

# Graduate outcomes in London

Kathryn Petrie

**SMF**

Social Market  
Foundation

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Kathryn Petrie

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## ABOUT THE AUTHOR

Kathryn Petrie

Kathryn was Chief Economist at the Social Market Foundation until Summer 2020. She worked on several policy areas including education, social care and financial services.

## EXECUTIVE SUMMARY

Much of the discussion related to higher education policy has often focused on widening access and participation for underrepresented groups. However, very little is known about the extent to which outcomes, such as labour market outcomes, vary by student characteristic – particularly on a local level. It is the *outcomes* of participation, rather than participation in itself, that are of most interest to policymakers. For example, if underrepresented groups face worse labour market outcomes after graduation, even with comparable levels of educational attainment, further policy interventions might be needed.

This research seeks to help fill the evidence gap as it focuses on how the outcomes of graduates who have studied in London and those from London vary by a range of different characteristics.

Using UK-domiciled young graduate employment data from HESA we focus on four outcomes six months after graduation – these are degree classification, employment status, full time earnings and occupation. The graduates within the analysis are split into three categories based on their domicile prior to university and study location. We have:

- Graduates who were domiciled in London prior to university but left London to study – *Londoners elsewhere; 43% of sample*
- Graduates who were domiciled in London prior to university and stayed for study – *Londoners in London; 29% of sample*
- Graduates who were domiciled elsewhere in the UK prior to university and who came to London to study – *Non-Londoners studying in London; 28% of sample*

Londoners who leave London to study are more likely to be White and from higher socio-economic backgrounds compared to Londoners who stay in the city. Almost a quarter of those who leave the capital for university attended a private school. They are also more likely than Londoners who stay in the capital to attend a high rank institution.

The most popular subject area for those who come to London to study is creative arts and design – 22% percentage of this group study creative arts and design compared to only 11% of those from London who stay and 9% of those from London who leave.

### How do outcomes vary?

Based on the findings from a range of logistic regression models we are able to understand how graduate outcomes vary based on student characteristics. The models control for a range of variables including subject choice, rank of university and the student characteristics discussed above.

### Factors found to be significant in predicting likelihood of a first class degree;

- **Gender** – Women are marginally more likely to get first class degrees compared to men. This is consistent with earlier research although smaller in scale than the figures produced by the Office for Students.

- **Ethnicity** – All ethnicity groups are less likely to get a first class degree compared to White students. The largest difference is seen between White and Black graduates – Black graduates are 12% less likely to gain a first class degree.
- **Socio-economic status** – Those with parents who work in intermediate or routine / manual occupations are less likely to get a first compared to those whose parents work in higher and managerial roles. Those from with parents in routine occupations are 2% less likely to gain a first compared to those whose parents work in higher or professional occupations.
- **Entry qualification** – Those who enter with either BTEC/vocational qualifications or a combination of BTECs and A levels are less likely to get a first compared to A level students. Students who entered with vocational qualifications are 10% less likely to gain a first compared to A level students.
- **Placement year** – Those who undertake a placement as part of their degree are 16% more likely to get a first class degree compared to those who do not do them.
- **Location category** – Londoners who study elsewhere are the least likely to get a first class degree. Londoners in London and those from elsewhere who study in London are 5% and 6% more likely to get a first compared to Londoners who leave the capital for HE respectively.

**Factors found to be significant in predicting likelihood of being in work or further study six months after graduation;**

- **Gender** – Women are marginally more likely to get be in work or further study compared to men.
- **Ethnicity** – With the exception of Black graduates, individuals from all other ethnicities are less likely to be in work or further study compared to White graduates. Unlike in the descriptive analysis, we find no significant difference between Black and White graduates when controlling for other characteristics such as qualification on entry and subject.
- **Socio-economic status** – Those with parents who work in intermediate occupations are less likely to be in work or study compared to higher and managerial groups. There is no significant difference in the likelihood of employment or study between graduates whose parents work in higher and managerial or routine and manual occupations.
- **Entry qualification** – Those who enter university with BTEC/ vocational qualifications are 2% less likely to be in work or further study compared to those who entered with academic qualifications. There is no significant difference between those who enter with a combination and academic qualifications.
- **Placement year** – Those who undertake a placement are 4% more likely to be in work or study compared to those who have not undertaken one.
- **Location category** – Londoners who study in London are 1% less likely to be in work or further study compared to Londoners who leave to study. Those from elsewhere who study in London are the most likely to be in work or further study.

**Factors found to be significant in predicting likelihood of earning £25,000 or above from full time employment six months after graduation;**

- **Degree class** – Those with a first class degree are the most likely to be earning £25k+. Those with an upper second are 8% less likely to earn over £25,000 compared to those who gain a first. Those with a third class degree are 15% less likely to be earning over £25,000 compared to those with a first, highlighting the importance of degree classification.
- **Gender** – Women are 10% less likely to be earning £25k+ compared to men.
- **Ethnicity** – Asian graduates are 2% more likely to be earning above £25,000 compared to White graduates. In contrast, Black graduates are 2% less likely to be earning over £25,000 compared to White graduates.
- **Socio-economic status** – Those with parents who work in intermediate or routine / manual occupations are less likely be earning £25,000 or above compared to those from higher and managerial backgrounds.
- **Entry qualification** – There is no significant difference in the likelihood of earning over £25,000 between those who enter university with A levels or BTECs (academic vs. vocational). Those who enter with a combination of qualifications are 4% less likely to be earning £25k or above compared to those who entered with purely academic qualifications.
- **Placement year** – Those who do placements are 17% more likely to be earning £25,000 or above compared to those who do not do them. Placements have been shown to have a positive influence on graduate outcomes.
- **Employment location**– Those employed in London are 9% more likely to earn £25,000 or above.

**Factors found to be significant in predicting likelihood of being in graduate roles six months after graduation;**

- **Degree class** – Those with a first class degree are the most likely to be employed in graduate roles. Those who gain an upper second or lower second are 8% and 16% less likely to be in graduate employment compared to those who gain a first. As expected, degree class appears to have the largest impact on graduate employment.

Our results show that the rank of university is an important indicator - those who gain an upper second from a high rank institution are more likely to be in graduate employment compared to those who gain a first from a medium or lower rank institution.

- **Gender** – Women are 8% less likely to be in graduate employment.
- **Ethnicity** – Asian and Black graduates are less likely to be in graduate employment compared to White graduates.



- **Socio-economic status** – Those with parents who work in intermediate or routine / manual occupations are less likely to be in graduate based employment compared to those who have parents working in higher and managerial professions.
- **Entry qualification** – Graduates who enter with A levels are the most likely to be in graduate based employment. Those who entered university with vocational qualifications, such as BTECs, are 6% less likely to be in graduate based employment.
- **Placement year** – Those who do a placement as part of their degree are 16% more likely to be in graduate employment. Again, this highlights the influence completing a placement can have on outcomes six months after graduation.
- **Employment location**– Those employed in London are marginally (1%) less likely to be employed in graduate roles when controlling for other factors. This could reflect the competitive nature of graduate employment in London.

## Conclusion

It is clear, based on the results of this analysis and other academic literature, that not all students receive the same outcomes associated with gaining a degree. There are differences by gender, socio-economic status and ethnicity.

Londoners who leave London for university experience better employment-based outcomes than those who remain in the capital to study. More work should be done to understand why this occurs, especially when prior attainment and subject of study have been taken into consideration.

Our analysis found no statistical difference in the likelihood of being in work or further study between White and Black graduates. However, we do find that Black graduates are less likely to gain a first class degree, less likely to be in graduate employment and less likely to be earning £25,000 or above compared to White Graduates. Graduates from an Asian background are less likely to get a first class degree, less likely to be in employment and less likely to be in a graduate role compared to White graduates.

The analysis shows that students who enter with vocational qualifications achieve slightly worse outcomes than those who enter with academic qualifications. This research supports the argument that more needs to be done to support this group during their time at university to reduce the inequality of outcomes.

Some characteristics are associated with better outcomes – such as undertaking a placement; however, our analysis finds that placement degrees are more popular amongst certain groups of students and at certain institutions. More research is needed to understand the barriers to these opportunities for BAME students and those from lower socio-economic backgrounds who appear less likely to undertake these work experience placements when controlling for subject of study.

This work focuses purely on outcomes six months after graduation and therefore does not provide a full picture on how graduates fare over their life course.

## CHAPTER 1 - INTRODUCTION

The current debate in higher education is focusing on employment outcomes and value for money. This means that the government is increasingly aware of how universities support their students to gain employment.

### Why focus on outcomes?

Much of the discussion related to higher education policy has often focused on widening access and participation for underrepresented groups. However, very little is known about the extent to which the outcomes vary by student characteristic – particularly on a local level.

When focusing on outcomes, graduates from London have the lowest employment rate one, three, five and ten-years post-graduation.<sup>1</sup> For graduates from London who are in employment the picture is more positive with average wages considerably higher than in other regions. The headline data also shows that graduates from BAME backgrounds are less likely to be in sustained employment or further studies (or both) compared to White students.<sup>2</sup> However, there is very little evidence on the employment status or earnings of London-domiciled graduates by student characteristic, such as ethnicity or socio-economic status.

### This research

This research seeks to help fill the evidence gap and looks at how the outcomes of graduates who have studied in London and those from London vary by a range of different characteristics.

This research will address the following questions:

- What are the demographics of those who study in London?
- How do the outcomes of Londoners vary by location of study?
- To what extent do graduate characteristics such as socio-economic status and ethnicity interact with outcomes?

### Methodology

This research uses a range of methods to gain insight into the outcomes of graduates who were domiciled in London prior to university and those who studied at a London institution. In particular, we:

- Undertook a literature review of academic, government and policy papers on degree outcomes and the factors that interact with these.
- Conducted descriptive analysis of data provided by the Higher Education Statistics Agency (HESA). The data includes young first degree students studying at a Higher Education Institution within London and students domiciled in London prior to university who study outside of the capital. The data includes four cohorts from the academic years 2010/11 to 2013/14.

- Following the descriptive analysis, we ran a series of logit regression models to look further into how different characteristics influence graduate outcomes when controlling for other variables.

Throughout the analysis we focus on four outcomes, these are:

- Degree classification
- Employment status (6 months post-graduation)
- Earnings (of those in full-time paid work, 6 months post-graduation)
- Occupation classification (6 months post-graduation)

### Report structure

- **Chapter 2** - outlines the demographics of those in the sample.
- **Chapter 3** - focuses on how outcomes vary amongst the student population.
- **Chapter 4** - focuses on students who undertake formal work experience as part of their degree.
- **Chapter 5** - looks at how outcomes vary across two subjects.
- **Chapter 6** - details the results of the statistical regression analysis conducted as part of this research. This enables more thorough conclusions to be made on the importance of different characteristics on the outcome variables.
- **Chapter 7** - summarises the findings.

## CHAPTER 2 - WHO STUDIES IN LONDON AND WHERE DO LONDONERS STUDY?

The majority of our sample (72%) were domiciled in London prior to university. The next largest group of graduates were from the South East of England. In our sample, just over four in ten (43%) Londoners<sup>i</sup> stay in London to study. This is similar to levels seen in other parts of the country.

The graduates within the analysis are split into three categories based on their domicile and study location. We have:

- Graduates who were domiciled in London prior to university but left London to study – *Londoners elsewhere; 43% of sample*
- Graduates who were domiciled in London prior to university and stayed for study – *Londoners in London; 29% of sample*
- Graduates who were domiciled elsewhere in the UK prior to university and who came to London to study – *Non-Londoners studying in London; 28% of sample*

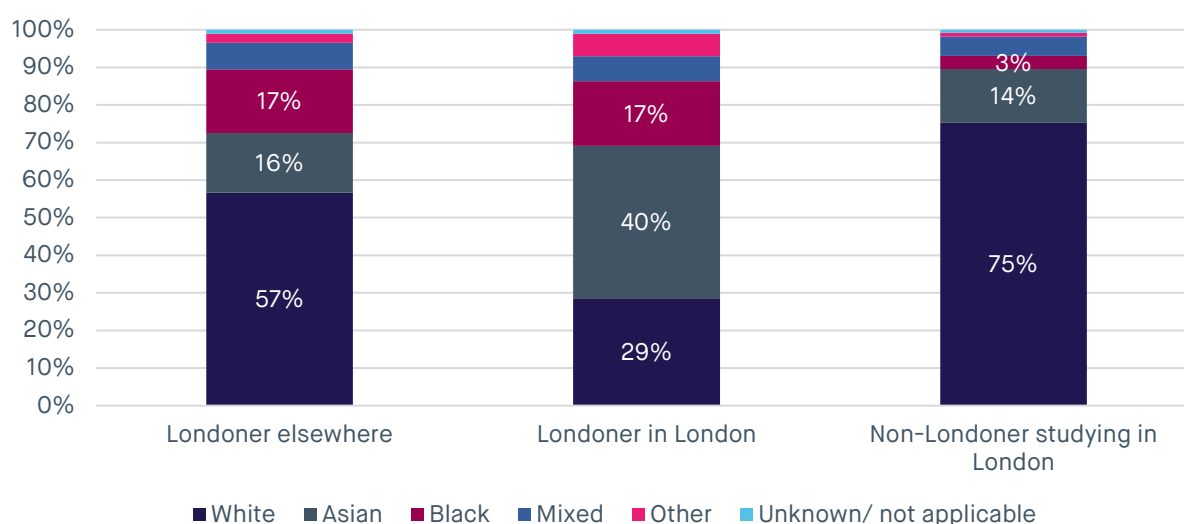
What are the demographics of each group?

Previous SMF research and academic literature has shown that student characteristics are often associated with different graduate outcomes. Therefore, it is important to understand the characteristics of each group if we are to assess how their outcomes vary.

### Ethnicity

There are significant differences in the ethnicity breakdown of each of the location-based groups within our analysis. As Figure 1 shows those from elsewhere in the UK who come to study in London are predominately White (75%).

**Figure 1: Graduates in sample by ethnicity and location segmentation**



Source: SMF analysis of HESA data

<sup>i</sup> Londoners will be used to describe students domiciled in London prior to university entry.

There is a visible difference between Londoners who leave London to study and those who stay. Six in ten of the Londoners who study elsewhere are White – the proportion is halved for Londoners who stay (three in ten). The opposite pattern is true for Asian graduates – four in ten of the Londoners who stayed in London were Asian, compared to only 16% of those who left the capital.

Another way to look at this is the proportion of Londoners within each ethnicity group who remain in or leave the capital for HE. White Londoners are the most likely to leave, with three quarters attending university outside of the capital. Almost six in ten Black Londoners leave London to attend university. The story is very different for Asian Londoners who are the most likely to remain in the capital, just over a third of Asian Londoners leave London for university.

Those who come from elsewhere to London are more representative of the entire student population. Across the entire undergraduate population in the UK, 74% of students are White, 11% are Asian and 7% are Black.<sup>3</sup>

### Socio-economic status

It is not only ethnicity where there are differences in the demographics of students by location segmentation. Six in ten Londoners who left London to study or those from elsewhere came to study in London have parents who work in higher or managerial occupations, compared to only four in ten for Londoners who remain in London.

**Figure 2: Graduates in sample by parental socio-economic classification and location segmentation**



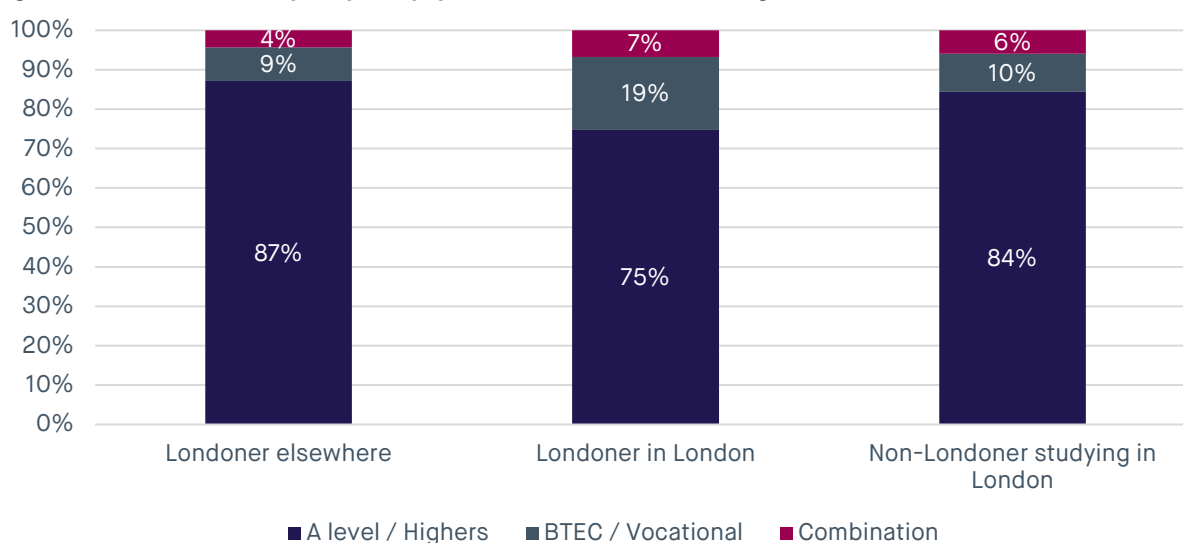
Source: SMF analysis of HESA data

Alongside information on parental occupations, the data allow us to explore whether someone attended a state or private school prior to university entry. Almost a quarter (23%) of Londoners who left London to study were privately educated and just over one in seven (15%) of those from elsewhere who came to London to study were privately educated – across the UK only 10% of students in HE attended private schools.<sup>4</sup> Less than one in ten (8%) of Londoners who stay in London for university were privately educated.

## Entry qualifications

Previous SMF research has found that BAME students and those from lower socio-economic backgrounds are more likely to enter university with vocational qualifications.<sup>5</sup> Therefore, based on the analysis above it is to be expected that students from London who stay in London to study would be the most likely to have entered university with vocational qualifications at level three. We can see from Figure 3 that those from London who stay in London for university are twice as likely to have entered with a BTEC or other vocational qualification compared to students from London who left the capital to study and those who come to London from elsewhere in the UK.

**Figure 3: Graduates in sample by entry qualifications and location segmentation**



Source: SMF analysis of HESA data

The proportion of graduates entering with each of the qualification types also varies by ethnicity and location. Across all ethnicity profiles Londoners in London were the most likely to have entered with a BTEC although there are stark differences between ethnicities. Three in ten (31%) of Black Graduates from London who studied in London entered with a BTEC compared to only 15% of White and Asian graduates.

Based on the analysis above it is clear that each of these groups are different, and this is important to consider when focusing on graduate outcomes. In recent years BTEC qualifications have undergone a range of changes, including the introduction of external assessment in 2016.<sup>6</sup> The graduates in our sample will have gone through the education system prior to these changes and this could alter the results.

## Which subjects do they study and where?

Not only do the location segments have different ethnic and socio-economic profiles but there are differences in the institutions attended and subjects studied.

## Subjects studied

The type of subjects studied varies by a range of characteristics including location segment, ethnicity and entry qualification. The following analysis relates to groups of subjects rather than specific courses.

## Location segmentation

There are differences in the proportion of students graduating from different subject groups by location. More than one fifth (22%) of those from elsewhere in the UK who come to London to study graduated with a degree in creative arts and design – this compares to only 11% of those from London who stay and 9% of those from London who leave.

**Figure 4: Top five subject groups by location segmentation**

Londoner elsewhere	Londoner in London	Non-Londoner studying in London
<ul style="list-style-type: none"> <li>• Social studies (14%)</li> <li>• Business &amp; administrative studies (12%)</li> <li>• Biological sciences (11%)</li> <li>• Languages (10%)</li> <li>• Creative arts &amp; design (9%)</li> </ul>	<ul style="list-style-type: none"> <li>• Business &amp; administrative studies (16%)</li> <li>• Biological sciences (12%)</li> <li>• Social studies (11%)</li> <li>• Creative arts &amp; design (11%)</li> <li>• Computer science (8%)</li> </ul>	<ul style="list-style-type: none"> <li>• Creative arts &amp; design (22%)</li> <li>• Biological sciences (9%)</li> <li>• Social studies (9%)</li> <li>• Business &amp; administrative studies (9%)</li> <li>• Languages (8%)</li> </ul>

## Gender

There are likely to be differences in the types of subject groups studied by gender. Previous work by the SMF has highlighted how men and women study different subjects at university.<sup>7</sup> The top subject group does not vary substantially by gender.

**Table 1: Top subject by gender and location segmentation**

	Londoner elsewhere	Londoner in London	Non-Londoner studying in London
Female	Social Studies	Business and administrative studies & Biological sciences	Creative arts & design
Male	Social Studies & Business and administrative studies	Business and administrative studies	Creative arts & design

Source: SMF analysis of HESA data

## Ethnicity

When controlling for ethnicity and location segmentation there are differences in subject of degree.

**Table 2: Top subject by ethnicity and location segmentation**

	Londoner elsewhere	Londoner in London	Non-Londoner studying in London
White & Mixed	Social Studies	Creative arts & design	Creative arts & design
Asian	Business and administrative studies	Business and administrative studies	Business and administrative studies
Black	Business and administrative studies	Business and administrative studies	Business and administrative studies

Source: SMF analysis of HESA data

For Black and Asian graduates, the location segmentation does not affect the results, the most common degree is business and administration.

### Socio-economic status

There is only a difference in the most studied degree subject group by socio-economic background amongst Londoners who leave London to study. Londoners who leave London and whose parents work in routine occupations are most like to study subjects in the business and administration group.

**Table 3: Top subject by parental occupation and location segmentation**

	Londoner elsewhere	Londoner in London	Non-Londoner studying in London
Higher & managerial	Social Studies	Business and administrative studies	Creative arts & design
Intermediate	Social Studies	Business and administrative studies	Creative arts & design
Routine	Business and administrative studies	Business and administrative studies	Creative arts & design

Source: SMF analysis of HESA data

### Entry qualification

Students who undertook A levels or purely academic qualifications at level three follow the exact same pattern by location category as graduates whose parents work in higher or managerial or intermediate occupations. The main difference is graduates who were from London but left to attend university who entered with a BTEC or a combination of qualifications are more likely to have graduated in a subject aligned to business and administration.

**Table 4: Table 3: Top subject by qualification held at level 3 and location segmentation**

	Londoner elsewhere	Londoner in London	Non-Londoner studying in London
A levels / academic qualification	Social Studies	Business and administrative studies	Creative arts & design
BTEC / vocational qualification	Business and administrative studies	Business and administrative studies	Creative arts & design
Combination	Business and administrative studies	Business and administrative studies	Creative arts & design

Source: SMF analysis of HESA data



## Rank of institution

Outcomes are associated with the university attended and therefore it is important to understand the extent to which the rank of university attended varies by location and characteristics of the graduates within the sample.<sup>ii</sup> The universities have been divided into four categories based on their ranking in the Complete University Guide – the categories are high rank, medium rank, low rank and specialist institution.

## Location segment

Graduates who were from London but left the capital to attend university are significantly more likely to attend a high ranking university compared to the other two location groups. This could be a contributing factor to any differences in outcomes observed later in this research.

Figure 5: Rank of university by location segment



Source: SMF analysis of HESA data

Londoners who leave London study in a variety of different regions of the country – however they predominately attend institutions in the neighbouring South East and the East of England. They are unlikely to attend university in Scotland, Northern Ireland or Wales. Previously we highlighted the dominance of creative arts and design courses amongst non-Londoners studying in London – for those who attend high rank institutions it is not the most common subject of study. Almost, one sixth (15%) of those from elsewhere studying in London study languages, the second most common group of subjects is social studies (13%).

## Ethnicity

- More than 64% of White graduates from London who studied outside of London attended a high ranked university – compared to 22% of White Londoners who stay in London.

<sup>ii</sup> Ranking based on university rank in the complete university guide as of February 2020. These have been divided into three groups of 'high', 'medium' and 'low'.

- A similar pattern emerges for Asian graduates – 58% of Asian Londoners who left attended a highly ranked university, compared to 26% of Asian Londoners who stayed.
- 34% of Black Londoners who left London for HE attended a high rank institution; this drops to 10% when focusing on Black Londoners who stay in the capital.

#### **Socio-economic status**

- 65% of Londoners from higher socio-economic background who left to study attend a high rank institution compared to 41% of Londoners who left who are from lower socio-economic backgrounds.
- On average one fifth (21%) of Londoners in London attend high rank institutions – this rises to 30% for graduates from higher socio-economic backgrounds and falls to 16% for those from lower socio-economic backgrounds.

#### **Entry qualification**

- For Londoners who left the capital to attend university those with A levels are four times more likely to attend a high rank institution compared to those with vocational qualifications (62% v. 15%).
- Only 2% of those who obtained their degree in London (Londoners or those from elsewhere) and who entered with a BTEC or vocational qualification attend high rank institutions. More than half attend low rank universities and the remaining attend medium rank or specialist institutions.

## CHAPTER 3 - HOW DO OUTCOMES VARY?

In this chapter of the report we focus on how outcomes six months after graduation vary dependent upon a range of student characteristics, including ethnicity, gender and socio-economic status. Throughout this analysis we focus on four core outcomes, these are;

- Degree classification
- Employment status
- Full time earnings
- Occupation classification

### Outcome 1 - Degree classification

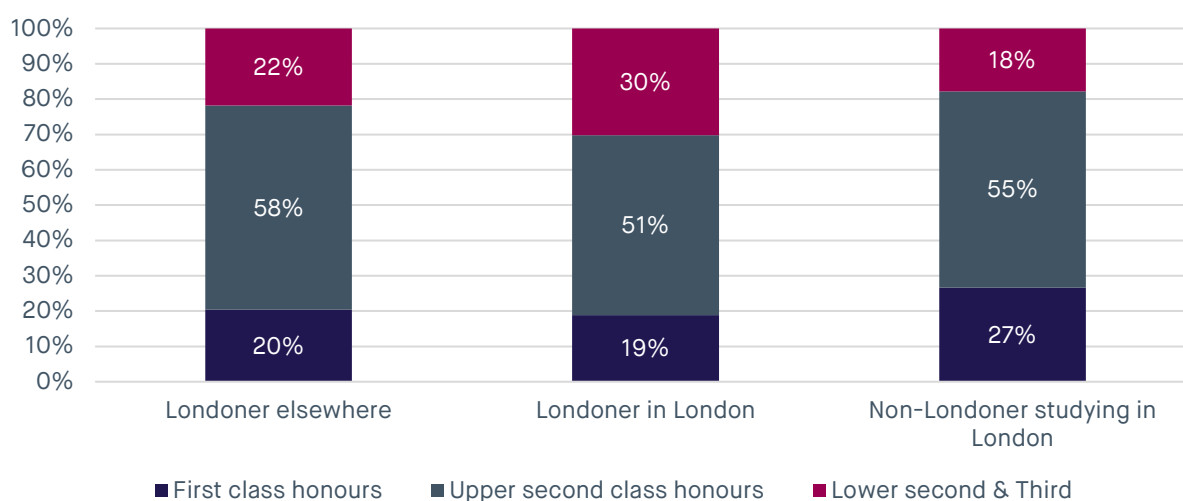
Degree classification is an important factor in understanding how graduates are likely to perform in the labour market. There has been a substantial increase in the proportion of students obtaining first class degrees in recent years – rising from 8% in 1996/97 to 28% in 2017/18.<sup>8</sup> There are a range of reasons put forward to for this including degree algorithms, pressure to award higher grades and improvements in teacher quality.<sup>9</sup>

Recent evidence has found that the returns to a first class degree relative to an upper second has fallen in the last two decades, however the return to an upper second relative to a lower second or below has increased. This means it is increasingly important to be achieving an upper second or first class degree.<sup>10</sup>

### Location segmentation

There are visible differences in the proportion of graduates who obtain a first or upper second degree by location group. More than three quarters of Londoners who leave London to study and those from elsewhere who come to the capital to study obtain an upper second or first (78% and 82% respectively). This is very similar to the national average of 76%.<sup>11</sup> The figure is 70% for Londoners who stay within the capital – with 19% receiving a first class degree.

**Figure 6: Degree classification by location segmentation**



Source: SMF analysis of HESA data

## Gender

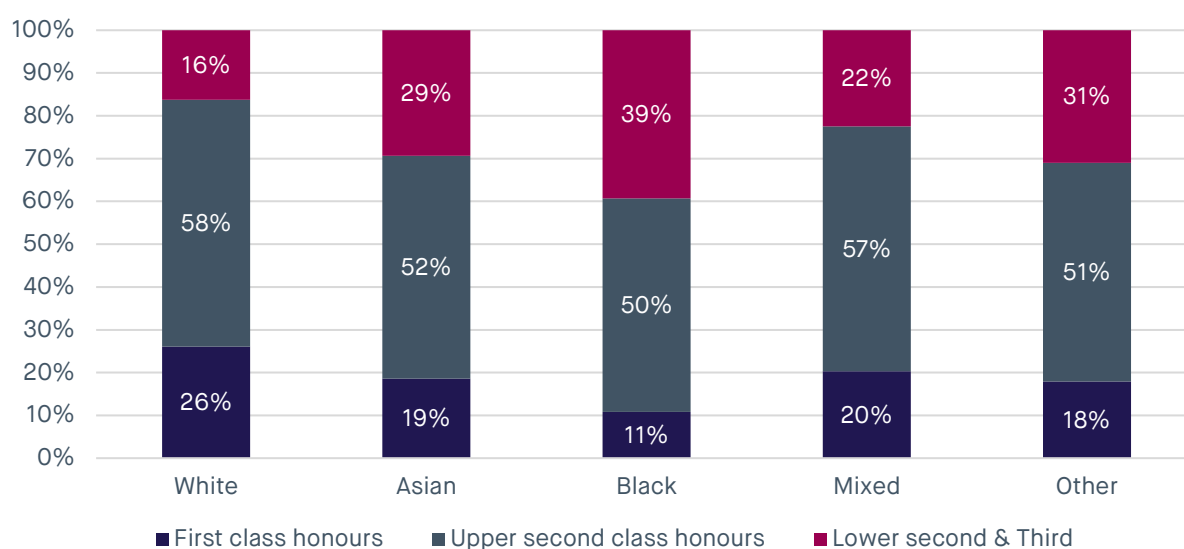
Not only are women more likely to enter higher education – they are more likely to gain a first or upper second class degree.<sup>12</sup> This is supported by our research, where we find 76% of women obtaining a first or upper second compared to 72% of men.

## Ethnicity

The existence of degree attainment gaps by ethnicity is well-documented. Data produced by the Office for Students demonstrates these disparities; their research finds that only 60.4% of Black graduates obtain a first or upper second class degree, compared to 82.2% of White graduates and 71.2% for Asian graduates.

The analysis produced for this report finds very similar results. The analysis finds a 23 percentage point gap between the proportion of White and Black graduates obtaining a first or upper second class degree (84% and 61% respectively). The analysis finds that one third of Black graduates obtain a lower second class degree.

**Figure 7: Degree classification by ethnicity**



Source: SMF analysis of HESA data

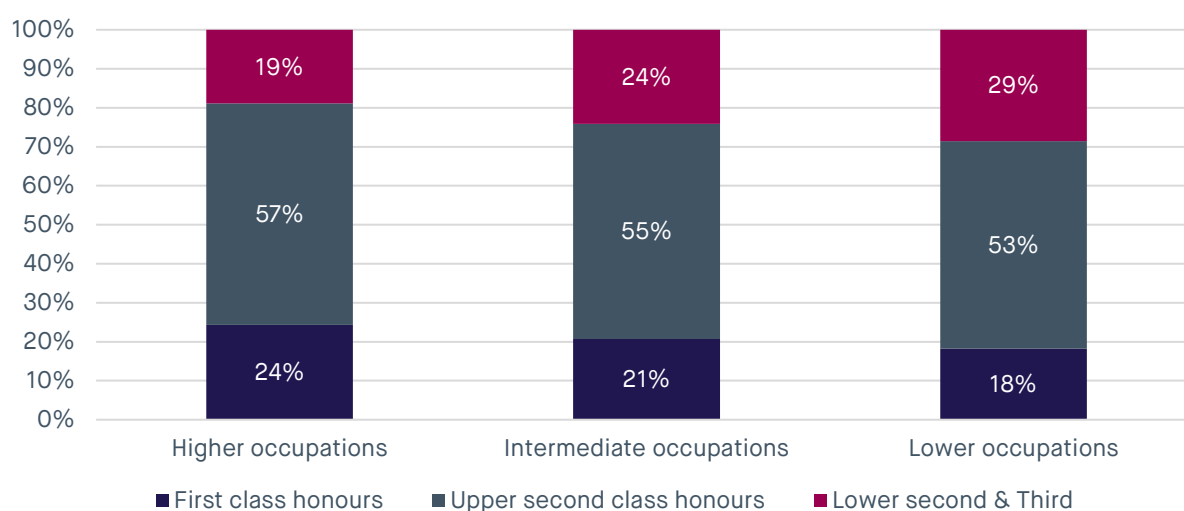
The Office for Students have conducted analysis to attempt to explain some of the difference seen by ethnicity, by looking at factors such as entry qualification and prior attainment. This work helped to explain some of the gap but there are still unexplained differences.<sup>13</sup>

## Socio-economic status

Evidence suggests that socio-economic factors are also of influence when focusing on degree classification.<sup>14</sup> Figure 8 shows the difference by socio-economic background at a headline level. There is a 10 percentage point gap in the proportion of graduates gaining a first or upper second for those whose parents work in higher or managerial occupations compared to those from routine backgrounds. Three in ten graduates from lower socio-economic backgrounds graduate with a lower second or third, compared to a quarter of

those from intermediate backgrounds and less than two in ten of those from higher socio-economic groups.

**Figure 8: Degree classification by parental NSSEC**



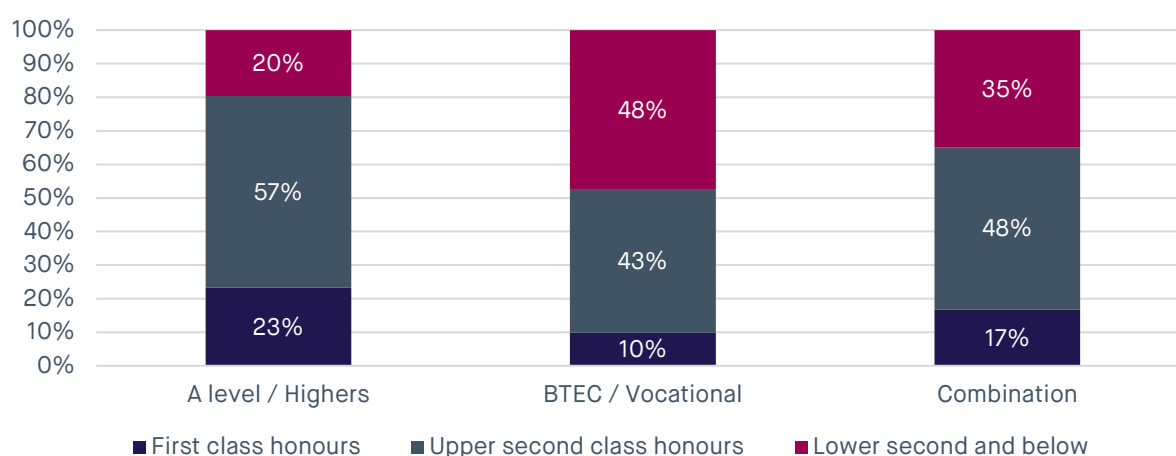
Source: SMF analysis of HESA data

It is important to understand the extent to which the differences in socio-economic background reflect other factors such as university, subject and entry attainment / qualifications. Research has shown that there are clear differences in the likelihood of obtaining a first or an upper second class degree by socio-economic status – some of the difference can be explained by differences in knowledge and social attributes upon entry to university but even once controlling for this gaps in attainment remain.<sup>15</sup> The research literature goes on to compare individuals on the same course and still finds that students from the highest socio-economic quintile are 3.7 percentage points more likely to graduate with a first or upper second compared to those from the lowest socio-economic quintile.<sup>16</sup>

### Entry qualification

There is a clear relationship between entry qualification and degree class. Research by the Office for Students shows that 71% of students who enter university with the top BTEC result of D\*D\*D\* obtain a first or upper second, compared to 95% for those entering with A\*A\*A\* and 67% of those entering with grades below CCD.<sup>17</sup> The research conducted for this project looks only at the level three qualification held upon entry.

Eight in ten of those who enter with A levels in our sample receive a first or upper class second – this is significantly higher than the figure for those with BTECs. Just over half (53%) of those who enter with a BTEC or other vocational qualification obtain a first or upper second. This figure is lower than expected when looking at national figures above and therefore something could be occurring within the sample of Londoners and those who study in London. As previously mentioned, the graduates in this sample will have gained their BTEC qualifications prior to several changes with the qualifications. This could be a contributing factor to the differences we see between our sample and the national figure.

**Figure 9: Degree classification by entry qualification**

Source: SMF analysis of HESA data

### Summary of degree classification analysis

#### Location segmentation

- More than three quarters of Londoners who leave London to study and those from elsewhere who come to the capital to study obtain an upper second or first.
- The figure is 70% for Londoners who stay within the capital – with 19% receiving a first class degree.

#### Gender

- Women are more likely to gain a first class degree - we find 76% of women obtaining a first or upper second compared to 72% of men.

#### Ethnicity

- The analysis finds a 23 percentage point gap between the proportion of White and Black graduates obtaining a first or upper second class degree (84% and 61% respectively).
- The results suggest that one third of Black graduates obtain a lower second class degree.

#### Socio-economic status

- Three in ten graduates from lower socio-economic backgrounds graduate with a lower second or third, compared to a quarter of those from intermediate backgrounds and less than two in ten of those from higher socio-economic groups.

#### Entry qualification

- Eight in ten of those who enter with A levels in our sample receive a first or upper class second – this is significantly higher than the figure for those with BTECs.
- Just over half (53%) of those who enter with a BTEC or other vocational qualification obtain a first or upper second.

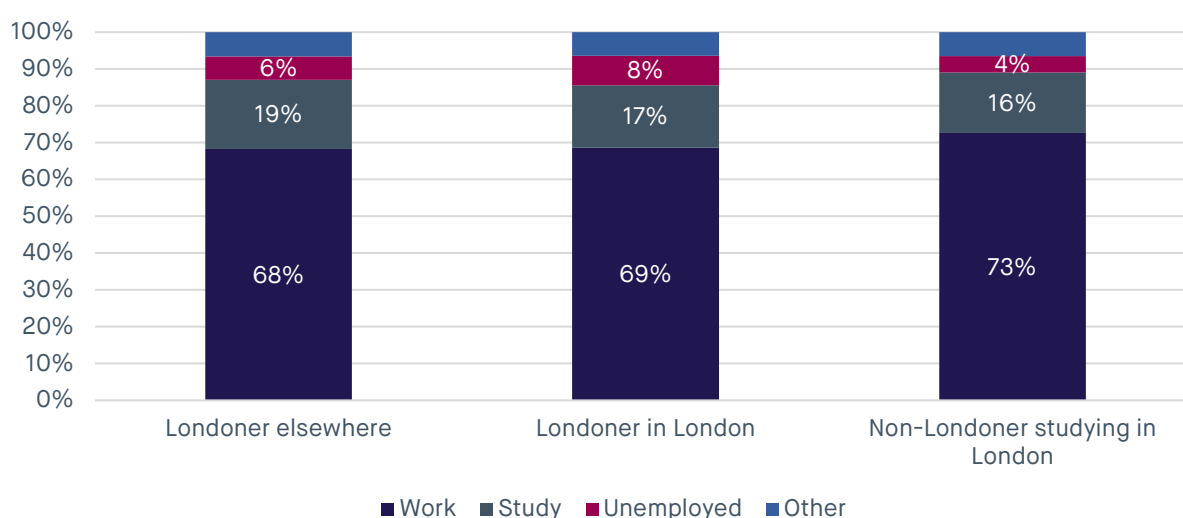
## Outcome 2 - Employment status

The second outcome of interest for this project is employment status. This is monitored six months after graduation.

### Location segment

The analysis shown in Figure 10 demonstrates that there is very little difference in the employment status of Londoners, regardless of whether they left the city to study. The analysis shows that those from elsewhere who come to London to study are the most likely to be in employment. This is consistent with government analysis which shows that graduates from London are the least likely of all English regions to be in employment or further study one, three, five and ten years after graduation.<sup>18</sup>

**Figure 10: Employment status by location segmentation**



Source: SMF analysis of HESA data

The headline figures for in 'work' hide some of the differences that are occurring amongst Londoners. Our analysis finds that of those in employment 77% of Londoners who left London to study are employed full-time, this compares to 69% of Londoners who stayed in London.

### What are they studying?

Further study is a broad category and covers a variety of different courses from higher degree courses, such as an MPhil or MSc, to a career orientated course such as a Postgraduate certification of education (PGCE). There are some differences in the courses being studied based on the location segmentation of graduates. Londoners who stayed in the capital are more likely to be doing a postgraduate diploma or certification or professional qualifications compared to higher degree courses.

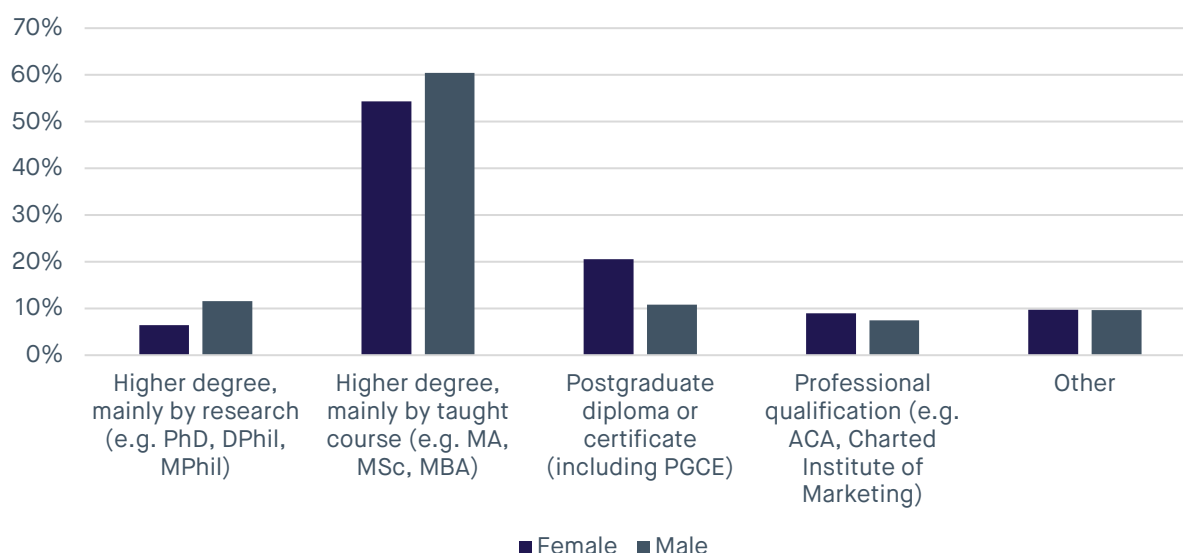
### Gender

There are differences in the likelihood of employment by gender, 71% of female graduates are in work six months post-graduation, compared to 68% of male graduates. A very similar proportion are in further study and men are slightly more likely to be classified as unemployed.

### What are they studying?

Differences also persist when looking at the course studied after graduation. Women are twice as likely as men to be studying a postgraduate diploma or certification, this likely reflects the number of women who go into teaching compared to men. Due to the numbers studying PGCEs or similar, women are less likely to be studying higher degrees.

**Figure 11: Qualification of further study by gender**



Source: SMF analysis of HESA data

### Ethnicity

The employment rate of graduates has been shown to vary by ethnicity. Research by the Office for Students shows that White graduates are more likely to be in skilled employment or further study compared to other ethnicities.<sup>19</sup> Our analysis finds a similar pattern – however we see no difference in the employment rate of White and Black graduates. However, there are difference in the pattern of employment, 80% of White graduates in employment are employed full-time compared to 70% of employed Black graduates.

### What are they studying?

There are clear differences in the types of courses being studied by ethnicity. Two thirds (66%) of Black postgraduate students are studying a taught higher degree course, this compares to 55% of White postgraduate students.

There are major differences in the proportion of postgraduates taking research-based higher degree courses by ethnicity. Only 3% of Black postgraduates study these courses compared to 11% of White graduates. These types of courses are often a direct route into a PhD and taught at prestigious universities.

### Socio-economic status

There are very marginal differences in the employment rate by socio-economic status. For graduates whose parents worked in higher or managerial professions the employment rate was 69%, this compares to 71% for those parents worked in routine or manual occupations. The main difference is visible in the proportion in further study; almost one



in five (19%) of those from higher socio-economic backgrounds are in further study compared to 16% of those from lower socio-economic backgrounds.

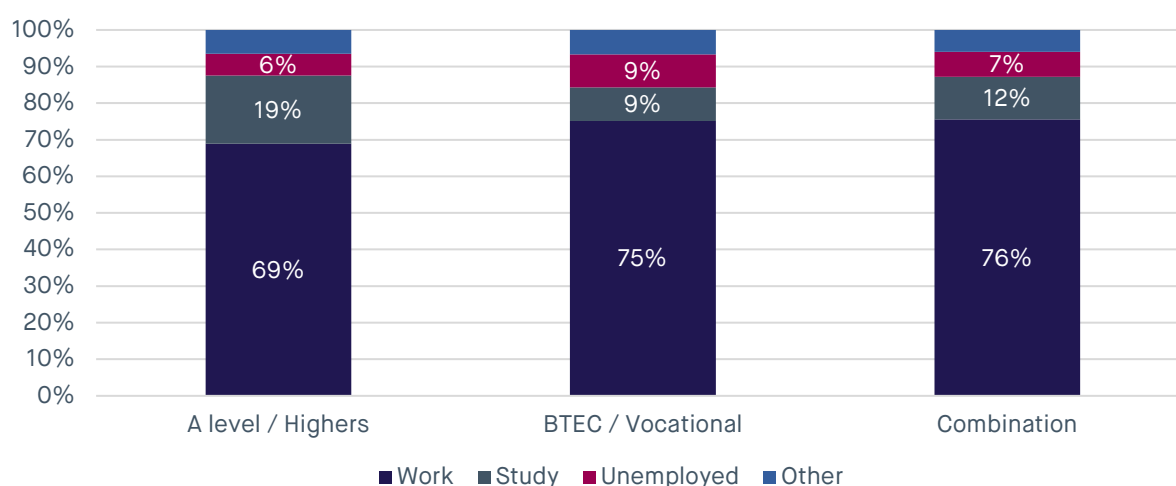
### What are they studying?

There are no major differences in the types of course studied by socio-economic status. Postgraduate students whose parents work in routine or semi-routine occupations are marginally more likely to be studying a postgraduate diploma or certificate and less likely to do completing a research based higher degree course compared to their more advantaged counterparts.

### Entry qualification

Research has shown that entry qualification has an impact on a range of education based outcomes such a course retention and class of degree. Evidence from the Department for Education demonstrates the differences in employment status based on qualification upon entry. One year after graduation those with BTEC qualifications are more likely to be in sustained employment or further study compared to those with the lowest of A level grades (one or two A level passes) but less likely to be in employment compared to A level students who receive grades “below 240 points” or above.<sup>20</sup>

**Figure 12: Employment status by entry qualification**



Source: SMF analysis of HESA data

In comparison, our analysis finds that those with BTECs or a combination of academic and vocational qualification are more likely to be in employment six months post-graduation compared to those with only academic qualifications. However, this is likely due to differences in the likelihood of going onto further study by qualification type. Less than one in ten (9%) of those with BTECs or vocational qualifications went onto further study compared to one in five (19%) of graduates with A levels upon entry. Those with BTECs are also more likely to be defined as unemployed compared to those with A levels or a combination.

### What are they studying?

There are differences in the type of postgraduate course being taken by entry qualification. Those who enter with vocational or a combination of qualification are unlikely to go on to study research-based higher degrees. This difference is matched by

their increased likelihood of studying taught higher degrees. Those with BTECs are more likely to be doing “other” study. This includes first degrees – either another bachelors degree or four year degree such as a Masters of Engineering (MEng).

### Summary of employment status analysis

#### Location segmentation

- There is very little difference in the employment status of Londoners, regardless of whether they left the city to study.
- Those from elsewhere who come to London to study are the most likely to be in employment.

#### Gender

- There are differences in the likelihood of employment by gender, 71% of female graduates are in work six months post-graduation, compared to 68% of men.

#### Ethnicity

- We see no difference in the employment rate of White and Black graduates in our sample.
- However, there are difference in the pattern of employment, 80% of White graduates in employment are employed full-time compared to 70% of employed Black graduates.

#### Socio-economic status

- There are very marginal differences in the employment rate within the analysis by socio-economic status.

#### Entry qualification

- Analysis finds that those with BTECs or a combination of academic and vocational qualification are more likely to be in employment six months post-graduation compared to those with only academic qualifications.
- However, graduates with BTECs upon entry were almost more likely to be classified as unemployed compared to those with A levels or a combination of qualifications.
- Less than one in ten (9%) of those with BTECs or vocational qualifications went onto further study compared to one in five (19%) of graduates with A levels upon entry.

### Outcome 3 – Full time earnings

The third outcome of interest is earnings from those in full time employment, again monitored six months post-graduation. The sample includes only those in full-time work. The government is focusing heavily on the agenda of value for money in the higher education sector – which rightly or wrongly is often seen through the lens of graduate earnings.

Research by the Institute for Fiscal Studies found that on average those with a higher education degree earn more than those without one – for instance, at age 29 the average man who attended HE earns around 25% more than the average man (with five A\*-C GCSEs) who did not. For women the gap is more than 50%.<sup>21</sup> Much of this wage premium is associated with underlying characteristics, such as prior attainment and socio-economic background. Once other characteristics have been accounted, they estimate the average impact of attending HE on earnings at age 29 to be 26% for women and 6% for men.<sup>22</sup> However, not all graduates benefit from the same earnings premium associated with higher education.

The IFS research shows that earnings are heavily dependent upon degree subject and institutional choice. Therefore, graduate earnings are likely to vary by a range of characteristics. This report does not focus on the returns to different degree courses but simply the difference in earnings experienced between the groups within our population.

#### Location segmentation

Our three location groups are different in terms of their socio-economic and ethnic profiles and therefore based on other evidence we may expect their earnings to be different too. However, the differences between them are marginal. Four in ten Londoners (40%) who stay in London to study earn under £20,000 per annum – the figure is the same for those who come to London from elsewhere. A marginally smaller proportion (38%) of Londoners who go elsewhere to study earn less than £20,000. Londoners who left London to study are more likely to be earning between £20,000 to £25,000 compared to the other two groups.

#### Gender

Evidence of differential pay between men and women is apparent from a young age and the same is true for those with university degrees. Department for Education data shows just one year after graduation the median annual earnings for women stand at £19,300. This is £1,600 lower than for men (£20,900 median annual earnings).<sup>23</sup> This gap continues to expand as graduates move through their careers.

Our analysis, shown in Figure 13, demonstrates a clear difference in the full time earnings profile of male and female graduates six months after graduation.

**Figure 13: Earnings by gender, six months after graduation and in full time employment**

Source: SMF analysis of HESA data

More than four in ten (44%) female graduates earn less than £20,000 per annum – this compares to a third of men (33%). If we focus on those earning between £25,000 to £34,999 there is a clear gender difference. Three in ten men have full time earnings in this bracket compared to only 22% of women.

It is important to understand whether these differences are simply related to the decisions of individuals or whether they speak to larger gender-based disparities within the economy.

### Ethnicity

Black graduates in our sample earn less than White, Asian and Mixed graduates. The difference is most stark between Black graduates and Asian graduates. One quarter (25%) of Black graduates earn above £25,000. This is thirteen percentage points lower than the proportion of Asian graduates earning this much (38%). The figure for White graduates falls almost in the middle at 30%.

**Figure 14: Earnings by ethnicity, six months after graduation and in full time employment**

Source: SMF analysis of HESA data

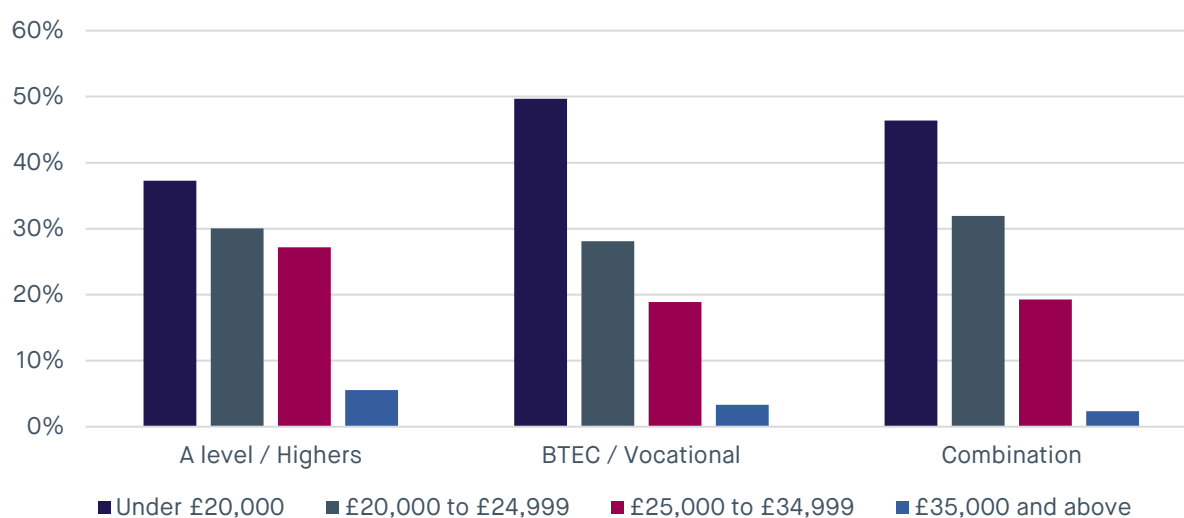
## Socio-economic status

As is the case with the other outcomes monitored as part of this project, earnings are correlated with socio-economic status. Just over a quarter (27%) of graduates whose parents work in routine or semi-routine occupations earn more than £25,000 per annum. This compares to over a third (34%) for those whose parents worked in professional or managerial occupations.

## Entry qualification

Previous research has shown that graduates who entered university with a BTEC degree are likely to earn less than those who enter with academic qualifications, such as A levels.<sup>24</sup> This is reinforced by our findings.

**Figure 15: Earnings by qualification upon entry, six months after graduation and in full time employment**



Source: SMF analysis of HESA data

More than three quarters (78%) graduates who enter university with a vocational qualification earn under £25,000 per annum – this compares to 67% of those who enter with academic qualifications. What is unclear from this analysis is whether the BTEC earnings are being driven by other underlying characteristics. We know that students who study BTECs or other vocational qualifications are more likely to be from lower socio-economic or BAME backgrounds.

### Summary of full time earning analysis

#### Location segment

- There is little difference in the earnings of graduates based on the location segmentation.

#### Gender

- More than four in ten (44%) female graduates earn less than £20,000 per annum – this compares to a third of men (33%).

#### Ethnicity

- Black graduates in our sample earn less than White, Asian and Mixed graduates.
- One quarter (25%) of Black graduates earn above £25,000. This is thirteen percentage points lower than the proportion of Asian graduates earning this much (38%).

#### Socio-economic status

- Just over a quarter (27%) of graduates whose parents work in routine or semi-routine occupations earn more than £25,000 per annum. This compares to over a third (34%) for those with parents who work in professional or managerial occupations.

#### Entry qualification

- More than three quarters (78%) of graduates who enter university with a vocational qualification earn under £25,000 per annum – this compares to 67% of those who enter with academic qualifications.

## Outcome 4 - Occupational classification / graduate based employment

Whilst employment status and full-time earnings provide a picture of the labour market outcomes of our sample of graduates six months after graduation they do little to tell us about the type of work they are undertaking or the trajectory their career might be on. It is important to consider the extent to which they are in 'graduate roles'.<sup>iii</sup> This analysis includes only those classified as in employment.

### Location segmentation

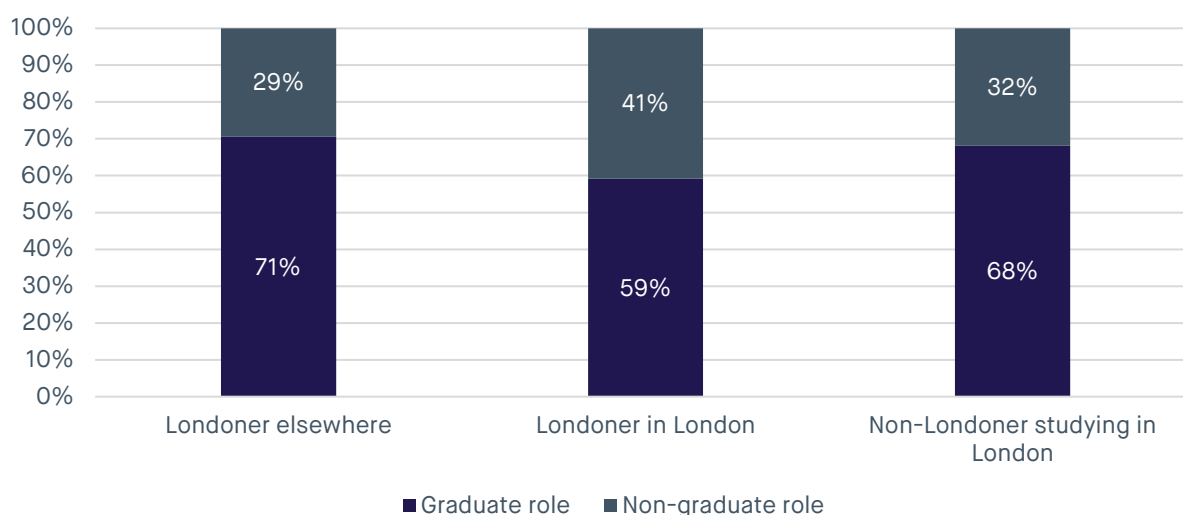
Research by the ONS has shown that almost half of graduates in Outer London are working in roles that do not need a degree, whilst Inner London has the lowest proportion of graduates in non-graduate jobs.<sup>25</sup> It is important to note that this data does not

<sup>iii</sup> Graduate roles have been defined as the first three codes within the standard nine SOC codes. Graduates make up more than 50% of the workforce in these occupations.

differentiate between those brought up in London and those who have moved to London post-graduation.

Our analysis, shown in Figure 16, suggests that Londoners who stay in London for university are the least likely to be in graduate employment. Londoners who remain in London for HE are almost twice as likely as the other two groups to be working in sales and customer services occupations which are not deemed to be graduate roles (18% vs. 10%).

**Figure 16: Whether in graduate employment by location segmentation**



Source: SMF analysis of HESA data

## Gender

The analysis presented earlier found that women were more likely to be in employment six months after graduation, however the overall labour market position is more complex. Women are much less likely to be working in a job deemed to be a graduate role. Just over six in ten (63%) of women are in graduate positions – compared to 72% of men. The main differences are seen within two of the nine occupation classifications. Female graduates are almost twice as likely as male graduates to be working in ‘administrative and secretarial occupations’ and more than twice as likely to be working in ‘caring, leisure and other service occupations’.

Whilst our definition of graduate-based employment is based on evidence, it does not allow for graduate roles to be found within the other occupational classifications. For instance, the ONS has estimated that two of the 25 roles in the ‘administrative and secretarial occupations’ are graduate roles.<sup>26</sup> Therefore, our method could be leading to an overcalculation of the gap between genders.

## Ethnicity

Whilst we may not have seen major differences in the employment rate of graduates by ethnicity – there are differences in the type of employment they are in. All minority ethnic groups are less likely to be working in graduate roles compared to White graduates. Black graduates are the least likely to be in a job that has been defined as a graduate role. There

is a ten percentage point difference between White and Black graduates, with 69% and 59% in graduate-based employment respectively.

The ethnicity gap between White and Asian graduates is smaller at three percentage points, with Asian graduates less likely to be in graduate employment. As we are not able to look beyond high-level ethnic categories of White, Asian, Black, Mixed and Other<sup>iv</sup>, we cannot identify differences within specific Asian backgrounds such as Pakistani and Chinese and could be oversimplifying the ethnicity gap.

The difference between Black and White graduates is greatest when focusing on those who work in Sales and Customer Service Occupations – Black graduates are twice as likely to be employed in this occupation compared to White graduates (17% vs. 9%).

### **How does this vary by gender?**

The outcomes for men and women within ethnic groups is of importance. Literature has shown that Black men can face difficulties when gaining employment after graduation and often suffer a pay penalty.<sup>27</sup> Our analysis finds that Black men are ten percentage points less likely to be in graduate based employment compared to White men (63% vs. 73% respectively). The gap between Black and White women stands at 8 percentage points; only 56% of Black women are in graduate-based employment. Asian men and women are less likely to be in graduate employment compared to their White counterparts, but the gaps are not as pronounced, the gap stands at three percentage points for women and two percentage points for men.

### **Socio-economic status**

Previous research by the SMF found that there are differences in the employment prospects of young people from London based on their socio-economic profile. The analysis found that Londoners from more deprived backgrounds were much less likely to have needed their highest qualification to gain employment.<sup>28</sup>

Seven in ten (71%) graduates whose parents work in higher or managerial occupations were deemed to be in graduate employment compared to 60% of those whose parents work in semi routine or routine occupations.

### **Entry qualification**

Again, differences are visible depending upon the qualification held upon entry to university. Graduates who enter with vocational qualifications, such as BTECs, are the least likely to be in graduate employment. Only 56% of those who entered with vocational qualifications are deemed to be working in graduate roles – compared to 68% for those with A levels or other academic qualifications.

### **How does this vary by ethnicity?**

The gap in the proportion in graduate-based employment between those who held either A levels or BTECS upon entry to university stands at 12 percentage points – however this

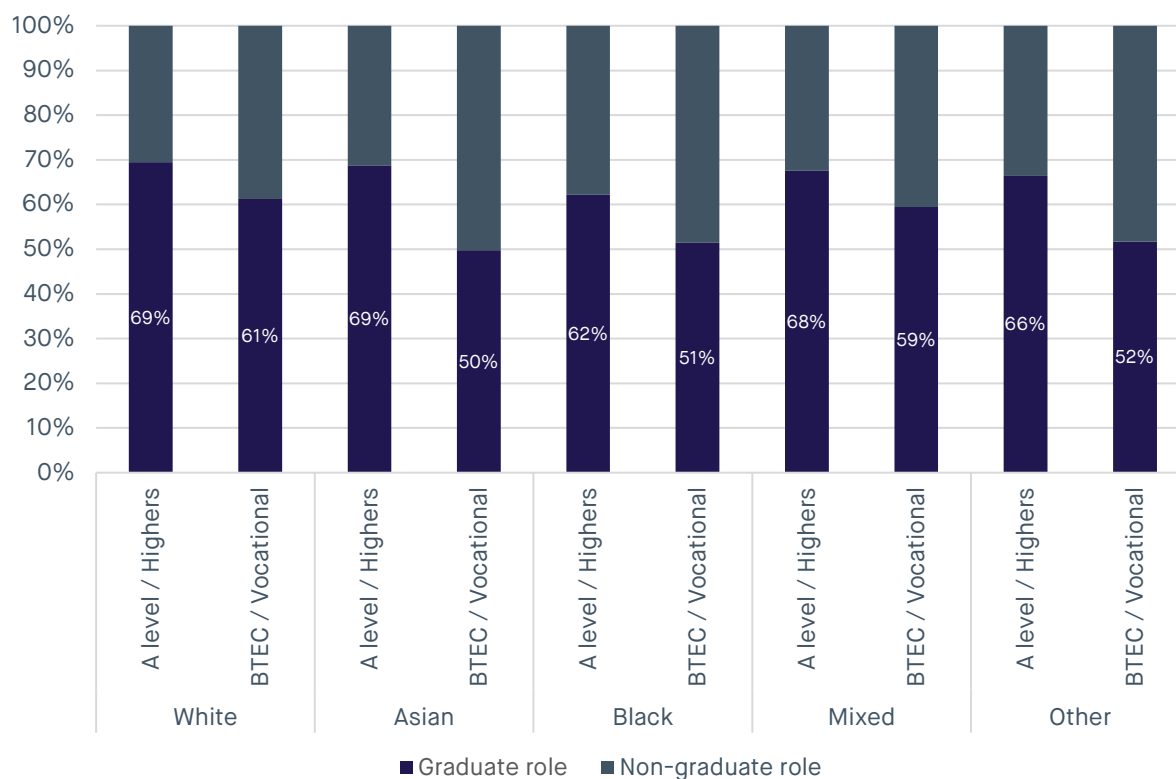
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<sup>iv</sup> For more information on how HESA categorises ethnic groups, please visit <https://www.hesa.ac.uk/collection/c18025/a/ethnic>



does vary by ethnicity. For White graduates the gap between qualification types stands at only 8 percentage points. For Asian graduates this gap is 19 percentage points and for Black graduates it stands very close to the average at 11 percentage points.

**Figure 17: Whether in graduate employment by qualification held upon entry to university and ethnicity**



Source: SMF analysis of HESA data

## Summary of occupational classification

### Location segment

- Londoners who stay in London for university are the least likely to be in graduate employment. Six in ten (59%) Londoners who stayed in London for HE are in graduate employment, this compares to 71% and 68% for graduates from London who studied elsewhere and those from elsewhere who come to London.

### Gender

- Women are much less likely to be working in a job deemed to be a graduate role. Just over six in ten (63%) women are in graduate positions – compared to 72% of men.

### Ethnicity

- All ethnicities are less likely to be working in graduate roles compared to White graduates.
- Black graduates are the least likely to be in a job that has been defined as a graduate role.

### Socio-economic status

- Seven in ten (71%) graduates whose parents worked in higher or managerial occupations were deemed to be in graduate employment compared to 60% of those whose parents worked in semi-routine or routine occupations.

### Entry qualification

- Graduates who enter with vocational qualifications, such as BTECs, are the least likely to be in graduate employment. The gap between A level and BTEC graduates in graduate-based employment stands at 12 percentage points.
- For White graduates the gap between qualifications and whether they are likely to be in graduate employment stands at only 8 percentage points. For Asians, this gap is 19 percentage points and for Black graduates it stands very close to the average at 11 percentage points.

## CHAPTER 4 - THE ROLE OF FORMAL WORK EXPERIENCE

There are a growing number of students undertaking formal work experience as part of their degree. These are often referred to as placement years – this is when a student spends six months to a year working as part of their degree. This is usually taken within the third year of what becomes a four year degree. Very little is known about the outcomes of this group or their characteristics.

### Who takes placements?

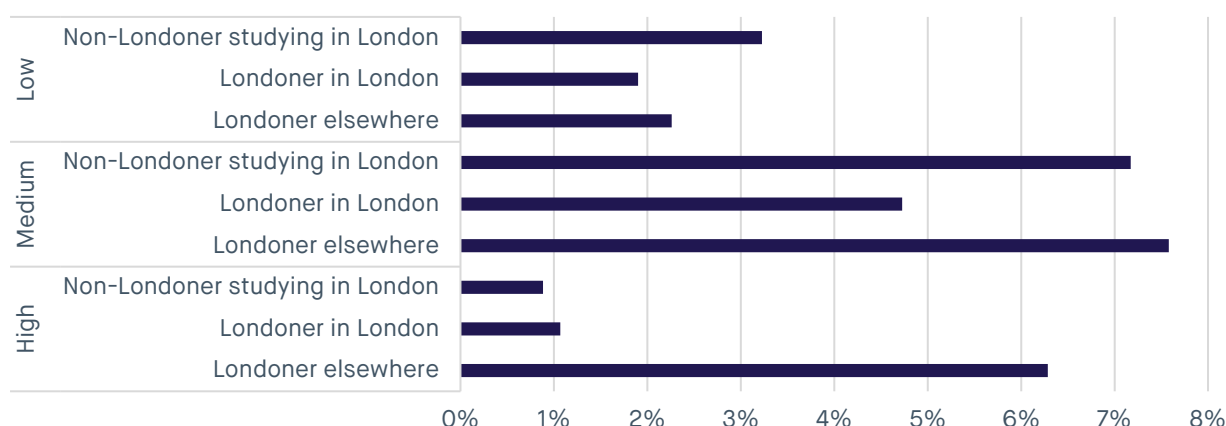
The proportion of students doing placement years is not substantial. Across the entire sample just 5% of graduates have completed a placement year – this varies slightly by location segmentation with 6% of Londoners who left London for HE completing a placement year compared to only 3% of Londoners who remain in the capital. Men are marginally more likely to undertake a placement with 5% of men completing one compared to 4% of women. This could reflect the subject of their degrees.

There is very little difference in the likelihood of undertaking a placement when controlling for ethnicity or socio-economic status alongside the location segmentation. Across all location groups students who enter with vocational qualifications are less likely to undertake a placement, this could reflect the availability of these opportunities at their institution or on their course. It could also reflect the difficulty in obtaining one of these opportunities.

### Rank of institution

Graduates who attended medium rank universities are more likely to have undertaken a placement year as part of their degree.

**Figure 18: Proportion of graduates taking placements as part of their degree by rank of university and location segmentation**



Source: SMF analysis of HESA data

It is clear from Figure 18 that there is a difference in the proportion of graduates taking placements as part of their degree by rank of institution and location. There is a visible difference in the undertaking of placement degrees by location segmentation for graduates who attend high rank institutions – with Londoners who left London for HE

much more likely to have completed a placement. This could reflect the offering of high rank institutions within the capital.

### **Subject of study**

The proportion of graduates who have undertaken a placement varies substantially by subject of study. For instance, almost none of the students who graduated in a subject within the historical & philosophical studies group undertook a placement, this compares to over 10% of graduates in computer science, engineering and technology and business and administrative studies.

### **How do their outcomes compare?**

Placement degrees are used to help students gain work experience and therefore we can hypothesize that this would help with employability after graduation.

#### **Degree classification**

- Across all three location segments students who undertook formal work experience as part of their degree are more likely to graduate with a first class degree.
- For all students studying in London (regardless of previous location) those who undertook a placement were twice as likely to gain a first class degree (43% v. 20%)
- 39% of Londoners studying in London who did a placement graduated with a first class degree, compared to 18% of those who did not do one. For non-Londoners studying in London the proportion gaining a first after completing a placement was 46% compared to 26% for those without.

#### **Employment**

- Graduates who undertook a placement year as part of their degree are more likely to be in employment six months after graduation.
- The employment rate of those who did a placement is 12 percentage points higher than those who did not (81% vs. 69%).
- Graduates who did a placement are less likely to go onto further study.

#### **Full time earnings**

- Those in full time employment who did a placement experience higher earnings than those who did not.
- Half of graduates who did a placement were earning more than £25,000 per annum – this compares to only 28% for those who did not undertake a placement.

#### **Graduate employment**

- There is a twenty percentage point difference in the nature of employment based on whether or not a graduate did a placement year – 84% of those who did a placement are in graduate employment compared to only 64% of those who did not.
- This could reflect the ability of those who took a placement to gain places on competitive graduate schemes due to the benefit of work experience.

## CHAPTER 5 - SUBJECT-SPECIFIC ANALYSIS

In this section of the report we focus on the outcomes associated with two of the more popular courses studied by the graduates in the sample. These are computer science, due to its popularity amongst Londoners in London and creative arts and design due to its share amongst those who come to London for higher education.

### Computer science outcomes

Computer science is a popular subject area – 5% of the graduates in our sample graduated with a degree in the computer science group of subjects.

#### Who does computer science?

There is a clear difference in the profile of graduates in this subject – 81% of those who graduate with a degree in computer science are men. Computer science is more popular amongst Londoners who stay in the capital for HE than the two other location segments. This could be due to the profile of students who stay in London for university.

We know 40% of those who stay in London for higher education are Asian students, who are more likely to graduate with a degree in computer science compared to other ethnicities. Asian students represent 37% of those who graduate with a degree in computer science in our sample. Computer science is also more popular amongst students from lower socio-economic backgrounds.

Students from vocational backgrounds are almost four times more likely to graduate with a degree in computer science compared to those who enter university with academic qualifications. For instance, 11% of those with BTECs or vocational qualification graduate with a degree in computer science compared to only 3% of those who entered with A levels.

It is important to assess the extent to which outcomes vary within subjects for different groups of students.

#### Outcome 1 - Degree classification

In the entire sample, one fifth of graduates gain a first class degree. This varies substantially by subject group; more than one quarter (26%) of graduates with a degree in computer science obtain a first class degree. However, the picture is complex. Whilst they are more likely to gain a first, they are also more likely to gain a lower second or a third class degree. The likelihood of gaining a first or upper second in computer science varies by characteristic.

#### Ethnicity

- There is still a major difference in the attainment of graduates by ethnicity – 13% of Black graduates in computer science gained a first compared to 37% of White graduates.
- However, across all ethnicities studying computer science means you are more likely to gain a first compared to the average for your ethnicity. However, the

same is also true for the likelihood of gaining a lower second or third class degree.

#### **Socio-economic status**

- Those from higher socio-economic backgrounds are 7 percentage points more likely to gain a first in computer science compared to their less advantaged counterparts (similar gap to the national average).
- Across the entire sample 18% of graduates from lower socio-economic backgrounds gained first class degrees – when focusing on computer science this rises to 25%.
- The proportion gaining a lower second or third class degree is also above average for this group.

#### **Entry qualification**

- Graduates with academic qualifications at level three are twice as likely to gain a first class degree in computer science compared to those with vocational qualifications.
- Across all qualifications the proportion gaining a lower second or third class degree is also above the average.

### **Outcome 2 - Employment status**

Compared to the average across all students – those who gain degrees in computer science are more likely to be in work six months after graduation. However, they are much less likely to have gone onto further study. Three quarters of graduates in computer science are in work and one in ten are in further study.

#### **Ethnicity**

- White graduates from computer science are the most likely to be in employment, whilst Asian graduates are the least likely.
- Just over seven in ten (72%) of Asian graduates in computer science are in work six months after graduation and over one in ten (11%) are classified as unemployed.

#### **Socio-economic status**

- Irrespective of socio-economic status the employment rate hovers around 76%.

#### **Entry qualification**

- There is a marginal difference by entry qualification – 73% of those who entered university with vocational qualifications, such as BTECs, are in work compared to 76% of those with academic qualifications at level three. This gap is in line with the gap seen for the entire sample regardless of subject.

### Outcome 3 – Full time earnings

Employment status can only tell us so much about the difference in outcomes for graduates in computer science. Full time earnings are an important indicator of how a graduate is doing six months after graduation. Almost half (49%) of graduates in computer science who are in full time employment earn £25,000 or above per annum – this compares to 31% across all subjects.

#### Ethnicity

- A similar proportion of White and Asian graduates in computer science earn £25,000 or above, 52% and 49% respectively.
- This drops to 38% for Black graduates although this is above the average full time earnings for Black graduates in the sample.

#### Socio-economic status

- More than half (57%) of graduates in computer science who are from higher socio-economic backgrounds earn more than £25,000 – the figure drops to 43% for graduates whose parents worked in routine or semi-routine occupations.
- An almost identical picture emerges when focusing on level three entry qualifications.

### Outcome 4 – Graduate employment

Overall, two thirds (66%) of graduates in our sample work in roles defined as graduate employment. For those with a degree in computer science the figure stands at 75%.

#### Ethnicity

- More than eight in ten (81%) White graduates in computer science are in graduate based employment – this figure drops to 71% for Asian graduates and 76% for Black graduates.

#### Socio-economic status

- 82% of those from higher socio-economic backgrounds are in graduate employment compared to only 68% of computer science graduates from lower socio-economic backgrounds. Both do better than the average of all graduates with their characteristics.

#### Entry qualification

- Those who held BTEC or vocational qualifications at level three are less likely to be in graduate-based employment compared to those who entered with academic qualifications.

### Creative arts & design outcomes

One in seven (15%) graduates in our sample studied creative arts and design – the subject is most popular amongst those studying in London, particularly those who have come to London from elsewhere in the UK.

## Who does creative arts & design?

One fifth (22%) of those from elsewhere who come to London to study graduate in a subject aligned to creative arts and design. Women are more likely to study creative arts and design subjects, but the difference is not major (11% vs 15%).

White graduates are twice as likely to have studied creative arts and design compared to Black graduates and almost four times more likely compared to Asian graduates– 18%, 9% and 4% respectively. There is no difference in the proportion of graduates undertaking creative arts and design by socio-economic status within our analysis.

Graduates who obtained vocational or a combination of vocational and academic qualifications are more likely have graduates with a degree in creative arts and design compared to those who enter with academic qualifications only.

## Outcome 1 - Degree classification

There is no major difference in the likelihood of gaining a first or upper second class degree for those studying creative arts and design compared to the average for the entire sample. One fifth (20%) of creative arts and design graduates gain a first class degree and 53% gain an upper second.

### Ethnicity

- White graduates in creative arts and design are more likely than average to gain a first or upper second class degree, with 80% doing so – dropping to 69% for mixed ethnicity graduates, 57% for Asian graduates and to 47% for Black graduates.
- Only 6% of Black graduates gain a first class degree in creative arts and design.

### Socio-economic status

- Almost eight in ten (79%) graduates in creative arts and design from higher socio-economic backgrounds gain a first or upper second. This compares to just 67% of those from lower socio-economic backgrounds.
- The gap between socio-economic groups is bigger when focusing on those graduating from creative arts and design than for the entire sample.

### Entry qualification

- For those who enter creative arts and design with A levels 79% obtain a first or upper second class degree. However, for those who enter with vocational qualifications only 57% gain a first or upper second class degree.



## Outcome 2 - Employment status

Overall 79% of graduates from creative arts and design are in work six months after graduation – this is higher than the average of 70% amongst the entire sample. They are half as likely to be in further study compared to the average.

### Ethnicity

- The proportion in work ranges from 77% for Asian graduates in creative arts and design to 80% for White graduates.

### Socio-economic status

- The proportion in work is 80% across all three socio-economic classifications.

### Entry qualification

- Students who entered university with a vocational qualification or a combination of vocational and academic qualifications are three percentage points more likely to be in employment compared to those with A levels (82% compared to 79%).
- The major difference is in the proportion likely to be in further study, one in ten (10%) of those who entered with A levels are in further study compared to only 5% of those who entered with vocational qualifications.

## Outcome 3 – Full time earnings

Creative arts and design subjects are well known for their poor returns in relation to earnings.<sup>29</sup> This is evident within our analysis – across the entire sample 31% of graduates in full time employment earn £25,000 or above per annum. For those who graduate with a degree in creative arts and design the figure stands at only 12%. We could hypothesis that as a significant number of those who come to London from elsewhere study creative arts and design the lower than average earnings figure is related to the location of employment – however even when looking only at those employed in London the figure remains at 12%.

### Ethnicity

- The picture does not vary significantly by ethnicity – 12% of White and Asian graduates in creative arts and design earn £25,000 or above. The comparative figure for Black graduates is 9%.

### Socio-economic status

- In creative arts and design 13% of those from higher socio-economic backgrounds earn over £25,000 – the figure stands at only 9% of those from lower socio-economic backgrounds.

### Entry qualification

- There appears to be no difference in the proportion earning over £25,000 for those who entered university with A levels or BTEC qualifications.

## **Outcome 4 - Graduate employment**

Overall, two thirds (66%) of graduate's work in roles defined as graduate employment, the figure for creative arts and design is slightly lower at 60%.

### **Ethnicity**

- 62% of White creative arts and design graduates are in graduate employment, compared to 58% of Asian graduates and 49% of Black graduates.

### **Socio-economic status and entry qualification**

- Those from higher socio-economic backgrounds are 9 percentage points more likely to be in graduate employment compared to those whose parents worked in routine occupations.
- Those with academic qualifications upon entry are more likely to be in graduate employment.

## CHAPTER 6 - HOW DO OUTCOMES AND CHARACTERISTICS INTERACT?

In this chapter of the report we analyse the results of the regression analysis conducted on each of the four outcomes. The full results from the models and all control variables are presented in appendix B. The models control for a range of variables including subject choice, rank of university and the student characteristics discussed above. The regression analysis will enable us to look more specifically at which variables are associated with different outcomes when controlling for other factors, this helps remove the impact of intersectionality. Attention has been paid to correlation between variables.

### Outcome 1 - Degree classification

In order to find out how a range of characteristics correlate with the likelihood of gaining a first class degree compared to an upper second class we use an mlogit regression.

#### Variables found to be significant in predicting likelihood of a first class degree compared to an upper second;

- **Gender** – Women are marginally more likely to get first class degrees compared to men. This is consistent with earlier research although smaller in scale than the figures produced by the Office for Students.
- **Ethnicity** – All ethnicity groups are less likely to get a first class degree compared to White students. The largest difference is seen between White and Black graduates – Black graduates are 12% less likely to gain a first class degree.
- **Socio-economic status** – Those with parents who work in intermediate or routine / manual occupations are less likely to get a first compared to those whose parents work in higher and managerial roles. Those from with parents in routine occupations are 2% less likely to gain a first compared to those whose parents work in higher or professional occupations.
- **Entry qualification** – Those who enter with either BTEC/ vocational qualifications or a combination of BTECs and A levels are less likely to get a first compared to A level students. Students who entered with vocational qualifications are 10% less likely to gain a first compared to A level students.
- **Placement year** – Those who undertake a placement as part of their degree are 16% more likely to get a first class degree compared to those who do not do them.
- **Location category** – Londoners who study elsewhere are the least likely to get a first class degree. Londoners in London and those from elsewhere who study in London are 5% and 6% more likely to get a first compared to Londoners who leave the capital for HE respectively.

### Outcome 2 - Employment status

Outcome two focuses on the employment status six months after graduation. We use a logit model to compare the likelihood of being in 'work or further study' compared to 'unemployment or other'.

**Variables found to be significant in predicting likelihood of being in work or further study six months after graduation;**

- **Gender** – Women are marginally more likely to get be in work or further study compared to men.
- **Ethnicity** – With the exception of Black graduates, individuals from all other ethnicities are less likely to be in work or further study compared to White graduates. Unlike in the descriptive analysis, we find no significant difference between Black and White graduates when controlling for other characteristics such as qualification on entry and subject.
- **Socio-economic status** – Those with parents who work in intermediate occupations are less likely to be in work or study compared to higher and managerial groups. There is no significant difference in the likelihood of employment or study between graduates whose parents work in higher and managerial or routine and manual occupations.
- **Entry qualification** – Those who enter university with BTEC/ vocational qualifications are 2% less likely to be in work or further study compared to those who entered with academic qualifications. There is no significant difference between those who enter with a combination and academic qualifications.
- **Placement year** – Those who undertake a placement are 4% more likely to be in work or study compared to those who do.
- **Location category** – Londoners who study in London are 1% less likely to be in work or further study compared to Londoners who leave to study. Those from elsewhere who study in London are the most likely to be in work or further study.

### Outcome 3 – Full time earnings

To understand how graduate's characteristics interact with their earnings we conduct a logit model on the likelihood of earning above £25,000. This includes only those in full time employment.

**Variables found to be significant in predicting likelihood of earning £25,000 or above from full time employment six months after graduation;**

- **Degree class** – Those with a first class degree are the most likely to be earning £25k+. Those with an upper second are 8% less likely to earn over £25,000 compared to those who gain a first. Those with a third class degree are 15% less likely to be earning over £25,000 compared to those with a first, highlighting the importance of degree classification.
- **Gender** – Women are 10% less likely to be earning £25k+ compared to men.

- **Ethnicity** – Asian graduates are 2% more likely to be earning above £25,000 compared to White graduates. In contrast, Black graduates are 2% less likely to be earning over £25,000 compared to White graduates.
- **Socio-economic status** – Those with parents who work in intermediate or routine / manual occupations are less likely to be earning £25,000 or above compared to those from higher and managerial backgrounds.
- **Entry qualification** – There is no significant difference in the likelihood of earning over £25,000 between those who enter university with A levels or BTECs (academic vs. vocational). Those who enter with a combination of qualifications are 4% less likely to be earning £25k or above compared to those who entered with purely academic qualifications.
- **Placement year** – Those who do placements are 17% more likely to be earning £25,000 or above compared to those who do not do them. Placements have shown to be a positive influence on graduate outcomes.
- **Employment location** – Those employed in London are 9% more likely to earn £25,000 or above.

#### Outcome 4 - Occupational classification / graduate-based employment

We use a logit model to predict the likelihood of being in graduate employment, this uses the same definition of graduate employment as earlier in the paper.

#### Variables found to be significant in predicting likelihood of being in graduate roles;

- **Degree class** – Those with a first class degree are the most likely to be employed in graduate roles. Those who gain an upper second or lower second are 8% and 16% less likely to be in graduate employment compared to those who gain a first. As expected, degree class appears to have the largest impact on graduate employment.

Our results show that the rank of university is an important indicator - those who gain an upper second from a high rank institution are more likely to be in graduate employment compared to those who gain a first from a medium or lower rank institution.

- **Gender** – Women are 8% less likely to be in graduate employment.
- **Ethnicity** – Asian and Black graduates are less likely to be in graduate based employment compared to White graduates.
- **Socio-economic status** – Those with parents who work in intermediate or routine / manual occupations are less likely to be in graduate based employment compared to those who have parents working in higher and managerial professions.
- **Entry qualification** – Graduates who enter with A levels are the most likely to be in graduate based employment. Those who entered university with vocational

qualifications, such as BTECs, are 6% less likely to be in graduate based employment.

- **Placement year** – Those who do a placement as part of their degree are 16% more likely to be in graduate employment. Again, highlighting the influence completing a placement can have on outcomes six months after graduation.
- **Employment location**– Those employed in London are marginally (1%) less likely to be employed in graduate roles when controlling for other factors. This could reflect the competitive nature of graduate employment in London.

## CHAPTER 7 - CONCLUSION

It is clear based on the results of this analysis and other academic literature that not all students receive the same employment outcomes associated with gaining a degree.

There are clear differences in degree attainment by ethnicity, socio-economic status and entry qualification that are not explained by the other variables in the analysis. This would suggest that more needs to be done to ensure that not only do universities and the government focus on widening access to university but that attainment and outcomes after university are considered equally as important.

The value for money debate in higher education means that politicians are increasingly considering the returns associated with different degrees – by subject and institution. Our analysis finds that not all students benefit from higher education in the same way.

The evidence suggests that Londoners may face difficulties after graduation. Londoners who stayed in London for university are significantly less likely to be in employment compared to Londoners who left for higher education. Those employed full time in London after university are more likely to be earning above £25,000 but they are less likely to be in graduate-based employment. This could be due the competitive nature of the London labour market. Our analysis shows that almost a quarter of those employed in London are in sales and customers service or administrative and secretarial occupations. Not being in graduate-based employment could impact the trajectory of one's career.

In recent years there has been considerable growth in the number of students entering university with vocational qualifications. The SMF has previously explored the issue of university retention for this group.<sup>30</sup> This report finds that some of their outcomes after university are poor in comparison to academic entry graduates. Graduates who obtained BTECs at level three are less likely to gain a first, less likely to be in employment or further study and less likely to be in graduate employment compared to those who entered with A levels or other academic qualifications. This is not to say that this group is experiencing bad outcomes or should not have attended university – for those who are in full time employment there is no statistical difference in the likelihood of earning above £25,000 between those who enter via the vocational or academic route. However, more must be done to ensure the labour market benefits of higher education are felt by this group.

Our analysis found no statistical difference in the likelihood of being in work or further study between White and Black graduates. However, we do find that Black graduates are less likely to gain a first class degree, less likely to be in graduate based employment and less likely to be earning £25,000 or above when in full time employment compared to White Graduates.

A very similar picture arises when comparing Asian and White graduates. Asian graduates are less likely to get a first class degree, less likely to be in employment and less likely to be in a graduate role compared to White graduates. However, for those who are in full time employment Asian graduates are more likely to earn £25,000 or more.

## Limitations of the research

There are some limitations to the research and therefore its conclusions should not be taken as definitive. The data does not provide us with information on informal work experience or family connections, both of which will affect employment outcomes. Certain occupations have low entry salaries with bonuses for performance or steep increases after completion of a graduate scheme. The data only captures people's lives six months after graduation and does very little to provide evidence on how their experience will differ as time goes on.

We are unable to make a judgement on whether it is the decisions of the individual or the system around them that is contributing to the gaps in wage premium and graduate employment that is apparent within our findings.

It is commonly known that differences within broad ethnicity groups such as “Black” and “Asian” are often as wide as they are between. Due to data limitations we are not able to produce analysis at a lower level of ethnicity breakdown.

Some of these data limitations could be addressed through further research. Qualitative depth interviews with groups of interest could provide insights into some of the labour market disparities identified in this report for example.

Longitudinal surveys such as Understanding Society could provide insights into medium-to-long run labour market outcomes for graduates, though this dataset has its own shortcomings compared with the HESA statistics used here. Understanding Society, for example, does not contain data on degree classification, subject of study or institution attended. Furthermore, the sample size is lower than the HESA data.



## APPENDIX A - METHODOLOGY

The sample is restricted to UK-Domiciled young first degree students who were domiciled in London prior to university or attended a London university and who started university between 2010/11-2013/14.

The entire sample size is 264,214. This can be broken down as follow;

- Londoner studying elsewhere: 120,387
- London studying London: 91,209
- Non-Londoner studying in London: 80,374

Variable descriptions:

### Outcome variables:

Degree classification; *the undergraduate degree class that the student obtained.*

Employment status; *economic activity of the leaver six months after graduation.*

Earnings; *salary (in 5K bands) - for those in full-time paid employment only six months after graduation.*

Graduate employment; *defined as working within SOC codes 1 to 3 six months after graduation.*

### Descriptive variables

Gender; *sex of individual*

Ethnicity; *ethnicity group of individual*

NS-SEC3; *socio-economic classification of the leaver's parents' occupations*

Disability status; *whether individual has known disability*

Level 3 qualification; *qualification held upon entry to university*

Placement market; *whether leaver underwent a placement as part of their degree*

Location category; *specifies their location prior to and during university*

Rank of university; *rank of university based on league tables (low, medium and high)*

Subject of study; *subject studied during degree (grouped)*

Mode of study; *whether studying full or part-time*

Accommodation setting; *the type of accommodation lived in during their final year*

Region of employment; *location of employment six months after graduation*

## APPENDIX B - REGRESSION ANALYSIS

Degree classification model, mlogit. Probability of gaining a first compared to an upper second

**List of control variables:**

- Gender
- Ethnicity
- NS-SEC3
- Disability status
- Level 3 qualification
- Placement marker
- Location category
- Rank of university
- Subject of study

Sample size = 211,638 & Pseudo R squared = 8.9%

**Results for variables of interest; (marginal effect reported, \* denotes significance at 5%)**

	Variable	Coef	Std. error	z	P-value	95% Conf. int	
<b>Prob of first compared to male students</b>	Female*	1.22%	0.001782	6.85	0	0.0087119	0.0156973
<b>Compared to white students</b>	Asian*	-7.59%	0.0022873	-33.18	0	-0.0713986	0.0803646
	Black*	-12.05%	0.0025462	-47.31	0	-0.1254554	-0.1154745
	Mixed*	-5.08%	0.0035166	-14.44	0	-0.057689	-0.0439043
	Other*	-6.40%	0.0049855	-12.83	0	-0.0737568	-0.0542141
	Unknown*	-4.53%	0.0083605	-5.42	0	-0.061735	-0.0289622
<b>Compared to higher and professional</b>	Intermediate*	-1.53%	0.0023846	-6.42	0	-0.0199925	-0.010645
	Routine and Manual*	-1.91%	0.0024871	-7.68	0	-0.0239716	-0.0142222
	Long term unemployed and not classified*	-1.34%	0.0023754	-5.66	0	-0.0180901	-0.0087787
<b>Compared to A levels</b>	BTEC / Vocational*	-10.23%	0.0028324	-36.13	0	-0.1078818	-0.096779
	Combination*	-4.34%	0.0040165	-10.81	0	-0.051282	-0.0355377
	None*	1.04%	0.0056339	1.84	0.065	-0.0006555	0.021429
<b>Compared to no placement</b>	Did a placement*	15.86%	0.0045243	35.05	0	0.1497092	0.1674439
<b>Compared to London elsewhere</b>	Londoner in London*	4.98%	0.0023546	21.13	0	0.0451361	0.0543659
	Non-Londoner studying in London*	6.45%	0.0021537	29.93	0	0.0602434	0.0686857

Employment outcome model, logit, probability of being in work or further study compared to unemployment or other

**List of control variables:**

- Degree class
- Disability status
- Level 3 qualification
- Gender
- Ethnicity
- NSSEC3
- Location category
- Placement marker
- Mode of study
- Accommodation setting
- Rank of university
- Subject of study

Sample size=161,182 & Pseudo R squared = 1.9% (caution should be taken when interpreting these coefficients)

**Results for variables of interest; (margins reported, \* denotes significance at 5%)**

	Variable	Coef	Std. error	z	P-value	95% Conf. int	
<b>Prob of in work or study compared to male students</b>	Female*	1.52%	0.001756	8.65	0	0.0117419	0.0186254
	Asian*	-2.36%	0.0023866	-9.87	0	-0.0282376	-0.0188823
	Black	0.08%	0.0026337	0.3	0.766	-0.0043798	0.0059441
	Mixed*	-1.35%	0.0035051	-3.84	0	-0.0203302	-0.0065906
	Other*	-2.83%	0.0052219	-5.42	0	-0.0385353	-0.018066
<b>Compared to white students</b>	Unknown*	-2.78%	0.0088261	-3.15	0.002	-0.0451338	-0.0105359
	Intermediate*	-0.53%	0.0023432	-2.25	0.025	-0.009862	-0.0006768
	Routine and Manual	-0.10%	0.0023635	-0.43	0.67	-0.0056406	0.0036242
	Long term unemployed and not classified*	-0.92%	0.0023246	-3.95	0	-0.0137404	-0.0046283
<b>Compared to higher and professional</b>	BTEC / Vocational*	-1.84%	0.0033856	-5.43	0	-0.025032	-0.0117606
	Combination	-0.17%	0.0039634	-0.42	0.674	-0.0094379	0.0060984
	None	0.12%	0.0053838	0.22	0.827	-0.009376	0.0117282
<b>Compared to A levels</b>	Did a placement*	3.78%	0.0032185	11.76	0	0.0315256	0.044142
<b>Compared to no placement</b>	Londoner in London*	-1.06%	0.0022409	-4.75	0	-0.0150306	-0.0062463
	Non-Londoner studying in London *	0.82%	0.0021123	3.9	0	0.0041035	0.0123835

Full time earnings model, logit, probability of earning over £25,000 per annum.

The population is restricted to full-time employees only.

**List of control variables:**

- Degree class
- Gender
- Ethnicity
- NSSEC 3
- Level 3 qualification
- Rank of university
- Subject of study
- Region of employment
- Placement marker

Sample size = 60,962 & Pseudo R squared = 15.1%

**Results for variables of interest; (margins reported, \* denotes significance at 5%)**

	Variable	Coef	Std. error	z	P-value	95% Conf. int	
<b>Prob of earning £25K+ compared to someone with a 1st</b>	Upper second*	-8.11%	0.0045044	-18	0	-0.0899223	-0.0722656
	Lower second*	-12.66%	0.0057521	-22.01	0	-0.1378723	-0.1153244
	Third*	-15.42%	0.0115812	-13.32	0	-0.1769248	-0.1315274
	Unclassified*	34.48%	0.012688	27.17	0	0.3199138	0.3696498
<b>Compared to male students</b>	Female*	-9.67%	0.0037565	-25.74	0	-0.1040578	-0.0893324
<b>Compared to white students</b>	Asian*	1.70%	0.0045393	3.74	0	0.0080639	0.0258578
	Black*	-2.28%	0.0056942	-4.01	0	-0.0339735	-0.0116527
	Mixed	0.47%	0.0073096	0.65	0.517	-0.0095862	0.0190671
	Other	-1.42%	0.0108904	-1.31	0.191	-0.0355941	0.0070953
	Unknown	0.46%	0.0185868	0.25	0.806	-0.0318566	0.0410022
<b>Compared to higher and profes.</b>	Intermediate*	-2.56%	0.0047188	-5.42	0	-0.0348279	-0.0163307
	Routine and Manual*	-3.76%	0.0049243	-7.63	0	-0.0472346	-0.0279315
	Long term unemployed & not classified*	-1.79%	0.0048565	-3.68	0	-0.0273923	-0.0083551
<b>Compared to A levels</b>	BTEC / Vocational	-0.94%	0.0076403	-1.23	0.219	-0.0243649	0.0055846
	Combination*	-1.92%	0.0088421	-2.17	0.03	-0.0364891	-0.0018286
	None	1.43%	0.0113256	1.26	0.206	-0.007874	0.0365218
<b>Compared to no placement</b>	Did a placement*	17.05%	0.0068216	24.99	0	0.1571098	0.1838502
<b>Compared to emp. elsewhere</b>	Employed in London*	9.48%	0.0036708	25.84	0	0.087646	0.1020352

## Graduate employment model, logit, probability of being in graduate employment

## List of control variables:

- Degree class
- Gender
- Ethnicity
- NSSEC 3
- Level 3 qualification
- Subject groups
- Placement marker
- Region of employment
- Rank of university

Sample size= 111,531 &amp; Pseudo R = 9.4%

## Results for variables of interest; (margins reported, \* denotes significance at 5%)

	Variable	Coef	Std. error	z	P-value	95% Conf. int	
Prob of being in a graduate role compared to someone with a 1st	Upper second*	-8.35%	0.0034317	-24.32	0	-0.0901934	-0.0767414
	Lower second*	-16.26%	0.0044093	-36.88	0	-0.1712767	-0.1539924
	Third*	-20.28%	0.0090532	-22.4	0	-0.2205591	-0.185071
	Unclassified *	10.68%	0.0104255	10.25	0	0.0863892	0.1272563
Compared to male students	Female*	-7.74%	0.0028119	-27.51	0	-0.0828623	-0.0718398
Compared to white students	Asian*	-2.27%	0.0037014	-6.14	0	-0.0299783	-0.015469
	Black*	-2.56%	0.0042599	-6.02	0	-0.0339723	-0.017274
	Mixed	0.01%	0.0055183	0.01	0.99	-0.0107432	0.010888
	Other	-1.53%	0.0083439	-1.83	0.067	-0.0316566	0.0010509
	Unknown	-0.82%	0.0146569	-0.56	0.576	-0.0369137	0.0205403
Compared to higher and professional	Intermediate *	-2.32%	0.0037365	-6.2	0	-0.030488	-0.015841
	Routine and Manual*	-5.25%	0.0038318	-13.7	0	-0.0599956	-0.0449754
	Long term unemployed and not classified*	-2.99%	0.0037374	-7.99	0	-0.0371769	-0.0225265
Compared to A levels	BTEC / Vocational*	-3.35%	0.0050117	-6.68	0	-0.0432893	-0.0236439
	Combination *	-1.96%	0.0059751	-3.29	0.001	-0.0313401	-0.007918
	None	0.52%	0.0090635	0.57	0.568	-0.0125835	0.0229448
Compared to no placement	Did a placement*	16.36%	0.0048242	33.91	0	0.1541296	0.17304
Compared to employed elsewhere	Employed in London*	-1.39%	0.0029461	-4.7	0	-0.0196277	-0.0080793

## ENDNOTES

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- <sup>1</sup> Department for Education, *Graduate outcomes (LEO)* (2019)
- <sup>2</sup> Ibid.
- <sup>3</sup> <https://www.hesa.ac.uk/data-and-analysis/students/whos-in-he>
- <sup>4</sup> <https://www.hesa.ac.uk/data-and-analysis/performance-indicators/widening-participation>
- <sup>5</sup> SMF, *Vocation, Vocation, Vocation* (2018) & SMF, *Building on Success* (2019)
- <sup>6</sup> <https://qualifications.pearson.com/en/qualifications/btec-nationals/btec-nationals-2016/external-assessment.html>
- <sup>7</sup> Social Market Foundation, *Gender equality and the 100 year life* (2019)
- <sup>8</sup> HESA & Warwick University, *How does the return to a degree vary by class of award?* (2020)
- <sup>9</sup> Reform, *A degree of uncertainty* (2018)
- <sup>10</sup> HESA & Warwick University, *How does the return to a degree vary by class of award?* (2020)
- <sup>11</sup> <https://www.officeforstudents.org.uk/data-and-analysis/differences-in-student-outcomes/degree-outcomes-overview/>
- <sup>12</sup> <https://www.officeforstudents.org.uk/data-and-analysis/differences-in-student-outcomes/gender/>
- <sup>13</sup> <https://www.officeforstudents.org.uk/data-and-analysis/differences-in-student-outcomes/ethnicity/>
- <sup>14</sup> C. Crawford, *Socio-economic differences in university outcomes in the UK: drop-out, degree completion and degree class* (2014)
- <sup>15</sup> Ibid.
- <sup>16</sup> Ibid.
- <sup>17</sup> <https://www.officeforstudents.org.uk/data-and-analysis/differences-in-student-outcomes/degree-outcomes-overview/>
- <sup>18</sup> Department for Education, *Graduate outcomes (LEO)* (2019)
- <sup>19</sup> <https://www.officeforstudents.org.uk/data-and-analysis/differences-in-student-outcomes/ethnicity/>
- <sup>20</sup> Department for Education, *Graduate outcomes (LEO)* (2019)
- <sup>21</sup> Institute for Fiscal Studies, *The impact of undergraduate degrees on early-career earnings* (2018)
- <sup>22</sup> Ibid.
- <sup>23</sup> Department for Education, *Graduate outcomes (LEO)* (2019)
- <sup>24</sup> London Economics, *The outcomes associated with the BTEC route of degree level acquisition* (2013)
- <sup>25</sup> <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/adhocs/008381percentageofemployedgraduatesinnongraduaterolespartsoftheuk2015to2017>
- <sup>26</sup> <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/adhocs/008381percentageofemployedgraduatesinnongraduaterolespartsoftheuk2015to2017>

<sup>27</sup><https://www.resolutionfoundation.org/comment/the-3-2bn-pay-penalty-facing-black-and-ethnic-minority-workers/>

<sup>28</sup> Social Market Foundation, *The next London challenge* (2019)

<sup>29</sup> Institute for Fiscal Studies, *The impact of undergraduate degrees on lifetime earnings* (2020)

<sup>30</sup> SMF, *Vocation, Vocation, Vocation* (2018) & SMF, *Building on Success* (2019)