September 2015/21

Issues paper

This report is for information

This report looks at the degree outcomes of UK-domiciled first degree graduates from English higher education institutions in 2013-14. We examine the extent to which course and student characteristics affect graduates' chances of obtaining an upper second or first class degree, as well as the changes in degree outcomes between 2010-11 and 2013-14.

Differences in degree outcomes: The effect of subject and student characteristics

HIGHER EDUCATION
hefce
FUNDING COUNCIL FOR ENGLAND

Contents

Differences in degree outcomes: The effect of subject and student characteristics

To	Heads of HEFCE-funded higher education institutions
Of interest to those responsible for	Planning, Widening participation
Reference	2015/20
Publication date	September 2015
Enquiries to	Quantitative Analysis for Policy Team, email qapt@hefce.ac.uk, or Rebecca Titchiner, tel 0117 931 7407, email r.titchiner@hefce.ac.uk

Executive summary

Purpose

1.   This report looks at the degree outcomes of UK-domiciled first degree graduates from English higher education institutions (HEIs) in 2013-14. We examine the extent to which course and student characteristics affect graduates' chances of obtaining an upper second or first class degree, as well as the changes in degree outcomes between 2010-11 and 2013-14.

Background

2.   This report follows on from a series of reports, including 'Differences in degree outcomes: Key findings' (HEFCE 2014/03), 'Higher education and beyond: Outcomes from full-time first degree study' (HEFCE 2013/15) and 'Student ethnicity: Profile and progression of entrants to full-time, first degree study' (HEFCE 2010/13), which consider differences in degree outcomes and show that these can be significant between different groups of graduates.

3.   All of these previous reports track students' progression from entry into higher education through to their first degree qualification. In this report we focus on the 2013-14 graduates, examining how degree outcomes vary between different groups (classified by course and student characteristics), after modelling to account for other factors. In addition, at a sector level, we examine how degree outcomes have changed since 2010-11.

Key points

4.   The study looks at all first degree graduates from English HEIs in 2013-14. The key findings of the study are as follows.

Across degree subject areas, there is a wide variation in the proportion of graduates who gained a first or upper second; this relationship itself varies depending on whether firsts are considered in isolation or in combination with upper seconds

5.   The proportion awarded a first or upper second in 2013-14 ranges from 60 per cent of graduates in combined subjects to 90 per cent of medicine and dentistry graduates. When firsts

only are considered, the range runs from 12 per cent of law graduates gaining a first to 35 per cent of mathematical science graduates.

6.   Most of this variation is explained by observed differences in the compositions of the student cohorts choosing to study different subjects, but there are some notable exceptions.

Graduates who study degree courses part-time do less well than their full-time counterparts

7.   The difference between full- and part-time graduates is 18 percentage points, with 75 per cent of full-time graduates gaining a first or upper second class degree compared with 57 per cent of part time graduates.

8.   After taking into account other factors including entry qualifications, only four percentage points of the observed 18 percent point gap are explained. There remains an unexplained 14 percentage point difference between the proportions of full- and part-time graduates gaining first or upper second class degrees. Thus these other factors explain only a small amount of the variation in degree outcomes between full-time and part-time graduates.

Although a lower proportion of mature graduates obtain a first or upper second class degree compared with young graduates, on a like-for-like basis mature graduates outperform their younger counterparts

9.   In 2013-14, the difference between the two groups is 11 percentage points, with 64 per cent of mature graduates gaining a first or upper second compared with 75 percent of young graduates.

10.   However, after taking into account other factors including entry qualifications, mature graduates have an unexplained seven percentage point advantage over young graduates.

Female graduates are more likely to achieve a first or upper second

11.   The difference between men and women gaining a first or upper second class degree was four percentage points, with 74 per cent of female graduates obtaining such a degree in 2013-14 compared with 70 per cent of male graduates.

12.   After taking into account other factors, the unexplained difference between the sexes rises to five percentage points (as opposed to the observed difference of four percentage points): the proportion of males gaining a first or upper second is five percentage points lower than their female counterparts.

Graduates with disabilities tend to do slightly less well than those without reported disabilities

13.   Splitting by disability status shows that a lower percentage of graduates with specified disabilities achieving a first or upper second class degree than those without a disability. This difference is four percentage points in 2013-14, with 73 per cent of graduates with no specified disability gaining a first or upper second class degree compared with 69 per cent of those with a disability.

14.   Accounting for the additional modelling factors shows that graduates without a disability continue to have an advantage over graduates with a disability specified: on a like-for-like basis, the unexplained difference is three percentage points.

White graduates have significantly higher degree classifications than graduates from other ethnicities

15.　The proportion of white graduates who achieved a first or upper second class degree in 2013-14 is 76 per cent, compared with 60 per cent of black and minority ethnic graduates. This is a 16 percentage point difference between the two groups of graduates.

16.　Once other factors are taken into account, the proportion of black and minority ethnic graduates gaining a first or upper second continues to be 15 percentage points lower than their white counterparts.

For all but those with the very highest A-level grades, state school graduates tend to have higher degree outcomes than independent school graduates with the same prior educational attainment

17.　In 2013-14, 82 per cent of state school graduates gained a first or upper second class degree compared with 73 per cent of independent school graduates. This is a nine percentage point difference.

18.　There is only a small difference between the two groups at the highest entry grades, but this difference widens considerably for those entering with A-level grades AAC and below.

19.　The modelled results show that after taking other factors into account, the percentage of state school graduates remains higher than predicted. Of the observed nine percentage point difference, only five percentage points are explained by the model, leaving four percentage points unexplained.

Graduates from the highest-participation neighbourhoods have the highest degree classifications compared with graduates from other neighbourhoods

20.　66 per cent of graduates from the lowest-participation neighbourhoods gained a first or upper second class degree in 2013-14. This is 11 percentage points lower than the highest participation neighbourhoods, where 77 per cent of graduates gained a first or upper second class degree.

21.　Taking into account the other factors, the unexplained difference between those from the lowest and highest participation areas is three percentage points.

Between 2010-11 and 2013-14 there has been an annual increase of around one and a half percentage points in the proportion of qualifiers with first and upper second class degrees, around half of which is explained by changes in student characteristics

22.　Around half of the annual increase is explained by changes in student characteristics such as entry qualifications, gender, ethnicity, disadvantage and previous school type. The rest could be due to other factors not taken into account, such as unmeasured changes in student characteristics, learning, teaching and retention practices at institutions, or behaviour following the introduction of higher fees.

Introduction

23.   This report looks at the degree outcomes of UK-domiciled first degree graduates from English higher education institutions (HEIs) in 2013-14, and considers how achievement measured in terms of class of degree awarded differs according to various student and course characteristics. It also examines how degree outcomes have changed at a sector level since 2010-11.

Background

24.   This report follows on from a series of reports that consider differences in degree outcomes, including 'Differences in degree outcomes: Key findings' (HEFCE 2014/03), Higher education and beyond: Outcomes from full-time first degree study' (HEFCE 2013/15) and 'Student ethnicity: Profile and progression of entrants to full-time, first degree study' (HEFCE 2010/13)[1]. These show that there are significant differences in degree outcomes between different groups of students.

25.   All of these previous reports track students from their entry into higher education, and follow their progression through to their first degree qualification. They show that there are unexplained differences between student groups at all points during degree progression.

26.   In this report, we focus on degree outcomes rather than the entire degree journey. This is because progression and non-continuation are examined in other HEFCE publications, such as the 'Non-continuation rates: Trends and profiles' tool which tracks entrants' progression from first to second year[2]. The purpose of this analysis is to examine the differences in the proportions among more recent cohorts who gained a first degree, and the proportion who gained a first or upper second class, as a measure of a successful outcome.

27.   The analysis is based on students who graduated in 2013-14, and examines how degree outcomes vary between different groups (in terms of course and student characteristics) after accounting for other factors. In addition, at a sector level, we consider how degree outcomes have changed since 2010-11, and the extent to which the change in the overall proportion of firsts and upper seconds awarded can be attributed to changes in the explanatory variables.

Methodology

28.   The main population in this report is UK-domiciled first degree graduates from HEFCE-funded HEIs in 2013-14 whose programme of study led to an award with a classification[3]. The population consists of 284,515 graduates including those with unknown entry qualifications or not holding three or more A-levels. Of these, 158,015 graduates entered with three or more known A-level grades.

29.   We examine the relationship between class of degree and entry qualifications for various groups of graduates, by first showing how the overall proportion of firsts and upper seconds

---

[1] Respectively available at www.hefce.ac.uk/pubs/year/2014/201403/, www.hefce.ac.uk/pubs/year/2013/201315/ and www.hefce.ac.uk/pubs/year/2010/201013/.

[2] Available online at www.hefce.ac.uk/analysis/ncr/.

[3] To help identify graduates in each year, the data in this report is taken from the Higher Education Statistics Agency student record between 2007-08 and 2013-14.

awarded varies by entry qualifications, and then considering the underlying relationship when the results of the modelling are taken into account.

30.   We have employed regression techniques to establish whether the patterns seen in the simple univariate summaries of degree outcomes are robust against the effects of other measurable factors (see below) and against unobserved institutional effects. This helps to determine whether other factors might be responsible for the patterns we have observed.

31.   The following factors were included in the modelling.

- age

- disability status

- ethnicity

- The Participation of Local Areas measure

- sex

- subject of study

- prior attainment (in terms of qualifications held on entry to higher education)

- previous school type

- institution attended.

32.   The regression techniques we have employed enable us to determine a **predicted** value for the proportion of graduates awarded a first or upper second, which can then be compared with the actual value **observed** in the simple univariate summaries we have examined. This comparison can tell us whether other factors might be responsible for any difference we find between the 'predicted' and the observed rates.

33.   The predicted values are arrived at through the following process:

a.   The results from the regression analysis of the degree outcomes can be constructed as an equation. When the class of degree results is inserted into this equation, it will give the actual proportions of classes of degree according to each characteristic (gender, ethnicity and so forth). For example, when all the male graduates from the base population are put into the equation, it will calculate the proportion of men achieving a first or upper second as 70 per cent.

b.   If the underlying data is changed such that all the male graduates are now female, but their other characteristics are held to be the same, a new dataset is produced. When this revised dataset is put into the model it calculates the predicted, degree outcomes for the modified group. Comparing the degree outcomes for the modified group and the original group isolates the effect associated with being male, having eliminated other factors that could have been responsible for any differences. The difference between the degree outcomes for the modified group and the original group (calculated as observed minus predicted) will be the size of the effect associated with being male.

c.   The proportion of graduates achieving a first or upper second for the modified male data is 75 per cent: the 'predicted' rate. Comparing this with the observed rate we find a difference of minus five percentage points. The negative difference indicates that the effect of this characteristic is a negative one, with male graduates' achievement being five

percentage points lower than predicted and less likely to include a first or upper second than that of their female counterparts.

34. The groupings used for the entry qualifications used in this report are defined in Annex A.
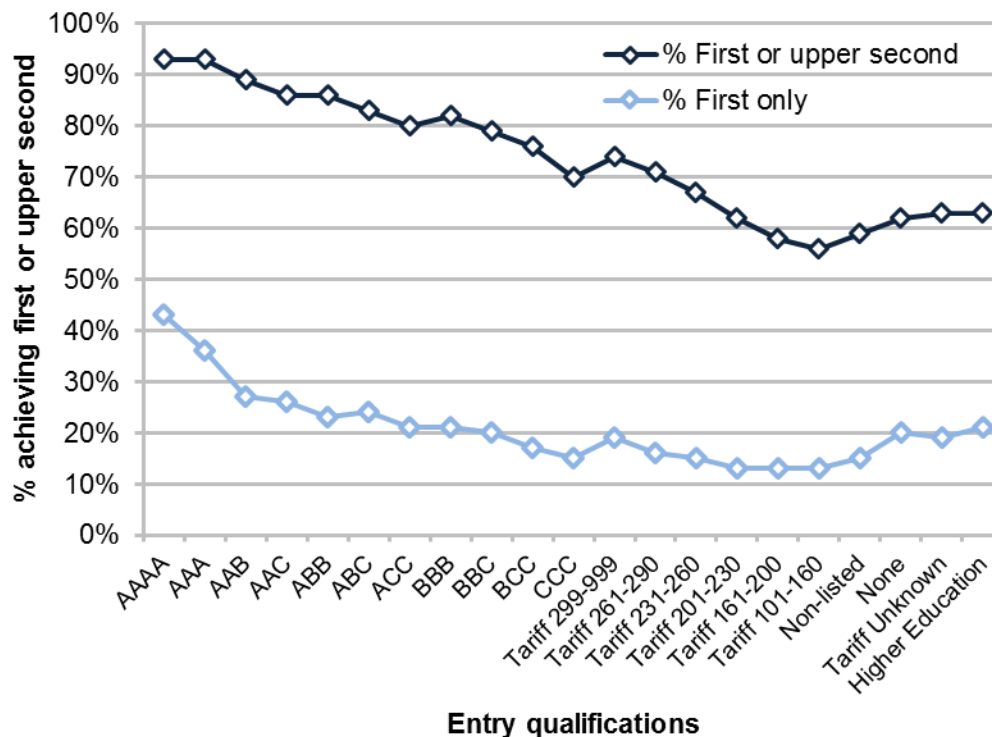
Results

35. In 2013-14, 72 per cent of graduates gained a first or upper second. The percentage gaining a first was 21 per cent in 2013-14.

Relationship between entry qualifications and degree classification

36. Figure 1 shows a clear relationship between degree classification and entry qualification: the proportions who gain a first or upper second increase for higher A-level grades. Of graduates entering with four A grades at A-level, 94 per cent achieved a first or upper second class degree and 44 per cent were awarded a first class degree. Of graduates entering with three Cs, 70 per cent achieved a first or upper second class degree and 15 per cent were awarded a first class degree.

Figure 1: 2013-14 graduates by entry qualification and degree classification

Population: All graduates.

Course characteristics

Subject of course

37. Table 1 shows the overall difference in degree classification across subject areas. The proportion who gained a first or upper second class degree in 2013-14 ranged from 60 per cent of graduates from combined subjects to 90 per cent of medicine and dentistry graduates. There

is also a wide range in the proportion of graduates who gained a first, from 12 per cent for law graduates to 35 per cent of mathematical science graduates.

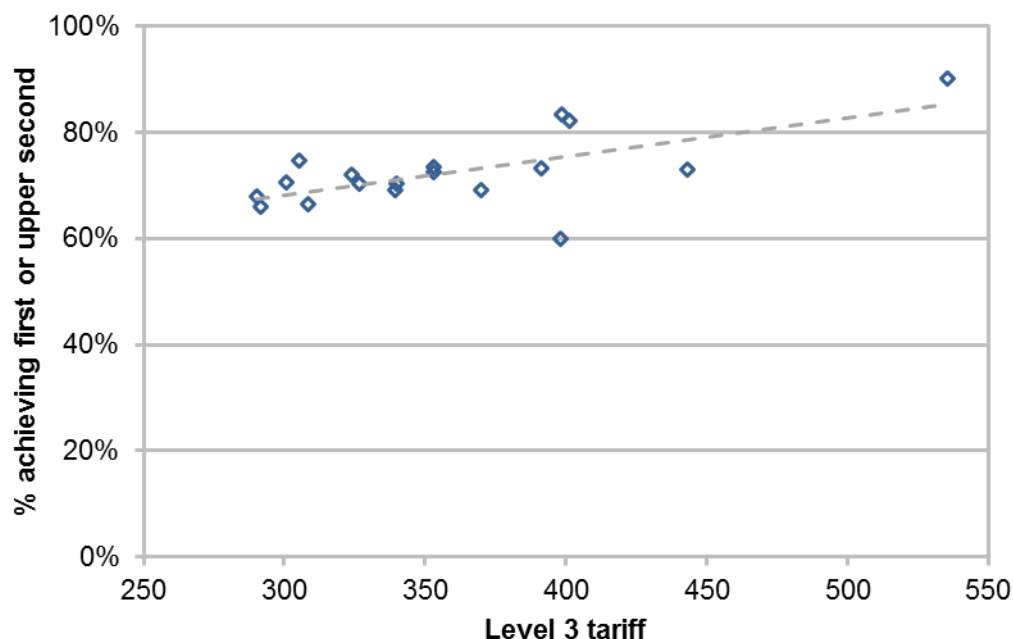**Table 1: Proportion of 2013-14 graduates who gained a first or upper second class degree by subject area**

Subject	% first or upper second	% first
Medicine and dentistry	90%	33%
Subjects allied to medicine	69%	24%
Biological sciences	70%	18%
Agriculture and related subjects	66%	19%
Physical sciences	73%	25%
Mathematical sciences	73%	35%
Computer science	66%	28%
Engineering and technology	74%	30%
Architecture, building and planning	70%	22%
Social studies	73%	16%
Law	69%	12%
Business and administrative studies	71%	21%
Mass communication and documentation	75%	15%
Languages	83%	20%
Historical and philosophical studies	82%	19%
Creative arts and design	72%	21%
Education	68%	18%
Combined	60%	16%

Population: All graduates.

38.   Figure 2 considers entry tariff by subject area for those who gained a first or upper second class degree[4]. This shows that medicine and dentistry graduates have an average Level 3 tariff score of 535, and a percentage who gained a first or upper second class degree of 90 per cent. In contrast, 66 per cent of graduates studying agriculture and related subjects, who had entered with an average of 308 tariff points, gained a first or upper second class degree.

---

[4] Further information can be found on the UCAS website at https://www.ucas.com/ucas/undergraduate/getting-started/entry-requirements/tariff/tariff-tables.

Figure 2: Average Level 3 entry tariff by subject and the proportion who achieved a first or upper second class degree for 2013-14 graduates

Population: All graduates.

39.　Figure 2 suggests that some of the variation in degree outcome by subject is accounted for by entry qualifications.

40.　However there is some variation in the relationship, and a portion of this variation may be further explained by a number of other student and course characteristics such as age, ethnicity, young participation rate quintile, previous school type and gender. We therefore model these data to take into account all these other factors.

41.　The fitted model is then used to estimate how much of the observed variation in degree outcomes across a particular dimension is not explained by the other explanatory variables, and whether any differences are statistically significant. Full details of the modelling carried out are available in Annex B.

42.　The results of this modelling for subject of study, shown in Table 2, demonstrate that most of the variation in degree outcomes across subject is explained by differences in the composition of the cohorts studying those subjects. Table 2 compares the other subjects with medicine and dentistry, where the proportion gaining a first or upper second is 90 per cent. The table shows how much of the variation in the rates is due to the unobserved factors relating to the subject area, rather than other observed factors. This is labelled as 'Unexplained'.

43.　For example, the table shows that if graduates with the characteristics of the mathematical science graduates were to study medicine and dentistry, then 81 per cent would be predicted to gain a first or upper second class degree. This means that nine percentage points of the 17 point difference were explained by the model, and therefore that eight percentage points are still unexplained.

Table 2: Proportion of 2013-14 graduates who gained a first or upper second class degree by subject area

Subject	% first or upper second			% first		
	Actual	Medicine and dentistry	Unexplained	Actual	Medicine and dentistry	Unexplained
Medicine and dentistry	90%	90%[5]	N/A	33%	33%[5]	N/A
Subjects allied to medicine	69%	70%	-1%	24%	19%	5%
Biological sciences	70%	73%	-3%	18%	19%	0%
Agriculture and related subjects	66%	69%	-3%	19%	16%	3%
Physical sciences	73%	79%	-5%	25%	22%	4%
Mathematical sciences	73%	81%	-8%*	35%	23%	13%*
Computer science	66%	65%	1%	28%	15%	13%
Engineering and technology	74%	71%	2%	30%	17%	12%
Architecture, building and planning	70%	69%	1%	22%	19%	3%
Social studies	73%	73%	-1%	16%	19%	-2%
Law	69%	74%	-5%	12%	20%	-8%
Business and administrative studies	70%	67%	4%	21%	16%	5%
Mass communication and documentation	75%	71%	4%	15%	17%	-2%
Languages	83%	83%	0%	20%	20%	0%
Historical and philosophical studies	82%	79%	3%	19%	23%	-4%
Creative arts and design	72%	68%	4%	21%	17%	3%
Education	68%	69%	-1%	18%	17%	1%
Combined	60%	71%	-11%	16%	21%	-5%

Population: All graduates. Note: * indicates that the result is statistically significantly different from medicine and dentistry at the 5 per cent level.
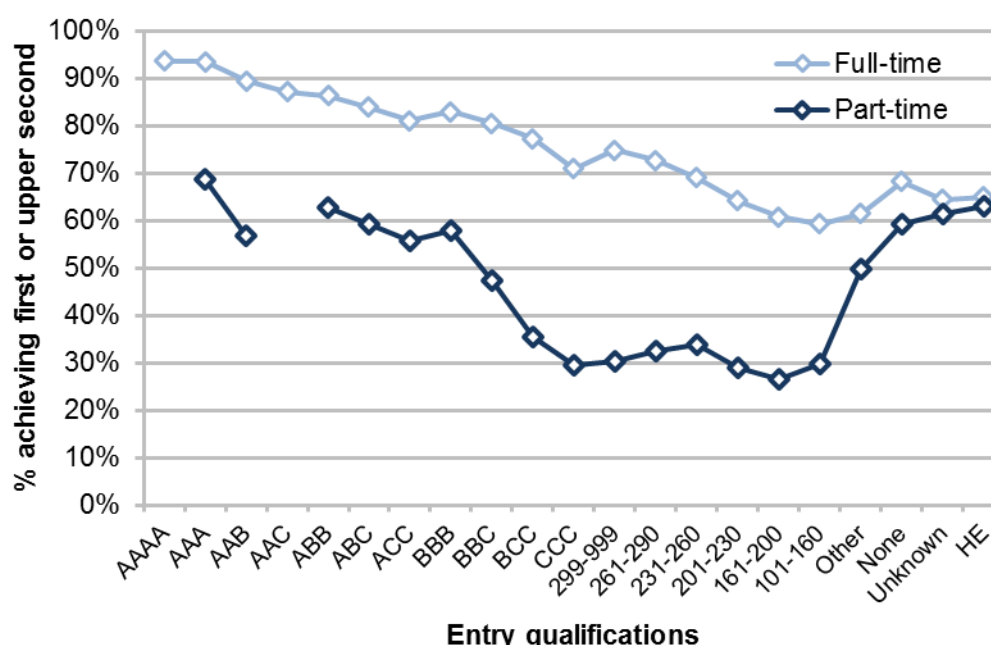
---

[5] The model uses medicine and dentistry as the reference group so all differences will be explained for these students.

Mode of study

44.   In 2013-14, the overall difference between full- and part-time graduates is 18 percentage points, with 75 per cent of full-time graduates gaining a first or upper second class degree compared and 57 per cent of part time graduates.

45.   Figure 3 shows the overall differences depending on mode of study by entry qualification[6]. This shows that part-time graduates achieve lower proportions of first or upper second class degrees over all entry qualifications. However, it should be noted that the number of part-time graduates with known A-level grades is small.

Figure 3: 2013-14 graduates by mode of study, entry qualification and degree classification

Population: All graduates. Note that groups with fewer than 23 graduates have been suppressed.

46.   When we analyse mode of study effects after accounting for entry qualifications and other factors (using the modelling described in paragraph 37 and Annex B), only four percentage points of the observed 18 percent point gap are thus explained by these other factors. There remains an unexplained 14 percentage point difference in proportions gaining a first or upper second class degree between full-time and part-time degree graduates. These other factors explain only a small amount of the variation in degree outcomes between full-time and part-time graduates.

47.   We can examine how this unexplained gap between full-time and part-time graduates varies depending on entry qualifications. Figure 4 shows that, for all entry qualifications, full-time graduates with the same characteristics as part-time graduates still have an advantage over their part-time counterparts that is not explained by the model. This difference is between four

---

[6] See Annex A for further details on entry qualification groups.

percentage points for those entering with four A grades at A-level, to around 15 percentage points for graduates who enter with qualifications other than three known A-levels.

Figure 4: The difference between the actual and modelled results for 2013-14 part-time graduates

Population: All graduates. Note that groups with fewer than 23 graduates have been suppressed.

48.   For further information on this and on the proportion of graduates qualifying with a first see Annex C.

Student characteristics

49.   In previous HEFCE publications, differences in degree outcomes between student characteristics have been noted. This section considers the differences by age, sex, disability, ethnicity, previous school type and an area-based measure of disadvantage, for graduates qualifying with either a first or upper second class degree. Further details of these results, including the proportions of first class degrees, are available in Annexes D to I.

Age

50.   For the purposes of this report, young graduates are defined as those who were aged under 21 on entry while mature graduates were aged 21 and over on entry.

51.   In 2013-14, the overall difference between the two groups is 11 percentage points with 64 per cent of mature graduates achieving a first or upper second, compared with 75 percent of young graduates.

52.   Figure 5 shows the distribution of rates across entry qualifications. It shows that there was very little difference between the two age groups for those graduates with three known A-level grades, but that among those entering with qualifications other than A-level, a much higher proportion of mature graduates achieve a first or upper second.

53.   However, it should be noted that the number of mature graduates with known A-level grades is small and that over three quarters of mature graduates enter with qualifications other than A-level. On average, graduates who enter without A-levels do less well than those with A-levels, which is why in overall terms a smaller proportion of mature graduates achieve a first or upper second than young graduates, despite mature graduates achieving a similar or significantly better proportion at each entry qualification level.

Figure 5: 2013-14 graduates by age, entry qualification and degree classification

Population: All graduates.

54.   Figure 6 shows how the distribution of entry qualifications differs for the two groups. Mature graduates mostly enter with prior higher education (HE), unknown or other qualifications, compared with young graduates a large proportion of whom enter with A-levels. Figure 5 shows that of graduates who enter with HE, unknown or other qualifications, fewer than 65 per cent gain a first or upper second class degree compared with over 70 per cent of those who enter with three known A-levels.

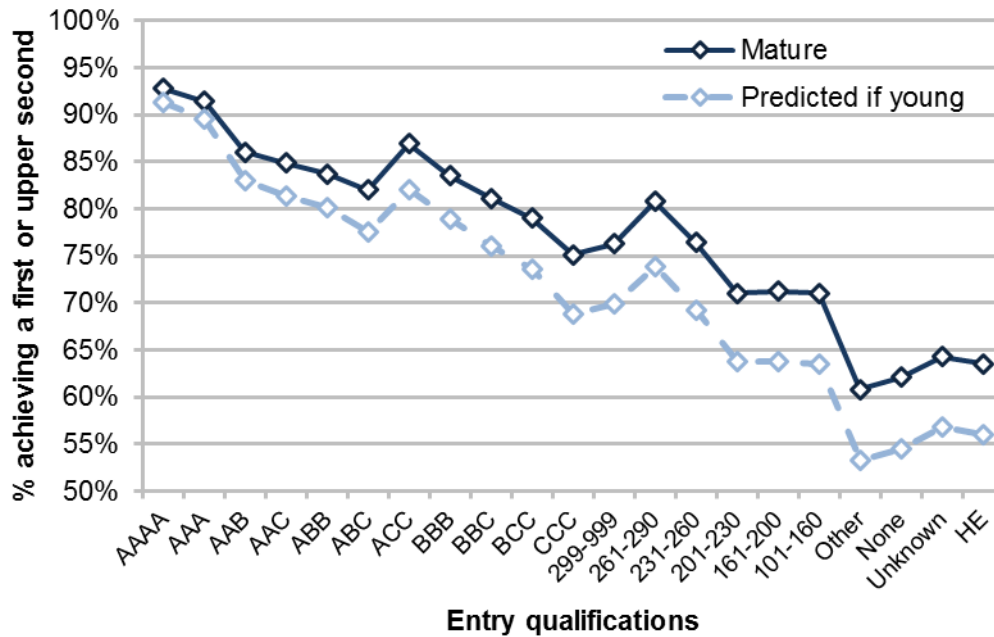**Figure 6: 2013-14 graduates by age and entry qualification**

Population: All graduates.

55.   The results of the modelling are dramatic. After taking into account other factors including entry qualifications, mature graduates have an unexplained seven percentage point advantage over young graduates, as opposed to the observed 11 percentage point disadvantage.

56.   Figure 7 shows that, at three or more A grades, the difference between the actual and predicted values for mature graduates is two percentage points higher than predicted given the factors above. This gap increases to eight percentage points for graduates with an HE qualification on entry. There is thus a significant unexplained difference between what these graduates are achieving and what would be predicted given the results of the modelling.

Figure 7: The difference between the actual and modelled results for 2013-14 mature graduates
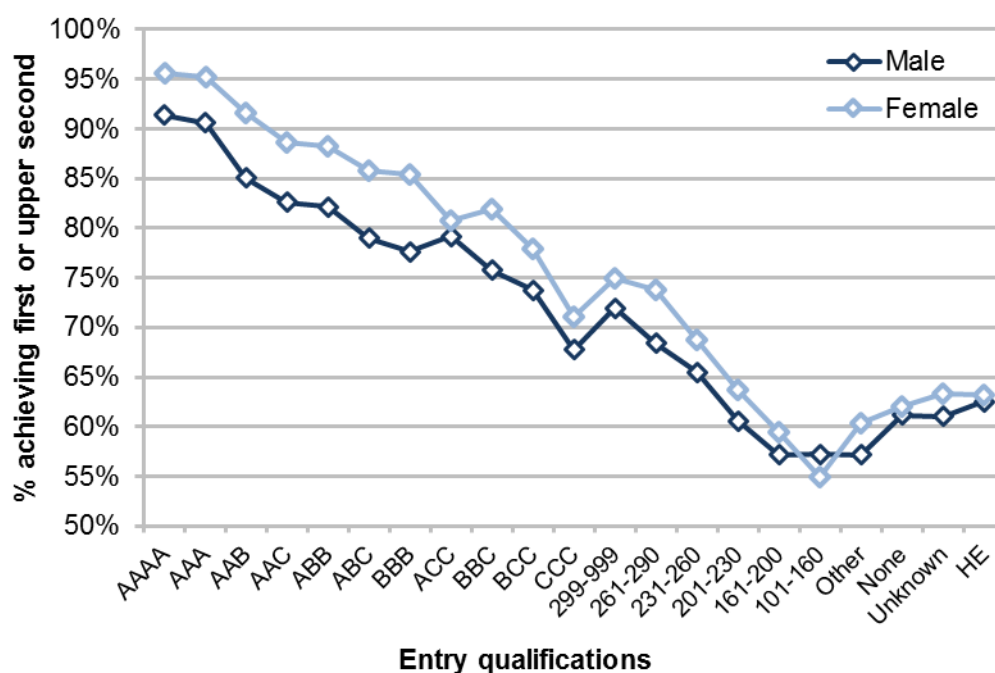

Population: All graduates.

57.   For further information on this and on the proportion of graduates qualifying with a first see Annex D.

Sex

58.   The difference between men and women gaining a first or upper second class degree is four percentage points, with 74 per cent of female graduates obtaining such a degree in 2013-14 compared with 70 per cent of male graduates.

59.   Considering the effect of entry qualification on graduate outcomes, Figure 8 shows that a higher proportion of female graduates still achieve a first or upper second class degree than male graduates. The difference is about four percentage points for graduates entering with four A grades at A-level. This suggests that entry qualifications do not explain all of the observed differences between male and female graduates.

Figure 8: 2013-14 graduates by sex, entry qualification and degree classification
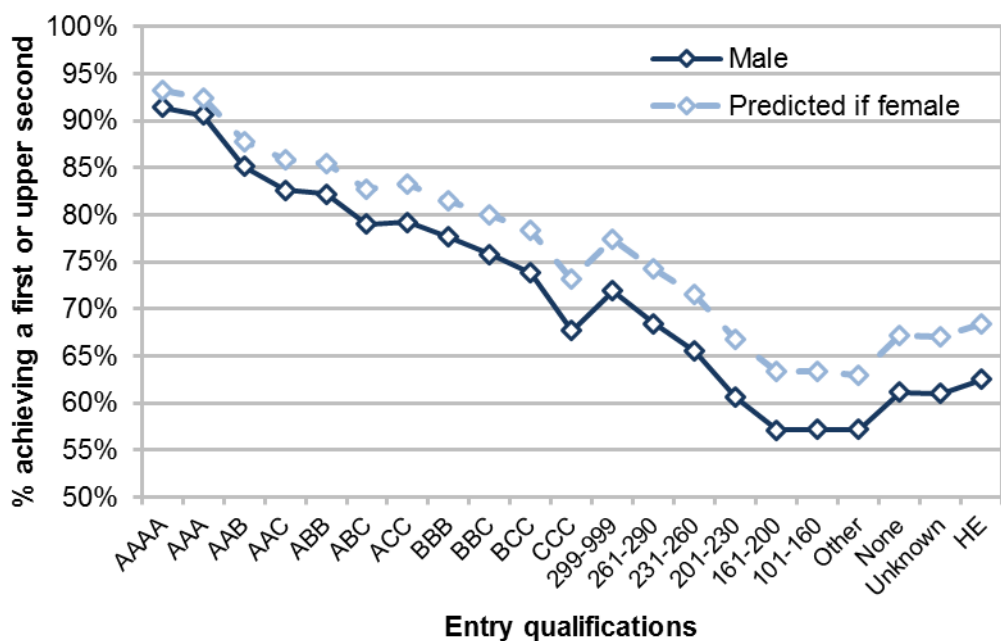

Population: All graduates.

60.   To explore this further, the other modelling factors are taken into account. This shows that, while the actual percentage of male graduates gaining a first or upper second class degree was 70 per cent (compared with 74 per cent for women), given the other observed differences between the male and female cohorts, 75 per cent of men would be predicted to achieve a first or upper second class degree. The unexplained difference between the sexes thus rises to five percentage points (compared with the observed difference of four percentage points). The proportion of males gaining a first or upper second is thus five unexplained percentage points lower than their female counterparts.

61.   Examining these changes over the different entry qualifications, Figure 9 shows that after accounting for the modelled factors, male graduates have a lower actual percentage than predicted for all entry qualification groups. This ranges from two percentage points lower, for graduates who entered with four A grades at A-level, to six percentage points for graduates with entry qualifications other than three known A-levels.

Figure 9: The difference between the actual and modelled results for 2013-14 male graduates
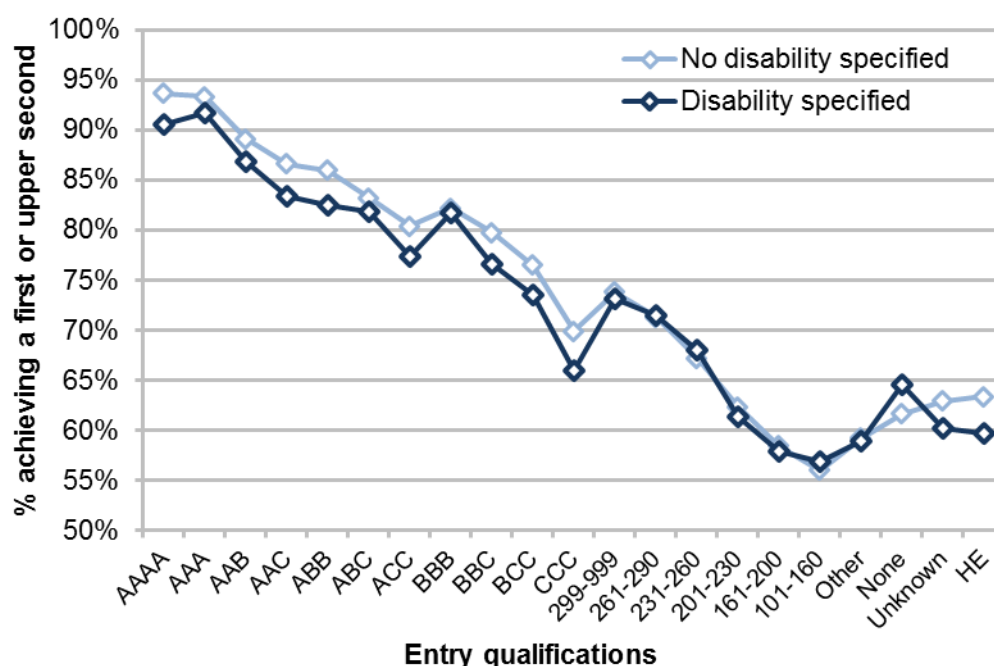

Population: All graduates.

62.   For further information on this, and on the proportion of graduates qualifying with a first split by sex, see Annex E.

Disability

63.   Splitting by the disability status of graduates shows that a lower percentage of graduates with specified disabilities achieve a first or upper second class degree than graduates without a disability. This difference is four percentage points in 2013-14, with 73 per cent of graduates with no specified disability gaining a first or upper second class degree compared with 69 per cent of those with a specified disability.

64.   Figure 10 shows that the greatest difference in outcome is for graduates entering with A-Level grades of ACC, who have a difference of four percentage points, but that the gap in performance is often small or zero. Thus a proportion of the differences between the two groups of graduates can be explained by the entry qualifications.

Figure 10: 2013-14 graduates by disability, entry qualification and degree classification
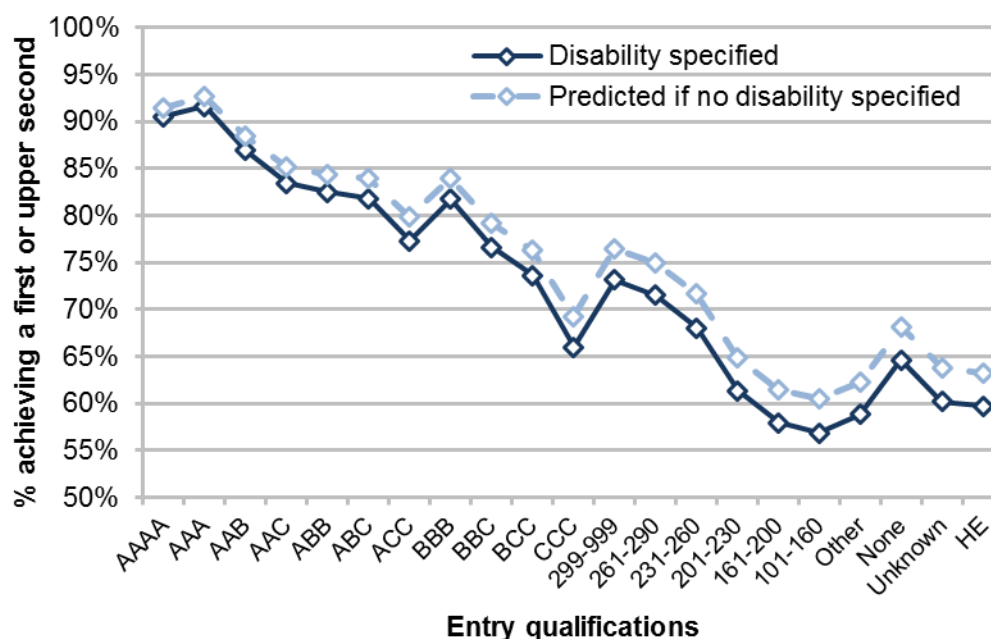

Population: All graduates.

65.   Accounting for the additional modelling factors shows that graduates without a disability have an advantage over graduates with a specified disability. An unexplained difference of three percentage points remains (compared with the observed four percentage point difference). The model thus explains about a quarter of the difference between the two groups.

66.   Examining these changes over the different entry qualifications, Figure 11 shows that after accounting for the modelled factors, graduates with disabilities have a lower actual percentage than predicted for all entry qualification groups. This ranges from one percentage point lower, for graduates who entered with four A grades at A-level, to four percentage points for graduates with entry qualifications other than three known A-levels.

Figure 11: The difference between the actual and modelled results for 2013-14 disabled graduates

Population: All graduates.

67.   For further information on this, and on the proportion of graduates qualifying with a first split by disability status, see Annex F.
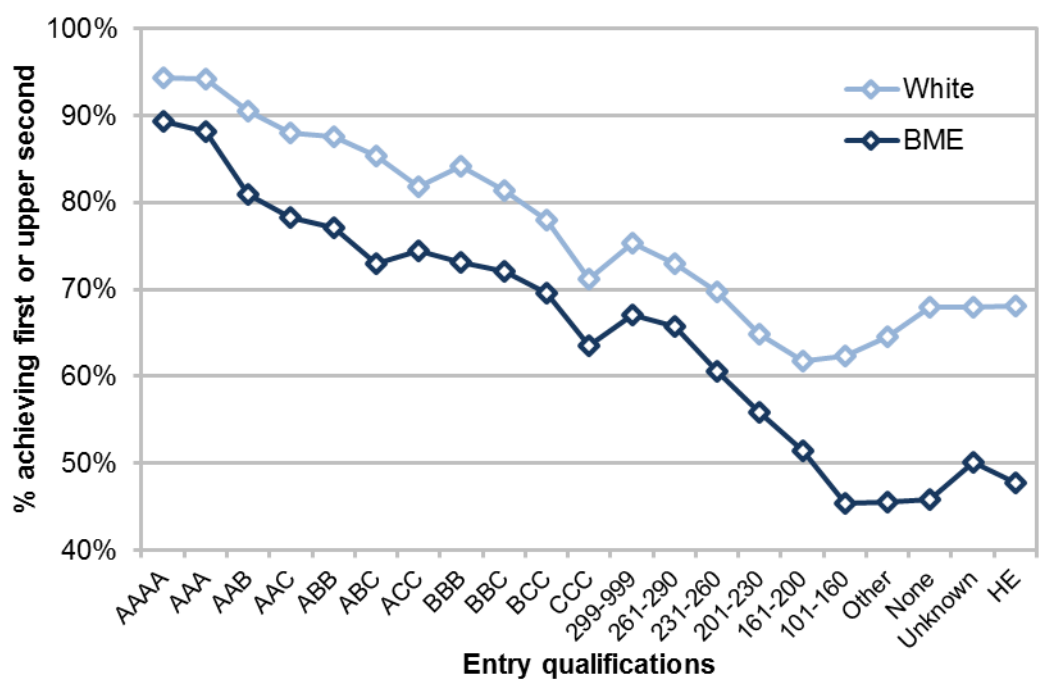
Ethnicity

68.   Previous HEFCE reports have identified issues with differences in degree outcomes for different ethnic groups. This section considers these changes for the 2013-14 graduates by entry qualification.

69.   The proportion of White graduates who achieved a first or upper second class degree in 2013-14 was 76 per cent, compared with 60 per cent of Black and minority ethnic (BME) graduates. This is a 16 percentage point difference between the two groups of graduates.

70.   Figure 12 shows the changes for the 2013-14 graduates by entry qualification. This shows that, after accounting for entry qualifications, White graduates have a higher proportion who gained a first or upper second class degree; the same relationship holds true for firsts alone. The largest difference for a first or upper second class degree is among graduates entering with a prior HE level qualification, where the proportion is 21 percentage points higher for white graduates than BME graduates. This compares with a five percentage point difference for those entering with four A grades at A-level. The observed differences are thus not solely due to entry qualifications.

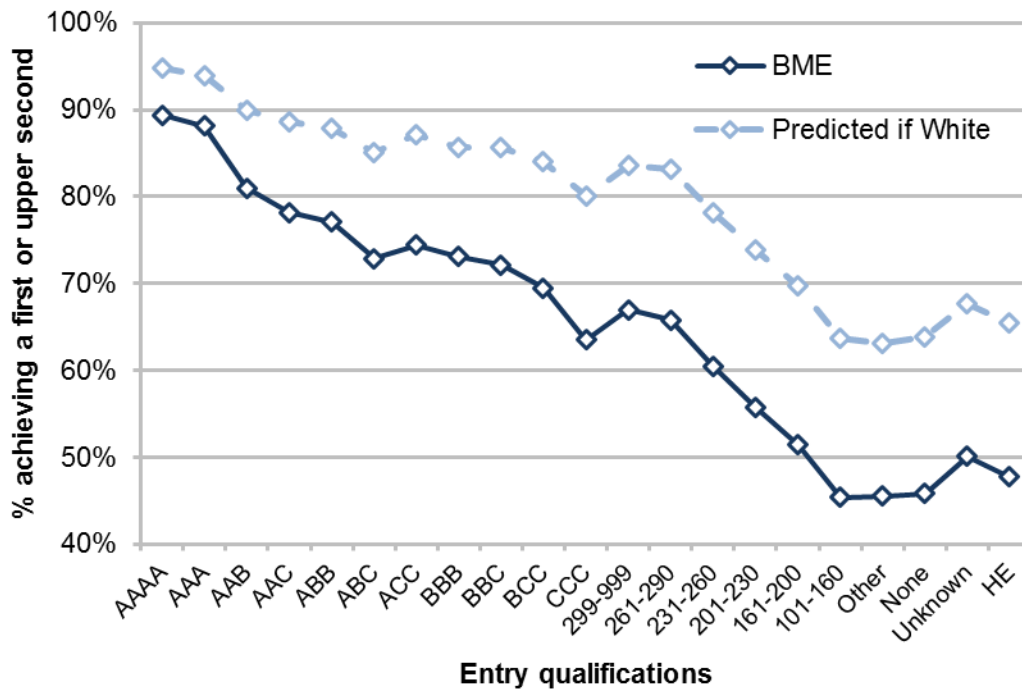**Figure 12: 2013-14 graduates by ethnicity, entry qualification and degree classification**

Population: All graduates.

71.   Considering these differences further through modelling, BME graduates have an unexplained difference of 15 percentage points, which is similar to the observed difference.

72.   Examining these changes over the different entry qualifications, Figure 13 shows that after accounting for the modelled factors, BME graduates have a lower actual percentage than predicted. This ranges from five percentage points lower, for graduates entering with four A grades at A-level, to 18 percentage points for graduates with entry qualifications other than three known A-levels.

Figure 13: The difference between the actual and modelled results for 2013-14 BME graduates

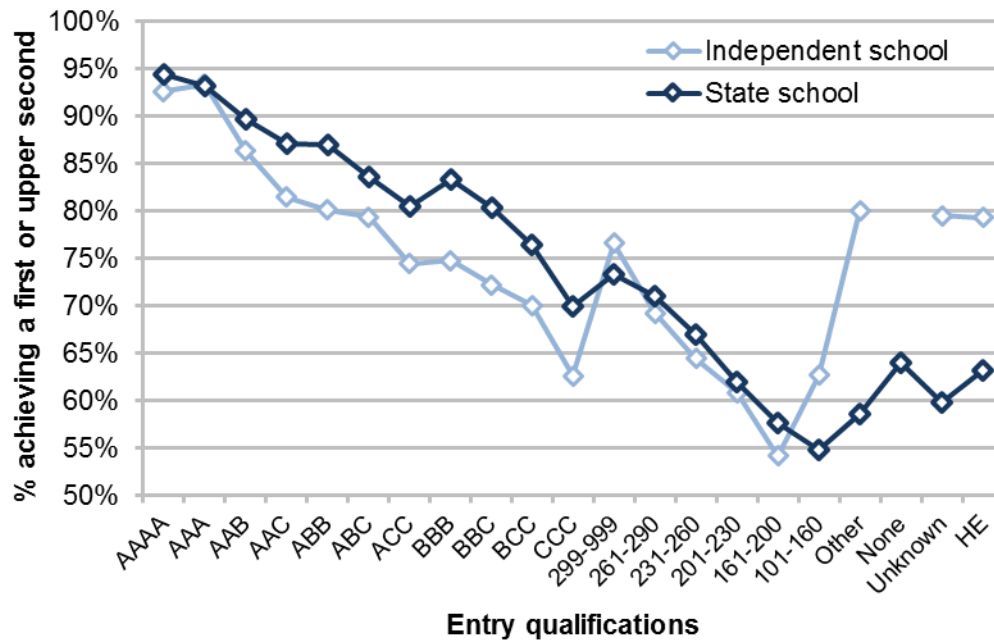Population: All graduates.

73.   For further information on this, and on the proportion of graduates qualifying with a first split by ethnicity, see Annex G.

Previous school

74.   To examine the effect of prior attainment, a split by entry qualifications is considered. Among 2013-14 graduates, 82 per cent of state school graduates gained a first or upper second class degree, compared with 73 per cent independent school graduates. This is a nine percentage point difference.

75.   Figure 14 shows that the difference between the two groups at the higher entry grades was not significant, but that there is a difference at the lower level entry qualifications.

Figure 14: 2013-14 graduates by previous school, entry qualification and degree classification
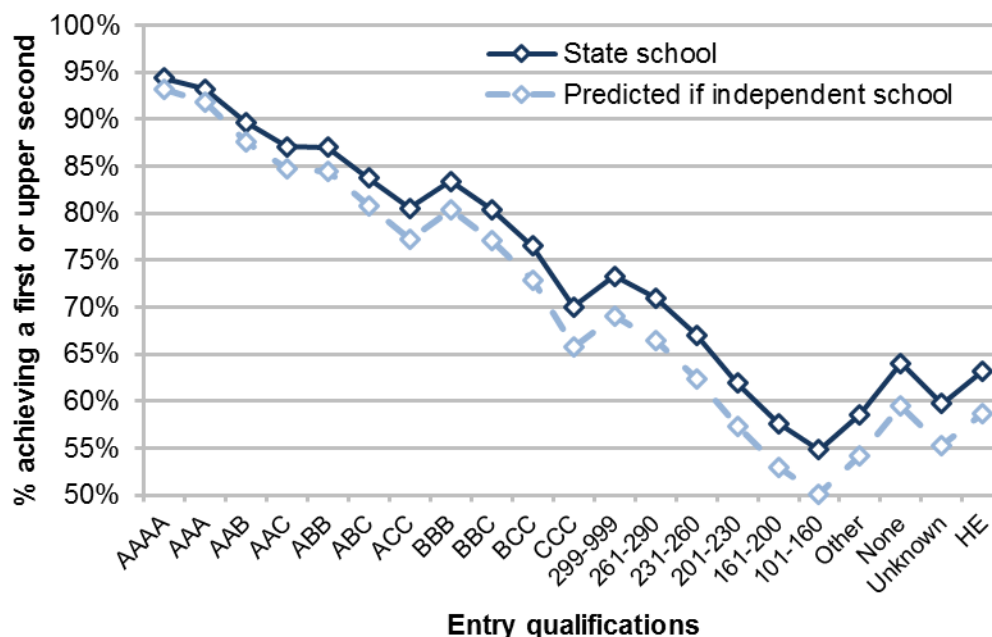

Population: All young graduates.

76.   Further to this, other characteristics were taken into account. They show that the percentage of state school graduates achieving a first or upper second class degree remained higher than predicted and that, of the nine percentage point difference, only five percentage points were explained by other factors, leaving four percentage points unexplained.

77.   Examining these changes over the different entry qualifications, Figure 15 shows that after accounting for the modelling factors, state school graduates have a higher actual percentage than predicted across all entry qualification groups. This ranges from one percentage point lower, for graduates entering with four A grades at A-level, to five percentage points for graduates with HE level qualifications on entry.

Figure 15: The difference between the actual and modelled results for 2013-14 state school graduates

Population: All young graduates.

78.   For further information on this and on the proportion of graduates qualifying with a first split by school type, see Annex H.

Area-based measure of disadvantage: Graduates from low-participation neighbourhoods
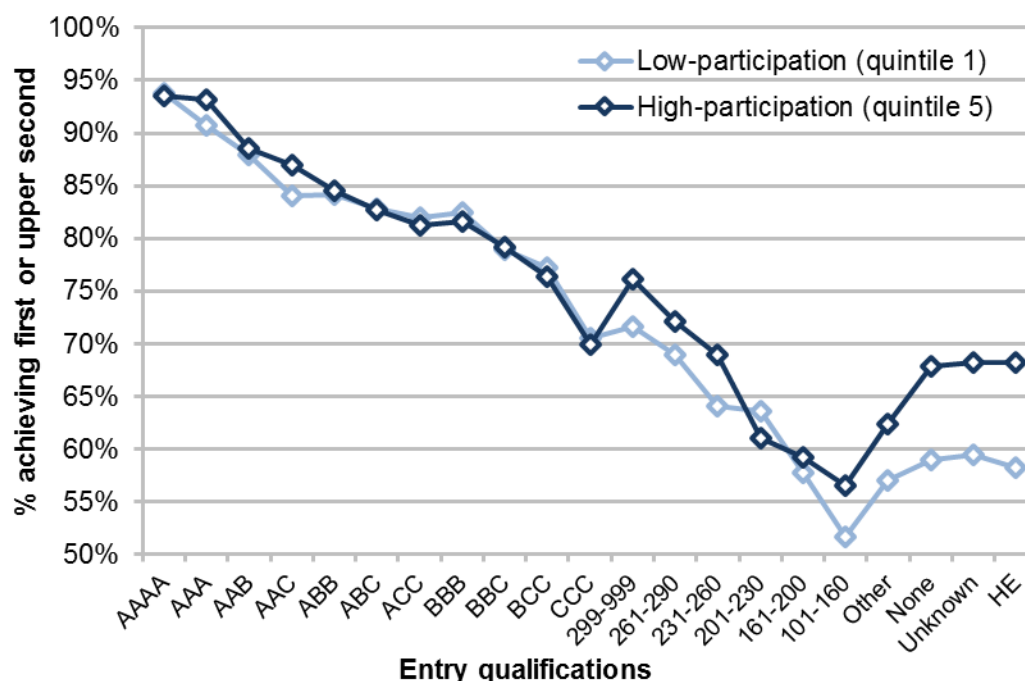
79.   Low-participation neighbourhoods are defined as areas where low proportions of young people participation in higher education (as measured by the Participation of Local Areas classification[7]. Quintile 1 areas are those with the lowest higher education participation rates, and quintile 5 are the highest-participation neighbourhoods. Graduates are grouped using the area they lived in immediately prior to entry to higher education.

80.   Of graduates from the lowest-participation neighbourhoods, 66 per cent gained a first or upper second class degree in 2013-14, which is 11 percentage points lower than the highest-participation neighbourhoods, 77 per cent of whose graduates gained such a degree.

81.   Figure 16 shows that once the entry qualifications are taken into account the difference between the two quintiles is not significant for graduates with three known A-level grades. However, for the other entry qualifications, there is still a difference in attainment for these two groups.

---

[7] For more information see www.hefce.ac.uk/analysis/yp/POLAR/.

Figure 16: 2013-14 graduates by young participation rate, entry qualification and degree classification
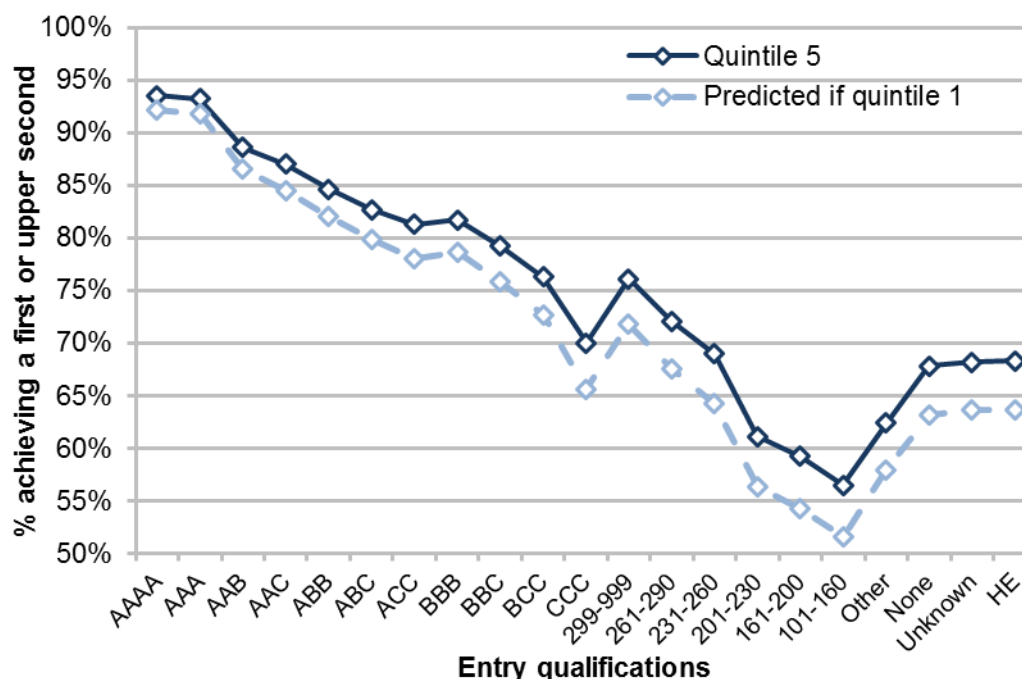

Population: All young graduates.

82.   Taking into account the other factors, the unexplained difference between those from the area with the lowest (quintile 1) and highest (quintile 5) participation rates is three percentage points. This means that eight of the 11 percentage points are explained by other factors.

83.   Figure 17 shows how the effects of the model change for different entry qualifications. This shows that among graduates from the highest entry qualification areas who entered with four A grades at A-level, the proportion who were predicted to obtain a first or upper second class degree was 92 per cent, which was one percentage point lower than the actual value. This difference increases to 5 per cent for graduates who enter with qualifications other than three known A-levels.

Figure 17: The difference between the actual and modelled results for 2013-14 highest participation neighbourhood graduates

Population: All young graduates.

84. For further information on this, and on the proportion of graduates qualifying with a first split by neighbourhood participation level, see Annex I.
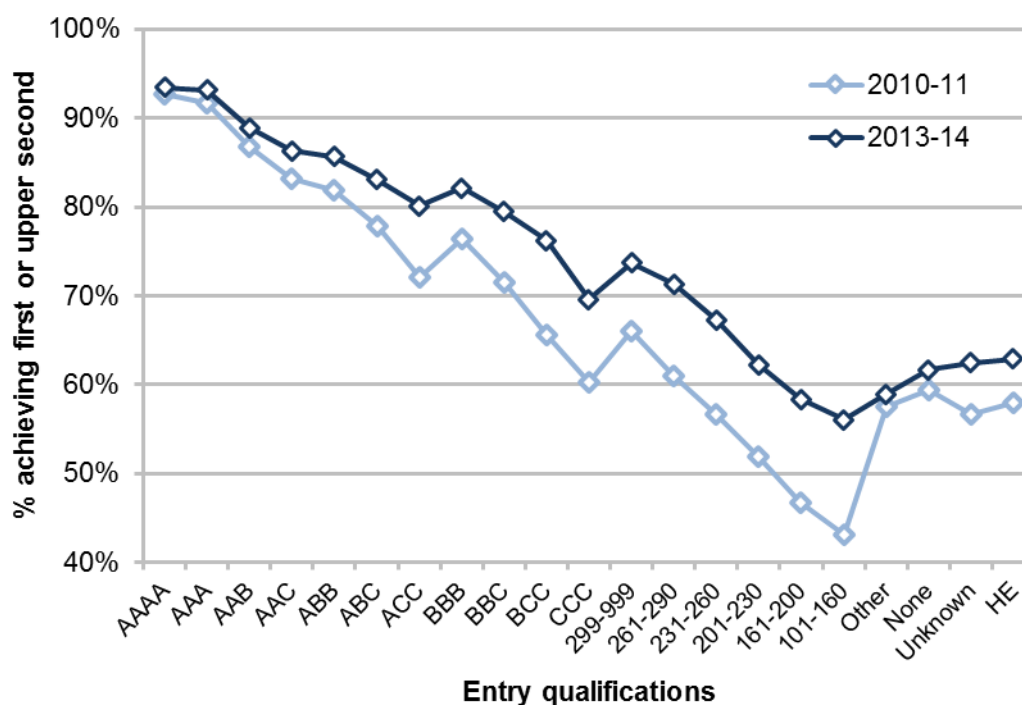
Changes over time

85. The observed proportion of graduates gaining a first or upper second class degree has changed over time. Between 2010-11 and 2013-14 the annual increase has been around one and a half percentage points.

86. Previous sections of this report have shown that differences in student characteristics are related to different degree outcomes. Therefore, part of the change over time may be due to changes in the student body, and these can be assessed using a similar modelling approach to the one used to explore the differences in 2013-14 degree outcomes, as described in paragraphs 40 to 43[8].

87. For example, over this time the number of graduates entering their first degree with three A grades at A-level or higher has increased by 30 per cent: in 2010-11 they were approximately 9.3 per cent of the population, rising to 10.4 per cent in 2013-14. However, the proportion of these graduates gaining a first or upper second class degree remained at 93 per cent, as shown in Figure 18. This means that the total proportion of graduates gaining a first or upper second class degree would be predicted to increase.

---

[8] Annex B gives further details of this modelling of change over time.

Figure 18: 2010-11 and 2013-14 graduates by entry qualification and degree classification
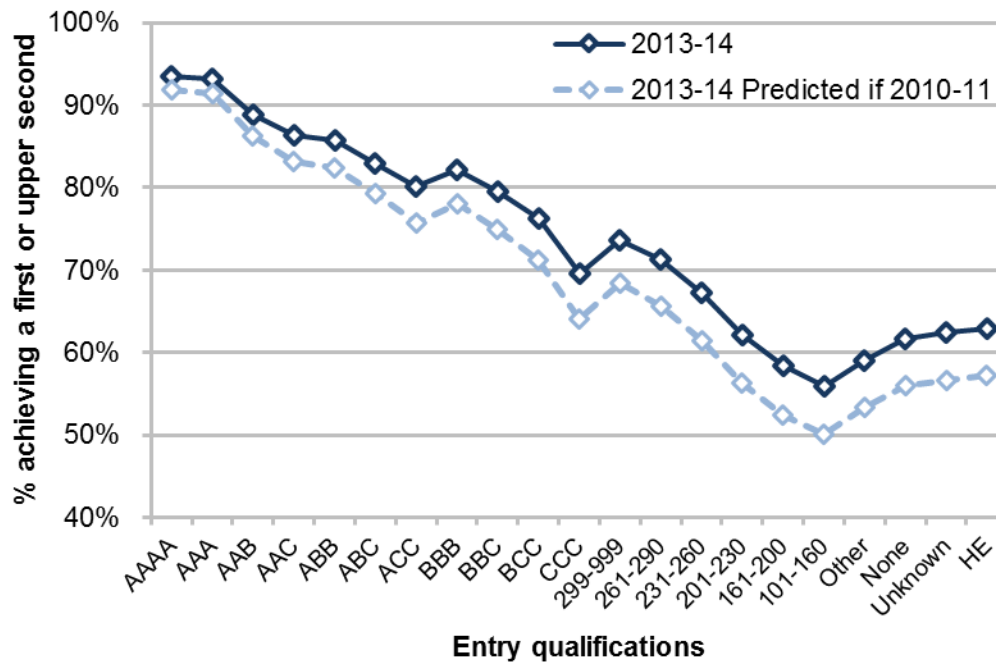

Population: All graduates.

88.   Around half of the annual increase in degree classification is explained solely by changes in the characteristics of the graduate cohort, such as entry qualifications, gender, ethnicity, measures of disadvantage and previous school type. The remaining growth of around 0.75 per cent per year is thus due to other factors not taken into account in the modelling. These may include unobserved changes in graduate characteristics, institutional effects and other unmeasurable factors such as changes in learning, teaching and retention practices or behaviour following the introduction of higher fees.

89.   Figure 19 shows that there was a two percentage point difference for graduates who entered in 2013-14 with four A grades at A-level, compared with the 2010-11 graduates. This compares with a difference of six percentage points for graduates with entry qualifications other than three known A-levels.

Figure 19: The difference between the actual and modelled results for 2013-14 graduates compared with 2010-11 graduates

Population: All graduates.