## Research

This report analyses trends in young participation in English higher education by student background and selectivity of the institution attended.

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# Trends in young participation by student background and selectivity of institution 

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## Executive summary

1. This report examines trends in young participation in English higher education, by both the students' backgrounds and the selectivity of the university or college attended (that is, whether their entry requirements are high, medium or low). It is an update of earlier analysis published in Annex C of OFFA publication 2010/03, What more can be done to widen access to highly selective universities?1.
2. This report analyses the participation of people aged 18 or 19 in higher education², from those who were aged 18 in the 1998-99 academic year up to and including those aged 18 or 19 in the 2011-12 academic year, plus the estimated participation (based on application data) of those who entered aged 19 in the 2012-13 academic year.
3. It does not include those who entered aged 18 in 2012-13, and therefore the great majority of young people included will have applied to higher education before the changes to fees and student finance that took effect in 2012. This analysis therefore indicates trends in participation under the previous system of fees and student finance, and should not be interpreted as indicating trends in participation among post-2012 applicants.
[^0]
## Key findings

## Participation rates

4. Overall, participation increased for young people from all backgrounds during the period analysed. This increase was driven by rising participation of young people from all backgrounds at universities and colleges that have medium or low entry requirements, especially since the mid 2000s.
5. At universities and colleges with the lowest entry requirements, over the period analysed:

- participation of the most disadvantaged 40 per cent of young people increased from 5.3 per cent to 8.5 per cent
- participation of the most advantaged 20 per cent of young people remained roughly the same, starting at 8.9 per cent and ending at 9.4 per cent.

6. At universities and colleges with medium entry requirements, over the period analysed:

- participation of the most disadvantaged 40 per cent of young people increased from 4.0 per cent to 6.4 per cent
- participation of the most disadvantaged 20 per cent rose from 11.6 per cent to 14.8 per cent.

7. In contrast, at universities with the highest entry requirements, over the period analysed:

- participation of the most disadvantaged 40 per cent of young people remained low and relatively unchanging ( 2.4 per cent at the beginning of the period and 2.9 per cent at the end), having remained around this level since the mid-1990s
- participation of the most advantaged 20 per cent of young people at these universities rose from 15.4 per cent to 18.1 per cent.

Gaps between participation of most advantaged and most disadvantaged
8. The most advantaged 20 per cent of young people were 2.5 times more likely to go to higher education (overall) than the most disadvantaged 40 per cent. This ratio is an average over the last four cohorts of students in our study, and compares to 2.8 times in the mid to late 1990s.
9. This ratio was smallest at universities and colleges with the lowest entry requirements, having decreased from 1.7 to 1.1. Thus, at the end of the period analysed, young people from the most advantaged and most disadvantaged backgrounds had broadly equal chances of going to one of these universities/colleges.
10. At universities and colleges with medium entry requirements, the ratio also narrowed over the period analysed: from 2.9 to 2.3 .
11. By contrast, at universities with the highest entry requirements, the ratio remained effectively unchanged. At the end of the period analysed, the most advantaged 20 per cent of young people were 6.3 times more likely to enter one of these universities than the most disadvantaged 40 per cent, compared to 6.4 at the start.
12. All the trends reported in this analysis are consistent with the trends in our previous analysis (Annex C of OFFA publication 2010/03).

## Introduction

## Background to this report

13. This research examines young participation that is, the proportion of young people that enter higher education aged 18 or 19 - by both the level of advantage or disadvantage in the students' background (see paragraphs 19-20) and the selectivity of institution (see paragraphs 21-24). It covers the 98:99 to 11:12 cohorts (i.e. from those who entered higher education aged 18 in the 1998-99 academic year or 19 in the 1999-2000 academic year, up to those who entered aged 18 in 2011-12 or 19 in 2012-133).
14. It is based on the methodology of tracking young participation established by the Higher Education Funding Council for England (HEFCE) in its report on participation for the 94:95 to 09:10 cohorts (HEFCE publication 2010/03, Trends in young participation in higher education: core results for England4).
15. OFFA extended the research in HEFCE publication 2010/03 to examine young participation over the same period by both the level of advantage or disadvantage in the students' background, and the selectivity of institution (Annex C of OFFA publication 2010/03, What more can be done to widen access to highly selective institutions?5), which are particular concerns for fair access but were not covered in the original HEFCE analysis. This new analysis is an update to that in OFFA publication 2010/03.
16. There were major changes to the system of fees and student finance that took effect in the 2012-13 academic year. However, since the latest group of young people included in this analysis are those who entered higher education either aged 18 in 2011-12, or aged 19 in 2012-13, the great majority of students covered will have applied to higher education before the changes to fees and student finance that took effect in 2012-13, and will have made key decisions affecting their higher education pathways before the financial changes were widely understood. This analysis should not, therefore, be taken as an indication of longer-term future trends in the very different context of 2012 onwards.

## Data sources

17. This analysis is based on Higher Education Statistics Agency (HESA) student record data (i.e. actual participation data) up to and including the 10:11 cohort.
18. For the 11:12 cohort, we have predicted participation rates using a combination of HESA student record data for those who entered aged 18 in 2011-12, and UCAS application data for those who entered aged 19 in 2012-13, since HESA student record data was not available for these students at time of writing ${ }^{6}$.

## How we measure advantage and disadvantage

19. As in previous reports by HEFCE and OFFA on higher education participation, we use a measure of advantage and disadvantage based on the neighbourhood in which a person lives. Small areas (census wards, as used in the 2001 census) are classified according to the proportion of young people in each ward who have a parent with a higher education qualification. The areas are then grouped into five groups (quintiles) which each contain an equal population of young people. Quintile 1 represents the most disadvantaged 20 per cent, in which children are the least likely to have a higher education qualified parent; quintiles 2,3 and 4 are progressively less disadvantaged; quintile 5 areas are the most advantaged 20 per cent, in which children are most likely to have a parent with a higher education qualification.
20. There are two other measures of advantage/disadvantage that are commonly used in discussing higher education participation. One is based on the rates of young participation in each ward (the Participation of Local Areas, or POLAR, measure), which we have chosen not to use here because although it is slightly more discriminating it necessitates making institution-level adjustments. The other is based on proportions of children living in lower-income households, which we have chosen

[^1]not to use because it is particularly sensitive to region, and would not necessarily identify the most and least disadvantaged people in terms of entry to higher education.

## Institutions included in this analysis

21. The key to a secure analysis of participation trends is to ensure that the calculated trends reflect real changes in the proportion of young people attending these institutions, rather than the other changes in the institution-level data and structures that will have occurred over a long period of time. Our analysis must also be limited to institutions that are within OFFA's remit. Therefore, in OFFA 2010/03 we selected 87 institutions to form a time series that:

- includes only institutions in England that have access agreements - this reflects OFFA's remit
- includes higher education institutions (HEls) only - i.e. does not include higher education at further education colleges
- includes full-time provision only - this reflects OFFA's remit prior to 2011-12 and also aids institutional estimates using UCAS data
- excludes indirectly funded higher education provision and certain types of nursing students this aids institution-level UCAS estimates and avoids distortion in trends through changes in the amount of franchised provision
- excludes institutions that were not fully present and identifiable during the reporting period in both the HESA and UCAS data. This could have been due to institutions not being in the HESA record for the whole period, certain mergers or de-mergers, or not using UCAS as the primary admissions route.

22. The same institutions are used in this new research, apart from one that could not be included due to suppressed UCAS data. That institution accounted for far less than 0.5 per cent of the total student population from the previous analysis, but it will have the effect of reducing the total entrants within the reporting population, and therefore
reducing the resulting participation rates, although the effect of this is negligible for the purposes of our analysis.
23. In order to draw conclusions about the whole English higher education sector from the 86 institutions in our time series, we must be confident that the trends seen in the time series are indicative of the whole English higher education sector. So we have compared the trends seen in our time series to the full measure for participation across the sector, as shown in HEFCE's latest young participation report (HEFCE publication 2013/28, Trends in young participation in higher education7), which updates the analysis in HEFCE publication 2010/03 and includes trends from the 98:99 cohort to the 11:12 cohort.
24. The results are shown in Figure 1 (all institutions and all student backgrounds), Figure 2 (students from disadvantaged neighbourhoods) and Figure 3 (students from advantaged neighbourhoods). In all three, the trends seen in the 86 time series institutions follow those seen in the full measure, so we can be confident that our time series HEls reflect the key features of participation in general and that our analysis is indicative of the wider sector.
[^2]Figure 1: Overall young participation: comparison of full sector data from HEFCE publication 2013/28 with OFFA time series HEls


Figure 2: Young participation for areas with the lowest proportions of children with graduate parents: comparison of full sector data from HEFCE publication 2013/28 with OFFA time series HEls


Figure 3: Young participation for areas with the highest proportions of children with graduate parents: comparison of full sector data from HEFCE publication 2013/28 with OFFA time series HEls


## Measuring institutions' selectivity

25. OFFA publication 2010/03 divided the institutions within the time series into three broad categories: "high entry tariff", "medium entry tariff" or "low entry tariff", based on the average UCAS tariff score 8 of English-domiciled 18 year-old entrants from the 2007 and 2008 entry cycles. Each of these groups contained an equal number of entrants to higher education by the end of the time period covered in OFFA publication 2010/03, so that the total time series in each group was comparable.
26. As noted in the previous analysis, the thresholds used are arbitrary in that they are dictated by wanting equal-sized institutional groups; also, there will be variations in the average entry tariff within institutions, and the relationship between offer level and the observed entry qualifications may differ across institutions and courses. Nonetheless, the institutional groups do represent real differences in the attainment levels needed to gain entry to these institutions.
27. The groups calculated in the previous analysis still broadly hold when updated with tariff data for the 2010 and 2011 entry cycles. If we were to reclassify the institutions based on the latest available entry tariff data, just seven of the 86 would move into a different group, of which only one would move from the higher tariff group to the medium tariff group. No institution would move from the low tariff group to the higher tariff group or vice versa.
28. So we have kept all institutions in their original groups to enable comparison between this and the previous analysis. There are 23 institutions in the higher tariff group, 30 in the medium tariff group and 33 in the lower tariff group.
29. A result of maintaining the groups when some institutions have changed their entry requirements is that the ranges of mean tariff points for the groups are no longer distinct from one another, as shown in Figure 4, and a small number of institutions now overlap the boundaries between one entry tariff

[^3]group and another. However we are confident that the groups continue to differentiate institutions appropriately for this type of analysis.
30. As noted in paragraph 18, one institution that was included in the time series for OFFA publication 2010/03 could not be included in this latest analysis. That institution accounted for far less than 0.5 per cent of the total student population from the previous analysis so we did not adjust the institutional groupings based on the removal of this one institution.

Figure 4: Distribution of entry tariff for institutions by entry tariff group


## Participation by background and selectivity

## Comparison of participation between all five quintiles

31. There are large differences in participation rates between the five quintiles in the full measure of the whole higher education sector (as calculated in HEFCE 2013/28). Figure 5 illustrates this.
32. In the 11:12 cohort for the full measure, 58 per cent of the most advantaged young people (quintile 5) enter higher education compared to 22 per cent of the most disadvantaged (quintile 1). This has risen from 56 and 20 per cent respectively in the 09:10 cohort, continuing the trend seen in OFFA publication 2010/03.
33. Figures 6,7 and 8 report participation for each quintile at higher tariff, medium tariff and lower tariff institutions respectively, for our 86 time series institutions. Since participation rates have remained fairly static for both advantaged and disadvantaged young people at higher tariff institutions, particularly since the mid 2000s (Figure 6) we can conclude that the increases in participation rates we see at sector level were driven by the increases at medium and low tariff institutions (Figures 7 and 8 respectively).
34. As in OFFA publication 2010/03, participation rates for these figures are reported to the nearest 0.1 percentage point, because some rates are very small, and rounding to the nearest percentage point risks concealing important detail. Reporting rates by institutional groups, rather than individual institutions, helps reduce the random year to year variability in the rates resulting from the small number of entrants from different backgrounds to particular institutions. However the expected random year to year variation is still appreciable. As a guide, where the participation rate propensity for young people from a background quintile is low, less than 4 per cent for example, then the observed participation rate can fluctuate by at least $\pm 0.1$ percentage points around that value through random variation alone. Where the rate for a quintile is higher, around 20 per cent for example, this range becomes at least $\pm 0.2$ percentage points.
35. The pattern of young participation in higher tariff institutions (Figure 6) has much larger differences between quintiles than higher education as a whole (see Figure 5).
36. In the most disadvantaged areas the rate predicted for entry to higher tariff institutions for the 09:10 cohort in OFFA publication 2010/03 was 2 per cent compared to a predicted 18.2 per cent for the most advantaged areas - that is, one in 50 of the most disadvantaged young people would enter a higher tariff institution compared to just less than one in five of the most advantaged young people. The confirmed data for this cohort, shown in Figure 6 , shows little movement from these predicted rates, confirming that they were accurate.
37. The predicted rates of entry to higher tariff institutions for the most advantaged and most disadvantaged in the 11:12 cohort, shown in Figure 6 , are 18.1 per cent and 2.2 per cent respectively. That represents a small shrinking of the gap between these groups, although nothing more significant than could be explained by random variation.

Figure 5: Trends in young participation for areas grouped by the proportion of children with graduate parents: whole sector


Figure 6: Trends in young participation in higher tariff time series HEls for areas grouped by the proportion of children with graduate parents


Figure 7: Trends in young participation in medium tariff time series HEls for areas grouped by the proportion of children with graduate parents


Figure 8: Trends in young participation in lower tariff time series HEls for areas grouped by the proportion of children with graduate parents

38. The trend and relative participation rates in medium tariff institutions, shown in Figure 7, are much closer to higher education as a whole (see Figure 5).
39. Figure 7 shows a clear increase in participation rates for young people from all backgrounds since the mid 2000s and this pattern of increasing participation continues beyond the 09:10 cohort up to the 11:12 cohort equally for all quintiles.
40. Figure 8 shows that the pattern for lower tariff institutions is very different from the full measure for English higher education as a whole (see Figure 5).
41. In the late 1990s, the most advantaged young people were almost twice as likely to enter a lower tariff institution as the most disadvantaged young people. But since then, this gap has decreased. OFFA 2010/03 predicted that in the 09:10 cohort, the participation rates within these institutions would be 8.9 per cent and 7.4 per cent for the most advantaged and most disadvantaged respectively. Our new analysis shows that participation rates at lower tariff institutions continued to increase up to the 11:12 cohort, when they were 9.4 per cent and 7.9 per cent respectively.

## Comparison between most advantaged 20 per cent and most disadvantaged 40 per cent of young people

42. A simple measure of the pattern of young participation is the ratio of the participation rate of the most advantaged 20 per cent of young people (quintile 5) to that of the most disadvantaged 40 per cent of young people (quintiles 1 and 2 aggregated). We aggregate quintiles 1 and 2 when making this comparison because the number of entrants from quintile 1 in the higher tariff institutions is so low that it leads to proportionally high random variation in the results from cohort to cohort; aggregating quintiles 1 and 2 limits this variation and reflects the similarity in participation rates in these quintiles. This was done in OFFA publication 2010/03 and has been maintained because this broader group of 40 per cent of young people exhibited very different patterns of behaviour to other quintiles.
43. For the time series institutions overall, this ratio of participation in quintile 5 to that in aggregated quintiles 1 and 2 averaged 2.6 across the 06:07 to

09:10 cohorts when calculated using the projected entrant data in OFFA publication 2010/03.
Recalculating this statistic now, with known entry populations for all those cohorts (and given the removal of one of the time series institutions) this ratio averaged 2.8 across the 06:07 to 09:10 cohorts. Across the 08:09 to 11:12 cohorts, we see an improvement in this ratio down to 2.5 .
44. Figure 9 shows the distribution of this ratio for institutions within the three tariff groups. As in OFFA publication 2010/03, there continue to be large differences across the groups.
45. The previous analysis showed that three-quarters of the institutions in the lower entry tariff group had a ratio below 2.0, with a substantial minority having a ratio below 1.0, and the lowest ratios at 0.5 or less. This distribution among the lower entry tariff group remains, on the whole, but the ratio has fallen for the majority of institutions within this group, so now half of the institutions within this group have a ratio of 1.0 or less (meaning that at half of the low tariff institutions, people from aggregated quintiles 1 and 2 are just as likely, or more likely, to participate than quintile 5). At four institutions, people from aggregated quintiles 1 and 2 are more than twice as likely to participate.
46. The picture is very different at high tariff institutions. Here, the range of this ratio has widened, with the lowest ratio at 2.8 rather than 3.0 and the highest ratio at 16 rather than 15 . Three-quarters of high entry tariff institutions continue to have a ratio of 5.0 or above, with four institutions having a ratio of 10 or above and one a ratio of 16.0.

Figure 9: Distribution of the ratio of the participation rate of quintile 5 against that of combined quintiles 1 and 2 for institutions by entry tariff group (mean, over cohorts 08:09 to 11:12)


Figure 10: Participation rates of disadvantaged young people (combined quintiles 1 and 2 ) in entry tariff institution groups

47. Figures 10 and 11 show participation rates by institutional tariff group for, respectively, the most disadvantaged 40 per cent and most advantaged 20 per cent of the young population. They show that the patterns of participation rates for these two groups are very different.
48. Figure 10 shows that the participation rate of the most disadvantaged 40 per cent (aggregated quintiles 1 and 2) at higher entry tariff institutions has remained relatively flat since the late 1990s, with a peak in participation in the 02:03 cohort of 3.1 per cent. The rate has remained at below 3 per cent since then and stands at 2.9 per cent for the 11:12 cohort. (We note that recent UCAS data9 shows that acceptance rates for disadvantaged, Englishdomiciled 18 year-olds rose considerably for higher tariff institutions between 2011 and 2013 - up by 26 per cent proportionally. The rates shown in Figure 10 do not include these students, as discussed in paragraph 13, but we expect our next analysis of young participation rates to reflect this increase).
49. Figure 10 also shows that, in stark contrast to the trend at higher tariff institutions, participation rates for this group of young people at medium and lower entry tariff groups have increased since the early 2000s, rising particularly sharply since the 07:08 cohort. The increase in participation rates has been most prevalent at lower entry tariff institutions where, since the 07:08 cohort, participation has increased from 6 per cent to 8.5 per cent in the 11:12 cohort.
50. Figure 11 shows that participation rates for the most advantaged 20 per cent of young people are much higher in all the three entry tariff groups than for those in the most disadvantaged 40 per cent. Also, the relative importance of these groups is inverted (i.e. participation rates are highest at high tariff institutions and lowest at low tariff institutions) compared to the most disadvantaged group. Participation among quintile 5 at the higher entry tariff institutions has remained relatively constant since the 06:07 cohort, but has increased at both medium and lower entry tariff institutions.
51. Figure 12 shows the relative participation rates in each of the tariff groups of the most advantaged 20 per cent of young people and the most disadvantaged 40 per cent. The ratio indicates how much more likely a young person from quintile 5 is to attend one of these institutions than a young person from quintiles 1 and 2 . This measure concentrates on the changes in the composition of entrants and is therefore not affected by increases in the overall participation rates of institutions or institutional groups.
52. Figure 12 illustrates the continuing large gaps in participation between the most advantaged 20 per cent of the young population and the most disadvantaged 40 per cent of the young population at higher entry tariff institutions.
53. The substantial increases in the participation rate of the most disadvantaged 40 per cent of the young population at lower tariff institutions, combined with a near-static pattern for the most advantaged, has caused the relative participation rate of the most advantaged to fall from 1.7 in the late 1990s to 1.1 in the 11:12 cohort.
54. The relative participation rate for the higher tariff group in the 09:10 cohort was 6.9, but this has fallen to 6.3 in the 11:12 cohort. It is too early yet to know whether this indicates a change in trend, or whether the fall is simply random variation - this statistic is particularly sensitive, in absolute terms, to changes in the underlying rates at higher tariff institutions, due to the low participation rate of disadvantaged students at those institutions.
55. The relative participation rates at medium and lower entry tariff institutions have been steadily reducing since the late 1990s, although they have remained static since 09:10 and are consistent with the predictions given in the previous analysis for these later cohorts.

[^4]Figure 11: Participation rates of advantaged young people (quintile 5) in entry tariff institution groups


Figure 12: Participation rate of quintile 5 young people relative to that of combined quintiles 1 and 2 , by entry tariff group


Cohort

## Conclusions and next steps

## Conclusions

56. The trends seen in our previous analysis (Annex $C$ of OFFA publication 2010/03) continued in the period covered in this analysis.
57. Sector-wide, participation increased for young people from all backgrounds. This increase was driven by rising participation of young people from all backgrounds at in the medium and low tariff institution groups, especially since the mid 2000s. In contrast, at high tariff institutions, participation remained relatively stable for all groups.
58. As a result, at medium and low tariff institutions, participation rates for the most advantaged quintile and two most disadvantaged quintiles were converging, such that by the end of the period analysed, participation rates at low tariff universities were broadly equal. In contrast, at high tariff institutions, the ratio in participation between quintile 5 and combined quintiles 1 and 2 remained unchanged over the period analysed. However, the overall sector-wide participation gap narrowed slightly due to the change at medium and low tariff institutions.

## Next steps

59. We will continue to update this analysis for future cohorts. These future updates will examine data sets containing significant numbers of students who made their key decisions about higher education after the new system of fees and student finance had become widely understood - e.g. the next update will be the first to include a cohort who all applied in 2012 or later.
60. At the time of publishing this report, we are already beginning to see early indications that participation trends may be changing from 2012-13 onwards: e.g. UCAS data shows that acceptance rates for students from disadvantaged backgrounds to higher tariff universities rose by 26 per cent between the 2011 and 2013 application cycles. We will be interested to see whether our future analyses show these early indications translating into longerterm changes in participation trends.

## Glossary

Cohort: We use the word "cohort" to mean students who were aged 18 in one year and who entered higher education by the end of the following year (either aged 18 or 19), to account for the number of young people who defer entry by a year before embarking on their degrees. For example "the 11:12 cohort" would be those who turned 18 in 2011, and who entered higher education either in the 2011-12 or 2012-13 academic years.

HEFCE: Higher Education Funding Council for England

HEI: Higher education institution
HESA: Higher Education Statistics Agency
OFFA: Office for Fair Access
Tariff: UCAS assigns a score known as a "UCAS tariff" to full-time higher education applicants' entry qualifications, according to the grades or levels they achieved. These tariffs are often used by universities and colleges as minimum entry requirements for their courses, and thus can be seen as an indication of how selective an institution is.

UCAS: UCAS is a central administration service for university and college applications.

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[^0]:    ${ }^{1}$ Available at www.offa.org.uk/publications.
    ${ }^{2}$ Not including higher education delivered in further education colleges.

[^1]:    ${ }^{3}$ For a detailed explanation of "cohorts", see the glossary at the back of this report.
    4 Available at www.hefce.ac.uk/pubs.
    ${ }^{5}$ Available at www.offa.org.uk/publications.
    ${ }^{6}$ By contrast, OFFA publication 2010/03 uses HESA data up to and including the 06:07 cohort and uses UCAS data (either combined with HESA data or in full) to predict rates for the 07:08, 08:09 and 09:10 cohorts.

[^2]:    7 Available at www.hefce.ac.uk/pubs.

[^3]:    8 See the glossary at the back of this document for more information about UCAS tariffs.

[^4]:    9 UCAS End of cycle report 2012 (December 2012) and UCAS End of cycle report 2013
    (December 2013), both available at www.ucas.com.

