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Issues paper

The purpose of this report is to present the latest trends in participation in higher education among young people in England.

This report is for information

Trends in young participation in higher education

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Trends in young participation in higher education

To	Heads of HEFCE-funded higher education institutions Heads of HEFCE-funded further education colleges Heads of universities in Northern Ireland
Of interest to those responsible for	Increasing and widening participation, Policy development
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Executive summary

Purpose

1. The purpose of this report is to present the latest trends in participation in higher education (HE) among young people in England. These trends are reported for 14 cohorts of young people who were aged 18 in the academic years from 1998-99 to 2011-12. The youngest cohort considered are those who would have entered HE aged 18 the year before the introduction of the recent HE reforms. This provides a baseline against which the monitoring of young participation rates in the new HE funding environment can be measured.
2. Trends are reported at national, regional and parliamentary constituency levels to highlight how changes in HE participation rates have varied in different parts of the country. Trends are also reported for young people who live in areas characterised by different levels of disadvantage, to show how the propensity for young people from different backgrounds to participate in HE has changed over time. The respective participation rates of young women and young men are also reported.

Key points

3. Since the late 1990s, the rate of participation in HE among young people has increased from 30 per cent to 38 per cent. This represents a proportional increase of +26 per cent. Most of the increase has occurred since the mid-2000s, with participation rates increasing by six percentage points – a proportional increase of +19 per cent.
4. As predicted in a previous analysis ('Trends in young participation in higher education: core results for England', HEFCE 2010/03) young participation rates in England increased between 2007-08 and 2010-11, and continued to increase subsequently. However the young participation rate among the most recent cohort in this study – those entering HE aged 18 during the 2011-12 academic year, or 19 in the 2012-13 academic year – increased by half a percentage point, around half the typical increase observed during recent years.
5. Young participation rates have increased for men and women, though since the late 1990s the participation rate for women has increased more. This means the participation gap between women and men was wider than it was 14 years ago. However in recent years the gap has narrowed slightly and appears to be stable. Estimates for the most recent cohort suggest that

young women had a participation rate that was eight percentage points higher than young men, making them +22 per cent more likely to progress into HE.

6. The difference in participation rates for men and women is exacerbated when we consider people living in the most disadvantaged areas. In these areas young women have a participation rate of 23 per cent, six percentage points higher than the rate for young men. This means young women in the most disadvantaged areas are +35 per cent more likely to participate in HE by the age of 19 than young men.

7. The difference in participation rates between young people living in the most advantaged and most disadvantaged areas remains large. Although young participation rates increased in both advantaged and disadvantaged areas, with proportional increases of +16 and +52 per cent respectively, the participation gap between them has remained broadly stable at around 40 percentage points. Young people in the most disadvantaged areas would need to treble their participation rate in order to match the rate of those from the most advantaged areas.

8. There are also large differences in the participation rates of young people across the different regions of England. Participation rates have increased in all regions, and the gaps in participation between regions outside London have narrowed. However, the biggest increase in participation rate was in London, the part of the country which already had the highest rate at the start of the study period. The gap in participation between London and the rest of the country has therefore widened. This participation gap is widest between young people in London and the North East, with the former being +43 per cent more likely to participate in HE than the latter.

9. The large increase in young participation rates in London extends to those living in the most disadvantaged areas. That is to say, young people from the most disadvantaged areas (defined nationally) who also live in London experienced a much greater increase in participation rates than others who are equally disadvantaged but live outside London.

10. The gaps in participation rates between London and other parts of the country become wider when smaller areas are considered. For example, the participation rate in Wimbledon, the parliamentary constituency with the highest young participation rate nationally, was 68 per cent, four times greater than in Nottingham North, the constituency with the lowest rate. These large gaps exist despite the young participation rate increasing in almost every parliamentary constituency. Furthermore some areas which have had very big increases in participation rate (for example Manchester Central and Sheffield, Brightside and Hillsborough) still have rates that are among the lowest in the country.

Action required

11. This document is for information only.

Introduction

12. HEFCE's established programme of analysis of young participation in higher education (HE) reports on the proportion of young people who enter higher education at age 18 or 19, the 'young participation rate'¹. Previously this methodology allowed us to report national level participation trends for an extended sequence of young people on a consistent basis². Here we extend that analysis to include more recent young cohorts. The earliest cohort covered consists of those who were aged 18 in 1998 and entered HE either in the academic year 1998-99 or, aged 19, in 1999-2000 whom we refer to as the '98:99 cohort'. The most recent consists of those who were aged 18 in 2011 and enter, or are estimated to have entered³, HE in the academic years 2011-12 and 2012-13 (the '11:12 cohort'). We have also extended the scope of previous work to report trends at sub-national geographies in addition to national trends.

13. We count young entrants to full-time and part-time HE-level courses at UK higher education institutions and further education colleges in England and Scotland using administrative HE student and HE acceptance records⁴. We estimate the population of each cohort according to where they live when they are aged 15, using specially developed methods based on child benefit records.

Understanding these results

14. The young participation rate measure used in this report is designed to be simple to understand and meaningful to interpret. The starting point is an estimate of the population size of the young cohort at age 15, as they start their final year of compulsory education⁵. We then allow three years for this cohort of young people to take their school examinations and further education before entrants to higher education from the cohort (typically aged 18) are recorded, followed by a further year before we record the second set of entrants (typically aged 19). The young participation rate is then simply the proportion that those HE entrants form of the population of that cohort when it was aged 15. We reference the cohorts by the two years in

¹ 'Young participation in higher education' (HEFCE 2005/03), available online at http://webarchive.nationalarchives.gov.uk/20120118171947/http://www.hefce.ac.uk/pubs/hefce/2005/05_03/, gives an overview of our approach to this analysis.

² 'Trends in young participation in higher education: core results for England' (HEFCE 2010/03), available online at <http://www.hefce.ac.uk/pubs/year/2010/201003/>

³ Estimates of entrants to HE aged 19 in 2012-13 are derived, in part, from numbers accepted onto a HE course via UCAS. Paragraph 17 provides further information about this.

⁴ Entrant counts are estimated from data sets provided by the Higher Education Statistics Agency, the Data Service, the Scottish Funding Council and UCAS. Entrants to HE courses at non-UK institutions are not included in this analysis. Additional data resources used are the Office for National Statistics' 'National Statistics Postcode Directory' and '2001 Census: Standard Area Statistics (England and Wales)'. Census output is Crown copyright and is reproduced with the permission of the Controller of Her Majesty's Stationery Office and the Queen's Printer for Scotland.

⁵ Throughout this work ages are defined according to school years. For English and Welsh young people this is their age on 31 August, in Scotland it is their age on 28 February and in Northern Ireland their age on 1 July. This ensures that the cohorts reported are aligned to school years, and maximises the discrimination between cohorts of changes that are specific to school or academic years (such as changes to student support).

which they can enter HE. For example the participation rate for the 10:11 cohort relates to the group of young people who were aged 15 in 2007 and 18 in 2010, with those who entered HE as young participants doing so in academic years 2010-11 and 2011-12.

15. This young participation rate can then be directly interpreted as the proportion of a particular cohort of young people who enter higher education. Since the population estimate is based on where the cohort lived as they were completing secondary education, the rate can be meaningfully interpreted as reflecting the likelihood of children growing up in that area entering HE⁶. The HE entrants in the measure are drawn from a single real cohort of young people followed across academic years – rather than combining young entrants from different cohorts who enter HE in a single academic year. This makes the participation rate less susceptible to distortions from demographic or behaviour changes (for example, from young people bringing forward their entry to HE to age 18 rather than age 19) that do not reflect a change in the proportion of young people entering HE.

16. For the study period covered in this report, the participation rates are based on entrant counts from administrative HE records and on estimates of the population of small areas based on child benefit records controlled to realigned official national totals⁷.

17. To be able to report on recent participation trends, HE applications⁸ data are used to supplement for the administrative student records for the 11:12 cohort where they are not yet fully available. The method used for the 11:12 cohort has proved reliable across recent years and the results for this cohort are not expected to change materially. The results relating to this cohort are termed 'provisional', denoted '(p)' on the figures. Trend lines in the results corresponding to the provisional 11:12 cohort are shown with broken lines.

18. A number of conventions are used in the results to avoid the ambiguity that can occur when reporting changes in a statistic that is itself a percentage:

- a. Participation rates are reported in percentage format: for example. 'the participation rate for women was 36 per cent'.
- b. A proportional difference between participation rates, typically between different points in time, is reported as the percentage of the initial value that the change

⁶ The geographical mobility of young people – especially between different types of areas – between starting their final year of compulsory schooling and supplying their pre-entry residential address for the HE student records is low. If instead the cohort population was estimated based on residence at age 18 or 19, then the participation rates would be distorted by the high levels of migration flows (both intranational and international) at those ages.

⁷ The Office for National Statistics 'Population Estimates for UK, England and Wales, Scotland and Northern Ireland' series is used. These estimates are based on age at mid-year; they are converted to age at the start of the school year for each home nation by reference to the pattern of monthly births for each cohort reported in 'Birth statistics: Births and patterns of family building England and Wales' (FM1 series). The controls to the national population are made separately for Great Britain and Northern Ireland. These totals are then distributed across small areas according to the proportion of young people living in each small area as reported on the child benefit records.

⁸ UCAS is the organisation responsible for managing applications to higher education courses in the UK and – under an agreement for collaboration for research and analysis purposes – provides HEFCE with data on higher education applications and acceptances. For more information on UCAS see www.ucas.com.

represents. To distinguish these values from the participation rates they are prefixed by a '+' or '-', indicating an increase or decrease respectively, in both the figures and the text: for example, 'the participation rate changes by +10 per cent from 30 per cent to 33 per cent'.

- c. The gap, or absolute difference, between two participation rates is reported in percentage points: for example, 'the participation rate increased by three percentage points from 30 per cent to 33 per cent'.
- d. Percentage figures are reported to the nearest whole number unless further precision is required for a particular comparison. Figures for changes in participation rates are always calculated from full precision figures and so may not always match the difference between the reported participation rates in rounded whole numbers.
- e. Sometimes it is useful to assess the scale of a change in a participation rate through an estimate of the number of entrants attributable to that change (after accounting for those changes in entrant numbers attributable to a change in the population size). We do this by multiplying the percentage point change in the participation rate by the population of the group (after the participation change) and use the term 'additional entrants': for example, 'after accounting for the change in the population size, there are 9,000 additional entrants from the 11:12 cohort compared with the participation rate of the 98:99 cohort'.

Findings

Trends in young participation rates by country

19. The main focus of this report is on young participation in England, but it is interesting to compare participation rates in England with those in other parts of the UK, especially given the differences between them in higher education funding and student support arrangements.

20. There are clear differences in the rates of young participation between the four countries which constitute the UK (Figure 1). Across the study period young participation rates in Scotland have been consistently higher than those in the other countries. This is due in part to the high proportion of young people studying for HE level qualifications in Scottish Further Education Colleges. Young participation rates in Northern Ireland have been higher than those in England and Wales (but lower than those in Scotland) since the beginning of the 2000s. Up until the mid-2000s young participation rates in England and Wales were similar, but since then rates in England have been higher.

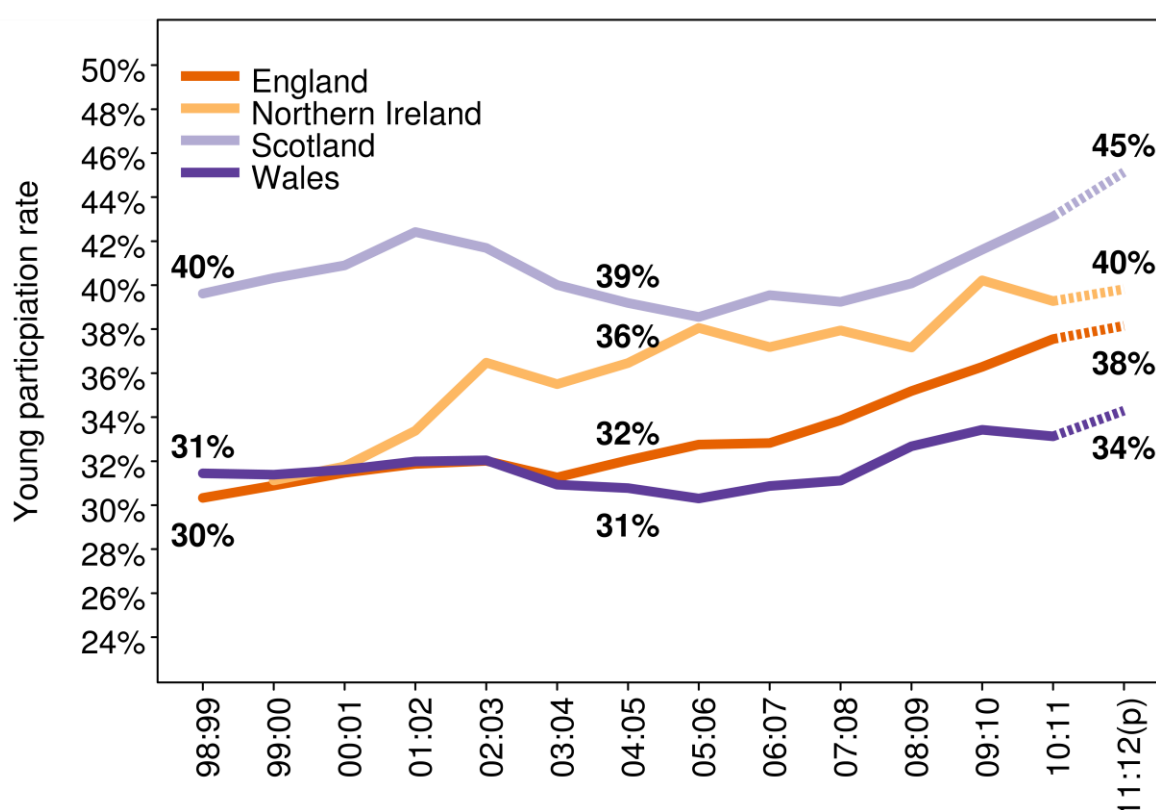
21. Since the late 1990s young participation rates have increased in all four countries. In England young participation rates increased from 30 per cent for the 98:99 cohort, to 38 per cent for the 11:12 cohort, a proportional increase of +26 per cent. Most of the increase occurred in the latter half of the period, during which rates increased from 32 per cent for the 04:05 cohort to 38 per cent, a proportional change of +19 per cent.

22. In Wales participation rates increased from 31 per cent for the 98:99 cohort to 34 per cent for the 11:12 cohort, a proportional increase of +9 per cent. However, this increase was not uniform over this period. After an initial modest increase to 32 per cent for the 02:03 cohort, the rates subsequently fell to 30 per cent for the 05:06 cohort. After this participation rates increased to 34 per cent by the end of the study period.

23. As mentioned above, participation rates were highest in Scotland. Here participation rates increased from 40 per cent for the 98:99 cohort to 45 per cent for the 11:12 cohort, a proportional increase of +14 per cent. After an initial rise in young participation rates between the 98:99 and 01:02 cohorts there followed a decline, with participation rates falling to 39 per cent for the 05:06 cohort. After this participation rates steadily increased, reaching 45 per cent by the end of the period.

24. Young participation rates in Northern Ireland increased consistently from the late 1990s⁹. The participation rate was 31 per cent for the 99:00 cohort, similar to the rates in England and Wales, but increased to 40 per cent for the 11:12 cohort: a proportional increase of +28 per cent, the largest increase of all four countries.

Figure 1: Trends in young participation rate for England, Wales, Scotland and Northern Ireland



Trends in young participation rates in England

25. The remainder of the report focuses on trends in participation rates among young people domiciled in England. We begin by looking in more detail at the overall rate. This is followed by analyses of trends in participation rates for young men and women and for young people living in

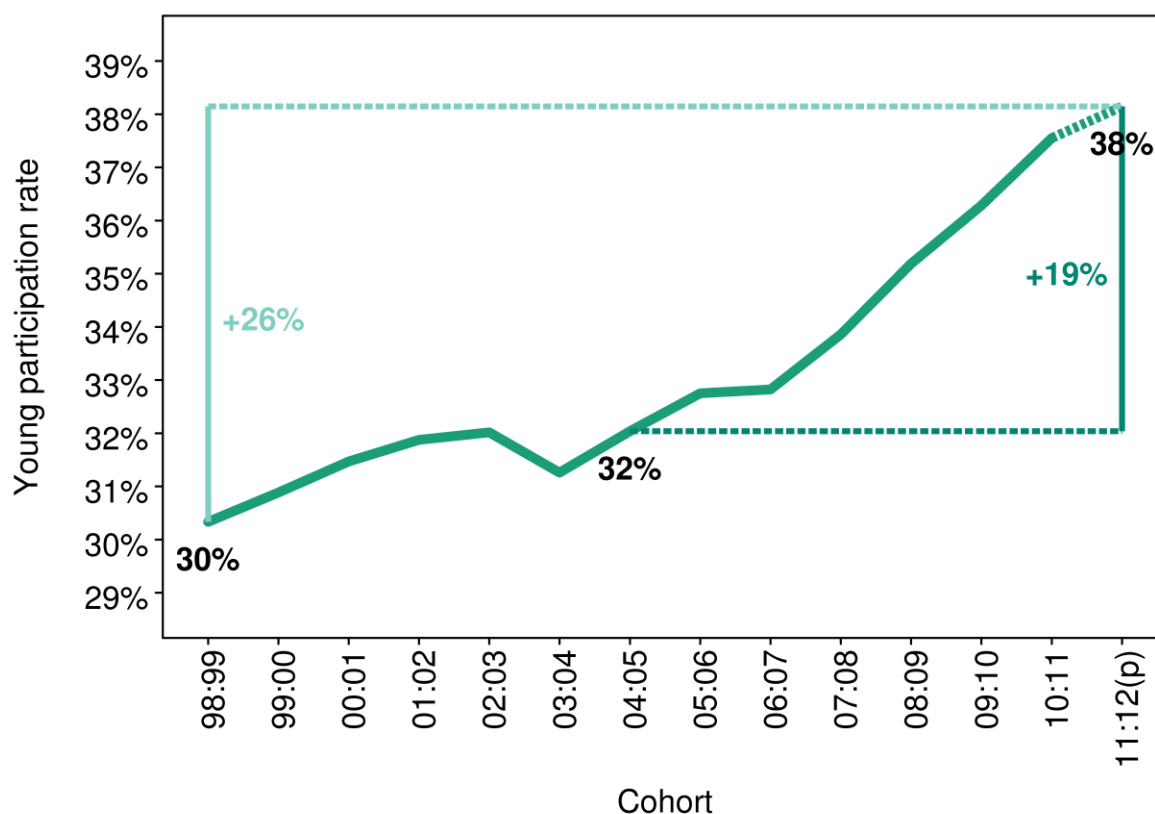
⁹ The way in which children are assigned to school cohorts in Northern Ireland, based on their age at a point earlier in the year compared with other UK countries, means that to estimate the young cohort size in Northern Ireland requires an additional (older) scan of child benefit data. This means that although we can estimate the 98:99 cohort sizes in England, Wales and Scotland, we are unable to estimate the size of the 98:99 cohort for Northern Ireland. Because of this the earliest cohort we report on for Northern Ireland is the 99:00 cohort.

areas characterised by different levels of disadvantage. This section also looks at trends in young participation rates in different parts of England, starting with an analysis across regions before considering changes at parliamentary constituency level.

National trend for England

26. The trend in young participation rates for England, along with the proportional increases since the 98:99 and 04:05 cohorts, is shown in Figure 2. Young participation rates steadily increased for each cohort from the 98:99 cohort through to the 02:03 cohort. This was followed by a fall in the participation rate for the 03:04 cohort, the only fall in the young participation rate during the study period. Between then and the end of the study period the young participation rate increased year on year, with younger cohorts being increasingly more likely to progress into HE by the age of 19 than their older counterparts. Following the 06:07 cohort, the average increase in young participation rate was around one percentage point per cohort. Only two cohorts, the 06:07 cohort (where the participation rate remained the same) and the 11:12 cohort (where the participation rate increased by half a percentage point), had increases in young participation rate substantially below this longer term average. The below-trend increase in the young participation rate for the 11:12 cohort is of particular interest given the changes to the way in which HE was funded from 2012-13 onwards.

Figure 2: Trend in young participation rate for England

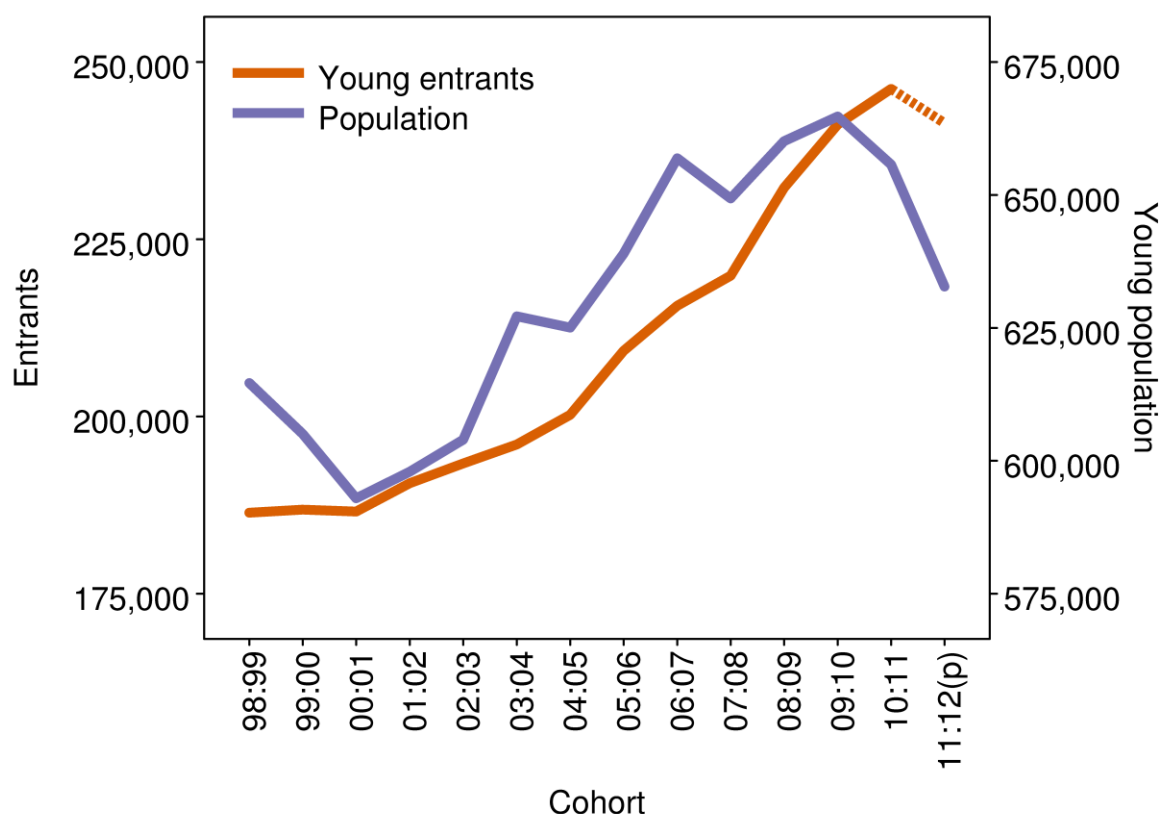


27. The number of young entrants increased during the study period, from 186,000 for the 98:99 cohort to 241,000 for the 11:12 cohort (Figure 3). The number of entrants remained constant for the first two cohorts of the study period, but then began to increase for the 01:02 cohort, continuing to increase for each cohort until the 10:11 cohort. The number of entrants then fell for the 11:12 cohort; there were 5,000 fewer young HE entrants from the 11:12 cohort than

there were from the 10:11 cohort, a proportional change of -2 per cent. This is the only time during the study period that young entrants into HE fell.

28. The young population increased during the study period, from 615,000 for the 98:99 cohort to 633,000 for the 11:12 cohort, a proportional increase of +3 per cent. This proportional increase is lower than the proportional increase in entrant numbers, resulting in the overall increase in young participation rates observed during the study period. However, the increase in the young population has not been as steady as the increase in entrants. There were several occasions when the young population fell, most notably at the beginning and end of the study period. For the 11:12 cohort the fall in the number of entrants coincides with a large fall in the size of the young population. Official population estimates show how the young population is predicted to fall for subsequent cohorts, by as much as 15 per cent compared with the peak for the 09:10 cohort, suggesting that the number of young entrants to HE is also likely to fall in coming years¹⁰.

Figure 3: Trends for the young population and young entrants



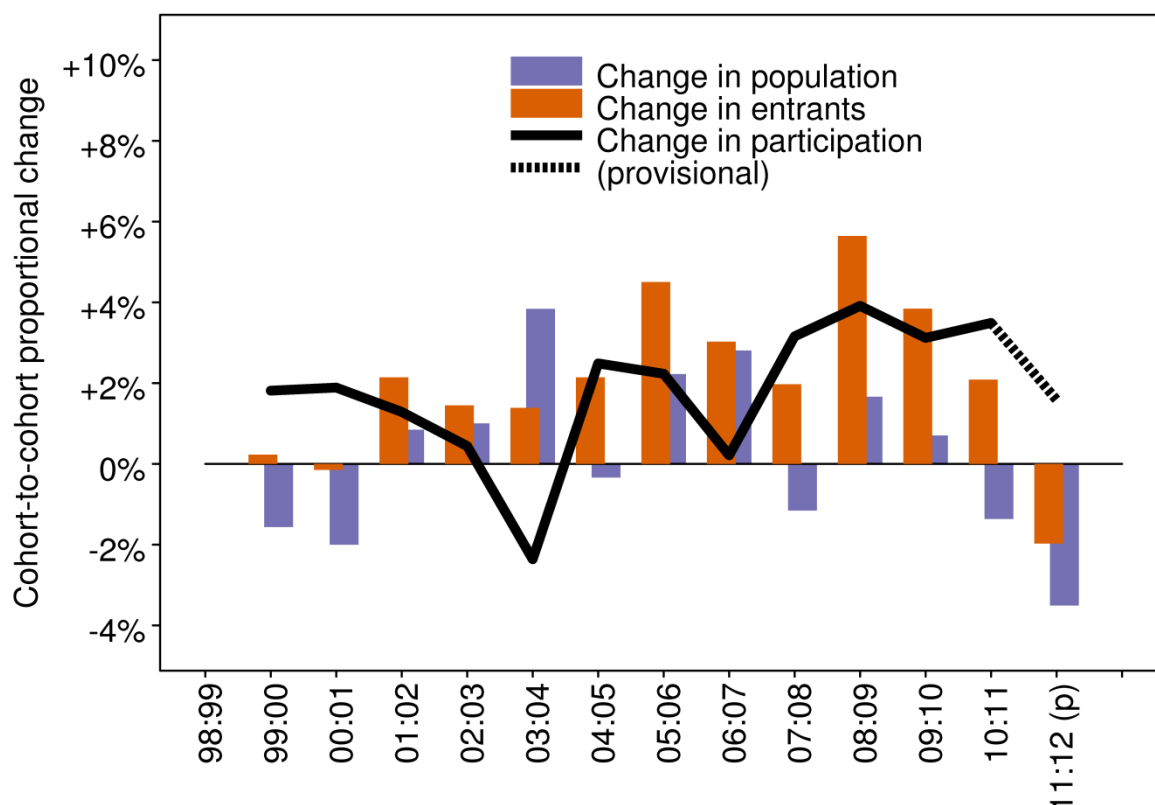
29. The effects of the cohort-to-cohort proportional changes in entrants and population on the young participation rate can be seen in Figure 4. With the exception of the 03:04 cohort, the proportional cohort-to-cohort change in the number of entrants is greater than for the young population, resulting in increases to the young participation rate.

30. Figure 4 also shows that the fall in the young population for the 11:12 cohort was the largest during the study period (a proportional change in the young population of -4 per cent). In the absence of other factors the effect of a fall in the young population would be to depress the

¹⁰ 2010-based national population predictions, available from the Office for National Statistics.

number of HE entrants, so it is unsurprising that this large fall in the young population coincides with the only fall in the number of entrants during the period. However the proportional fall in entrants from the 11:12 cohort was not as great as the proportional fall in the cohort size, resulting in an increase in the young participation rate.

Figure 4: Cohort-to-cohort proportional changes in population, entrants and young participation

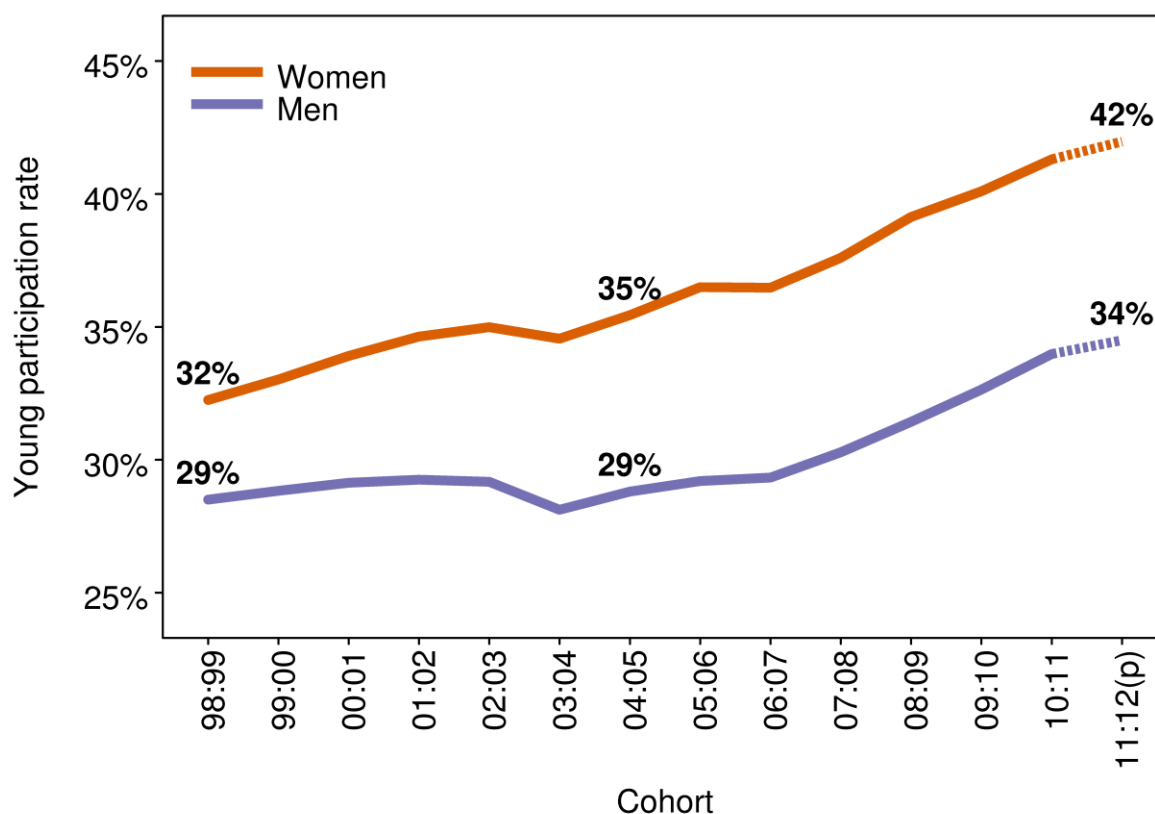


Trends in young participation for men and women

31. Differences in the educational outcomes and progression paths of men and women have existed for many years, and it is known that women are more likely to participate in HE than men¹¹. Figure 5 shows how the trends in young participation for men and women differ over the study period. At the beginning of the study period the participation rate of women was 32 per cent, three percentage points higher than the rate for men which stood at 29 per cent. Participation rates for women increased by 10 percentage points to reach 42 per cent for the 11:12 cohort. In comparison the participation rate for men remained relatively static up until the 06:07 cohort, after which it grew by six percentage points to reach 34 per cent for the 11:12 cohort. Despite the increase in participation rate for men since the 06:07 cohort, the gap in participation between men and women by the end of the period was larger than it was at the beginning, having widened to eight percentage points. The below-trend increase in the participation rate for the 11:12 cohort (Figure 2 and paragraph 26) is observed nationally for both female and male participation rates.

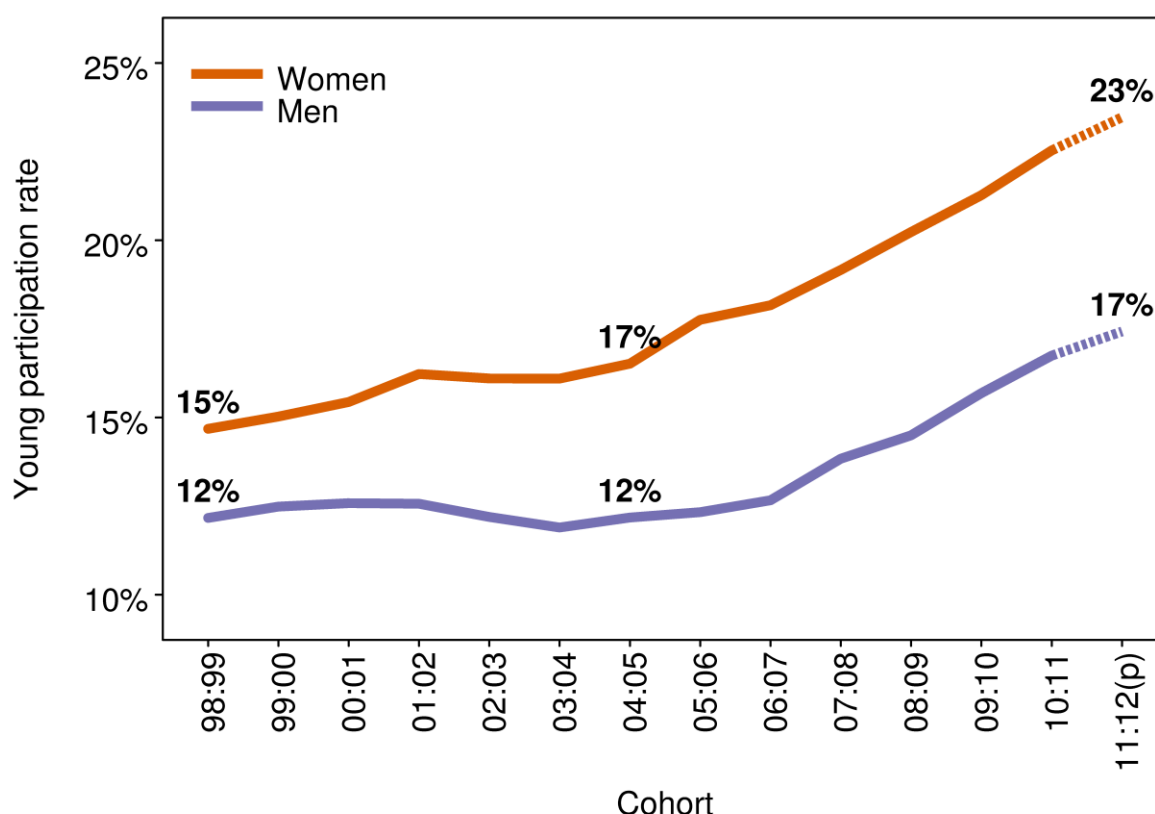
¹¹ See 'Gender gaps in higher education participation', DIUS research report 08/14.

Figure 5: Trends in young participation rates by sex



32. Figure 6 shows the young participation trend for men and women from the most disadvantaged areas (measured according to young participation rate). The trends for women and men in the most disadvantaged areas are similar to those across England as a whole, with participation rates among women higher than those for men throughout the period. The participation rate for women increased steadily from 15 per cent for the 98:99 cohort to 23 per cent for the 11:12 cohort, an increase of eight percentage points. For men the participation rate remained constant at around 12 per cent until 06:07 cohort after which it increased to 17 per cent by the end of the study period. The different trends for men and women mean the gap in participation between them doubled, from three percentage points in favour of women to six percentage points by the end of the study period.

Figure 6: Young participation rates by sex for young people living in low HE participation areas (POLAR3 classification, adjusted)



Note: 'POLAR3' = Participation of Local Areas classification, third iteration. For an explanation of 'POLAR 3 classification, adjusted', see paragraph 37.

33. An alternative way of expressing the participation gap between women and men is in terms of the additional numbers of women entering HE over men. For the 11:12 cohort 18,000 more women participated in HE in England than men, while in the most disadvantaged areas the number was over 3,000. However it would take an additional 24,000 men to enter HE (4,000 in the most disadvantaged areas) in order for men to have the same participation rate as women¹².

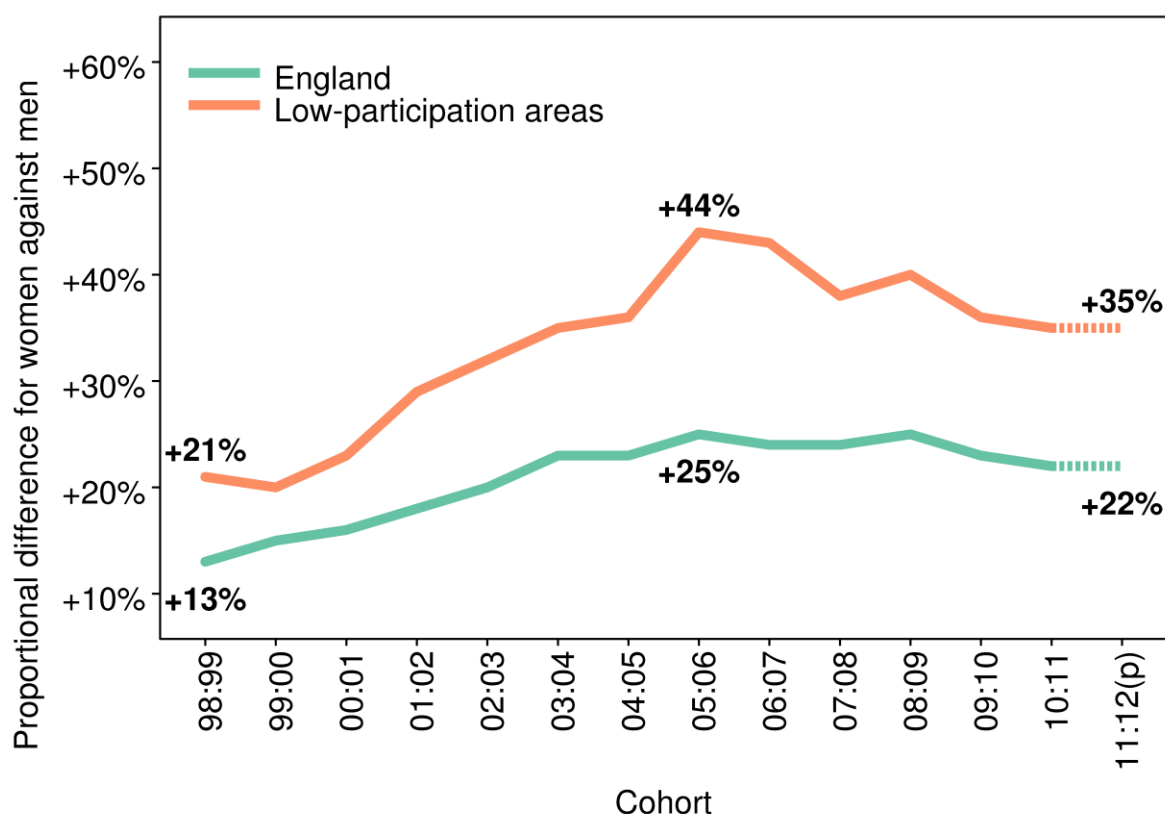
34. It is also possible to look at how many years the participation rate of men lags behind that of women. For example, looking at Figure 5, the 11:12 male cohort young participation rate of 34 per cent for England is equal to the rate of women in the 03:04 cohort, suggesting that the participation rate for men lags that of women by eight years. In the most disadvantaged areas the lag is between six and seven years.

35. Figure 7 shows another way of highlighting the difference in participation between men and women; that is how much higher the participation rate of women is when expressed relative to

¹² Alternatively, there would need to be 23,000 fewer women entering HE than do so at present for women to have the same participation rate as men.

that of men¹³. This measure – plotted for England as a whole and for the most disadvantaged areas – shows how the relative participation advantage of women increased between the late 1990s and the mid-2000s. This relative advantage has started to decline in more recent years as a result of the increase in young participation rates for men over this time (Figure 5 and Figure 6), but this decline has levelled off for the most recent two cohorts, with young women being +22 per cent more likely to participate in HE than young men. Under this measure the relative participation advantage of young women over young men is greater (+35 per cent) in the most disadvantaged areas than for England as whole.

Figure 7: Difference between the young participation rate for women and men (expressed relative to that for men) for England and for low-participation areas



Trends in young participation for areas grouped by participation rates (POLAR3 classification, adjusted)

36. Central to the policy issue of widening participation in HE is concern with the low proportions of people from certain backgrounds who enter higher education. This makes a measure of young participation itself particularly appropriate for forming an area classification: doing so highlights areas where young people have the lowest participation rates without needing to impose assumptions about what is causing low participation in these areas. The

¹³ This can be thought of as the proportional change in the participation rate of young men required for them to have the same participation rate as young women.

POLAR3 classification, developed by HEFCE, is defined by grouping small areas¹⁴ across the UK by their young participation rates for the combined 05:06 to 09:10 cohorts¹⁵.

37. The POLAR3 classification is used to calculate widening participation funding allocations, to help target widening participation activities and for institutional statistics around widening participation, so there is particular interest in using it to report participation trends. However, there is a difficulty in using this classification to report participation trends directly. Since the classification is defined by young participation rates from part of the study period (the 05:06 to 09:10 cohorts), the unadjusted participation trends will be slightly distorted¹⁶. Such distortions have been removed by making small adjustments to the POLAR3 classification, and trends reported using these small adjustments are identified as 'POLAR3 classification, adjusted'¹⁷.

38. Figure 8 shows the young participation rate trend for the most disadvantaged quintile: young people living in wards that had the lowest young participation rates across the 05:06 to 09:10 cohorts. The young participation rate has increased over the period, from 13 per cent for the 98:99 cohort to 20 per cent for 11:12 cohort, representing a proportional increase of +52 per cent. However this increase in participation has not been evenly distributed across the period; there was a much larger increase during the second half of the study period, where participation rates increased by six percentage points, compared with the first half, where participation rates increased by one percentage point. The increase in participation rate for the 11:12 cohort was 0.8 percentage points, slightly smaller than the average cohort-to-cohort increase of around one percentage point during the previous four cohorts, but not significantly below the trend, and greater than the increase seen at the national level (Figure 2).

39. The number of young entrants to higher education from the most disadvantaged areas increased by around +60 per cent proportionally, from 16,500 for the 98:99 cohort to (a provisional) 26,200 for the 11:12 cohort. After allowing for changes in the cohort size, there are 9,000 additional entrants from the 11:12 cohort as a result of the increased young participation rate compared with the 98:99 cohort. The majority of these additional entrants (7,800) are attributable to participation increases across the last seven cohorts.

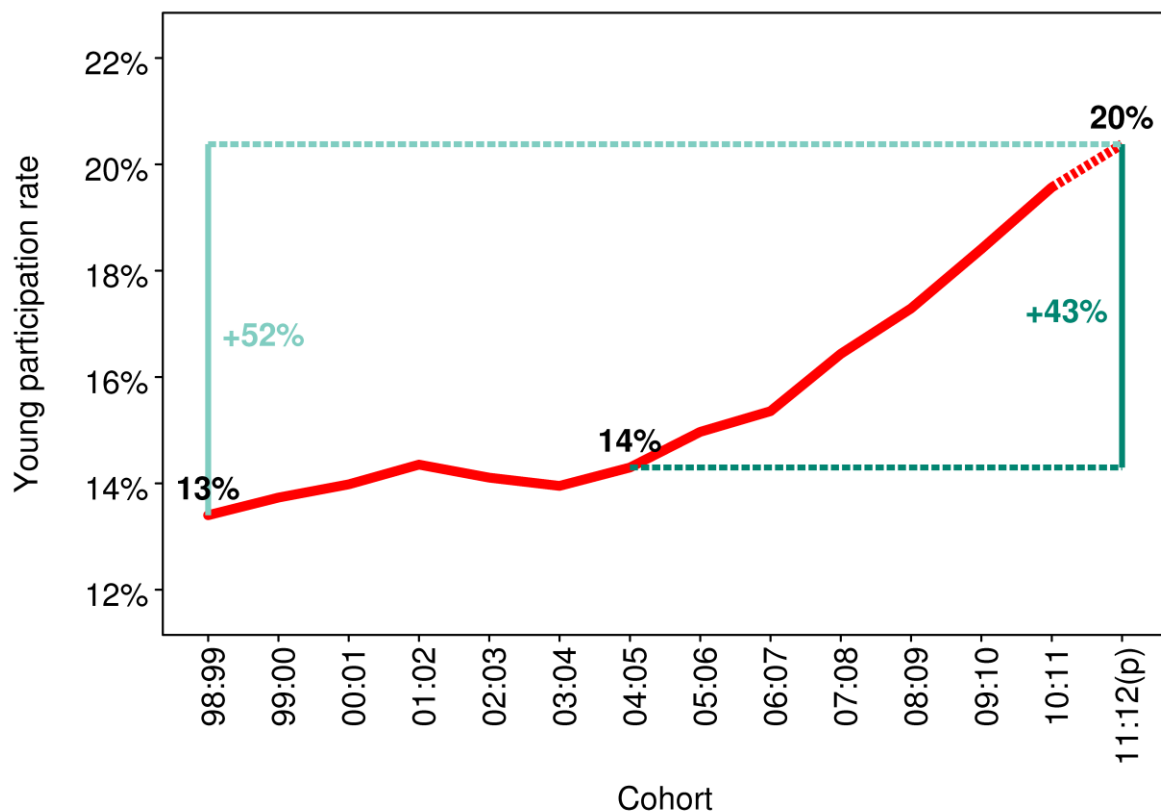
¹⁴ The POLAR3 classification is constructed using the set of 2001 census area statistics wards.

¹⁵ The POLAR classification was first released in 2005, based on the 97:98 to 99:00 cohorts. In 2012 it was reissued as POLAR3, based on the 05:06 to 09:10 cohorts. For more information, see www.hefce.ac.uk/whatwedo/wp/ourresearch/polar/polar3/ and POLAR3: Young participation rates in higher education' (HEFCE 2012/26), available at www.hefce.ac.uk/pubs/year/2012/201226/

¹⁶ Distortions arise due to 'regression to the mean' effects on the boundary of the POLAR3 definition period. For example, the group of wards with the lowest participation rates in the POLAR3 definition period will tend to include those wards that had, randomly, lower participation rates for those particular cohorts than they would usually have at other times. The random component of these lower rates does not persist outside the definition period, causing the participation rates for the group of wards to revert closer to the overall mean (upwards in this case).

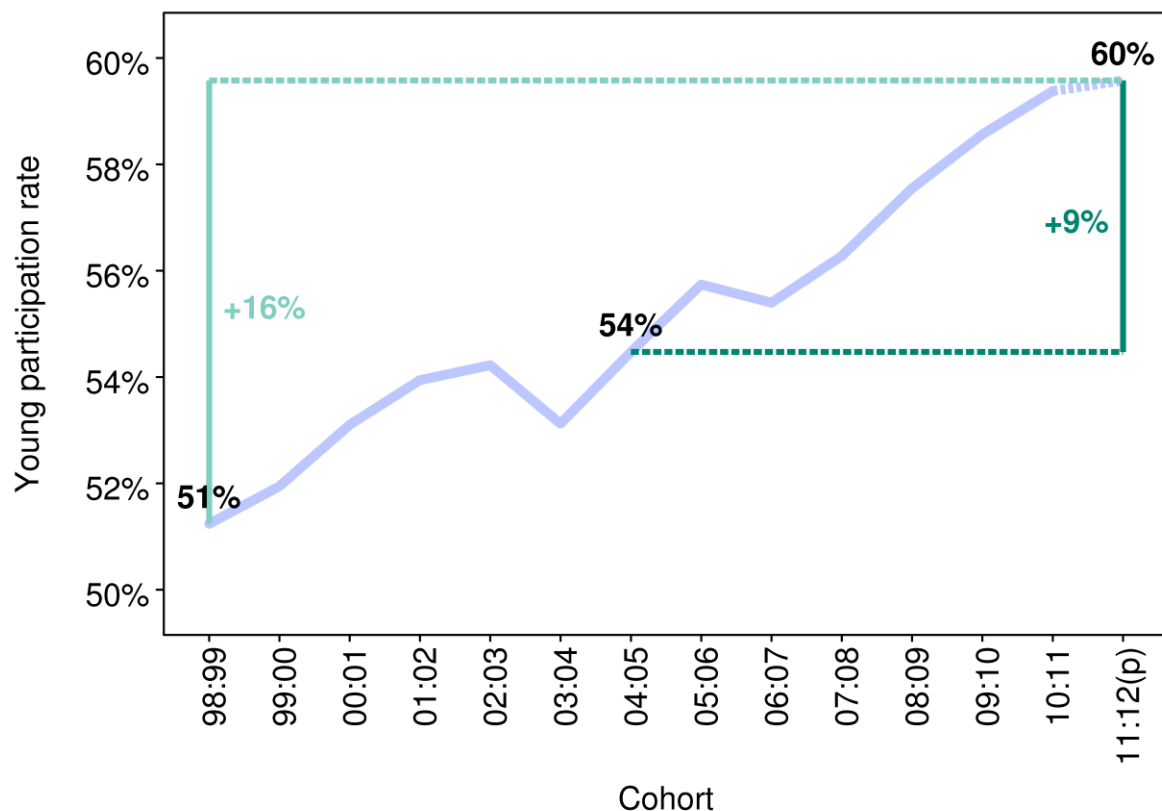
¹⁷ Comparisons of participation trends between POLAR3 and other groupings, confirmed by data simulations, have given a series of adjustment factors to materially remove this distortion. The participation rates for the POLAR3 quintiles 1 to 5 are, respectively, adjusted by +0.4, +0.2, +0.1, -0.1 and -0.6 percentage points for each of the 05:06 to 09:10 cohorts. The adjustments are applied as proportional weights to entrants so that the approximation can be extended to subgroup rates (for example, by sex).

Figure 8: Trend in the young participation rate for the most disadvantaged areas determined by HE participation rates (POLAR3 classification, adjusted)



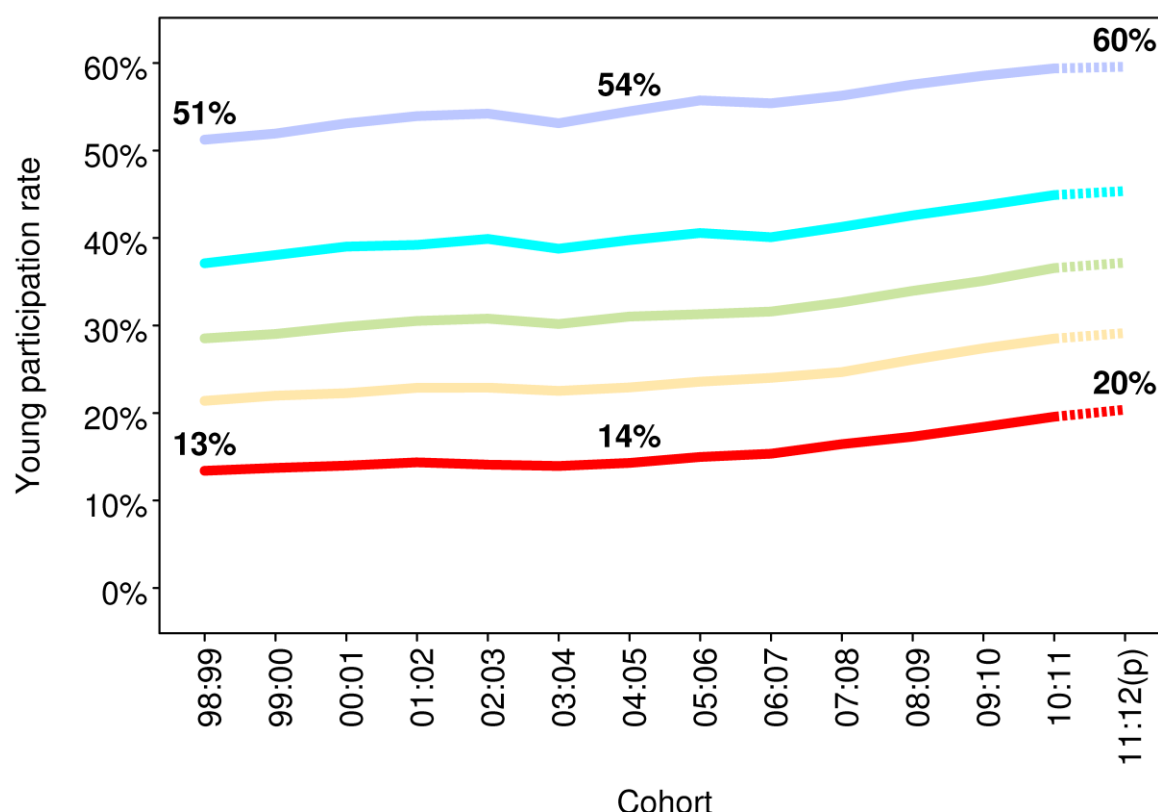
40. Figure 9 shows the young participation rate trend for the most advantaged quintile: young people living in wards that had the highest young participation rates across the 05:06 to 09:10 cohorts. Participation among this group also increased during the study period. The participation rate for the 98:99 cohort was 51 per cent, increasing to 60 per cent for the 11:12 cohort, a proportional increase of +16 per cent. As with the trend for the most disadvantaged quintile, the majority of this increase took place after the mid-2000s, with participation rates increasing by six percentage points during this period (a proportional increase of +9 per cent) compared with three percentage points during the first half. In contrast with the most disadvantaged quintile, the young participation rate for the most advantaged quintile did not substantially increase for 11:12 cohort.

Figure 9: Trend in the young participation rate for the most advantaged areas determined by HE participation rates (POLAR3 classification, adjusted)



41. Figure 10 shows the trends in young participation rates across all quintiles, allowing their participation rates, and the gaps between them, to be compared. This shows that the difference in participation rates between the fourth and fifth quintiles is bigger than the difference between all other adjacent pairs of quintiles. Comparison of participation rates also shows how, over the entire study period, the participation rate for the most advantaged group increased by nine percentage points compared with an increase of seven percentage points for the most disadvantaged group. Since the mid-2000s the percentage point increase for the most advantaged group was six percentage points, the same percentage point increase as the most disadvantaged group. The result of these increases is that the participation gap between the most advantaged and most disadvantaged widened slightly, from 38 percentage points to 40 percentage points.

Figure 10: Trend in young participation rate for areas classified by HE participation rates (POLAR3 classification, adjusted)



42. Care must be taken when interpreting the findings shown above. A difficulty with using a classification based on a set of areas which remain fixed across the study period, is that as well as highlighting any changes in participation rates, the measure could also be reflecting shifting locations of disadvantage or population shares through time. To address this issue we compared results from the POLAR3 classification with an alternative small area classification derived for each cohort separately, in which any changes in the location of disadvantaged areas were captured while ensuring that quintile population shares remain constant at 20 per cent. Results using this alternative classification are found to be consistent with those presented in Figure 8, Figure 9 and Figure 10. This suggests that the observed trends are the result of real changes in participation rates across areas grouped according to rates of young participation in HE.

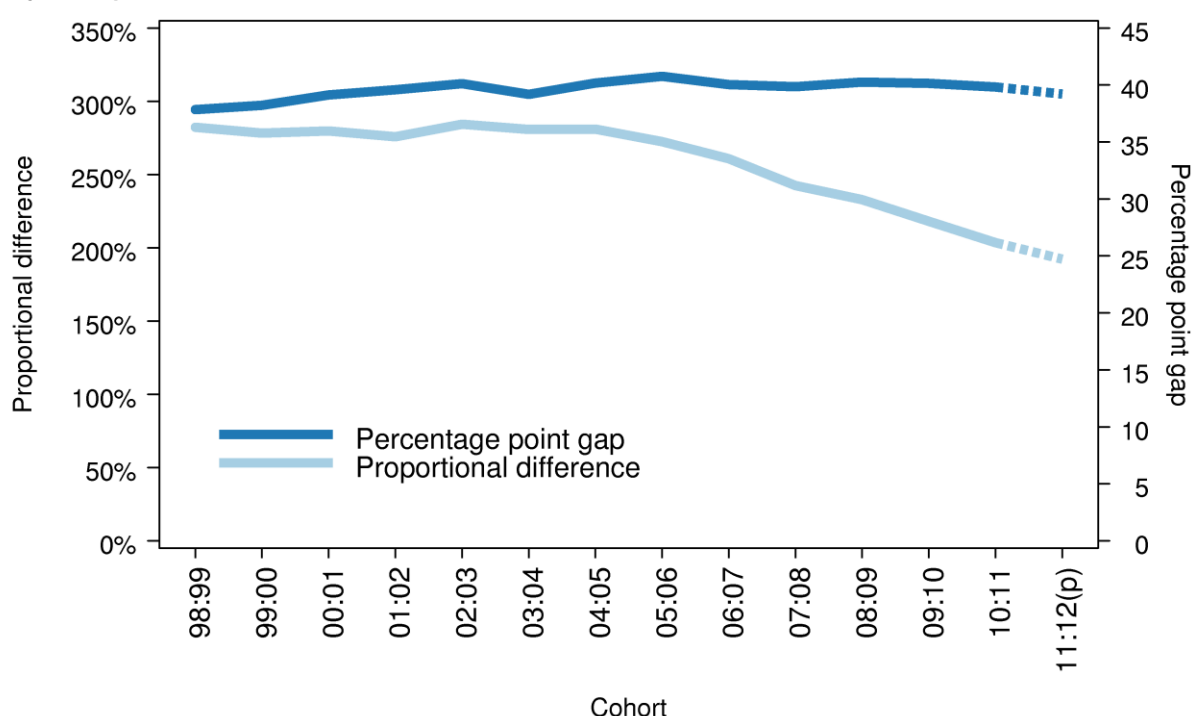
43. As mentioned above (paragraphs 38 and 40), the proportional increase in participation rate is greatest for the most disadvantaged group, both over the entire study period and since the mid-2000s. This is reflected in how much higher the participation rate of the most advantaged is when expressed relative to that of the participation rate of the most disadvantaged¹⁸. This proportional difference between the most advantaged and the most disadvantaged stood at 300 per cent for the 98:99 cohort (those from the most disadvantaged areas would need to quadruple their participation rate in order to have the same rate as the most advantaged). This remained

¹⁸ This can be thought of as the proportional change in the participation rate of the most disadvantaged required for them to have the same participation rate as the most advantaged. It is the equivalent to the measure used for men and women in Figure 7.

constant until the mid-2000s when it began to decrease, such that by the end of the study period it was 200 per cent (the participation rate in the most disadvantaged areas would need to treble in order to match the rate of the most advantaged).

44. Figure 11 shows how this proportional difference evolved over time, along with the percentage point participation gap between the most and least advantaged. The proportional difference fell during the period, but the percentage point gap remained broadly stable. This discrepancy is caused by the participation rate of the most disadvantaged areas being much lower than that of the most advantaged; a one-percentage-point increase in participation rate brings about a much greater proportional increase in rates for the most disadvantaged than it does for the most advantaged.

Figure 11: Trends in proportional difference and percentage point gap between the most advantaged and the most disadvantaged areas (POLAR3 classification, adjusted)



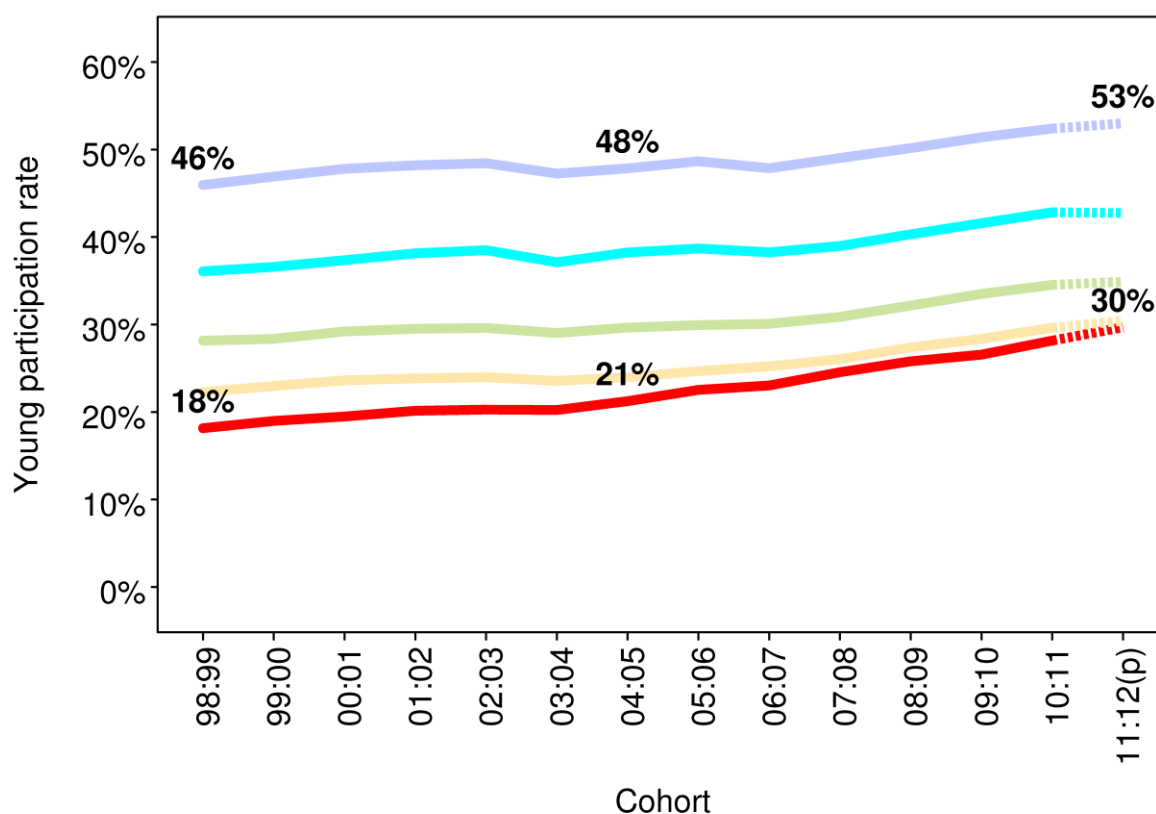
Trends in young participation areas grouped by household income

45. HEFCE 2010/03 examined trends in young participation rates for various area-based measures of disadvantage. These measures, each summarised into quintiles, were based on parental education, parental occupation, household income, and young HE participation (using the older POLAR2 classification). The trends for areas grouped according to parental education and parental occupation were found to be similar to those for areas grouped according to young HE participation rates. The trends for areas grouped by household income were found to differ, in that the participation rate of the most disadvantaged group increased much more than the equivalent rates for the most disadvantaged groups measured according to parental education, parental occupation or propensity to progress into HE.

46. Analysis of trends by household income is repeated here, using a more recent version of the measure reported in HEFCE 2010 (Figure 12 and Figure 13)¹⁹. At the beginning of the study period, the young participation rate in the most disadvantaged areas was 18 per cent. The rate increased by three percentage points for the 04:05 cohort, and by a further nine percentage points for the 11:12 cohort, reaching 30 per cent. This equates to a proportional increase across the study period of +63 per cent, with a +40 per cent increase since the middle of the period.

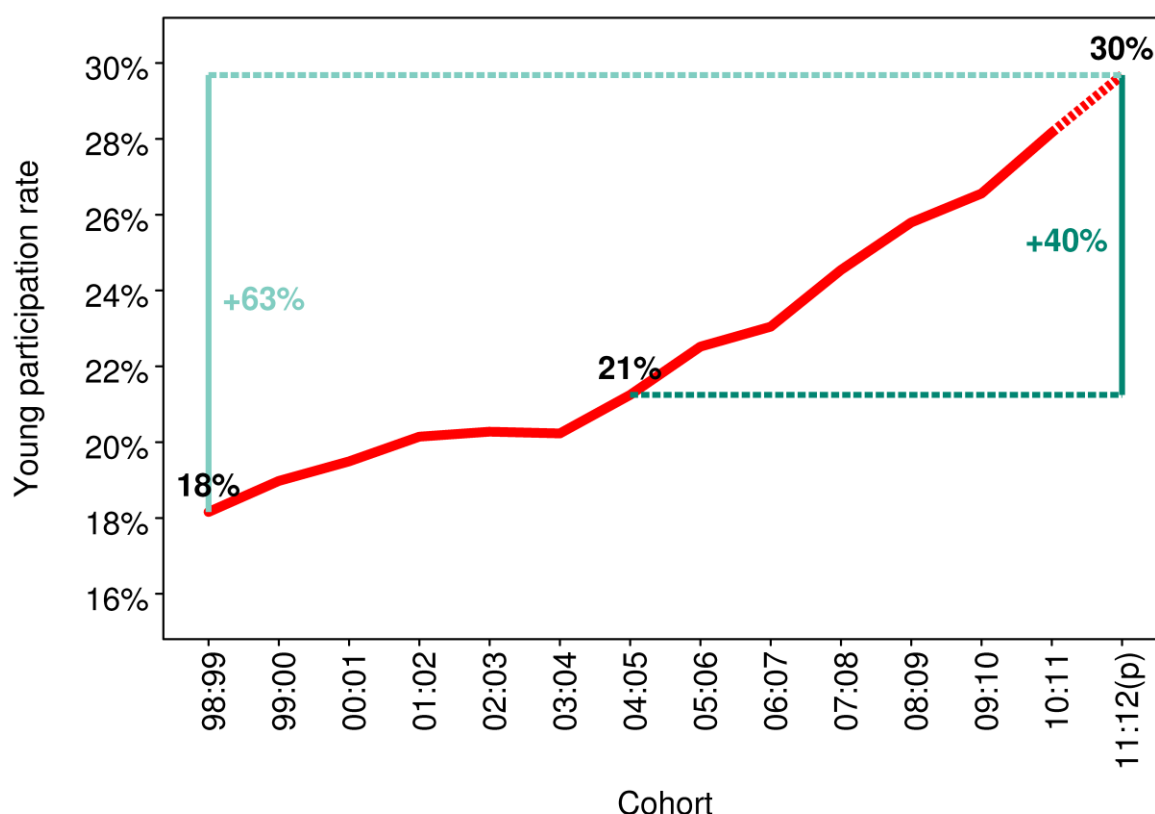
47. The growth in the participation rate for the most disadvantaged quintile contrasts with that for the other quintiles. For example the young participation rate for the most advantaged quintile increased by only seven percentage points from 46 per cent to 53 per cent (+15 per cent proportionally) over the entire study period. The much stronger growth among the most disadvantaged has resulted in the young participation rate for this group being equal to that of the second most disadvantaged group for the 11:12 cohort.

Figure 12: Trends in young participation for areas grouped by the proportion of children in lower-income households



¹⁹ The Income Deprivation Affecting Children Index: see 'The English Indices of Deprivation 2007', available at <http://webarchive.nationalarchives.gov.uk/20100410180038/http://communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/>. This measure is based on benefit data from 2005, near to the middle of the analysis period.

Figure 13: Trend in young participation for areas with high proportions of children in lower-income households



Regional trends

48. Previous work by HEFCE has shown substantial variation in the propensity of young people from different parts of the country to participate in HE²⁰. Our methodology allows us to investigate this further by looking at trends in young participation rates in different parts of England at a range of geographies.

49. We begin by looking at trends for each of the nine English regions²¹. Figure 14 shows that there are clear differences in young participation rates across the regions, with participation rates lowest for young people in the North East and highest for those in London. In the North East the participation rate for the 98:99 cohort was 26 per cent and this rate increased to 33 per cent for the 11:12 cohort, a proportional increase of +31 per cent. However, most of this increase occurred during the latter half of the last decade; the proportional increase in young participation since the 04:05 cohort was +24 per cent.

50. In contrast, the participation rate in London is much higher and steadily increases throughout the study period. In London the participation rate for the 98:99 cohort was 35 per cent; this increased by five percentage points to 40 per cent for the 04:05 cohort, and by a further

²⁰ See HEFCE 2005/03), available online at

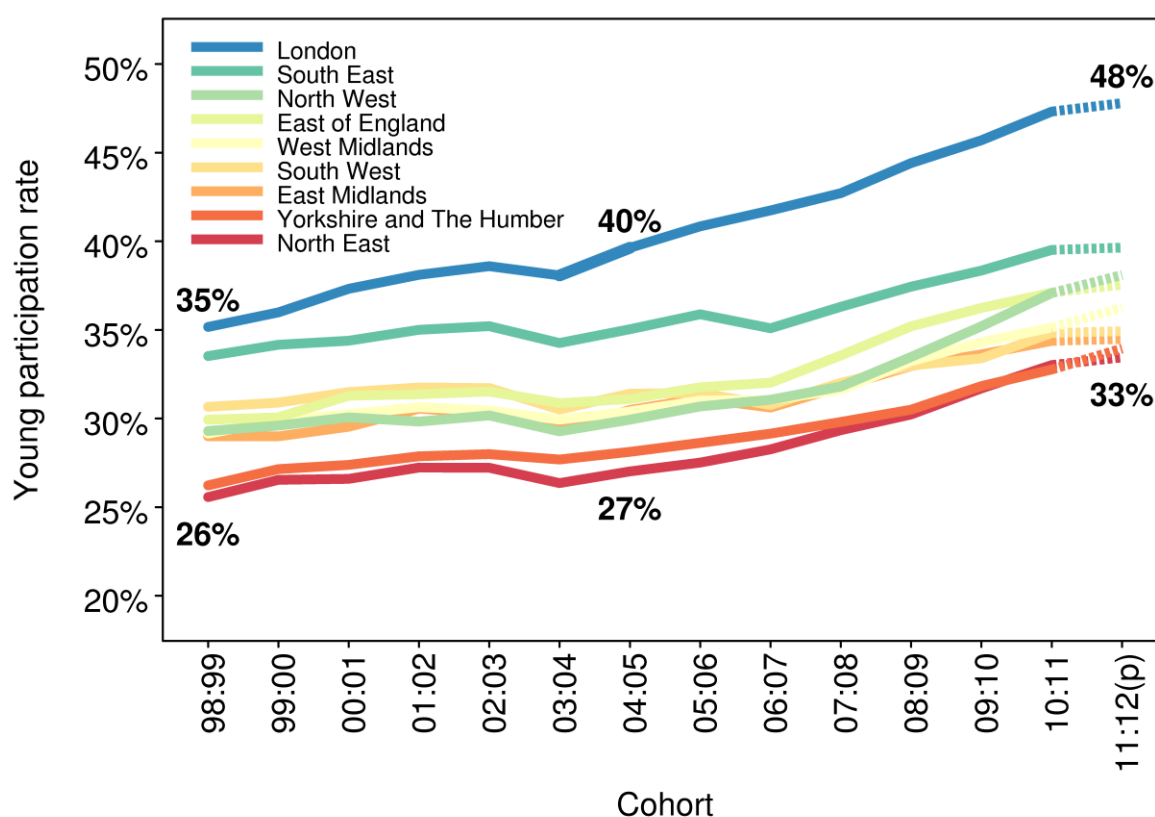
http://webarchive.nationalarchives.gov.uk/20120118171947/http://www.hefce.ac.uk/pubs/hefce/2005/05_03/,

²¹ This involves examining the proportion of young people who progress into HE by the age of 19, according to the region in which they were living aged 15.

eight percentage points to 48 per cent for the 11:12 cohort. This represents a proportional increase in young participation rate since the late 1990s of +36 per cent.

51. The trend in young participation rates in London is an exception. The overall rate for London and its trajectory over time differ to those observed in the other regions. While the gap between the regions outside London has been closing (the gap between the North East and the South East, the regions with the highest and lowest participation rates outside London, fell from eight percentage points to six percentage points) the gap between London and the other regions has widened (for example the gap between London and the South East widened from two percentage points to eight percentage points). This means that for the 11:12 cohort the difference in participation rates between London and the South East is greater than the range of participation rates spanned by the other eight regions.

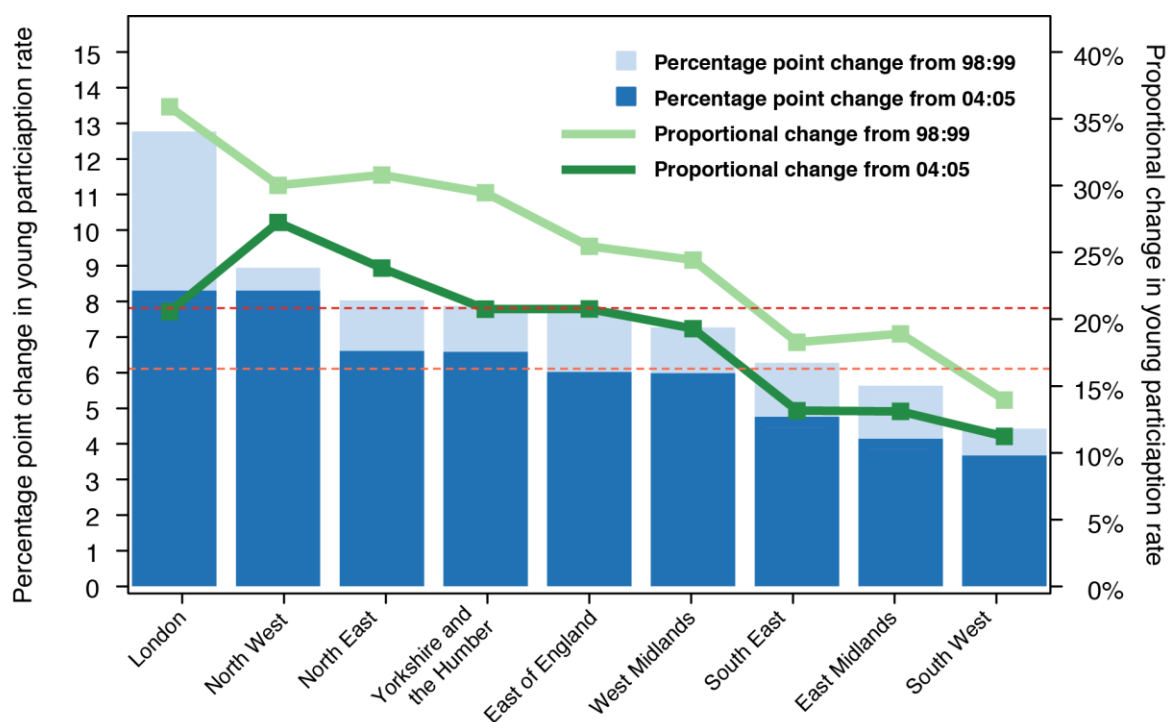
Figure 14: Trends in young participation rate by region



52. These differences in participation rates are further highlighted in Figure 15, which quantifies the changes in young participation rates across the regions. Young people in London experienced the greatest increase in participation rates across the study period. During this time the rate in London increased by 13 percentage points (+36 per cent proportionally). Young people in the South West experienced the smallest increase in participation rates across the study period, with an increased of four percentage points (+11 per cent proportionally). If we consider changes in participation rates since the mid-2000s we find that London still had the largest increase, and the South West the smallest. The percentage point increase in the young participation rate in London since the mid-2000s is so large it is greater than the increases most of the other regions experienced across the entire study period. Since the mid-2000s the growth in the participation rate in the North West has been strong, increasing by eight percentage points, the same as the increase in London over the same period. Since the 07:08 cohort, the

participation rate in the North West increased by six percentage points, the biggest increase of all the regions.

Figure 15: Changes in young participation rates by region



Note: Dotted lines show the percentage point change for England from 98:99 (dark red) and 04:05 (light red).

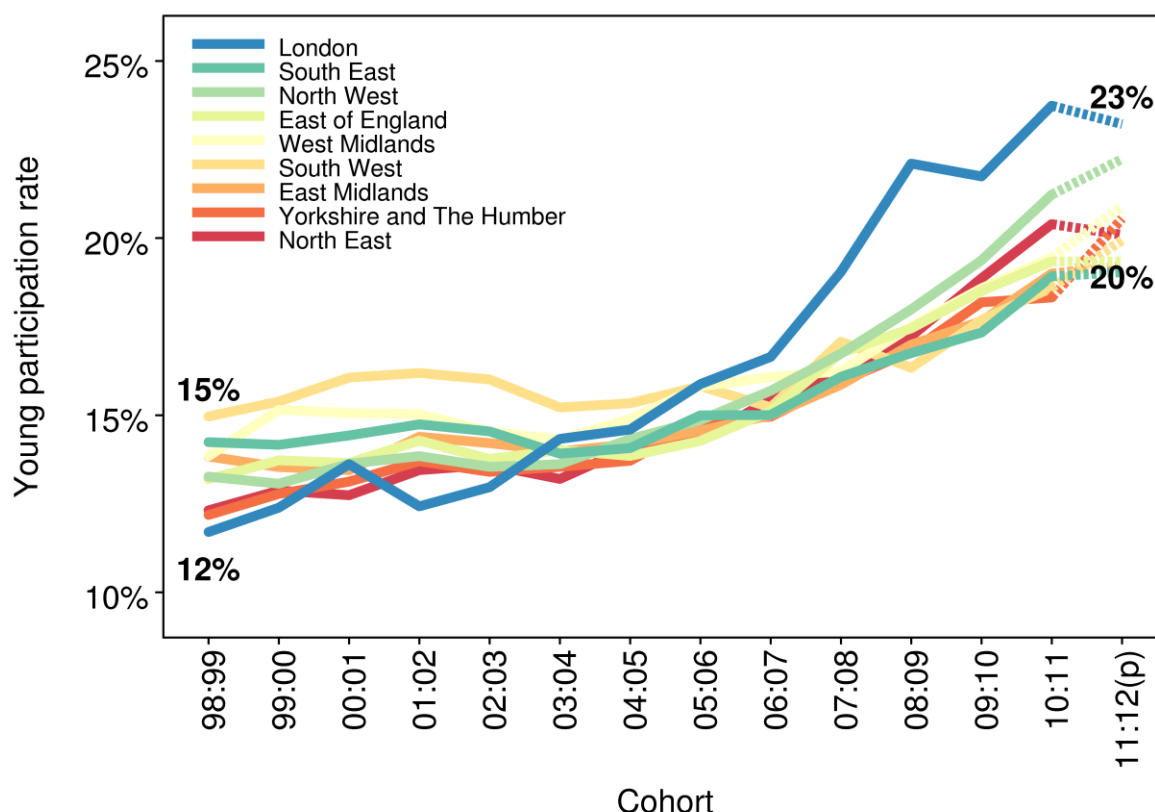
Trends in young participation by region for areas grouped by participation rates (POLAR3 classification, adjusted)

53. Figure 16 shows the trends in participation for young people in different regions who are also from the most disadvantaged areas nationally (in terms of young HE participation, POLAR3 adjusted). The participation rate of disadvantaged young people from all regions increased, but those living in London had the largest increase, almost doubling from 12 per cent for the 98:99 cohort to 23 per cent for the 11:12 cohort. Disadvantaged young people living in the North West and the North East had increases in participation rates above the national average for the most disadvantaged, but similarly disadvantaged young people living in other regions had increases in young participation rates that were below the national average. The South East had the lowest increase in participation rates, rising by just five percentage points, meaning that by the end of the study period disadvantaged young people from this region were less likely to participate in HE than similarly disadvantaged young people from other regions.

54. The distribution of the most disadvantaged young people varies geographically. For example only three per cent of the young population in London (around 3,000 young people) are in the most disadvantaged group nationally, whereas in the North East a third of the young population (around 11,000 young people) fall into this group. If these proportions changed over time, perhaps due to the migration of young people between regions, then they could drive the

changes observed in young participation rates in the regions shown in Figure 14²². We find, however, that the proportion of each region's young population from across the advantaged and disadvantaged groups remains stable over time, suggesting that the trends observed are likely to reflect real changes in the chances of young people progressing into HE.

Figure 16: Trends in young participation rates by region for young people living in low HE participation areas (POLAR3 classification, adjusted)



Trends in young participation by region for areas grouped by household income

55. As noted above, the number of young people from the most disadvantaged areas (according to young HE participation) varies greatly across regions. This results in the regional trends shown in Figure 16 representing very different proportions of young people in the different regions. This is of particular concern for London, where only three per cent of the population are in the most disadvantaged group.

56. In contrast, when disadvantage is measured using household income (see paragraphs 45 to 47), the proportion of the young population in London who live in the most disadvantaged areas is much higher, making this an interesting alternative measure of disadvantage to consider²³.

²² For example, if disadvantaged young people were moving out of London into other regions (reducing the proportion of the young population from the most disadvantaged group in London), we would expect to see participation rates in London increase.

²³ 47 per cent of the 11:12 young cohort were in the most disadvantaged group.

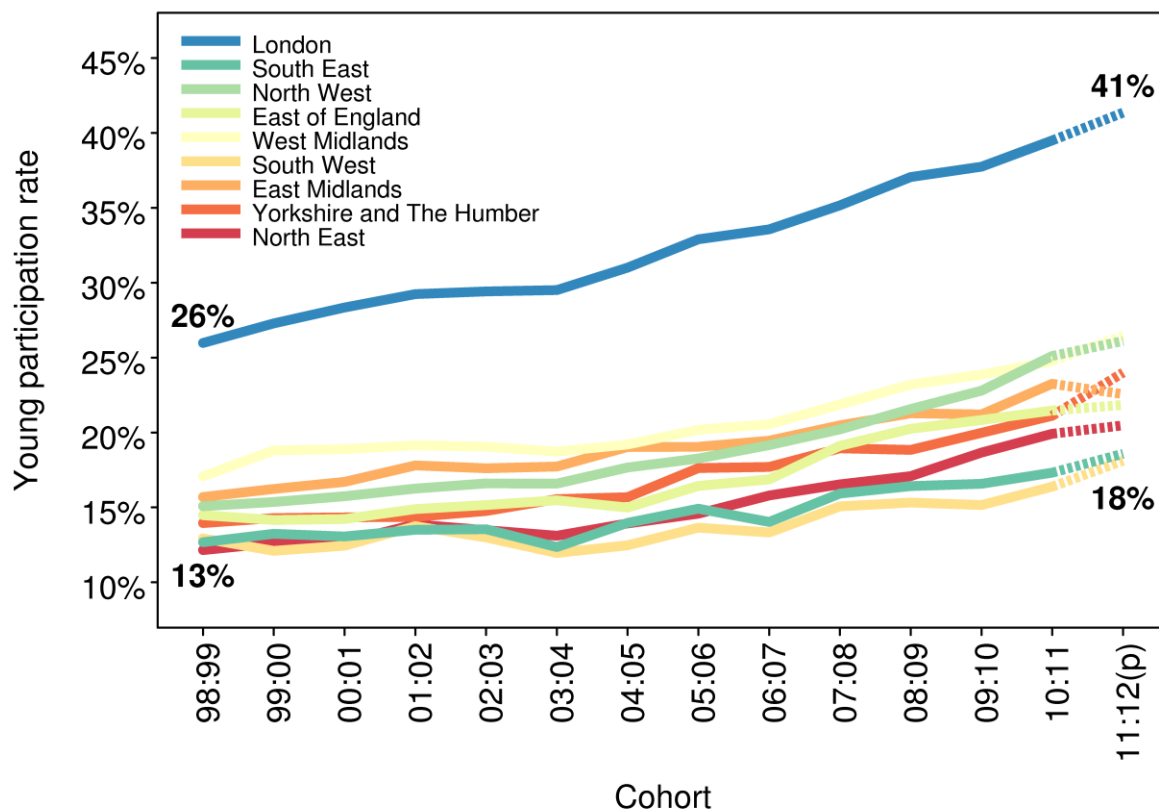
57. Figure 17 shows the trends in young participation under this measure for the different regions. The difference in participation rates between London and the other regions is striking. For the 98:99 cohort the rate in London is double that of the North East, and nine percentage points higher than the West Midlands, the region with the second highest rate. These already large gaps widened for subsequent cohorts as the rate for London grew more than anywhere else. The effect of the large increase in participation among young people from the most income disadvantaged areas who live in London is reflected in the national trend shown in Figure 12 and Figure 13. Of the 15,600 additional HE entrants over the study period from the most disadvantaged quintile, 8,000 (more than half) were from London²⁴.

58. Trends in the participation rates of the most income disadvantaged young people from other regions also increased. The North West and West Midlands are characterised by relatively large increases in participation rates, though these are still below the average increase for England which is inflated due to the very high rates in London.

59. The participation rates for the most income disadvantaged young people are lowest in the South West and the South East of England. These two regions had the lowest increases in participation rate of all the regions, similar to the patterns observed when disadvantage is measured according to HE progression (Figure 16).

²⁴ The trend in London also played a large part in the closing of the gap between the two most disadvantaged groups on this measure. If we only consider areas outside London we find that the gap in participation between the most and second most disadvantaged groups narrowed by two percentage points, half the amount by which the gap narrowed if we include London in the analysis.

Figure 17: Trends in young participation rates by region for young people living in areas with high proportions of children in lower-income households



Change in young participation rates by parliamentary constituency

60. In the same way that national trends in young participation rates can hide regional differences, regional trends can hide differences at smaller geographies. This leads us to investigate young participation rates for smaller areas, which we do by looking at how participation rates have changed across parliamentary constituencies. Rather than plot trends in young participation rates for individual parliamentary constituencies (of which there are over 500 in England, an unfeasible number to cover), we investigate the range of their participation rates, along with the range of percentage point changes over the study period.

61. The geographical distribution of parliamentary constituencies is explored in Figure 18. The majority of areas with the highest participation rates (greater than 52 per cent) are located in London and the South East, but there are also some in the North West. In London there is a clear east-west split, with areas in the western half tending to have higher participation rates. Similarly, in the South East, constituencies which border London to the west and south have very high participation rates (typically greater than 42 per cent), while constituencies on the coast and in parts of Kent have very low participation rates (often no higher than 33 per cent).

62. The pattern of low-participation areas along coastal areas is not just a facet of the South East; coastal constituencies with low HE participation rates extend from East Anglia, around the Wash and along the east coast up past the Humber estuary and into the North East. There is also a large concentration of very low-participation areas in the old industrial towns and cities in Yorkshire and the East Midlands. These low-participation areas, which have participation rates no higher than 31 per cent, extend southwards from Leeds, through Sheffield, and into Derby

and Nottingham, and also eastwards along the Humber estuary towards the Lincolnshire coast taking in Kingston upon Hull. Other concentrations of low-participation areas are found in the North East, in parts of Liverpool in the North West, and in Birmingham, Stoke-on-Trent, and the Black Country areas of the West Midlands.

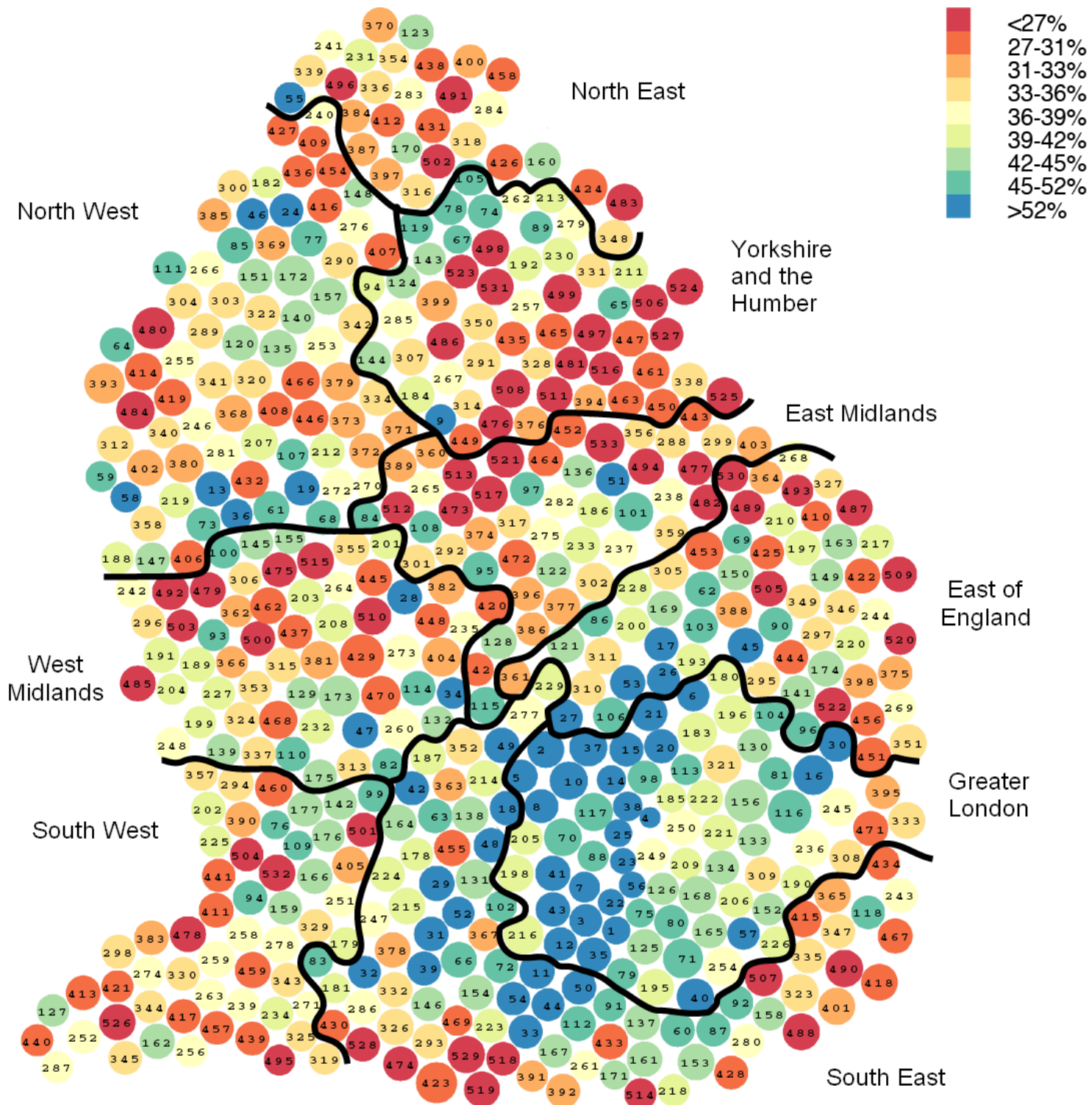
63. The geographical distribution of changes in young participation rates by parliamentary constituency is shown in Figure 19. Constituencies with the biggest increases (greater than 13 percentage points) can be found in most regions and tend to occur in clusters, generally located in large urban areas such as London and the surrounding satellite towns, Birmingham, Manchester and urban areas in the North East (such as Sunderland, Hartlepool and Darlington) and the Yorkshire and Humber region (for example York, Bradford, Halifax and Sheffield). By far the largest concentration is found in the eastern half of London for example Lewisham, Deptford and Barking, East Ham, West Ham, Ilford South, Dagenham and Rainham and Woolwich and Greenwich (the latter had an increase of 21 percentage points). There are also some constituencies in the western half of London, which had (and still have) among the highest participation rates in England, and which experienced very large increases in participation. Examples include Harrow East, Ruislip, Northwood and Pinner, which each had increases of 13 percentage points, and Putney which had an increase of 19 percentage points.

64. The East Midlands and the South West regions are characterised by relatively modest growth in participation. This is reflected in the size of the increases in participation observed in parliamentary constituencies within these regions. In the East Midlands, constituencies in Leicester and Nottingham had among greatest increases (around 12 percentage points) while in the South West the constituencies of Filton and Bradley Stoke, and North East Somerset had the greatest increases (around 11 percentage points).

65. If we ignore regional boundaries, it is possible to trace a large continuous area of modest growth in HE participation, typically no higher than four percentage points, from Kent in the South East, westwards along the south coast into the South West, and then northwards along the border with Wales as far as Liverpool. This area takes in two notable clusters of constituencies in which young HE participation has fallen. The first is the area around Portsmouth. Although Portsmouth itself did not have a decline in participation – it experienced only very modest growth – the surrounding areas of Gosport, Chichester, Littlehampton and the Isle of Wight all did. The second is where the three counties of Herefordshire, Worcestershire and Gloucestershire meet. Here the constituencies of the Forest of Dean, West Worcestershire and Stroud all had declines.

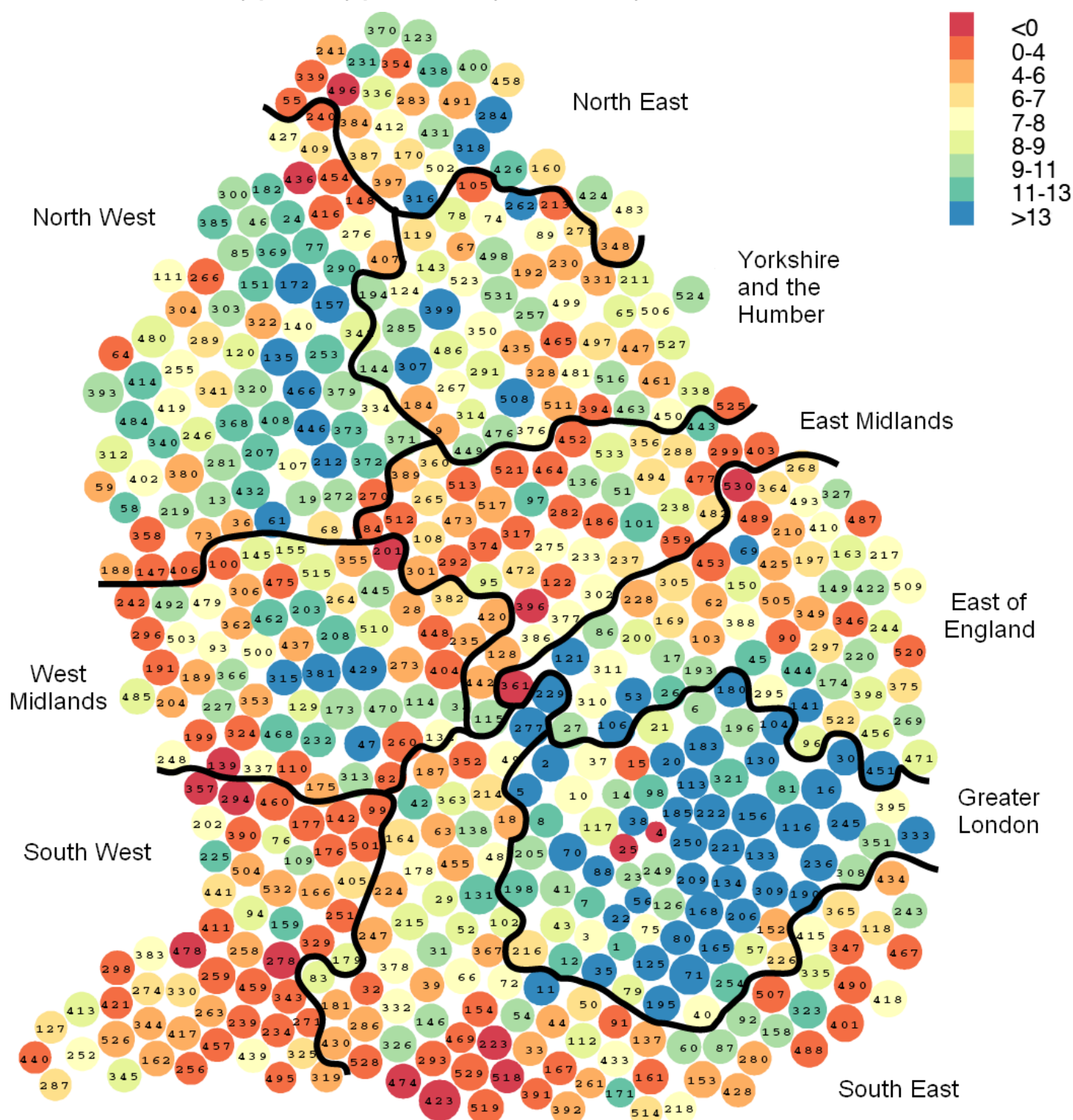
66. It is also possible to trace a second large continuous area of modest growth, starting to the east of Manchester and moving eastwards towards the Lincolnshire coast and into East Anglia, and northwards towards Leeds. A third area can be found in the very north of England, stretching from Barrow-in-Furness on the west coast, through the Lake District and into Berwick-upon-Tweed on the East Coast. Again this area is characterised by modest growth in HE, interspersed with areas where participation has declined, such as the Blyth Valley and Copeland constituencies.

Figure 18: Cartogram of young participation rates by parliamentary constituency for the 11:12(p) cohort



Note: Circles are scaled according to the size of the 11:12 young cohort. Constituencies are numbered in descending order according to the young participation rate. Annex A provides a lookup table linking these numbers with constituency names. An online interactive map of young HE participation rates for parliamentary constituencies is available at www.hefce.ac.uk/whatwedo/wp/ourresearch/trendsyp/map1

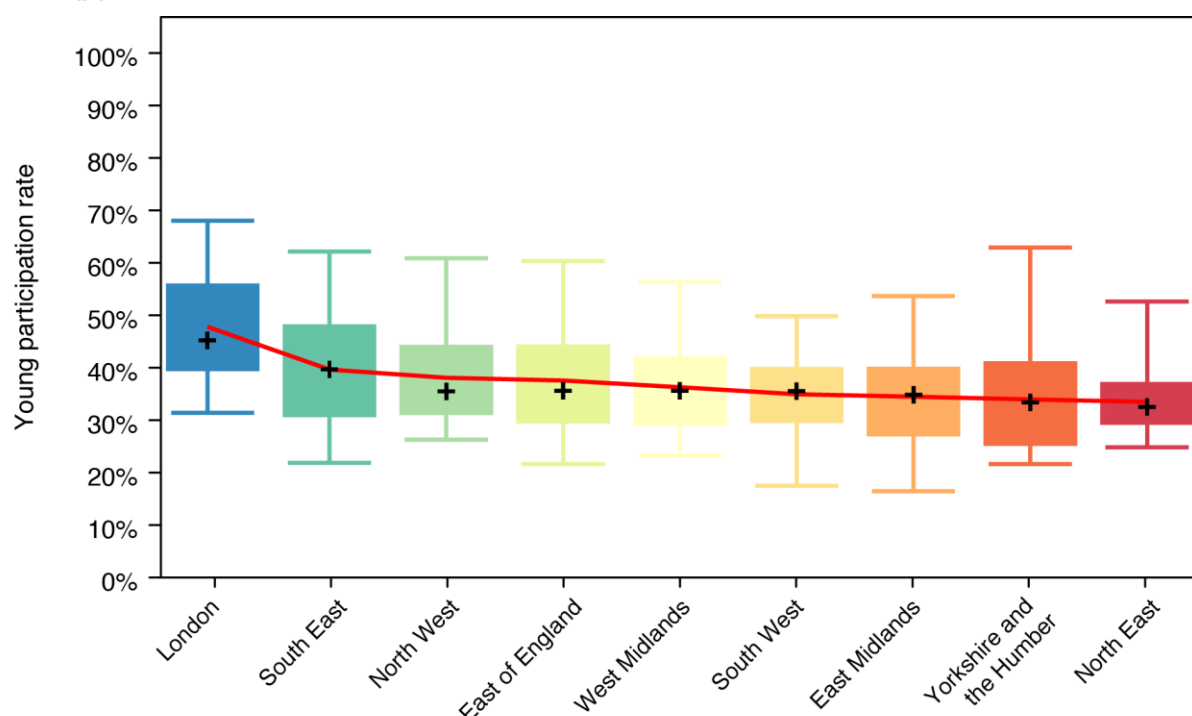
Figure 19: Cartogram of the percentage point change in young participation rates across the study period by parliamentary constituency



Note: Circles are scaled according to the size of the 11:12 young cohort. Constituencies are numbered in descending order according to the young participation rate. Annex A provides a lookup table linking these numbers with constituency names. An online interactive map of the changes in young HE participation rates for parliamentary constituencies is available at www.hefce.ac.uk/whatwedo/wp/ourresearch/trendsyp/map2

67. Figure 20 shows the range of young participation rates for the 11:12 cohort across parliamentary constituencies, split by the region in which they are located. Parliamentary constituencies within each region have a range of young participation rates, covering between 30 and 50 percentage points. Across the regions there is a wide overlap in the range of young participation rates. For example, there are several parliamentary constituencies in London which have participation rates comparable to, and in some cases lower than, those in the North East. With a participation rate of 68 per cent, Wimbledon (located in London) is the parliamentary constituency with the highest young participation rate. This is four times higher than the rate in Nottingham North (located in the East Midlands), which is the constituency with the lowest participation rate of 16 per cent.

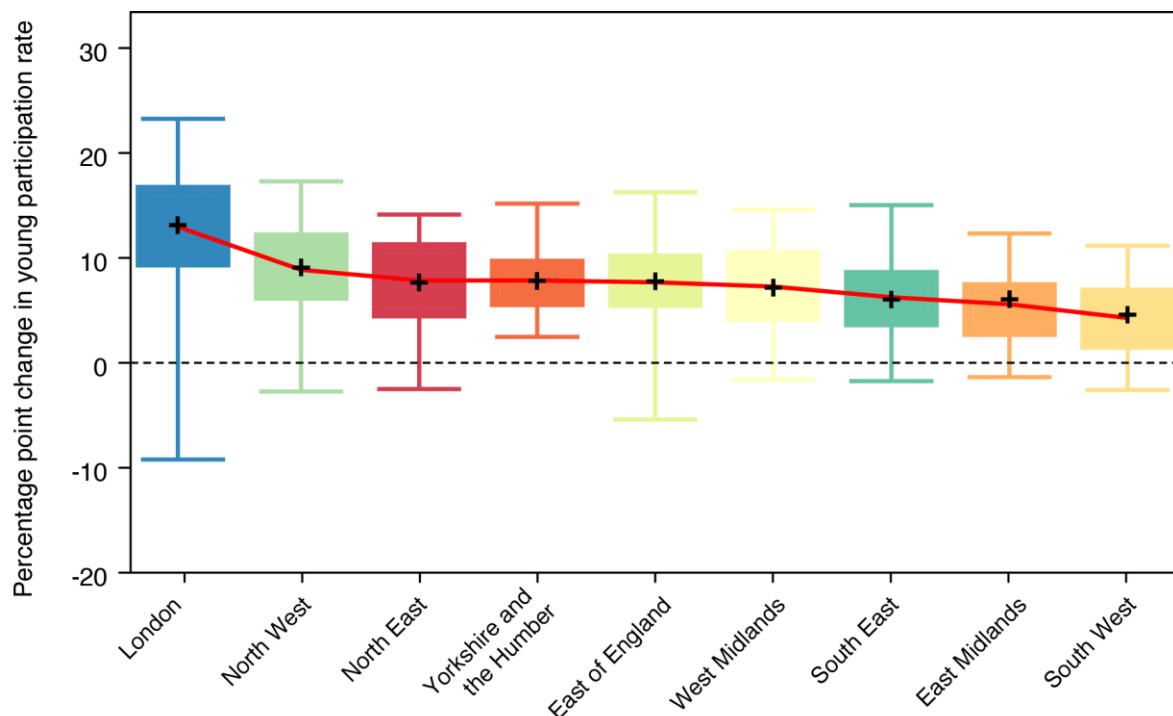
Figure 20: Young participation rates for parliamentary constituencies within regions 11:12(p) cohort



Note: Regions ordered according to weighted average participation rate across parliamentary constituencies. Bars cover the parliamentary constituencies which account for the middle 50 per cent of the young population; '+' indicates median values; red line indicates the mean.

68. Figure 21 shows the range of percentage point changes in young participation rates across the study period for parliamentary constituencies, split by the region in which constituencies belong. The young participation rate increased in the vast majority of constituencies, though in every region except in Yorkshire and the Humber there is at least one constituency in which participation rates fell. The percentage point changes across parliamentary constituencies are varied, ranging from an increase of 23 percentage points in Barking to a decrease of nine percentage points in the Cities of London and Westminster constituency, both of which are located in London.

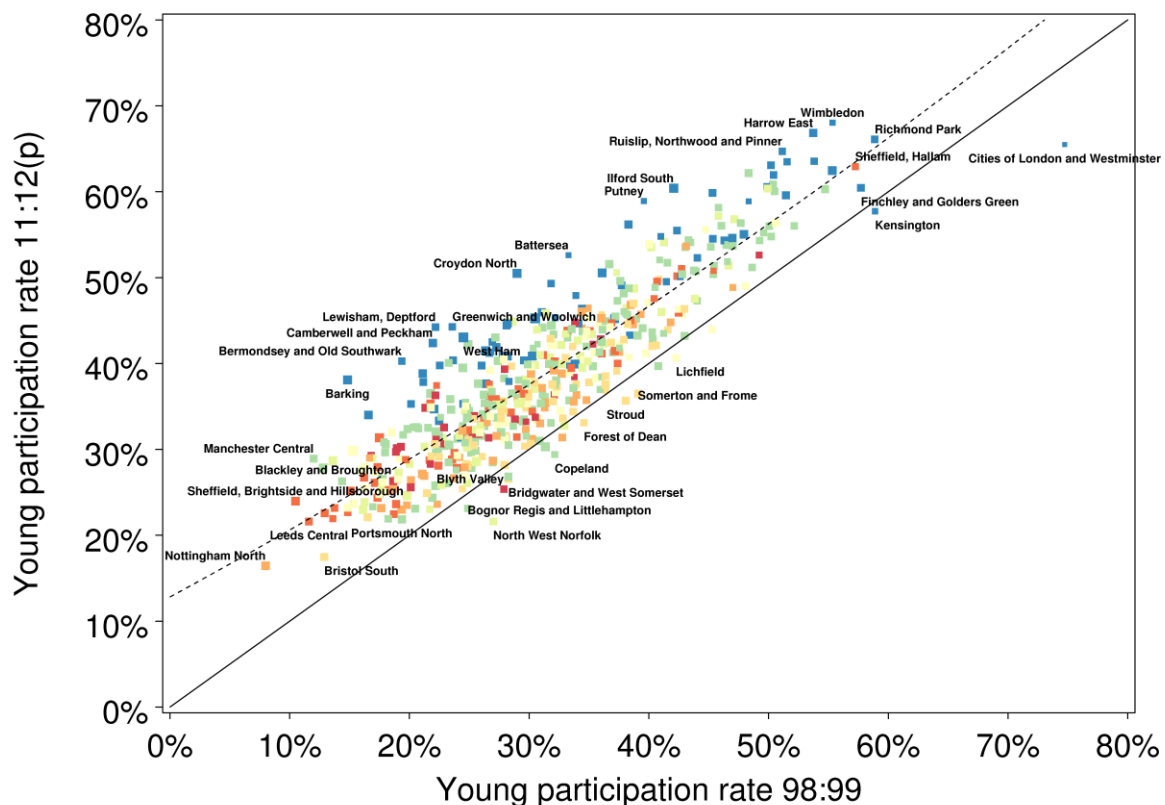
Figure 21: Percentage point change in young participation rates across the study period by parliamentary constituency split by region



Note: Regions ordered according to weighted average change in participation rate across parliamentary constituencies. Bars cover the parliamentary constituencies which account for the middle 50 per cent of the young population; '+' indicates median values; red line indicates the mean.

69. The general pattern of increases in young participation rates across constituencies is also shown in Figure 22, which plots the young participation rates at the beginning and end of the study period. The domination of constituencies in London and the South East among those with the highest rates is clear, while the rates in many constituencies in the North East and Yorkshire and the Humber regions tend to be comparatively low.

Figure 22: Young participation rate for the 11:12 cohort versus the 98:99 cohort by parliamentary constituency

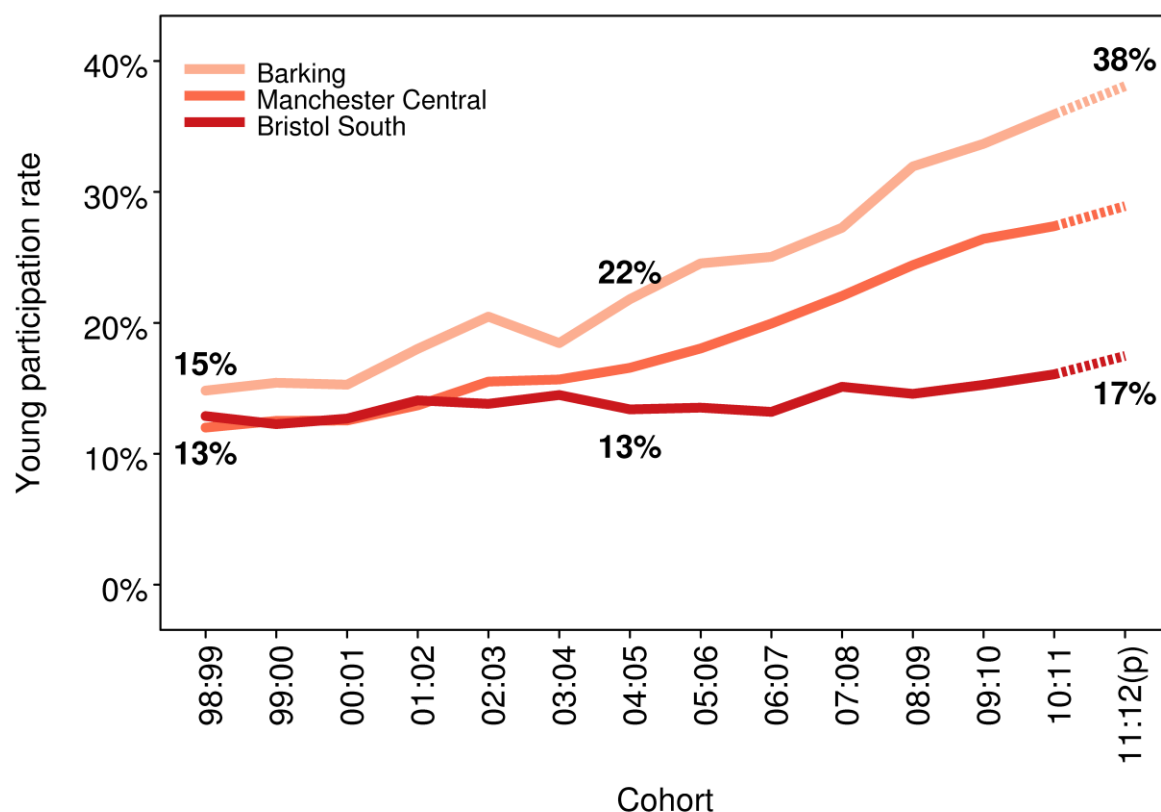


Note: Parliamentary constituencies are coloured according to the region in which they are located and match those used in Figure 20 and Figure 21. Dotted line represents ordinary least squares regression line of best fit.

70. Figure 22 also shows how, in many cases, areas which had similar participation rates in the late 1990s have dissimilar rates today. This is most noticeable for areas which had average participation rates in the late 1990s, some of which have had large increases, while others only modest. For example, the 98:99 cohorts in Croydon North and Brigg and Goole both had participation rates of 29 per cent, but the participation rates for the 11:12 cohorts in these two areas were substantially different: The rate in Croydon North was 51 per cent, but in Brigg and Goole it was just 31 per cent, a gap of 20 percentage points. This means young people from Croydon North are 60 per cent more likely to participate in HE by the age of 19 than young people in Brigg and Goole, a gap which emerged during the last 13 years.

71. Similarly, the young participation rate trends for three parliamentary constituencies with low young participation rates at the in the late 1990s (Barking, Manchester Central and Bristol South) are shown in Figure 23. The participation in each of these areas evolved differently over time resulting in them having very different participation rates. The trend for Barking is typical of several constituencies in the eastern half of London, with such areas having rates close to the national average. The trend for Manchester Central is typical of several areas which have seen strong growth in participation but which still have rates that are lower than the national average. The pattern for Bristol South shows how this area has had persistently low rates of young participation that have improved only marginally over the last 14 years.

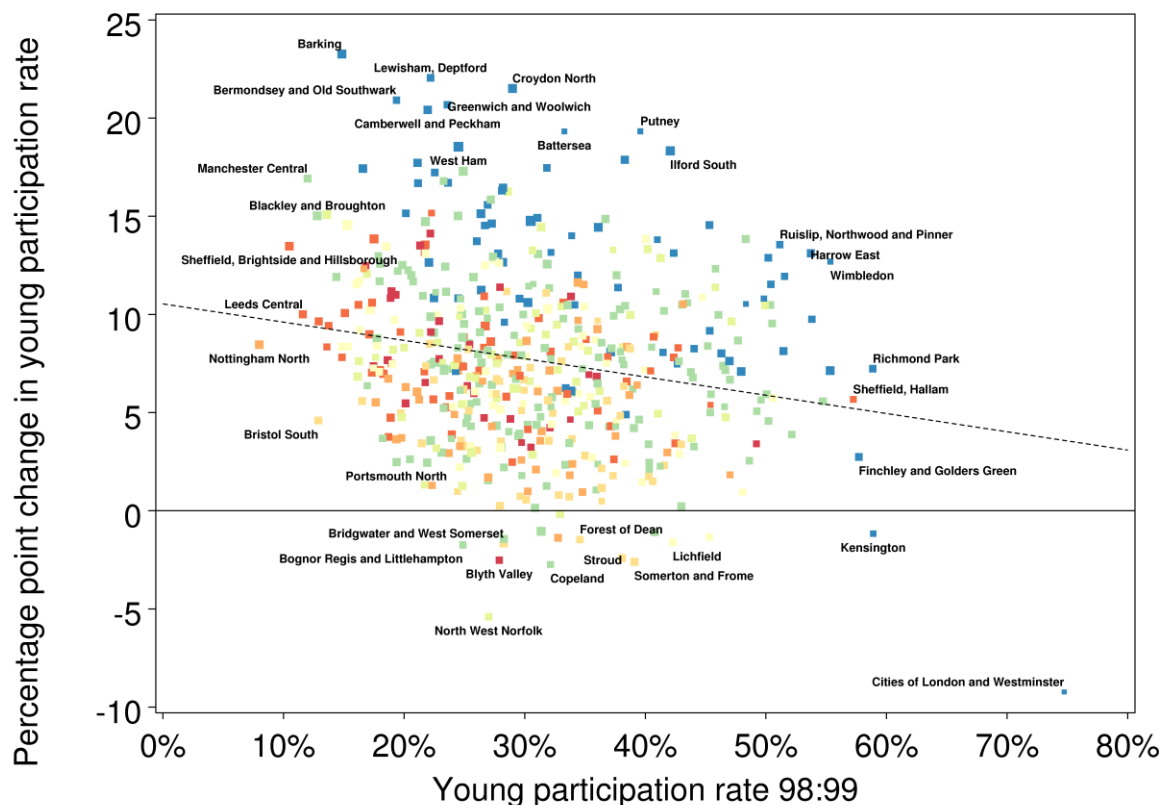
Figure 23: Trends in young participation rates for selected parliamentary constituencies



72. In general (but particularly in London), areas have had increases regardless of their participation rate at the beginning of the study period, including those with very low and very high participation rates²⁵. However, areas with lower participation rates at the beginning of the study period appear to have had slightly larger increases in young participation rates, on average, compared with other areas. This is shown more clearly in Figure 24, which plots the change in young participation rates over the study period against young participation rates at the beginning of the period.

²⁵ The exception is the Cities of London and Westminster constituency, which has a more variable trend, in part due to the relatively small number of young people who live there.

Figure 24: Percentage point change in young participation rates for parliamentary constituencies across the study period versus the 98:99 cohort rate



Note: Parliamentary constituencies are coloured according to the region in which they are located and match those used in Figure 20 and Figure 21. Dotted line represents ordinary least squares regression line of best fit.

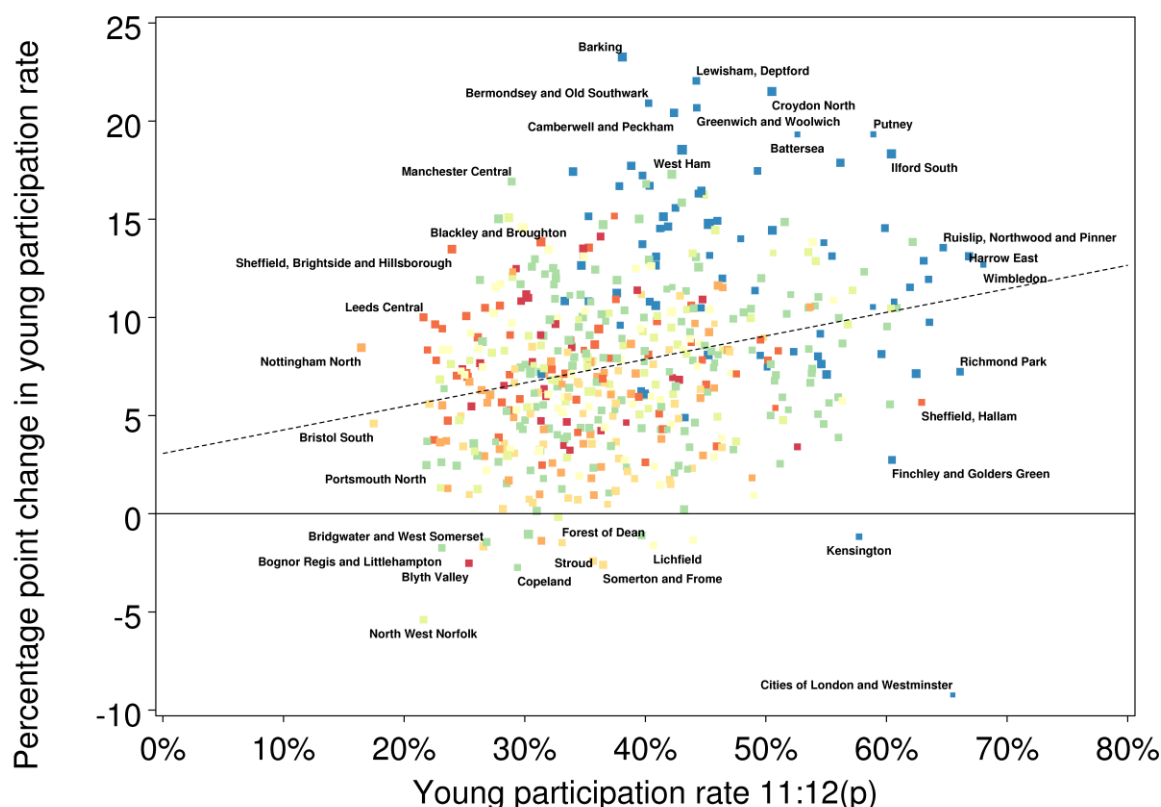
73. Figure 25 plots the change in young participation rates over the study period against the young participation rates at the end of the period. We find that many of the constituencies which, by the end of the study period, had relatively high young participation rates had large increases in participation since the late 1990s.

74. As well as showing the general patterns of participation across areas, Figure 22, Figure 24 and Figure 25 allow us to identify specific constituencies which have experienced substantial changes in participation rates. One of the most noticeable findings is the very large increase in participation rates across areas of London, particularly those which previously had low to medium participation rates (for example Barking, Lewisham, Deptford and Croydon North). Of the 20 constituencies with the largest increases in young participation rates since the late 1990s, 17 are located in London.

75. Some of the constituencies with the lowest rates in 1998 have seen substantial increases (most notably Manchester Central, Sheffield, Brightside and Hillsborough, Leeds Central and Blackley and Broughton), though despite these increases these areas still have relatively low participation rates. Other constituencies, such as Nottingham North and Bristol South, have had only modest increases, resulting in them having the lowest rates in England.

76. It is also possible to identify another group of constituencies, those which have the lowest participation rates due to having only modest increases, or decreases, in participation rates. These include North West Norfolk (which had a fall of five percentage points), Portsmouth North, Bognor Regis and Littlehampton, Blythe Valley and Bridgwater and West Somerset.

Figure 25: Percentage point change in young participation rates for parliamentary constituencies across the study period versus the 11:12(p) cohort rate



Note: Parliamentary constituencies are coloured according to the region in which they are located and match those used in Figures Figure 20 and Figure 21. Dotted line represents ordinary least squares regression line of best fit.

Trends in young participation in rural and urban areas

77. The analysis by parliamentary constituency suggests that participation rates in rural areas tend to be higher than in urban areas, but that urban areas have had bigger increases in participation rates since the late 1990s. Figure 26 shows this to be the case, with wards classified as being in rural areas having higher rates throughout the study period, and wards in urban areas having the lowest²⁶. However, participation rates in urban areas had the biggest

²⁶ We use the Office for National Statistics' 'Rural/Urban Definition' for England and Wales at census area statistic ward level, available at www.ons.gov.uk/ons/guide-method/geography/products/area-classifications/rural-urban-definition-and-la/rural-urban-definition--england-and-wales-/index.html. We reduce the classification down to form three groups, 'Urban', 'Town and Fringe', and 'Village, Hamlet and Isolated Dwellings' by aggregating together areas classified as 'Sparse' and 'Less sparse'.

increase both in percentage point terms (an eight percentage point increase) and proportionally (+29 per cent).

78. As with other area groupings we need to acknowledge the different proportions of the young population that live in rural and urban areas. In England just over 80 per cent of the young population live in urban areas, with around 10 per cent each living in areas classed as 'Town and Fringe' and 'Village, Hamlet and Isolated Dwellings'. This means the trend in urban areas follows that of the national trend most closely, although areas across all three groups are characterised by bigger increases in participation rates since the mid-2000s.

79. The proportion of the young population living in rural and urban areas varies across regions. The majority of wards in London are classified as urban, and London accounts for just under 20 per cent of the young population in England living in urban areas. Higher than average proportions of young people living in urban areas are found in the North West and the West Midlands, while lower than average proportions are found in the East Midlands, the East of England and the South West. The national trends shown in Figure 26 could therefore obscure very different regional patterns, but this is not found to be case. In all regions, young people in urban areas had bigger increases in young participation rates than those in rural areas, and although London has a disproportional effect on the national trend for urban areas, the effect is only to boost the participation rate in urban areas by two percentage points. The trend in participation rates for urban areas outside London is two percentage points lower than the national average for all urban areas (Figure 27), but the magnitude of the overall increase is the same at eight percentage points.

Figure 26: Trends in young participation rates in rural and urban areas

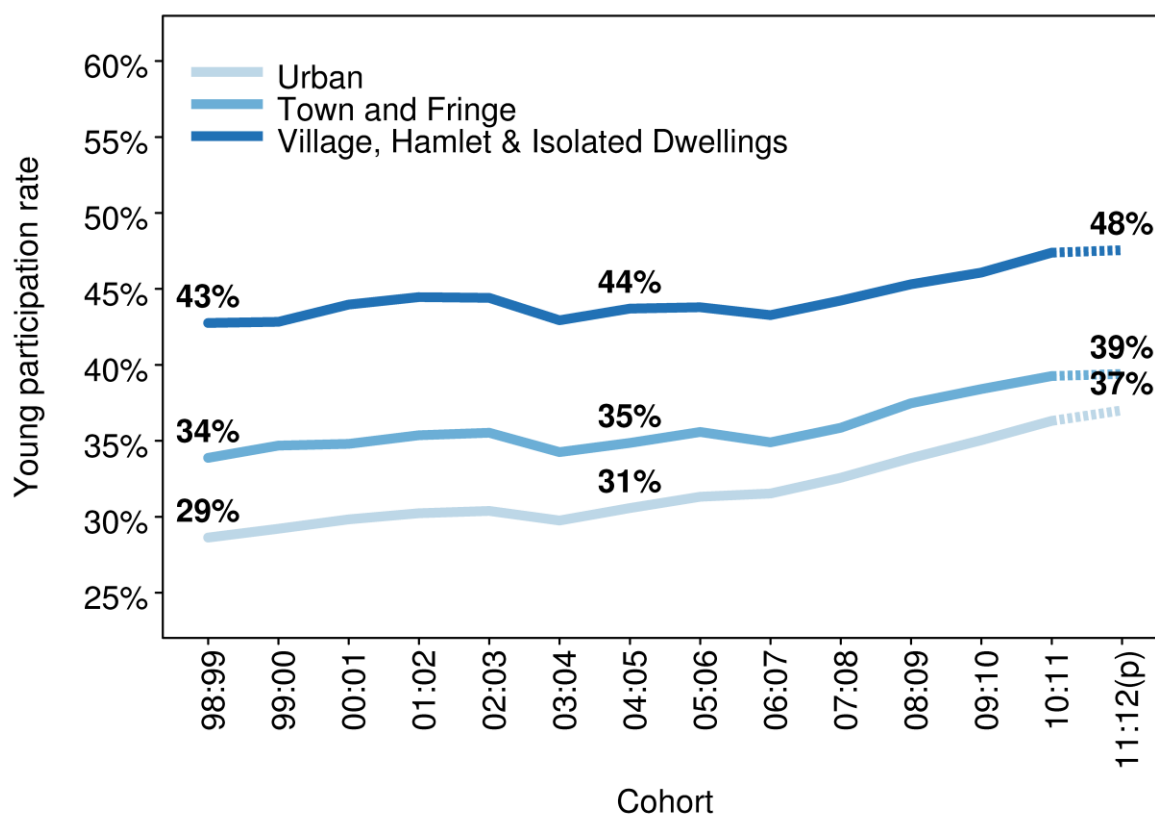


Figure 27: Trends in young participation rates in rural and urban areas outside London

