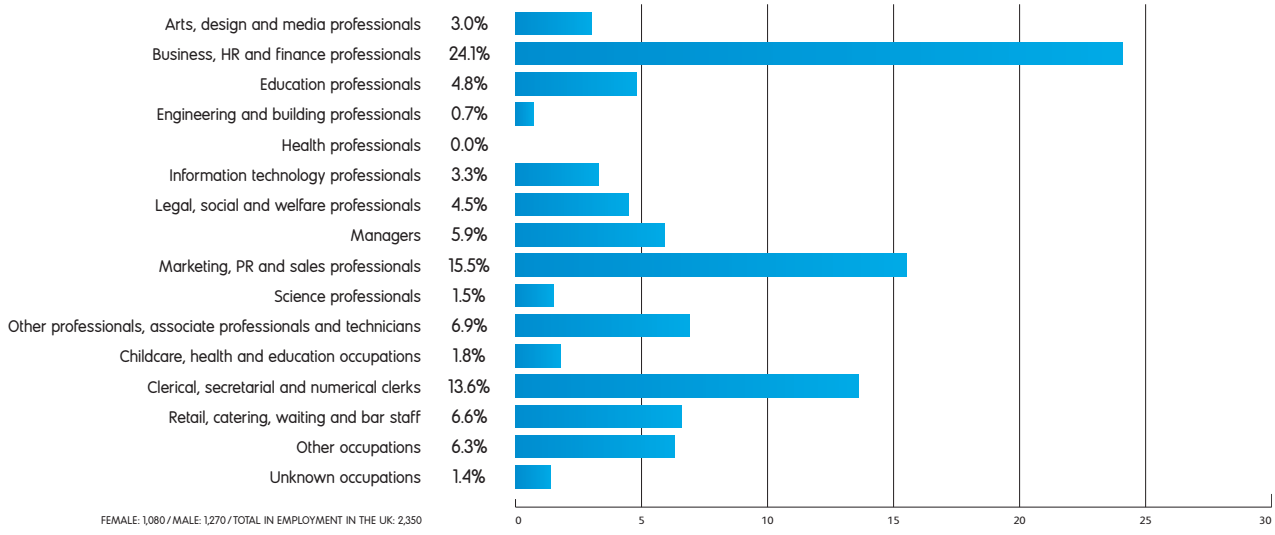
Marketing associate professionals	8.7%
Public relations professionals	6.0%
Business, research and administrative professionals n.e.c.	5.8%
Business and related associate professionals n.e.c.	5.4%
Human resources and industrial relations officers	5.2%
Finance and investment analysts and advisers	4.3%
Chartered and certified accountants	4.0%
Management consultants and business analysts	3.9%
Public services associate professionals	3.5%
Secondary education teaching professionals	3.3%

Outcomes 15 months after graduation



FEMALE: 1,660 / MALE: 2,030 / TOTAL RESPONSES: 3,690

Type of work for those in employment



FEMALE: 1,080 / MALE: 1,270 / TOTAL IN EMPLOYMENT IN THE UK: 2,350

References

GRADUATE LABOUR MARKET OVERVIEW (P.6)

1. *The Business Response to Covid-19: the CEP-CBI Survey on Technology Adoption*, CEP and CBI, September 2020.
2. *UK Economic Update*, PwC, September 2020.

RECOGNISING THE CHANGING LABOUR MARKET (P.9)

1. *Employment rate (aged 16 to 64, seasonally adjusted)*, ONS, November 2020.
2. *Graduate labour market statistics 2018*, Department for Education, April 2019.
3. *Annual recruitment survey 2018*, Institute of Student Employers, 2018.
4. *Inside student recruitment 2019*, Institute of Student Employers, 2019.
5. *The ISE pulse survey 2020: Taking the temperature of the graduate labour market*, Institute of Student Employers, 2020.
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IT DOES MATTER IF YOU'RE BLACK OR WHITE (P.10)

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Type of work data explained

Respondents to the Graduate Outcomes survey are asked to give their main job title and a brief description of their role. This information is used to derive their Standard Occupational Classification (SOC 2010 (DLHE)). These SOC 2010 (DLHE) codes are used to calculate the types of work categories used in *What do graduates do?* The change to SOC 2010 (DLHE) was only introduced for the 2011/12 survey onwards and comparisons cannot be made with data prior to 2011/12.

The Standard Occupational Classifications 2010 (DLHE), which are under each type of work category, are described below.

Managers
Chief executive officers and senior officials / Senior officers in protective services / Financial institution managers / Advertising and marketing directors / Managers and directors in transport and logistics, retail and wholesale / Managers and proprietors in agriculture, hospitality and leisure, health and care services and other services / Property, housing and estate managers / Research and development managers / Production and functional managers

Health professionals
Medical practitioners / Nurses / Midwives / Paramedics / Pharmacists / Dental practitioners / Ophthalmic opticians / Medical radiographers / Physiotherapists / Occupational or speech and language therapists / Podiatrists / Other health associate professionals

Education professionals
Teaching professionals in higher education, further, secondary, primary and nursery education and special needs education / Senior professionals in educational establishments / Education advisers and school inspectors / Other educational professionals

Legal, social and welfare professionals
Barristers and judges / Solicitors / Legal associate professionals / Other legal professionals / Clinical, education and occupational psychologists / Counsellors / Probation officers / Social workers / Youth and community workers / Child and early years officers / Housing officers / Welfare and housing associate professionals / Clergy

Science professionals
Chemists / Biologists / Physicists / Physiologists / Geophysicists / Geologists and meteorologists / Social and humanities scientists / Bacteriologists, microbiologists / Biochemists, medical scientists / Other natural and social science professionals

Engineering and building professionals
Civil, mechanical, electrical, electronics engineers / Design and development engineers / Production and process engineers / Architects, town planners and surveyors / Construction project managers and related professions

Information technology (IT) professionals
IT specialist managers / IT project and programme managers / IT business analysts, architects and systems designers / Programmers and software development professionals / Web design and development professionals / IT technicians / Other IT and telecommunications professionals

Business, human resources (HR) and finance professionals
Actuaries, economists and statisticians / Management consultants and business analysts / Chartered and certified accountants / Estimators, valuers and assessors / Brokers / Insurance underwriters / Finance and investment analysts and advisers / Taxation experts / Financial and accounting managers and technicians / HR and industrial relations officers / Vocational and industrial trainers and instructors

Marketing, public relations (PR) and sales professionals
PR professionals / Buyers and procurement officers / Business sales executives / Marketing associate professionals / Estate agents and auctioneers / Sales accounts and business development managers / Conference and exhibition managers and organisers

Arts, design and media professionals
Journalists / Artists / Authors, writers and translators / Actors, entertainers and presenters / Dancers and choreographers / Musicians / Arts officers, producers and directors / Photographers, audio-visual and broadcasting equipment operators / Graphic designers / Commercial artists / Interior designers / Industrial designers / Textile, clothing, furniture and jewellery designers / Other design occupations / Clothing advisers, consultants

Other professionals, associate professionals and technicians
Conservation and environment professionals / Media and other researchers / Librarians, archivists and curators / Quality control and regulatory professionals / Laboratory technicians / Science, engineering and production technicians / Draughtspersons and related architectural technicians / Protective service occupations / Sports and fitness occupations / Aircraft controllers and aircraft pilot and flight engineers / Careers advisers and vocational guidance specialists / Public services professionals

Childcare, health and education occupations
Nursery nurses and assistants / Childminders / Playworkers / Teaching assistants / Educational support assistants / Animal care and control occupations / Nursing auxiliaries and assistants / Dental nurses / Care workers and home carers / Other caring personal services

Clerical, secretarial and numerical clerk occupations
National and local government administrators / Bookkeepers, payroll managers and wages clerks / Bank and post office clerks / Other financial administrators / Records clerks and assistants / Pensions and insurance clerks and assistants / Stock control and transport and distribution clerks and assistants / Library clerks and assistants / HR administrators / Sales administrators / Office managers / Medical, legal and other secretaries / Personal assistants / Receptionists

Retail, catering, waiting and bar staff
Sales supervisors / Sales and retail assistants / retail cashiers and checkout operators / Customer service managers and supervisors / Kitchen and catering assistants / Waiters and waitresses / Bar staff / Leisure and theme park attendants

Other occupations
Farmers / Gardeners and landscapers / Groundsmen and greenkeepers / Metal machining, fitting and instrument making trades / Vehicle trades / Electrical and electronic trades / Plumbers, carpenters and joiners / Bricklayers / Painters and decorators / Textile and garment trades / Printers / Food preparation occupations / Catering and bar managers / Florists / Glass, ceramics and furniture makers / Sports and leisure assistants / Travel agents / Air and rail travel assistants / Hairdressers and beauticians / Housekeepers / Pharmacy and other dispensing assistants / Sales related occupations / Merchandisers and window dressers / Call and contact centre occupations / Market research interviewers / Process, plant and machine operatives / Assemblers and routine operatives / Construction operatives / Road transport drivers / Other drivers and transport operatives / Farm and forestry workers / Postal workers and mail sorters / Cleaners and domestics / Security guards / Other elementary occupations

Unknown occupations
Graduates who indicated that they were in employment in the UK but the occupational information provided was inadequate for coding purposes

Survey response data explained

This section will show you how we have derived our findings from HESA's Graduate Outcomes data, in the hope that anyone will be able to recreate the figures should they wish. Each page is split into two sections:

Survey response details the outcomes, type of course studied by those in further study, training or research.

Type of work – for those in employment in the UK, this details the graduates who were employed in the type of work categories as percentages of the total of graduates working in the UK.

OUTCOMES

These are based on the activities that graduates who responded said they were doing at the time of the survey:

Working full time in the UK
Includes those listing their activity as working full time, including self-employed/freelance, voluntary or other unpaid work, developing a professional portfolio/creative practice or on an internship in the UK

Working part time in the UK
Includes those listing their activity as working part time, including self-employed/freelance, voluntary or other unpaid work, developing a professional portfolio/creative practice or on an internship in the UK

Unknown pattern of employment
Graduates who indicated that they were in employment in the UK but the information provided was inadequate for coding purposes

Working and studying
Includes those listing their main activity as working full time or part time and their other activities included full-time or part-time study, training or research and those listing their main activity as in full-time or part-time study, training or research, and their other activities included working full time or part time, in the UK or overseas

In further study, training or research
Includes those listing their activity as either in full-time or part-time study, training or research in the UK or overseas

Unknown pattern of further study
Graduates who indicated that they were in further study but the information provided was inadequate for coding purposes

Unemployed, including those due to start work
Includes those listing their activity as unemployed, and looking for work or those due to start work in the next month

Other
Includes those taking time out in order to travel or doing something else

TYPE OF COURSE FOR THOSE IN FURTHER STUDY

This section provides a breakdown of the courses studied by graduates who were in further study, training or research, presents the percentages of graduates who were in further study and were studying for one of the following:

Doctorate (e.g. PhD, DPhil, MPhil)
Includes those who were in further study, training or research for a 'Higher degree, mainly by research (e.g. PhD, DPhil, MPhil)'

Masters (e.g. MA, MSc)
Includes those who were in further study, training or research for a 'Higher degree, mainly by taught course (e.g. MA, MSc)'

Postgraduate diploma or certificate (including PGCE/PGDE)
Includes those who were in further study, training or research for a 'Postgraduate diploma or certificate (including PGCE)' and were studying a subject in education. Also includes those who were in further study, training or research for a 'Postgraduate diploma or certificate' but were not studying a subject in education

Professional qualification
Includes those who were in further study, training or research for a 'Professional qualification (e.g. Legal Practice Course, Chartered Institute of Marketing)'

Other study, training or research
Includes those who were in further study, training or research for a 'First degree (e.g. BA, BSc, MEng etc.)', 'Other diploma or certificate', 'Other qualification', 'Not aiming for a formal qualification' or 'Unknown'

Please note – Graduate Outcomes data cannot be compared with DLHE (Destinations of Leavers from Higher Education) data.
Due to rounding of percentages to one decimal place on all data pages and first destination tables in subject editorials, the percentages may not equal 100.0% when added together. All numbers used on these pages, where they refer to people, are rounded to the nearest five in accordance with HESA's data reporting requirements.Throughout this publication the abbreviation n.e.c. refers to data not elsewhere classified.

The data pages throughout this publication refer to UK-domiciled first-degree graduates working in the UK. There may be some differences in the data described in the Graduate labour market overview on page 6, which considers UK-domiciled graduates working both in the UK and internationally.