

Article

Graduates in the UK Labour Market: 2013

There were 12 million graduates in the UK in 2013, following a steady increase over the past decade. This overview looks at unemployment, skill level of jobs, industry, pay and comparison of male and female graduates.



Contact:
Jamie Jenkins
labour.market@ons.gsi.gov.uk

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1. Key points

- In 2013 there were 12 million graduates in the UK
- Steady increase in the number of graduates in the UK over the past decade
- In April to June 2013 graduates were more likely to be employed than those who left education with qualifications of a lower standard
- Non-graduates aged 21 to 30 have consistently higher unemployment rates than all other groups
- Non-graduates aged 21 to 30 have much higher inactivity rates than recent graduates
- Over 40% of graduates worked in the public administration, education and health industry
- Graduates were more likely to work in high skilled posts than non-graduates
- Annual earnings for graduates reached a higher peak at a later age than the annual earnings for non-graduates
- In 2013 those graduates that had an undergraduate degree in medicine or dentistry were the most likely to be employed and had the highest average gross annual pay
- Graduates from the top UK universities earned more than graduates from other UK universities
- Male graduates were more likely to have a high or upper middle skill job than female graduates
- Six in every ten people who lived in Inner London were graduates

2. Graduates in the UK labour market 2013

Definition of a graduate

For the purposes of this report we use the word “graduates” to refer to those people who have left education with qualifications above A level standard. This includes those with higher education and those with degrees. To see a detailed list of all qualifications included in this definition, please refer to the background notes.

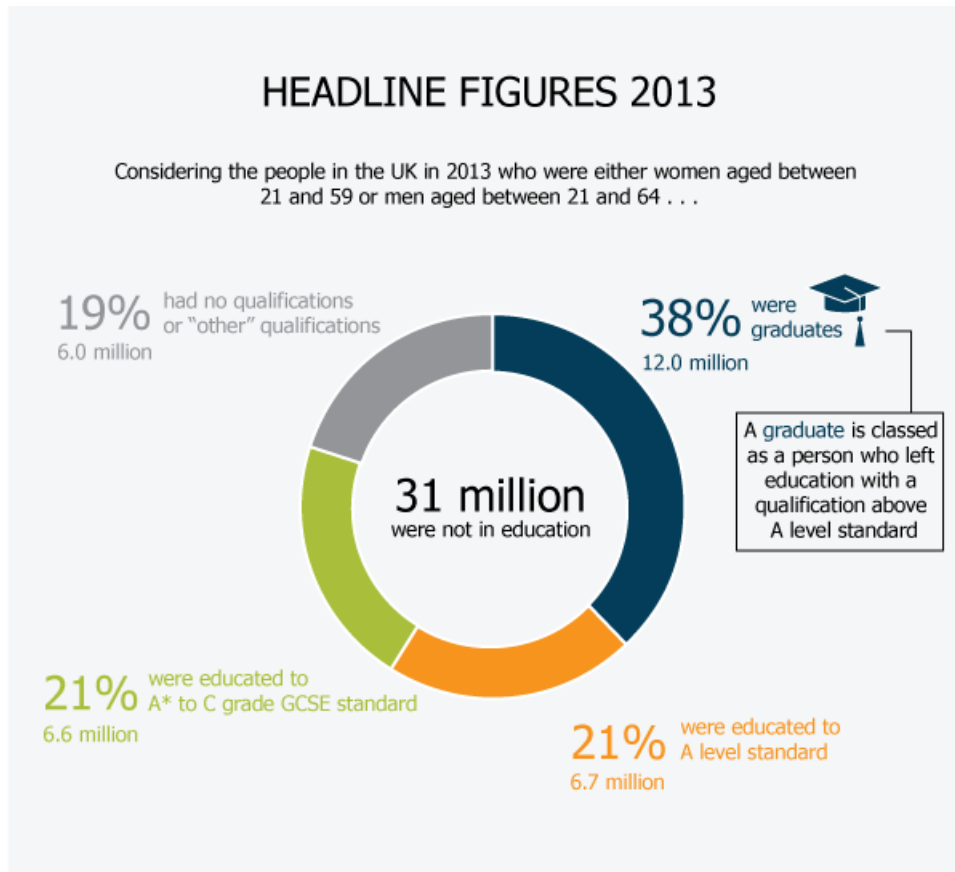
Definition of the population used in this report

The population we have used in this report is all adults living in the UK who were not enrolled on any educational course on the survey date. The age range we have focused on is women aged between 21 and 59 and men aged between 21 and 64. The lower age limit of 21 is used as most people will not have been able to complete a graduate level qualification before this age. However, please note also that educational systems are different across the countries of the UK. Upper age limits were used because we wished to focus on people active in the labour market. These particular ages were chosen to maintain consistency throughout the report as some sections consider time periods before changes to state pension ages. In 2013 there were 12 million graduates in the UK

In April to June 2013 there were 31 million people in the UK who were not enrolled on any educational course. Breaking these people down by the highest qualification they held:

- 12.0 million, or 38% were graduates
- 6.7 million, or 21% stated that their highest qualification was of an A level standard
- 6.6 million, or 21% stated that their highest qualification was equivalent to an A* to C grade GCSE
- 3.1 million, or 10% had “other” qualifications not categorised in the UK
- 2.9 million, or 9% had no qualifications

Figure 1: People in the UK not enrolled on any educational course by the level of their highest qualification, April to June 2013, UK

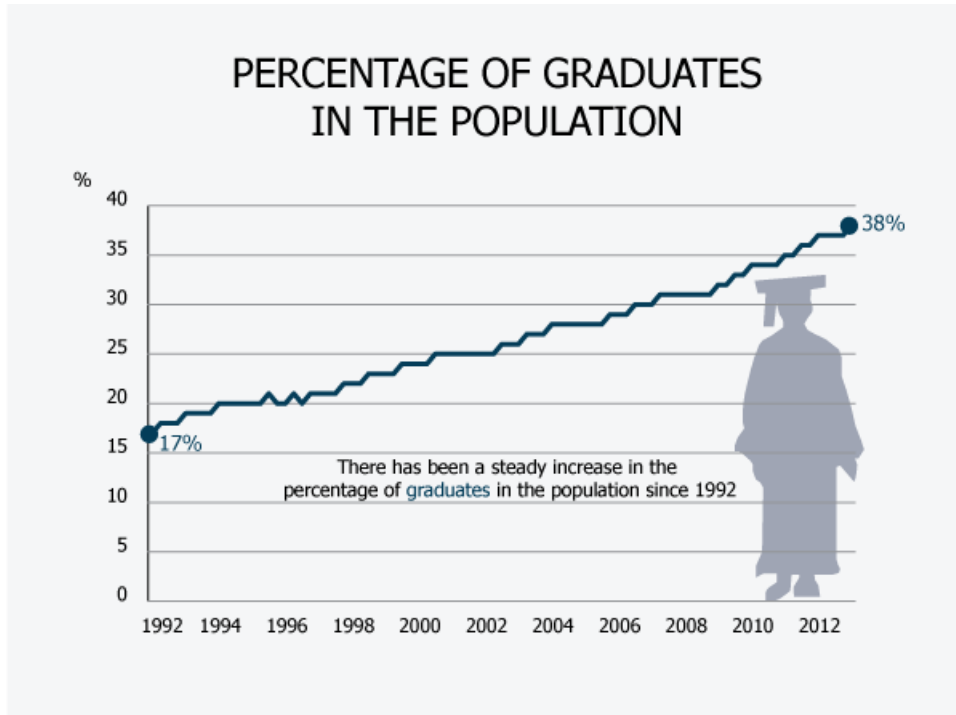


Source: Labour Force Survey - Office for National Statistics

Steady increase in the number of graduates in the UK over the past decade

The percentage of the population classed as graduates has been rising steadily from 17% in 1992, to 38% in 2013. This reflects changes to education since the 1970's which has led to it becoming more common for people to undertake higher education and less common for people to have no qualifications.

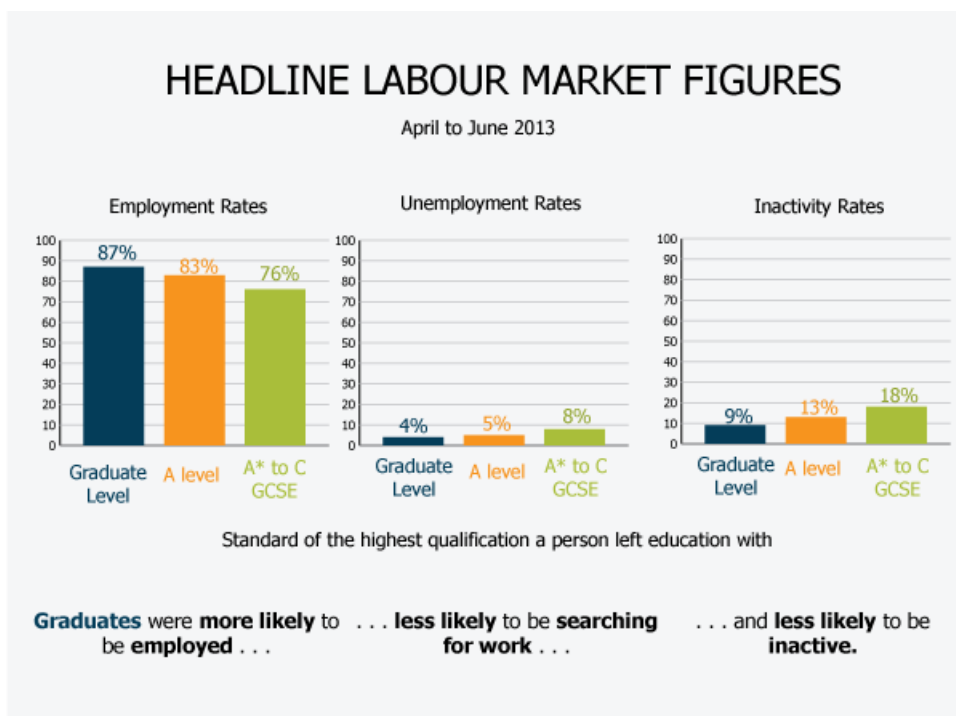
Figure 2: The percentage of graduates in the population, April to June 1992 to April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

In April to June 2013 graduates were more likely to be employed than those who left education with qualifications of a lower standard.

Figure 3: The employment, unemployment and inactivity rates for people in the UK by the highest level of qualification held, April to June 2013, UK



In April to June 2013 the graduate employment rate stood at 87% which was higher than the employment rate for those educated to A level standard (83%), A* to C grade GCSE standard (76%) and the rates for those with other qualifications (70%) or no qualifications (47%).

Graduates had an unemployment rate of 4% which was lower than the unemployment rate for those educated to A level standard (5%), A* to C grade GCSE standard (8%) and the rates for those with other qualifications (11%) or no qualifications (16%).

The inactivity rate for graduates (the percentage who were out of the labour force i.e. not employed or unemployed) stood at 9%. This was lower than the percentage for those educated to A level standard (13%), A* to C grade GCSE standard (18%) and the percentages for those with other qualifications or no qualifications (22% and 44% respectively).

Overall these figures show that in April to June 2013, graduates were more likely to be employed, less likely to be searching for work and much less likely to be out of the labour force than people who left education with lower qualifications or no qualifications.

Focusing on those out of the labour force, graduates were less likely to be out of the labour force to look after the family/home. This is despite the fact that they were slightly more likely to have dependent children than non-graduates (in April to June 2013, 44% of graduates had dependent children compared to 42% of non-graduates).

Different types of graduates and non-graduates, 1992 to 2013

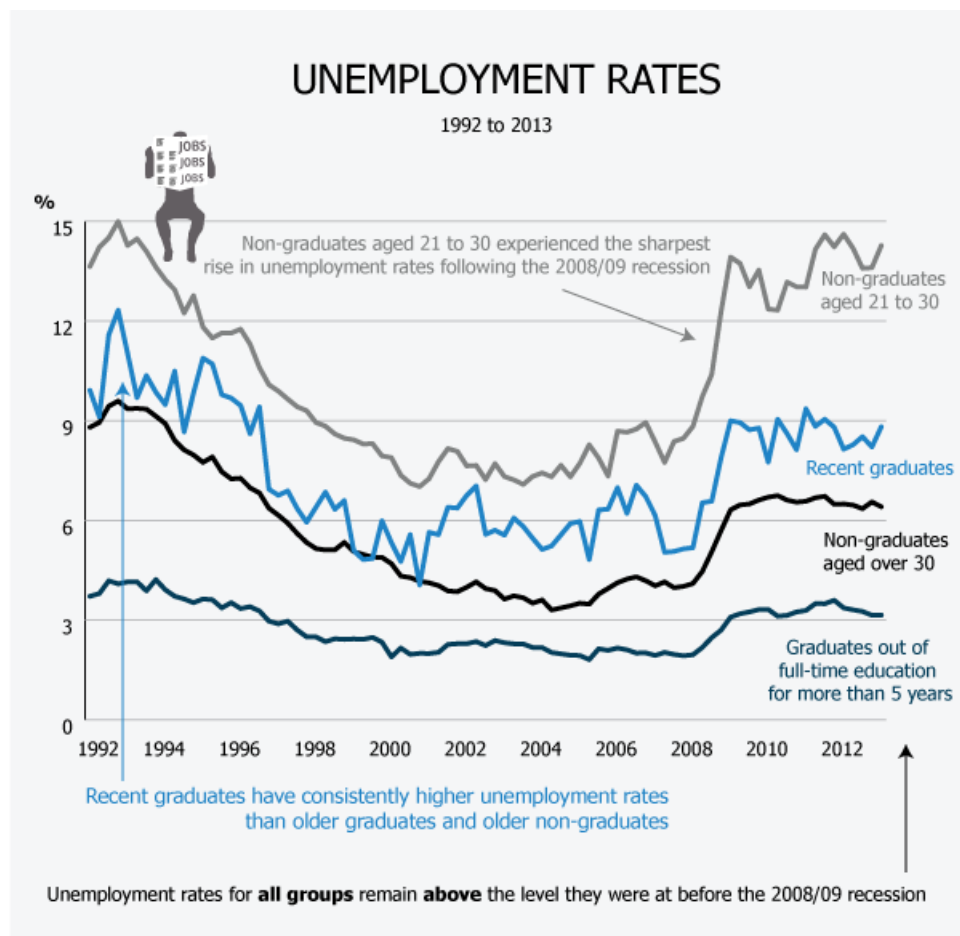
In this section we split graduates into two groups, graduates who left full-time education more than five years before the survey date and "recent graduates" i.e. those graduates who left full-time education within five years of the survey date.

Please note that this definition of recent graduates excludes those who recently studied for their higher education on a part-time basis. These are excluded because we wish to focus on young graduates who have little or no labour market experience. In April to June 2013 the recent graduate group had an average age of 25.

We split non graduates into those aged between 21 and 30 and those aged over 30. This was done to create non-graduate groups comparable to the graduate groups in terms of average ages.

Non-graduates aged 21 to 30 have had consistently higher unemployment rates than all other groups

Figure 4: The unemployment rates for recent graduates, non-recent graduates, non-graduates aged 21 to 30 and non-graduates aged over 30, April to June 1992 to April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

Unemployment rates are related to age. Recent graduates and non-graduates aged 21 to 30 have both had consistently higher unemployment rates than older graduates and older non-graduates. This can be explained by the fact that young people will have been looking for work for a relatively short period of time, will probably lack labour market experience and are not likely to be on a clearly defined career path.

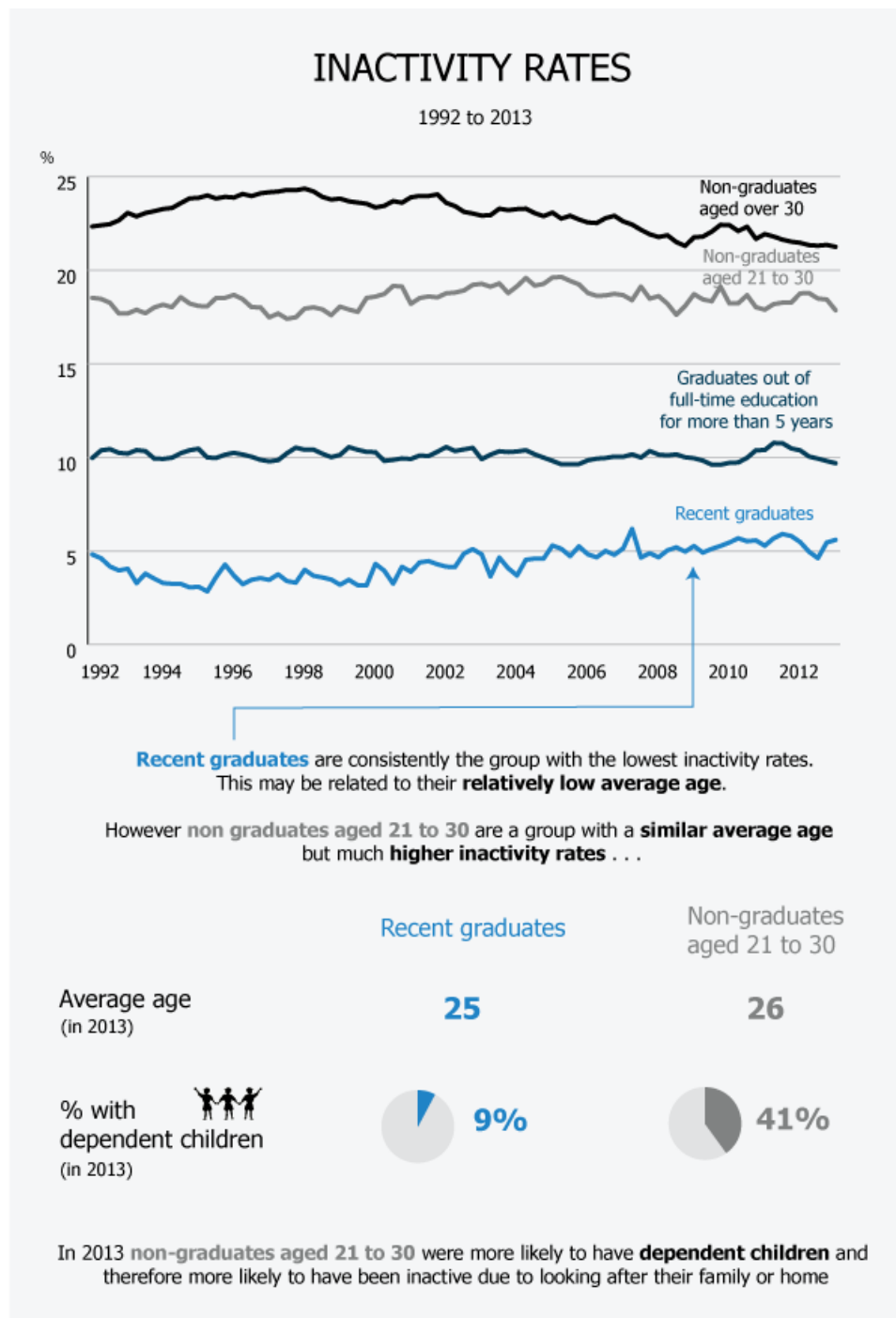
When focusing on recent graduates and non-graduates aged 21 to 30, the recent graduate group had consistently lower unemployment rates. This indicates that going on to higher education can help a young person find a job.

Since the 2008/09 recession, unemployment rates have risen for all groups but the sharpest rise was experienced by non-graduates aged 21 to 30. None of the groups have seen their unemployment rates fall back to their pre-recession levels.

Non-graduates aged 21 to 30 had much higher inactivity rates than recent graduates

Recent graduates have consistently lower inactivity rates than all other groups which may be related to their low average age. However, in April to June 2013, non-graduates aged 21 to 30 had an average age of 26 and recent graduates had an average age of 25. Despite this, 41% of non-graduates aged 21 to 30 had dependent children compared to only 9% of recent graduates. This means a non-graduate aged 21 to 30 was more likely to stay out of the labour force to look after the family or home. This partly explains why non-graduates aged 21 to 30 have consistently higher inactivity rates than recent graduates.

Figure 5: The inactivity rates for recent graduates, non-recent graduates, non-graduates aged 21 to 30 and non-graduates aged over 30, April to June 1992 to April to June 2013, UK



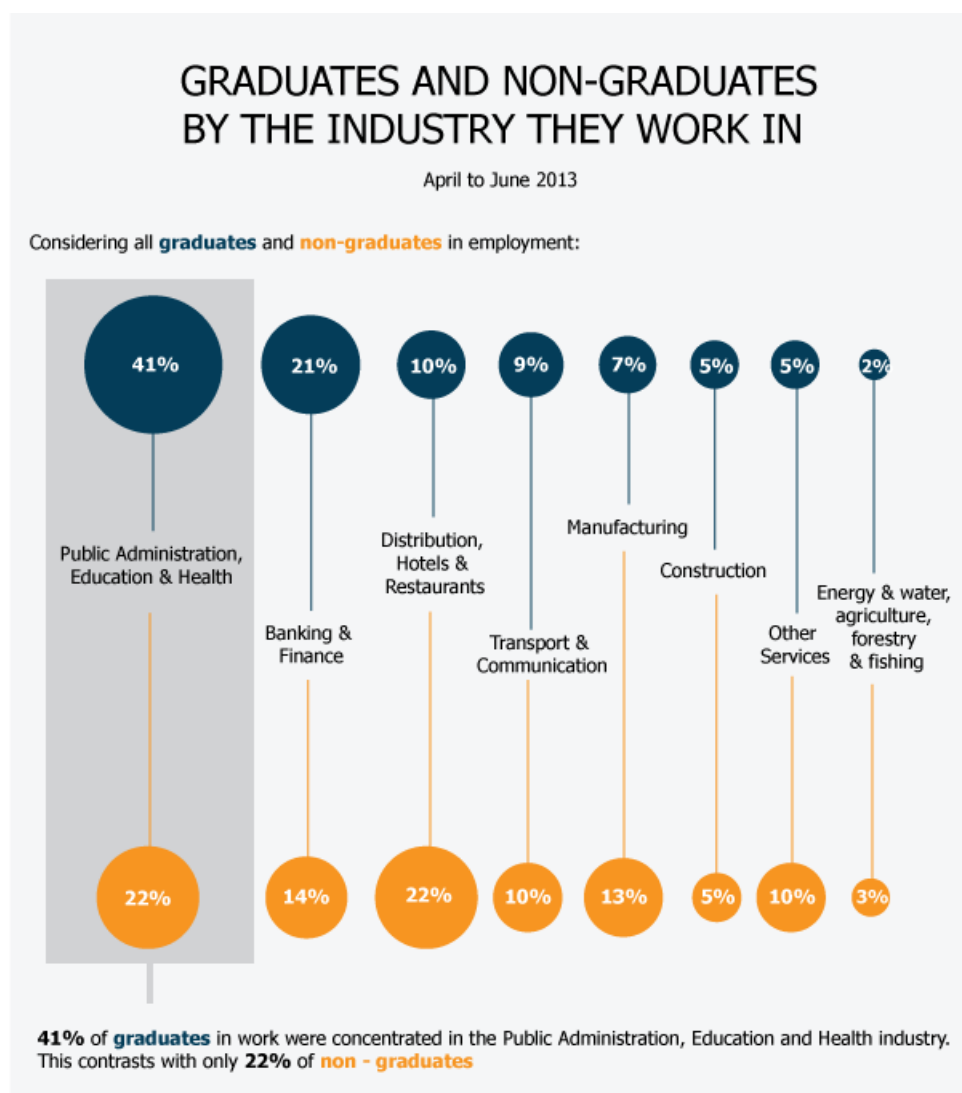
Graduates and non-graduates in work

Over 40% of graduates worked in the public administration, education and health industry compared to 22% of non-graduates

In April to June 2013 41% of all employed graduates in the UK were working in the public administration, education and health industry. In contrast only 22% of employed non-graduates were working in this industry.

The public administration, education and health industry is a common one for graduates from various educational backgrounds which may be due to the wide range of jobs available in this area. It was a particularly common one for those graduates with degrees in medicine/dentistry, education and subjects related to medicine. In fact 92% of those with a medicine degree worked in this industry, 81% of those with degrees in medical related subjects and 88% of those with degrees in education. This illustrates that graduates with these degrees tend to have a well defined career path.

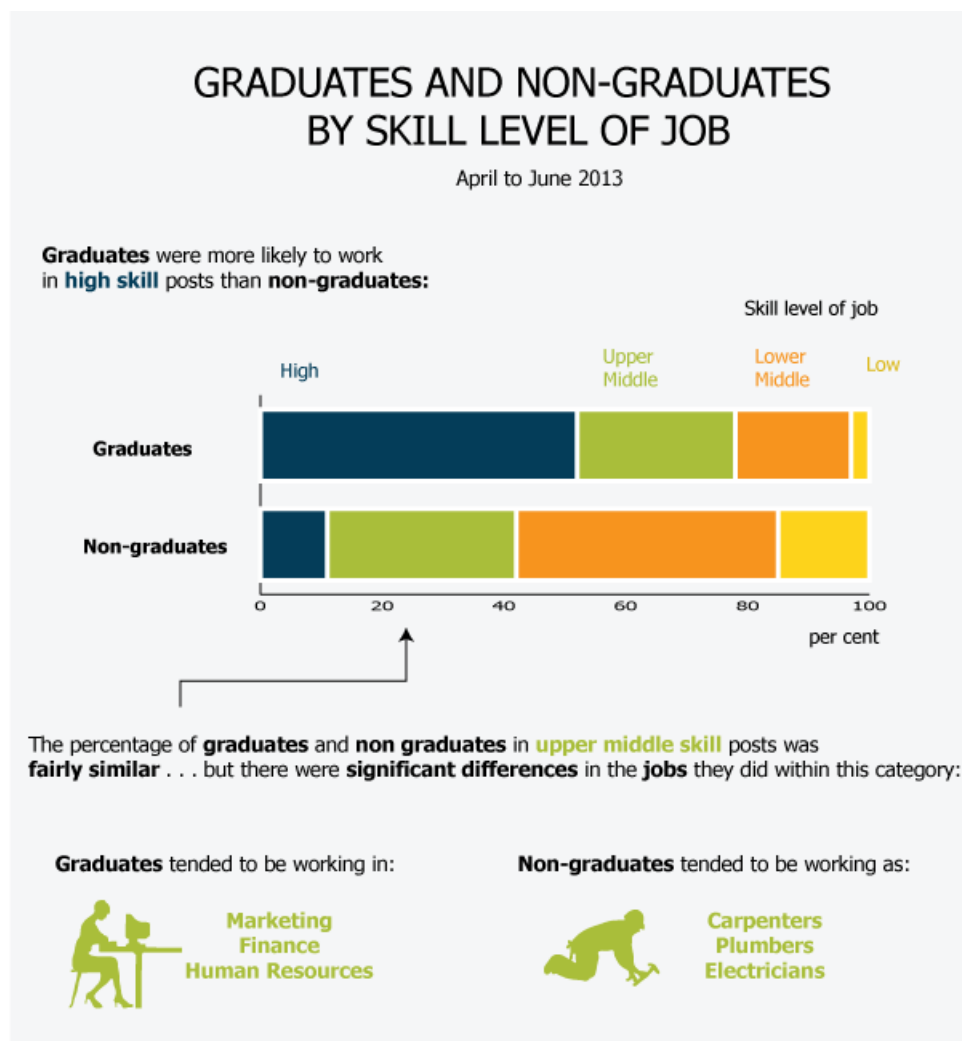
Figure 6: The percentage of graduates and non-graduates employed in each industry group, April to June 2013, UK



Turning to the banking and finance industry, 21% of employed graduates were working in this area compared to 14% of employed non-graduates. However when considering the distribution, hotels and restaurants industry the percentage of employed graduates working in this area was below the percentage of employed non-graduates, 10% and 22% respectively.

Graduates were more likely to work in high skilled posts than non-graduates

Figure 7: The percentage of graduates and non-graduates working in each skill level group, April to June 2013, UK



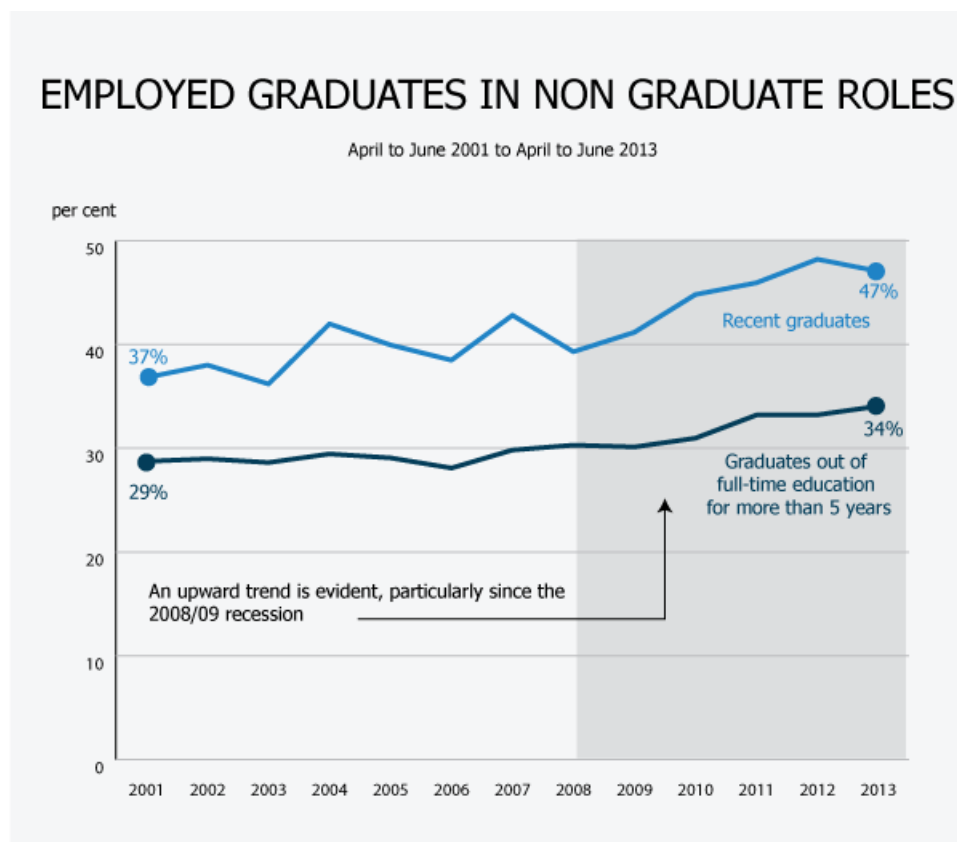
Overall graduates were much more likely to work in high skill jobs than non-graduates, but the percentage of each group in upper-middle skill jobs was fairly similar. However, there were significant differences in the types of jobs graduates and non-graduates were doing within this category. Graduates tended to be doing roles in marketing, finance and human resources while non-graduates were mainly working in manual roles such as carpenters and joiners, plumbers and electricians.

Nearly half of employed recent graduates were working in a non-graduate role

Professors Peter Elias and Kate Purcell at the University of Warwick have defined a non-graduate job as one in which the associated tasks do not normally require knowledge and skills developed through higher education to enable them to perform these tasks in a competent manner¹. Examples of non-graduate jobs include receptionists, sales assistants, many types of factory workers, care workers and home carers.

Using this definition of a non-graduate job and focusing on recent graduates who were employed, the percentage of them who were working in one of these roles has risen from 37% in April to June 2001 to 47% in April to June 2013. Although this time series is variable, an upward trend is evident, particularly since the 2008/09 recession. This may reflect lower demand for graduate skills as well as an increased supply of graduates.

Figure 8: The percentage of employed recent graduates and non-recent graduates working in non-graduate roles, every April to June quarter from 1992 to 2013, UK

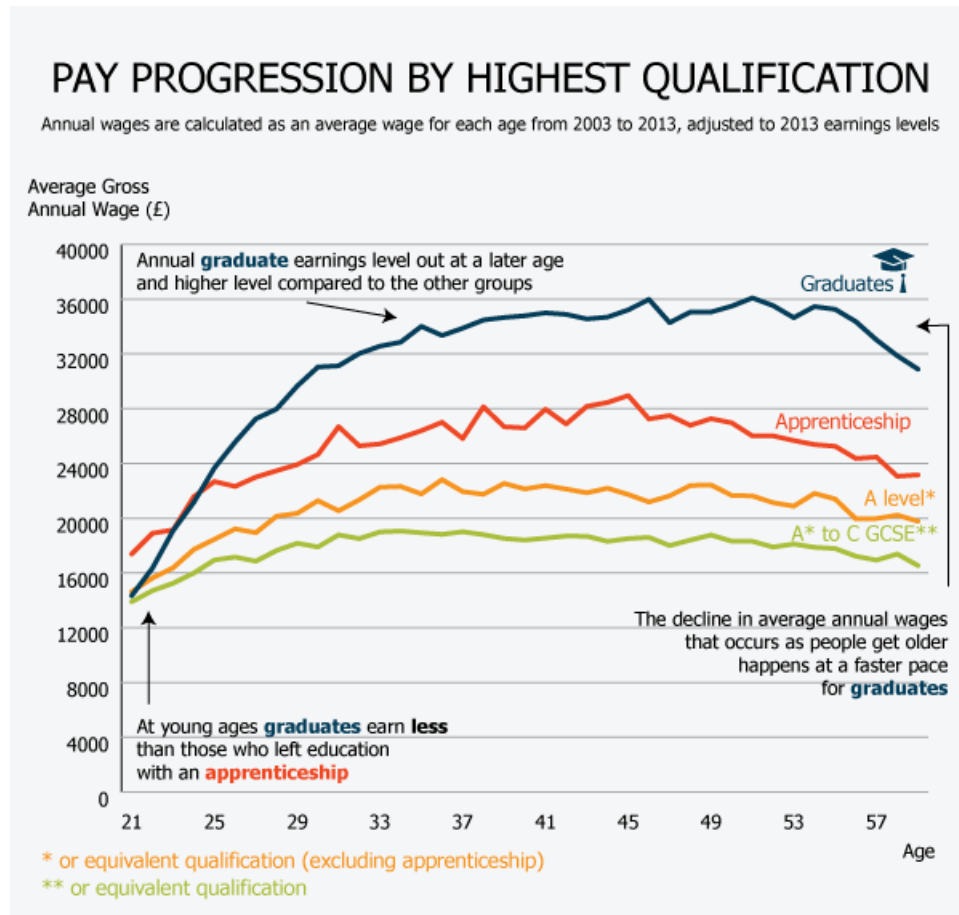


Source: Labour Force Survey - Office for National Statistics

This relates to the upward trend in the percentage of recent graduates working in low or lower middle skill roles. In April to June 2001 24% of all recent graduates were working in low/lower middle skill roles, in 2013 this stood at 33%. Focusing only on recent graduates in work, in 2001 26% were in low/lower middle skill roles, in 2013 this had risen to 38%.

Graduate and non graduate earnings - Pay progression by highest qualification

Figure 9: Pay progression by highest qualification, averages taken from data from every quarter between April to June 2003 to April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

Annual earnings for graduates reach a higher peak at a later age than the annual earnings for non-graduates

On average, graduates aged 21 earned a lower gross annual wage than 21 year olds who left education with an apprenticeship. In fact graduates aged 21 actually earned a similar gross annual wage to 21 year olds who left education with an A* to C grade GCSE. This can be explained by the fact that many graduates aged 21 will have either just entered the labour market and therefore may be working in a lower skilled role while looking for a post in their desired industry, or may only be temporarily in the labour market.

The annual income for graduates increased at a fast pace as they became older and more experienced in the work place, before levelling out around the age of 38 at an average of £35,000. In contrast, gross annual earnings for those educated to an A* to C grade GCSE standard increased at a moderate pace and levelled out at around the age of 32 at an average of £19,000. The gross annual wage for those educated to A level standard increased until the age of 34 when it levelled out at around £22,000.

The decline in annual gross wages that occurred as people got older happened at a slightly faster pace for graduates than for those with qualifications of a lower standard. This may be because graduates earned more over their working life so they were more likely to take early retirement or work fewer hours as they got older.

Graduates, those with A levels and those with apprenticeships

Those with apprenticeships earned less than graduates at all ages over 25 even though they worked the same number of hours on average (when including overtime).

An apprenticeship is classed as equivalent to an A level but those with apprenticeships tended to earn more on average than those with other A level equivalent qualifications. This higher annual pay is likely to be related to the fact that those with apprenticeships worked longer hours. The annual pay for those with an apprenticeship also tended to decrease at an earlier age, this is possibly because the work done by these people was more strenuous so they may have worked fewer hours or taken on easier work that was less well paid as they got older.

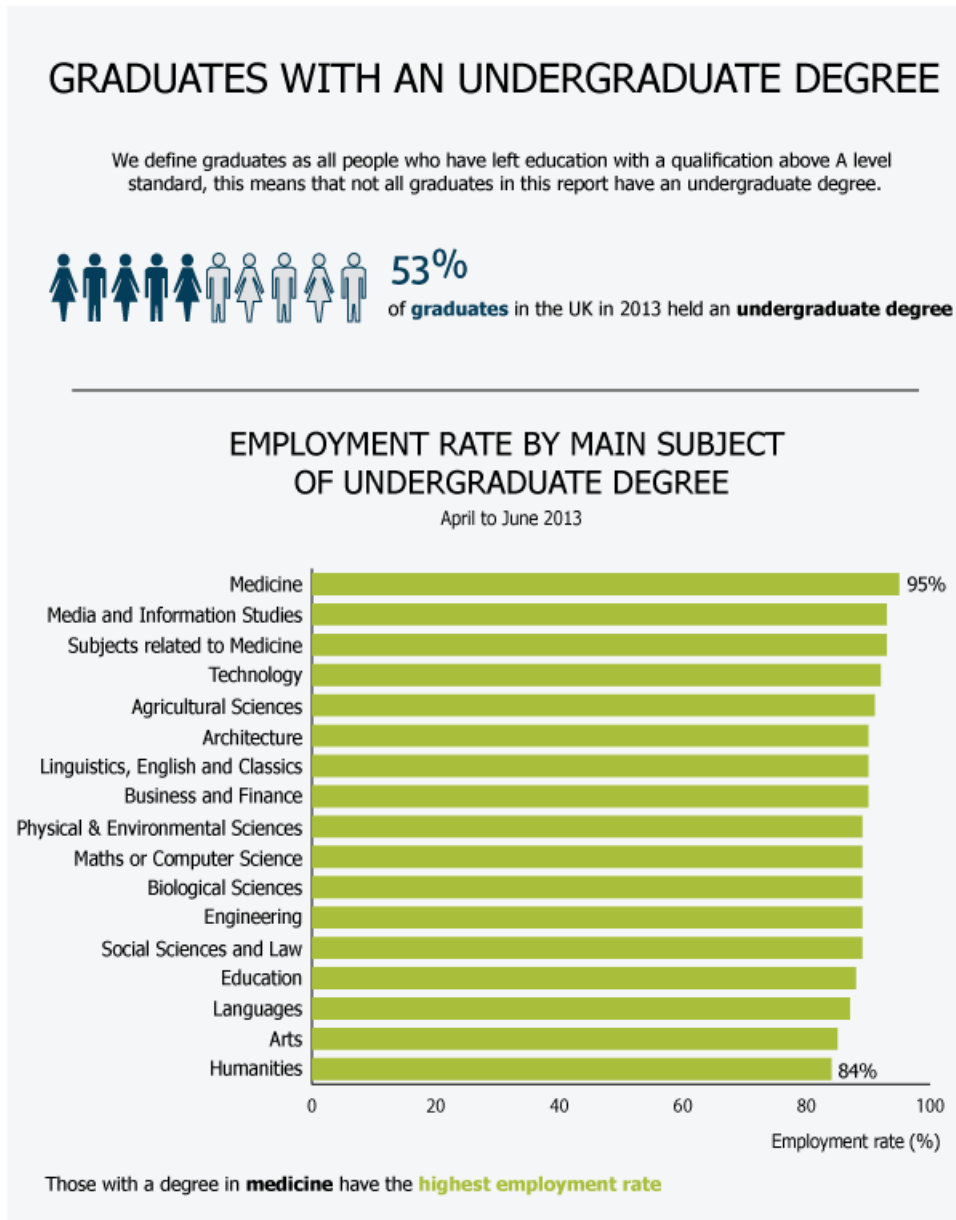
Graduates with undergraduate degrees

For the purposes of this report we have used the word “graduates” to refer to those people who have left education with qualifications above A level standard. In this section we will focus on those graduates with an undergraduate degree.

In April to June 2013 53% of graduates had left full-time education with an undergraduate degree. This may not have been their highest qualification as some may have gone onto study for a higher degree such as a master's degree or a PhD. The graduates who did not have undergraduate degrees had other types of higher education such as an NVQ level 5, foundation degree or a nursing qualification.

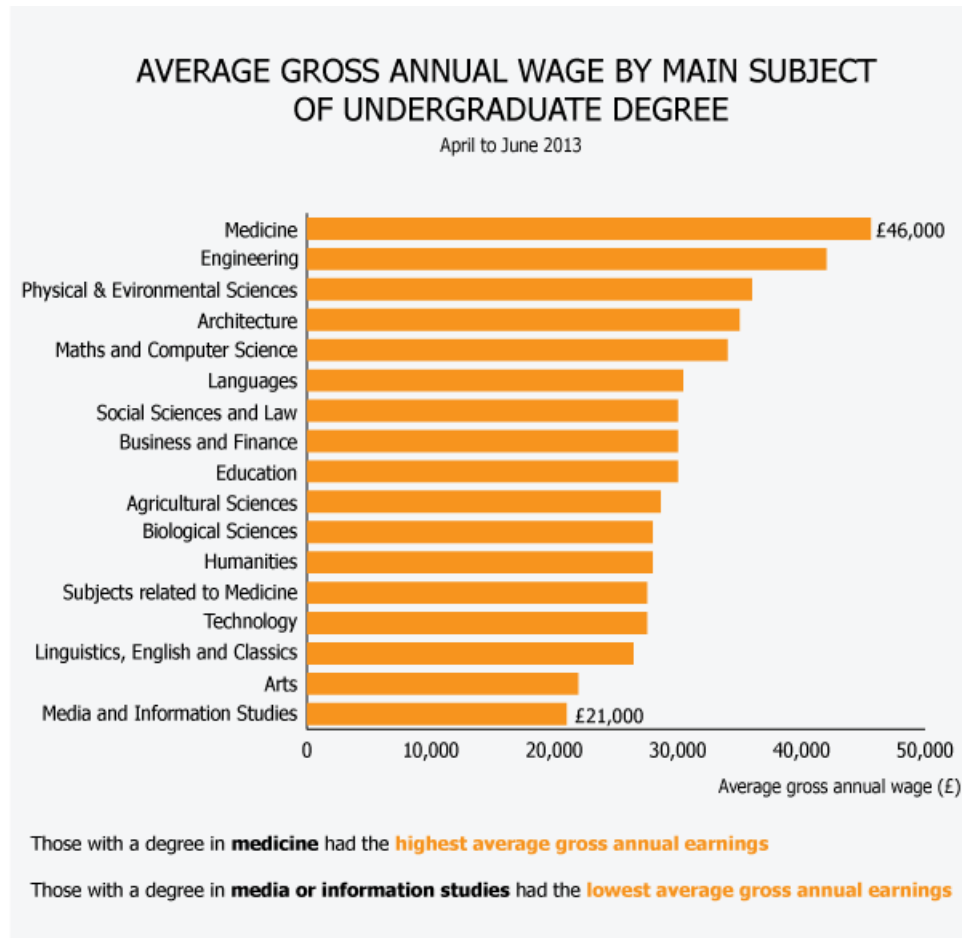
In 2013 those graduates that had an undergraduate degree in medicine or dentistry were the most likely to be employed and had the highest gross annual pay

Figure 10: Employment rates for graduates with undergraduate degrees by subject of degree, April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

Figure 11: Average gross annual wages for graduates with undergraduate degrees, by subject of degree, April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

In April to June 2013 the employment rates for graduates with an undergraduate degree varied from 95% for graduates with a degree in medicine/dentistry to 84% for graduates with a degree in humanities.

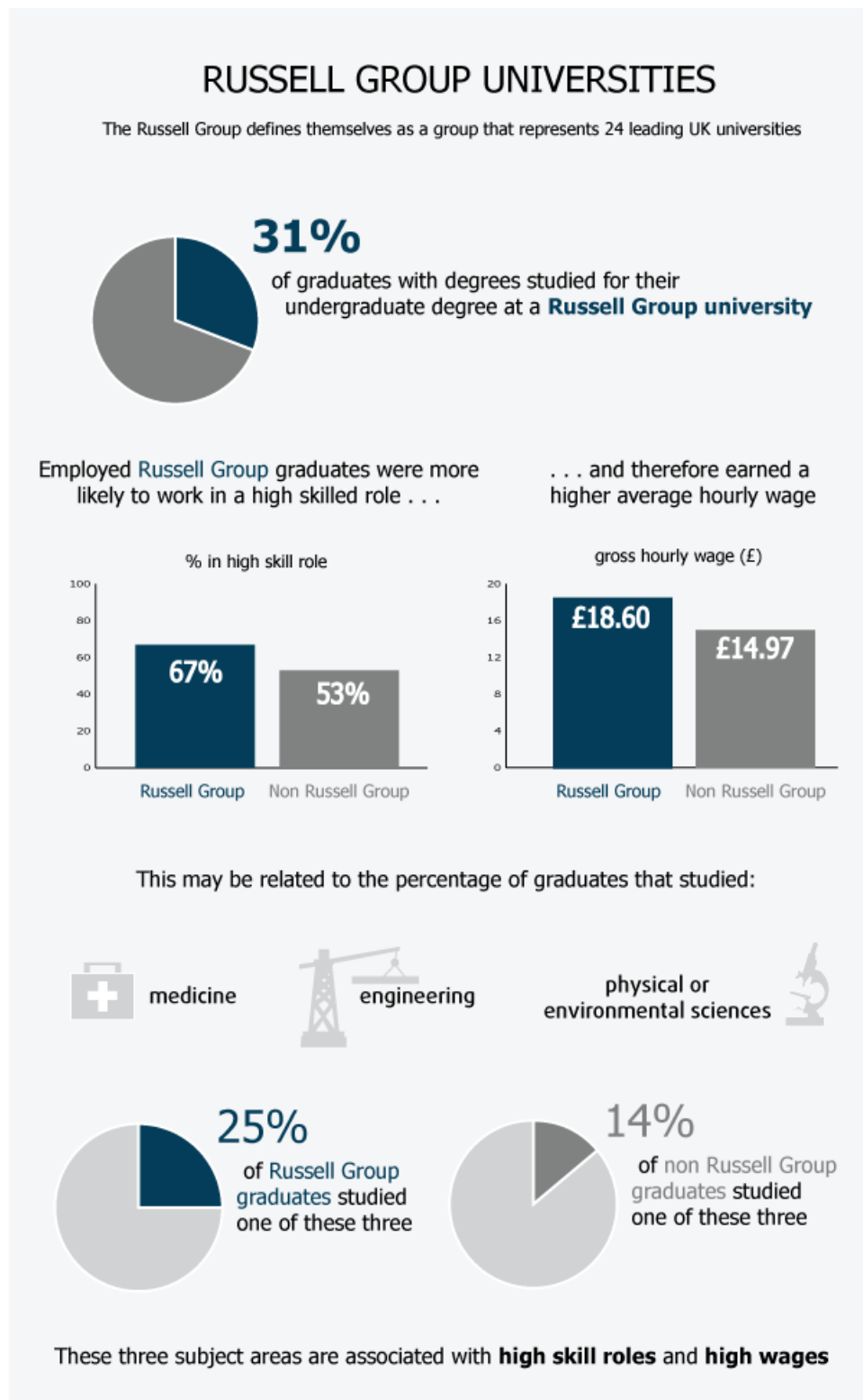
Those graduates with an undergraduate degree in media and information studies had the second highest employment rate but the lowest average gross annual wage. Their average gross annual wage was £25,000 below that of a graduate with a degree in medicine/dentistry.

Of all graduates with science degrees, those with a degree in biological sciences were the least likely to be employed and had the lowest average gross annual wage. This may reflect the fact that 35% of them were working in non-graduate roles.

Those with a degree in a subject belonging to the arts had relatively low employment rates and relatively low average gross annual pay. This again reflects the fact that 40% of graduates with an undergraduate degree in an arts subject were working in a non-graduate role.

Graduates from the top UK universities were earning more than graduates from other UK universities

Figure 12: Information on graduates with undergraduate degrees from Russell Group Universities and from non Russell Group Universities, April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

Considering all graduates with an undergraduate degree living in the UK in 2013, 31% of them attained their undergraduate degree in a 'Russell Group' university.

The Russell Group defines themselves as a group “that represents 24 leading UK universities which are committed to maintaining the very best research, an outstanding teaching and learning experience and unrivalled links with business and the public sector”. To see a full list of the Russell Group universities please see the background notes.

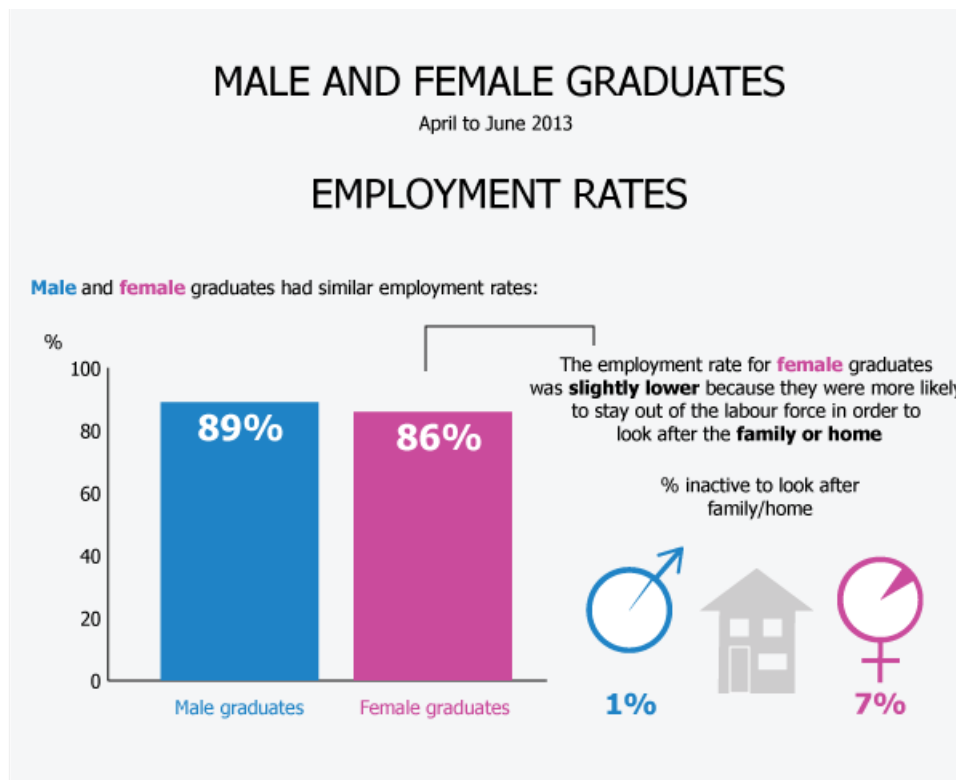
Those graduates with an undergraduate degree from a Russell Group university earned on average £3.63 more an hour than those with an undergraduate degree from a university outside the Russell Group. This can be partly explained by the fact that 67% of Russell Group graduates work in high skilled posts compared with 53% of non Russell Group graduates.

There are two main reasons Russell Group graduates are more likely to work in highly skilled and highly paid posts. Firstly because they are more likely to have an undergraduate degree in a subject such as medicine /dentistry, engineering and physical/environmental sciences. Secondly the entry requirements for Russell Group universities tend to be higher, therefore the graduates from these universities tend to be more likely to go on to highly skilled roles.

Male and female graduates

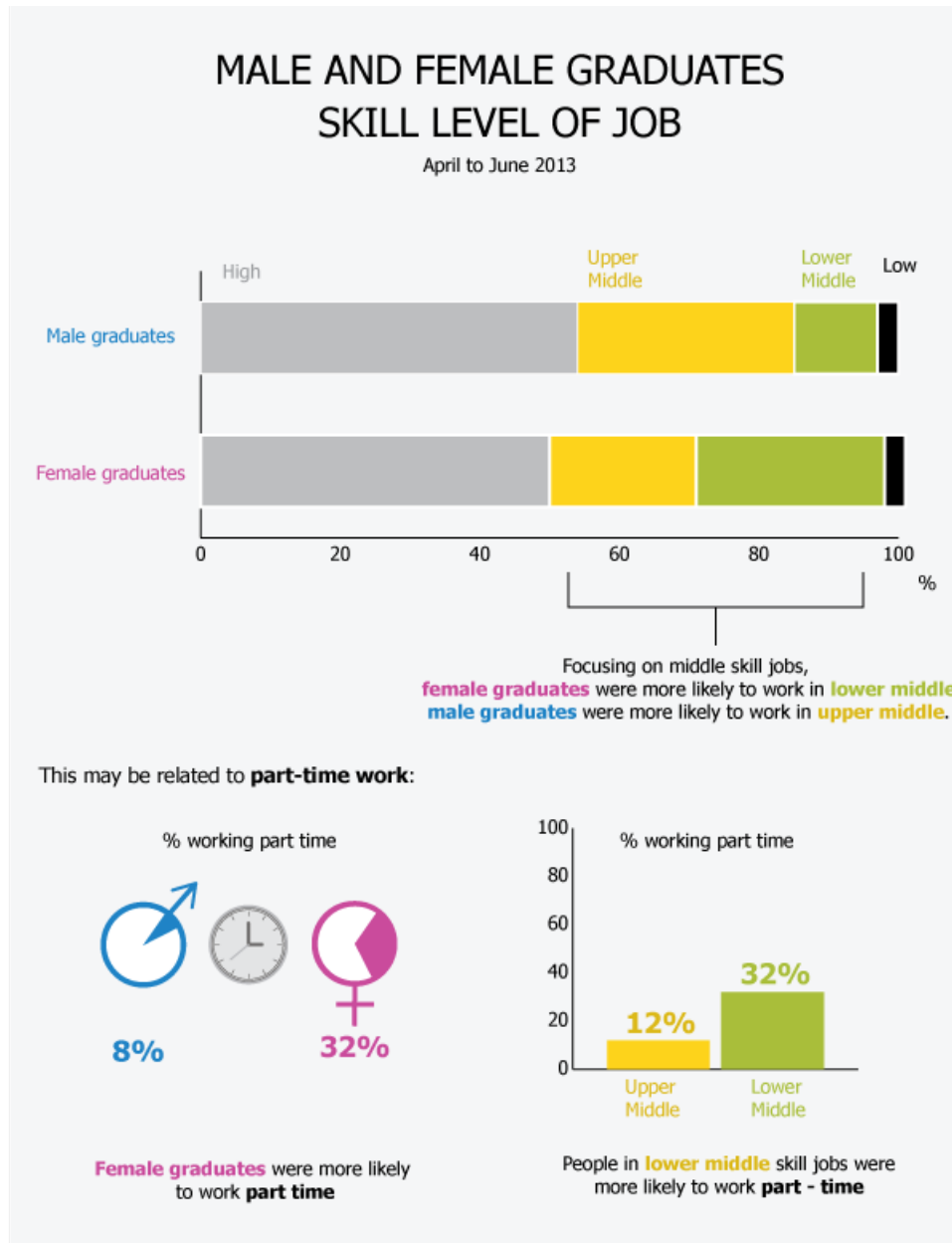
In 2013, male and female graduates had similar employment rates but male graduates were more likely to have a high or upper middle skill job.

Figure 13: Employment rates for male and female graduates and the percentage inactive due to looking after the family or home, April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

Figure 14: Male and female employed graduates by the skill level of their job and the percentage working part-time, April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

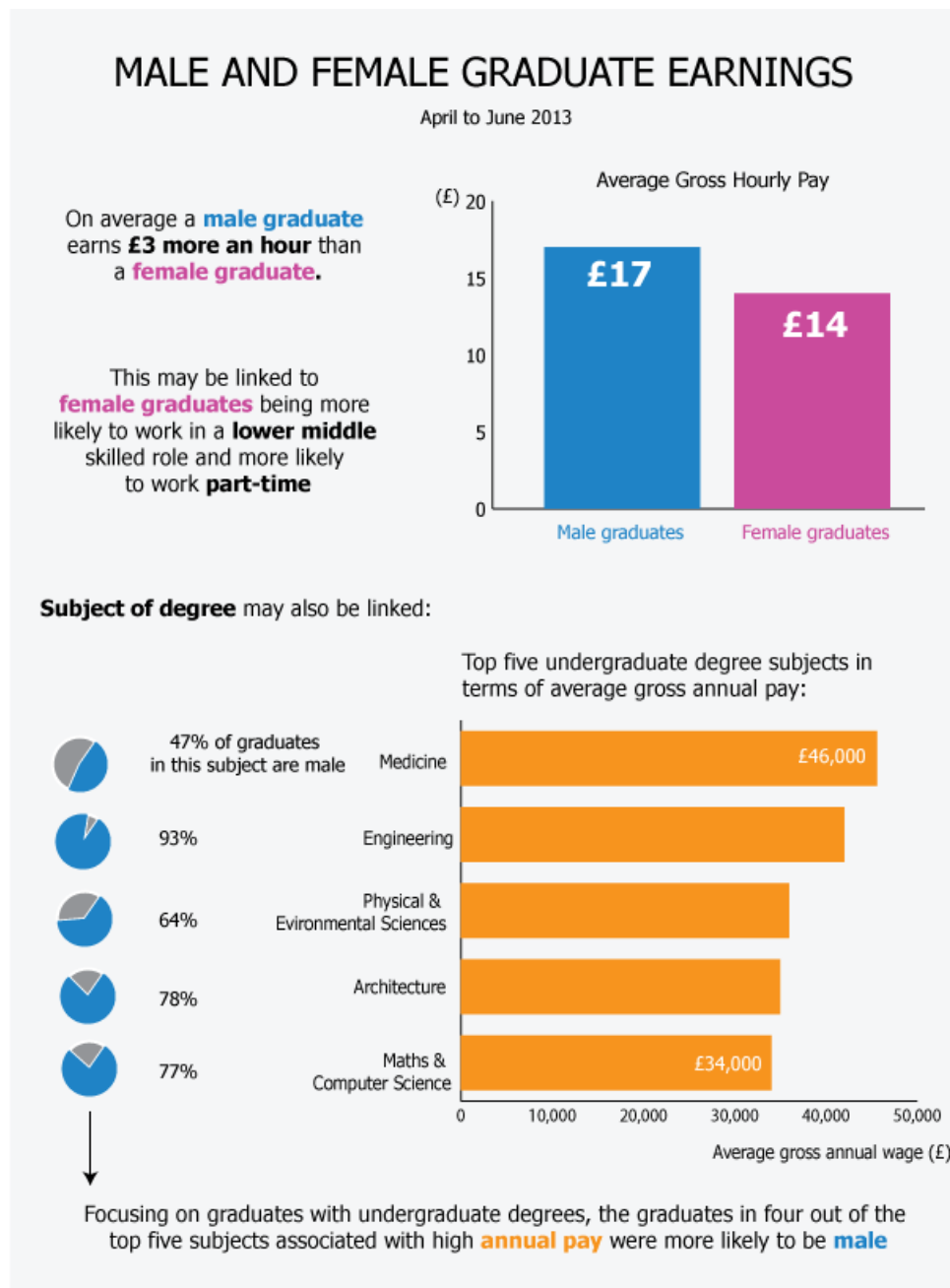
In April to June 2013 the percentage of male and female graduates in employment was roughly similar, 89% of male graduates were employed and 86% of female graduates were employed. The employment rate for female graduates was slightly lower because they were more likely to state that they were out of the labour force in order to look after the family and/or home, in fact 7% of female graduates stated this compared with 1% of male graduates.

Focusing on male and female graduates in work, the percentage of male and female graduates in high skill and low skill jobs was fairly equal. However when looking at middle skill jobs, female graduates were more likely to be in lower middle skill jobs - 27% of female graduates against 12% of male, and male graduates were more likely to be in upper middle skill jobs - 31% of male graduates against 21% of female.

One explanation for this may be that female graduates may often take a lower middle skill role because they want a part-time role and these posts are more likely to be offered on a part-time basis. Overall in 2013, 32% of female graduates were working part-time while only 8% of male graduates were and while 32% of people working in lower middle skill roles were working part-time only 12% of people in upper middle skill roles were.

Male graduates were earning more than female graduates in 2013

Figure 15: Male and female graduate earnings, April to June 2013, UK



Source: Labour Force Survey - Office for National Statistics

Concentrating on all employed graduates in 2013, men earned on average £3 more an hour than women. This can be partly explained by the subjects male and female graduates with degrees studied. Out of the top five subjects associated with the highest average gross annual earnings, four of them were subjects which male graduates are more likely to have studied than female graduates: Engineering, Physical/Environmental sciences, Maths/Computer Science and Architecture.

Female graduates being more likely to work part-time may also explain the differences in pay for male and female graduates. While working part-time should not affect a person's hourly wage it may affect career progression which will, in turn affect hourly pay.

Graduates across areas of Great Britain

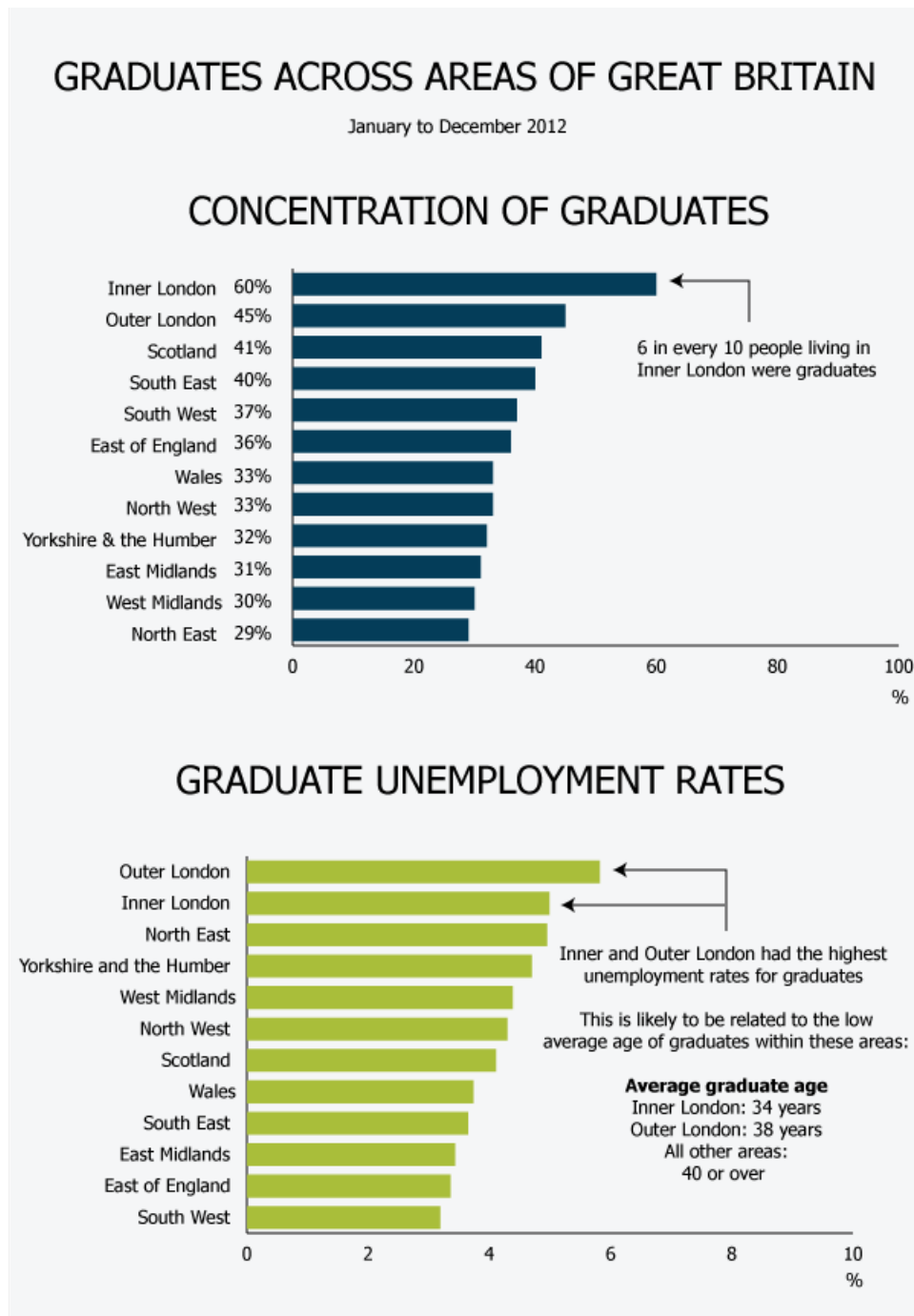
Six in every 10 people living in Inner London were graduates

For regional analysis we now consider people living in Great Britain in the year 2012.

In 2012 the area with the highest concentration of graduates was London. In Inner London 60% of the resident population were graduates and in Outer London 45% of the resident population were. These figures contrast with the North East where only 29% of the population were graduates.

Please note, because of differences in the education system people in Scotland can attain a graduate level qualification at the age of 20. These people have been left out of our analysis, which may mean that the concentration of graduates in Scotland in 2012 was higher than reported here.

Figure 16: Graduates across areas of Great Britain, January to December 2012



Source: Labour Force Survey - Office for National Statistics

The employment rates for graduates living in different areas of Great Britain were fairly similar, but the area with the lowest graduate employment rate was Outer London where 84% of graduates were employed. This is below the average for graduates in Great Britain in 2012 which was 86%.

Inner and Outer London had the highest graduate unemployment rates in Great Britain in 2012. This may be explained by the average age of graduates living in these areas. The average age of a graduate in Inner London was 34 and in Outer London it was 38 while in the remaining areas of Great Britain the average age of a graduate was 40 or above. Younger graduates have had less time to search for work and are less likely to be on a clearly defined career path; therefore they are more likely to be unemployed. Also the high concentration of graduates in Inner and Outer London meant there was greater competition for graduate jobs.

Notes for graduates in the UK labour market 2013

1. Elias, P. and K. Purcell (2013) 'Classifying graduate occupations for the knowledge society'. Futuretrack Working Paper No. 5. Warwick Institute for Employment Research. http://www2.warwick.ac.uk/fac/soc/ier/futuretrack/findings/elias_purcell_soche_final.pdf
2. For all the data included in this report please click this link:
[All tables used in the Graduates in the Labour Market 2013 Report \(902.5 Kb Excel sheet\)](#)

3. Background notes

1. Types of higher education that lead to a person being classified as a graduate :

- Higher degree
- NVQ level 5
- Level 8 Certificate
- Level 7 Diploma
- Level 7 Certificate
- Level 8 Award
- First degree/foundation degree
- Other degree
- NVQ level 4
- Level 6 Certificate
- Level 7 Award
- Diploma in higher education
- Level 5 Diploma
- Level 5 Certificate
- Level 6 Award
- HNC/HND/BTEC higher etc
- Teaching further education
- Teaching secondary education
- Teaching primary education
- Teaching foundation stage
- Teaching level not stated
- Nursing etc

- RSA higher diploma
- Other higher education below degree

Types of education classified as equivalent to an A level :

- Level 4 Diploma
- Level 4 Certificate
- Level 5 Award
- NVQ level 3
- Advanced/Progression (14-19) Diploma
- Level 3 Diploma
- Advanced Welsh Baccalaureate
- International Baccalaureate
- GNVQ/GSVQ advanced
- A-level or equivalent
- RSA advanced diploma
- OND/ONC/BTEC/SCOTVEC National etc
- City & Guilds Advanced Craft/Part 1
- Scottish 6 year certificate/CSYS
- SCE higher or equivalent
- Access qualifications
- AS-level or equivalent
- Trade apprenticeship
- Level 3 Certificate
- Level 4 Award

Types of education classified as equivalent to an A* to C grade GCSE :

- NVQ level 2 or equivalent
- Intermediate Welsh Baccalaureate
- GNVQ/GSVQ intermediate
- RSA diploma
- City & Guilds Craft/Part 2
- BTEC/SCOTVEC First or General diploma etc
- Higher (14-19) Diploma

- Level 2 Diploma
- Level 2 Certificate
- O-level, GCSE grade A*-C or equivalent
- Level 3 Award

Types of education classified as “other” qualification :

- NVQ level 1 or equivalent
- Foundation Welsh Bacculaureate
- GNVQ/GSVQ foundation level
- Foundation (14-19) Diploma
- Level 1 Diploma
- CSE below grade 1, GCSE below grade C
- BTEC/SCOTVEC First or General certificate
- SCOTVEC modules
- RSA other
- City & Guilds foundation/Part 1
- Level 1 Certificate
- Level 2 Award
- YT/YTP certificate
- Key skills qualification
- Basic skills qualification
- Entry level qualification
- Entry level Diploma
- Entry level Certificate
- Level 1 Award
- Entry level Award
- Other qualification

2. Russell Group Universities

- University of Birmingham
- University of Bristol
- University of Cambridge
- Cardiff University

- Durham University
- University of Edinburgh
- University of Exeter
- University of Glasgow
- Imperial College London
- King's College London
- University of Leeds
- University of Liverpool
- London School of Economics & Political Science
- University of Manchester
- Newcastle University
- University of Nottingham
- University of Oxford
- Queen Mary, University of London
- Queen's University Belfast
- University of Sheffield
- University of Southampton
- University College London
- University of Warwick
- University of York

3. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.