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Issues paper

This report provides findings from an analysis of European Social Fund and HEFCE jointly funded Aimhigher summer school provision from 2004 to 2008. It describes the nature of summer school provision and the characteristics of summer school participants with a focus on whether the programme reached the intended target groups.

Aimhigher summer schools

**Analysis of provision and participation
2004 to 2008**

aimhigher...

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Contents

	Page
Foreword	2
Executive summary	3
Introduction	5
Background	5
Aimhigher summer schools	5
Scope of the data	6
Summary and conclusions	7
Extent of the summer school programme	7
The nature of summer schools	7
Participants	7
Geography of summer school participation	8
Conclusions on the targeting of the programme	9
Findings	11
The national picture	11
Trend over time	11
The nature of summer school provision	14
Summer school duration	14
Residential summer schools	15
Specialist summer schools	15
The nature of summer school participants	16
Age of participants	16
Sex	17
Disability	17
Ethnic group	18
Socio-economic group	18
Parental education	20
Income background	21
Young participation	22
Secondary school background: type and admission policy	23
Secondary school background: GCSE attainment	24
Changes in targeting through time	25
Geography of summer school provision	26
Funding and summer school participation rates	28
Travel patterns	31
 Annexes (available on the HEFCE web-site alongside this document under 2009 Publications)	
Annex A	Summer school funding allocations
Annex B	Data used for analysis
Annex C	Aggregated ethnic groups
Annex D	NS-SEC assignment
Annex E	Additional analysis of parental occupation
Annex F	Population denominators
Annex G	Additional tables and figures

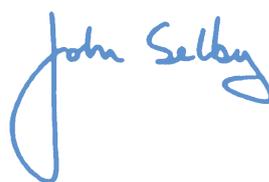
Foreword

This publication analyses data collected by Aimhigher regional partnerships about Aimhigher summer school beneficiaries over five years. I would like to thank all practitioners working through the various Aimhigher partnerships for their collaboration on this piece of work. I also wish to congratulate all those involved for executing a large programme of intensive intervention in line with the changing and often challenging requirements of HEFCE and the European Social Fund.

Attending an Aimhigher summer school can be a life-changing experience, opening doors to a world of often unimagined opportunity and leading to better informed choices. It is hardly surprising then that so many young people wish to participate in them. Indeed, in the early stages of the programme we noted substantial numbers of beneficiaries from relatively advantaged backgrounds making successful applications to summer schools. As a result of this, our guidance on targeting learner beneficiaries has changed over the lifetime of this programme. The findings in this report show that the limited resources available for this important work are focused on young learners from the target groups.

There is still much to be done. This report demonstrates that boys and, to a lesser extent, White ethnic groups have relatively low participation rates on the programme. In our guidance for the 2008-2010 summer school programme (HEFCE 2008/24) we asked higher education providers and Aimhigher partnerships to support our commitment that factors such as sex and ethnic group should not be barriers when engaging with groups under-represented in higher education.

We are grateful to Aimhigher partnerships and individual higher education providers for their continued support and commitment to the provision of high quality summer school outreach activity. The insights provided by this report serve to underline the importance of their continuing commitment to supply high quality comprehensive data so that the full measure of the success of the programme can be set out.



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Aimhigher summer schools

Analysis of provision and participation 2004 to 2008

To	Heads of HEFCE-funded higher education institutions Heads of universities in Northern Ireland Heads of HEFCE-funded further education colleges Chairs and managers of area Aimhigher partnerships
Of interest to those responsible for	Widening access and participation in higher education, including staff in higher and further education institutions, schools and local authorities
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Executive summary

Purpose

1. This report provides the first national analysis of Aimhigher summer schools and their participants. The analysis covers the activity in the period 2004 to 2008 (academic years 2003-04 to 2007-08¹) funded by HEFCE and the European Social Fund. Special attention is paid to the background characteristics of summer school participants in relation to the aim of the programme to target groups under-represented in higher education.

Key points

2. Between 2003-04 and 2007-08 41,000 young people attended 1,350 summer schools. Averaged over this period, 1.2 per cent of young people participated in the programme. This participation rate has varied each year, reflecting changing levels of funding.
3. Aimhigher summer schools are typically five or more days in length, with an overnight stay, hosted at a local university. Most participants were in the final two years of compulsory education.
4. For the purposes of analysis, a set of target groups were defined by measures of parental, area and school background. On most measures the majority of participants were from the target group. Typically the target group had a participation rate

¹ In this report we use the convention of referencing summer school activity by the academic year it was in.

in the programme that was at least twice that of the non-target group, and there was some evidence that this ratio was increasing over time.

5. Both overall and target group participation rates varied by Aimhigher region. These variations were associated with the level of funding received by each region. Most participants attended a local summer school but some travelled substantial distances, especially for specialist summer schools which focus on a single subject.

6. Participation varied by sex. The participation for girls was persistently twice that of boys. Among broad ethnic group categories, the White ethnic group had the lowest participation rate.

Action required

7. No action is required.

Introduction

Background

8. Aimhigher is a national programme which began in 2004 with the integration of two pre-existing programmes, Excellence Challenge and Aimhigher: Partnerships for Progression. Aimhigher aims to widen participation in higher education (HE) by raising the aspirations and developing the abilities of young people from under-represented communities. Overwhelmingly these are people from lower socio-economic groups and disadvantaged backgrounds. Aimhigher partnerships build cross-sector relationships which break down the barriers which institutions and systems can unwittingly create for learners.

9. These aims are reflected in guidelines for targeting activity such as summer schools (see 'Higher education outreach: targeting disadvantaged learners' HEFCE 2007/12)². Accordingly the summer school programme is directed towards the target groups: young people from under-represented backgrounds.

10. In addition to organising summer schools, Aimhigher encompasses a range of activities to engage and motivate learners who have the potential to enter HE but may be under-achieving, undecided or lacking in confidence. These include campus visits, mentoring, facilitating information, advice and guidance, and other interventions directed through schools and post-16 colleges.

11. Another provider of HE summer schools³ is the Sutton Trust⁴ which 'makes grants to projects that provide educational opportunities for able young people from non-privileged backgrounds'. The Sutton Trust has been funding summer schools since 1997 and typically provides places for 800 young people every year. A review of the Sutton Trust funded summer schools⁵ was conducted in 2008 and found them to be beneficial in terms of helping decide which subject to study, the application process, academic preparation, developing social skills and building confidence.

Aimhigher summer schools

12. Aimhigher summer schools attempt to give young people a taste of life in HE that will help them decide whether to apply for entry and what to study. The intention is that through the provision of sustained, intensive, residential or non-residential activities at a university or college, targeted learners are encouraged to apply to HE.

13. Typically the targeted learners are those who are less familiar with HE, perhaps because they do not know many people among friends and family who have experience of higher education or who can advise them on what choices to make.

14. As such it is intended that application and progression to HE is achieved via providing an experience of HE which encourages the learners in the target group to:

- reinforce a commitment to learning and progression to HE
- raise their attainment and aspirations to enter HE
- build the skills and confidence necessary to progress their education to HE
- experience aspects of HE student life
- obtain the information they need about HE.

15. A summer school normally involves a visit to a university or college and lasts at least two days, usually involving an overnight stay. Typical activities organised during a summer school include master classes in a range of subjects, advice on how to apply for entry to HE, sport and social activities mirroring those available in HE, highlighting the options open to graduates, and general advice on life in HE. All course and travel costs, as well as meals and accommodation, are provided free of charge to the students.

16. In 2003, HEFCE submitted an application to the European Social Fund (ESF) to receive matched funding for Aimhigher summer schools, as part of the ESF's lifelong learning measure. The key aim of

² Available from www.hefce.ac.uk under 2007 Publications

³ All references to summer schools are for HE summer schools unless otherwise stated.

⁴ www.suttontrust.com

⁵ www.suttontrust.com/reports/TenYearReview-SuttonTrustSummerSchools.pdf

the ESF is to improve employment opportunities in the European Union and so help raise standards of living. It aims to help people fulfill their potential by giving them better skills and job prospects. HEFCE was successful in the initial bid for summer school funding which enabled £20.3 million to be invested in summer school provision between 2003-04 and 2005-06 (£6.8 million per year). HEFCE submitted a further bid to the ESF to continue the programme in 2006-07 and 2007-08, and a further £6.7 million was provided (£3.3 million per year). In addition, HEFCE has committed another £10.5 million to fund Aimhigher summer schools until 2010.

17. Not all Aimhigher regions took part in the earlier programme, and certain geographical areas were not eligible for ESF funding: ESF funding only covers Objective 3 areas and those areas dedicated Objective 1 are not eligible for ESF support to avoid duplication. Where a geographical area was ineligible for ESF funding HEFCE funding was provided in 2006-2008 to ensure summer school provision for learners living in these areas (Cornwall; South Yorkshire; Merseyside). Details of funding at a regional level are at Annex A.

Scope of the data

18. The data used in this analysis were collected from individual universities and colleges and returned by the Aimhigher regional coordinators. Data from summer schools were requested, although some Aimhigher regions provided data from summer schools funded from sources other than ESF (or HEFCE funding where no ESF funding was provided, see paragraph 17). Data from summer schools funded from these other sources were not used in this analysis. Annex B provides details of data returned and data used in the analysis.

19. Data returns were the collated individual records of applicants to summer schools, some of whom subsequently participated and some of whom, for various reasons, did not. The format of the data return was based on a specification developed by HEFCE in conjunction with Aimhigher regional partnerships. This specification

will also be used for data collection for the HEFCE 2008-2010 summer school programme; at Annex E in 'Summer schools 2008-2010' (HEFCE 2008/24)⁶. The specification was designed to collect data regarding applicants and any summer schools which they subsequently attended. Details included personal information such as name, sex, school year, ethnicity, disability, as well as information that could be used to represent background such as home and school postcodes and parental occupation and education. Information regarding the nature of summer schools attended included aspects such as the host higher education institution (HEI), the duration of the summer school in days and whether or not it involved staying overnight.

20. We only analysed information on attendees at summer schools. Although information regarding all applicants to the programme would have allowed a deeper analysis to be conducted, in certain cases only applicants who had participated had their data collected (a common reason for this is that data were collected during the summer school event). In addition, sometimes data pertaining to certain schools were unavailable, or could not be shared with HEFCE due to difficulties in satisfying data protection requirements. Instances of these problems were limited to a minority of summer schools organised during the first two years of the programme.

⁶ Available from www.hefce.ac.uk under 2008 Publications

Summary and conclusions

Extent of the summer school programme

21. During the five years from 2003-04 to 2007-08 the Aimhigher summer school programme was the largest activity of its kind in England. Over 1,350 summer schools were hosted at 113 HEIs, providing 41,000 young people with a total of 163,000 participant days of activity. Over this period the programme was provided with £27.4 million of funding indicating a rough average total cost of £20,300 per event, £670 per participant, and around £170 for each participant day.

22. Although there were a large number of participants, attending a summer school is relatively rare: over the first five years around 1 in 80 young people attended summer schools, a participation rate of 1.2 per cent. Participation over time has varied. During the first three years, participation rates rose from 1.0 per cent to a peak of 1.8 per cent in 2005-06 before falling to 0.6 per cent in 2007-08. These variations are linked to changes in the funding profile through the period. It is likely therefore that recent increases in the funding for HE summer schools will lead to higher participation rates in forthcoming years.

The nature of summer schools

23. Summer schools are substantial, intensive interventions with the potential to change aspirations. Most participants attend a summer school of five days or more, though in recent years four-day events have become more common. Nearly 80 per cent of participants experience at least one overnight stay at a university or college, helping to give them a broad impression of what life in HE might be like.

24. Over a quarter of participants attended specialist summer schools which focus on a single subject, typically with smaller group sizes drawn from a wide geographical area. The majority of participants attended general (non-specialist) summer schools which provide a range of subjects and activities.

Participants

25. Nine out of 10 summer school participants were from school years 10 and 11⁷, the two final years of compulsory education, with the remainder being drawn mainly from school year 12. Over the five years which this analysis covers there has been a trend to focus more on year 10 pupils, giving more time for raised aspirations to affect GCSE attainment. In 2003-04 the proportion of participants from school years 10 and 11 were 26 and 65 per cent respectively. By 2007-08 these proportions had changed to 60 and 26 per cent. Summer schools are generally held in June and July, so year 10 participants would typically be aged 15 when they attended a summer school.

26. Two out of three HE summer school participants were female. This results in the summer school participation rate for girls being twice that of boys for all years of the programme. Similar sex ratios are found in summer schools provided by the Sutton Trust.

27. Around 4 per cent of participants reported a disability. However, because disability was self reported, it is difficult to make a comparison with national population measures.

28. Participant ethnic group was analysed by four aggregated groups in order to ensure consistency between years and data sources (see Annex C). The majority of participants, over 70 per cent, were from the aggregated White ethnic groups, with 12 per cent from the aggregated Asian ethnic groups and 8 per cent from the aggregated Black ethnic groups. Taking the proportions of these ethnic groups in the national population into account gives participation rates: these show that there were fewer participants from the aggregated White ethnic groups at summer schools than would be expected from their share of the young population.

Background characteristics

29. Participants were asked about the highest level of education qualification held by their parents. Over three-quarters of participants reported coming

⁷ This is largely due to restrictions set by ESF on targeted year groups. From 2006-07 onwards partnerships made a deliberate decision to focus more resources on year 10 learners, in light of the difficulty found in staying in contact with year 11 learners once they had completed their GCSEs.

from families with no parental higher education. Taking the population into account, young people from families with no parental higher education are estimated to be around twice as likely to participate in summer schools as those from a background where at least one parent holds a HE qualification.

30. Most participants lived in areas where the level of income deprivation was above average.

Calculating participation rates shows that those from the most income-deprived areas were four times more likely to attend a summer school than those from the least income deprived areas.

31. A similar pattern in HE summer school participation was seen when areas were grouped by their level of young participation in HE. Most participants lived in areas with below average young participation in HE. Those living in the areas with the lowest levels of HE participation were more than twice as likely to attend a summer school as those from the higher participating areas.

32. The socio-economic background of participants was investigated by assigning supplied job title descriptions of their parents to broad groups within the National Statistics Socio-economic Classification (NS-SEC) system. These analyses suggested that there was no material difference in the summer school participation rate of children between the NS-SEC groups known to have high HE participation (1-3) and those known to have low HE participation (4-7). In isolation this result is contrary to the aims of the summer school programme. However, compared to the other findings in this report there is low confidence in this result. This is due to the difficulties in assigning NS-SEC groups reliably from supplied job title descriptions (for instance, 27 per cent of participants could not be assigned) and in forming population data with equivalent definitions. See also paragraph 39.

33. The trend in targeting between 2003-04 and 2007-08 was measured using the ratio of the participation rate for the target group to the participation rate for the non-target group (paragraph 38 explains how target groups are defined for this analysis). Targeting by background

defined by living in a low income area did not show a clear trend over the period. However when the target group was defined as living in low HE participation areas, by parental occupation or as coming from a family with no HE level parental education, there was a clear trend of improved targeting, particularly for those coming from a family with no HE level parental education.

34. The majority of summer school participants, 3 in every 5, attended community secondary schools that have comprehensive admissions policies. A further 1 in 5 attended voluntary aided comprehensives. Taking the different school populations into account, young people attending community modern schools and voluntary aided comprehensive schools had the highest summer school participation rates. Further analysis by the GCSE attainment level of schools found that most participants were from schools with below average attainment, so that pupils in the lowest attaining 20 per cent of schools were around three times more likely to attend HE summer schools than those attending the schools with the highest GCSE attainment.

Geography of summer school participation

35. Summer school participation rates varied greatly by region. Young people living in the North East were almost six times more likely to attend a summer school than those in the South West. Similar ranges in regional participation rates were found for both target and non-target groups.

36. The origins of the Aimhigher summer school programme resulted in different levels of funding for regions over the period covered by this report. Further investigations showed that the regional differences in summer school participation rates were consistent with the varying levels of funding per head which the regions received. This was true of participation rates both overall and for the target groups. There was some evidence that areas with fewer resources were more effective in their targeting. But this depended on how the target group was defined, suggesting that the result might reflect regional differences in defining target groups rather than effectiveness at targeting.

37. Analysis of the travel patterns of participants showed that most participants attended a local summer school; this may reflect the regional level of most summer school organisation. Most participants attended events within their home region and most travel times were estimated to be less than an hour. However for some regions and some types of provision, notably specialist events, there was a clear national element to the activity with participants travelling substantial distances, or outside of their home region.

Conclusions on the targeting of the programme

38. The Aimhigher summer school programme was intended to target young people from groups under-represented in higher education. These groups can be defined in different ways, with definitions based on parental occupational and education, HE participation, deprivation and GCSE attainment having featured in guidance or funding formulae at some point. Across the different ways of defining these groups, the data show that the majority, but by no means all, of the participants are from the target group. The participation rate for the target group is typically twice that of the non-target group. It is fair to conclude that the programme has been broadly successful in reaching the intended target disadvantaged groups.

39. The exception to this is the analysis of background by parental occupation, which suggests those from the target group had an equal chance of participating compared to those from the non-target group. This could potentially indicate that unit-level targeting (schools and neighbourhoods) has been more effective than the individual-level targeting within those units. However, as noted in paragraph 32, occupational group assignment from job title descriptions is a particularly difficult and uncertain analysis. In addition when the target group is defined by parental education, which is also assigned at the individual level but is easier to categorise, we find high levels of targeting. This suggests that the anomalous targeting results for occupational groups

may well reflect the difficulties of this type of analysis rather than a failure of targeting.

40. The targeting guidance (HEFCE 2007/12) also suggests that activity should focus on those with the potential to benefit from summer schools. 'Potential to benefit' is hard to define and has not been the focus of analysis in this report. However, if it is taken as those likely to obtain the GCSE profile typical of HE entrants, then evidence from the analysis of school attainment groups (see paragraphs 86 and 87) tentatively suggests that targeting of the potential to benefit population may be more effective than the whole population based results suggest.

41. The average participation rate on the summer school programme was around 1 in 80. As a result of the targeted nature of the programme, the chances of a young person from the target group attending a summer school were higher, up to 1 in 50, but still very much a minority. Even if the summer school programme was very effective at converting participants into HE the short term effect on HE participation rates of the target group as a whole would be limited because of the relative rarity of participating on a summer school. However, summer school activity is only one part of the Aimhigher programme of activities: a much larger proportion of children would be expected to have some form of contact with the broader Aimhigher programme.

42. Differences in chances of entering HE are largest between groups that are broadly defined as rich or poor in terms of income or educational advantage, and this has been the focus of the Aimhigher summer schools. However, significant and often complex participation differences also exist between groups defined by sex and ethnic group. Our analysis suggests that participants on summer schools were less likely to come from certain groups (boys and White ethnic groups). These groups are known to be under-represented in HE^{8,9}, both for young people overall and within disadvantaged groups. The pattern of HE and summer school participation by combinations of

⁸ See pages 92 to 96 in 'Young participation in higher education', HEFCE 2005/03.

⁹ See Figure 13 in 'Gender Gaps in Higher Education Participation' DIUS research report 08-14.

disadvantage, sex, ethnic group and 'potential to benefit' is likely to be more complicated than these simple statistics indicate. Nevertheless, it seems that summer school activity has not been acting to reduce differences in HE participation by broad ethnic groups and sex that exist within disadvantaged areas.

43. At the national and regional level it was found that the level of funding was associated with the summer school participation rate of the target group. The multifaceted funding history of the summer school programme, resulting from it having absorbed different schemes (notably Excellence Challenge and Partnerships for Progression, each with their own definitions of need and funding models), has led to different levels of funding between regions. These different levels of funding are associated with different participation rates for the target group. As the programme matures this issue is being progressively addressed through the new Aimhigher funding model so that target group participation rates would be expected to become more consistent across regions in the medium term.

Findings

44. This section reports the analysis of the individual level participant data returned for HEFCE/ESF jointly funded summer schools coordinated by Aimhigher between academic years 2003-04 and 2007-08.

45. We have used the following terms when reporting on summer schools. A **participant** is a person who attended and completed a distinct summer school **event** provided by a **host HEI**. Different events had different durations; one measure of the amount of provision that takes this into account is the **participant day**, which is defined to be a single day of provision experienced by a single participant.

46. Sometimes it is useful to estimate the chances of a young person attending a summer school. To do this we divide the number of unique participants by the size of the 15 year-old population to give a **participation rate**. For this we take unique participants to avoid inflating the participation measure through the small number of participants who attend more than one event. We use the 15 year-old population as the denominator as most participants are from this age group.

47. The findings start with national-level statistics about the size of the programme and how it has changed through time. Next the nature of both summer school provision (such as type and duration) and the participants (such as age and sex) are reported.

48. The background of participants is examined in detail. We use a range of measures for describing background and identifying potential target groups for the summer school programme. These include parental socio-economic background and education, small area groupings and measures relating to the secondary school attended. Some of these measures were referenced in 'Higher education outreach: targeting disadvantaged learners' (HEFCE 2007/12), some have been used in allocating Aimhigher funding, while others are introduced for the purposes of analysis. Our intention in using a range

of measures is to reflect that defining disadvantage and target groups is not one-dimensional and that different summer schools may have classified disadvantage in different ways.

49. Finally we report on the geography of summer schools in terms of participation rates and travel behaviour. Since the funding for this stage of the programme was allocated at a regional level we are able to report on relationships between the level of funding and summer school activity.

The national picture

50. Between academic years 2003-04 to 2007-08 there were just over 40,700 summer school participants. A small number attended more than one event; taking these into account gives just under 40,700 distinct participants. The national participation rate was 1.2 per cent which translates to 1 in 80 of young people attending a summer school.

51. During this period around 1,350 events were organised, provided by 113 distinct host HEIs across the country. In total, 163,000 participant days of provision were provided.

52. The total amount of funding provided in this period was £27.4 million. Dividing this total by the number of participants, participant days and events gives simple average costs of £670 per participant, £170 per participant day and £20,300 per event.

Trend over time

53. The average number of participants in each year of the programme was approximately 8,200 but this was not constant. Figure 1 shows the number of participants and the participation rate in each year. Summer school activity grew year on year between 2003-04 and 2005-06, with numbers of participants increasing from 6,700 to 12,000 and the participation rate increasing from 1.0 per cent to 1.8 per cent. In 2006-07 and 2007-08 participation fell, with 7,400 and 4,100 participants in each year respectively, and associated participation rates of 1.1 per cent and 0.6 per cent.

54. Figure 2 shows the number of summer schools organised in each year of the programme. The trend is similar to that for participation with the exception that the decrease in the number of summer schools starts in 2005-06, rather than 2006-07. Figure 3 reports the number of participant days by year and shows the same peak and decline as the participant analysis.

55. These trends in participation and provision over time are expected taking into consideration the funding history of the programme. The ESF/HEFCE summer school programme was funded in two blocks, the first running from 2003-04 to 2005-06 and the second running from 2006-07 to 2007-08.

In the first block the funding level was approximately £6.8 million per year. However in the second block the funding level fell by over half to £3.3 million per year (exact figures are given in Annex A). Later we provide evidence that the level of summer school activity is associated with the amount of funding (see the ‘Funding and summer school participation rates’ section) and it is reasonable to expect the amount of activity to decline with the funding. In addition we know that some Aimhigher partnerships chose to spend the majority of the second block of funding in 2006-07. This was probably the cause of the low levels of national activity in 2007-08.

Figure 1 Participation in summer schools

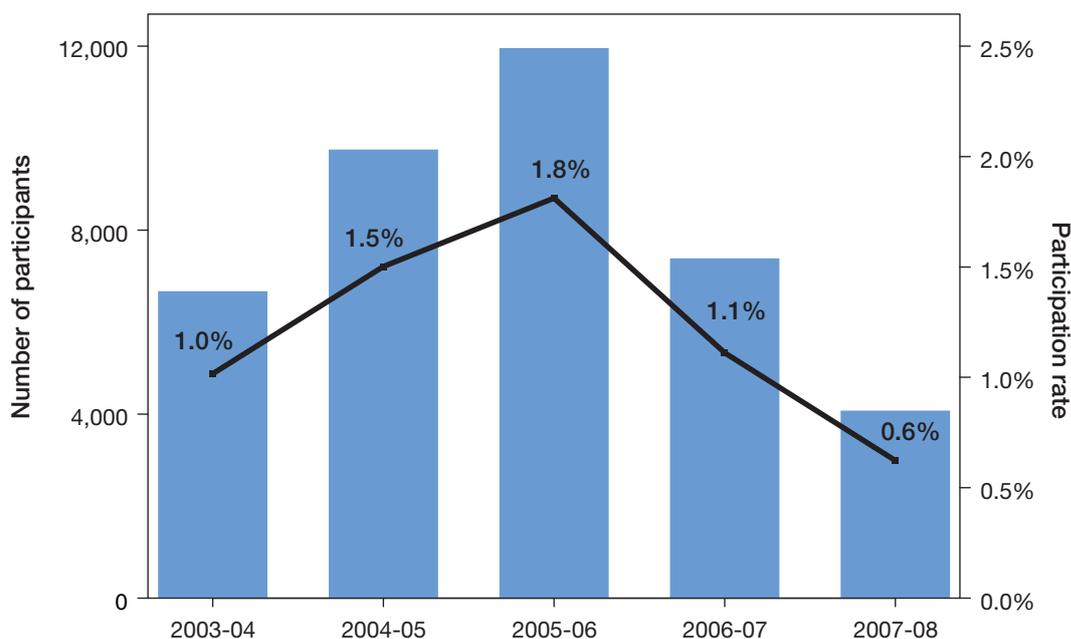


Figure 2 **Number of summer schools in England**

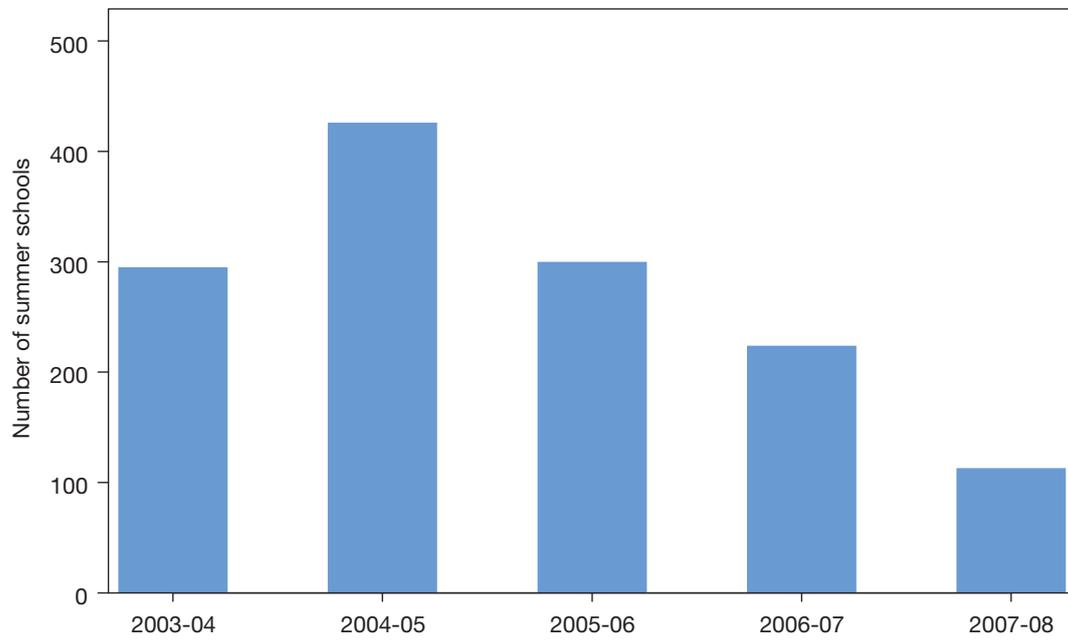
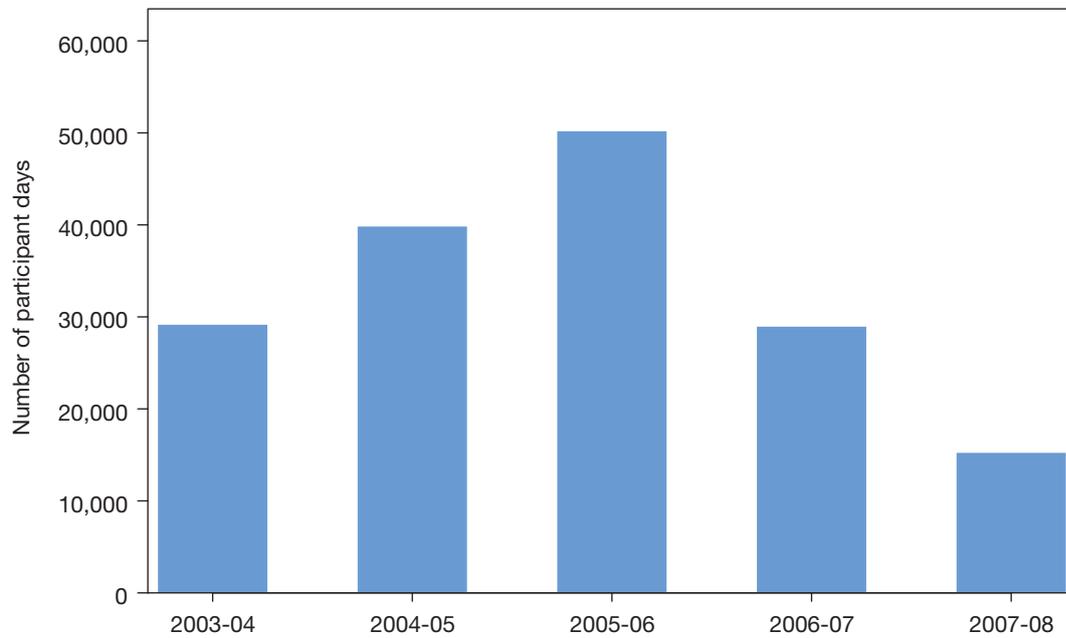


Figure 3 **Number of summer school participant days**



The nature of summer school provision

Summer school duration

56. Figure 4 shows the distribution of participants by the duration of the summer school they attended. Over half of participants attended summer schools of five or

more days' duration. The modal summer school duration was five days; 42 per cent of participants attended events of this duration. Looking at provision by the number of events and the number of participant days gives a similar picture (see Table G2 in Annex G).

Figure 4 Proportion of participants by duration of summer school

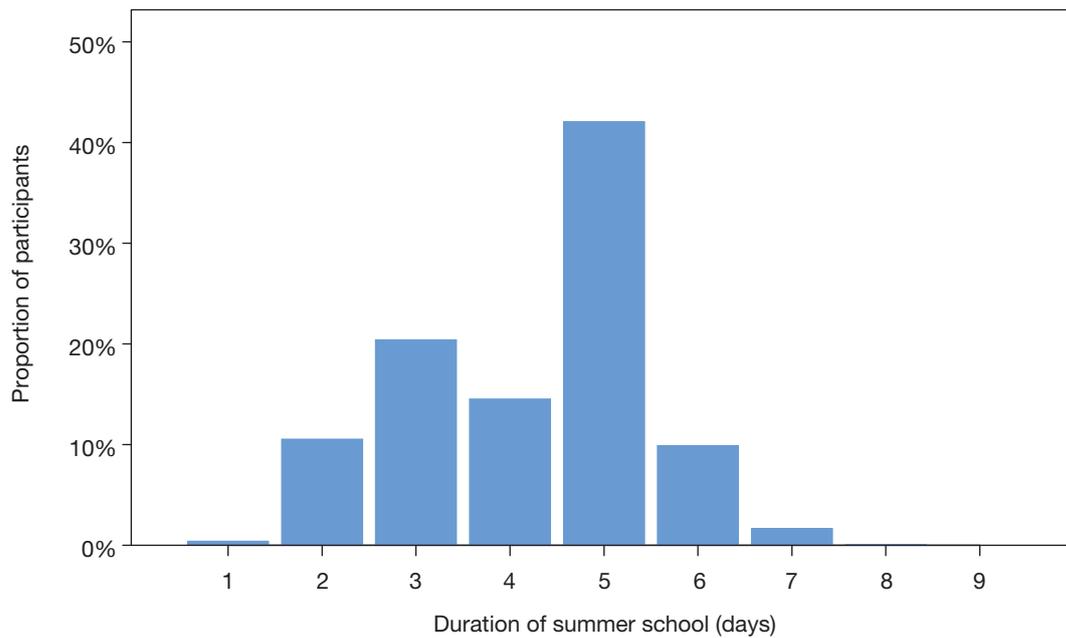
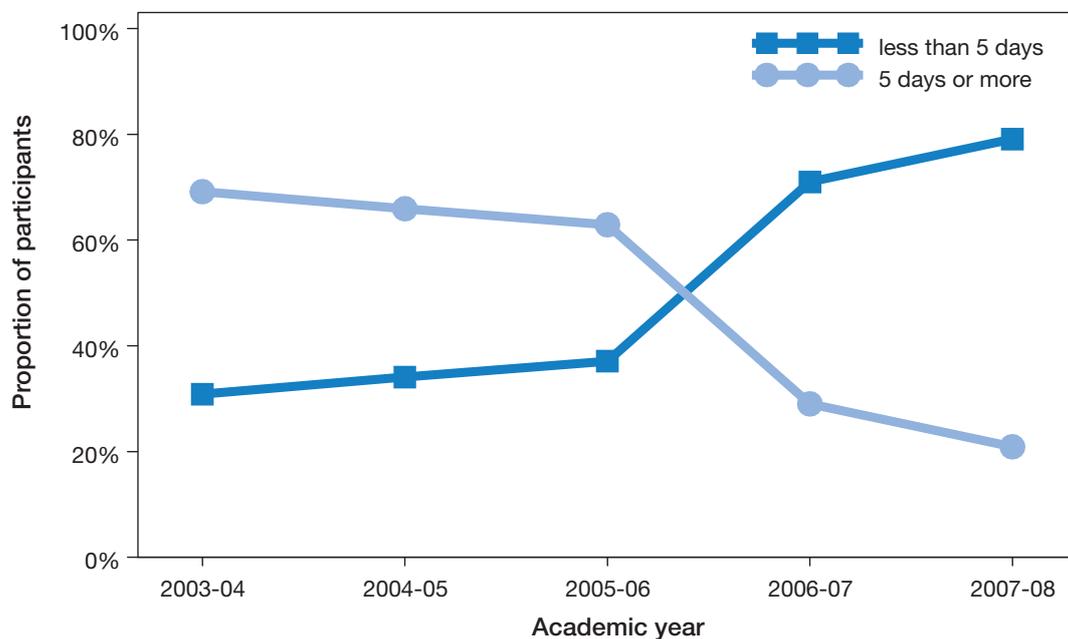


Figure 5 Proportion of participants attending summer schools of less than five days and five days or more



57. In the first funding period (2003-04 to 2005-06) the mean summer school duration was 4.5 days, while in the second funding period (2006-07 to 2007-08) it was 3.9 days. Figure 5 shows how this fall was associated with a reduction in the proportion of participants attending summer schools of five or more days duration (also see Table G3 in Annex G). This shift may have been a response to maintaining participant numbers in the context of reduced funding for the final two years.

Residential summer schools

58. A residential summer school is where participants stay overnight for at least one night. Table 1 shows the split of provision – measured by events, participants and participant days – between residential and non-residential events. Roughly three out of every four summer schools were classed as residential and these

were attended by a similar proportion of participants. Residential summer schools accounted for four out of five participant days.

Specialist summer schools

59. A specialist summer school typically focuses on a single subject, while non-specialist schools involve multiple subjects and more varied activities. Table 2 shows the split of provision between specialist and non-specialist events. Just over half of all summer schools were specialist, although the majority of participants (nearly three in every four) attended non-specialist schools. Similarly, nearly three out of every four participant days were spent at non-specialist summer schools. These figures reflect the smaller group sizes at specialist summer schools compared to non-specialist schools.

Table 1 Provision and participation on residential and non-residential summer schools

		Overnight stay	No overnight stay
Summer schools	Count	1,042	312
	%	77	23
Participants	Count	30,448	8,576
	%	78	22
Participant days	Count	133,086	30,210
	%	82	18

Note: Figures exclude data on participants for whom residential data were unavailable.

Table 2 Provision and participation on specialist and non-specialist summer schools

		Specialist	Non-specialist
Summer schools	Count	682	675
	%	50	50
Participants	Count	10,306	28,583
	%	27	73
Participant days	Count	44,028	118,523
	%	27	73

Note: Figures exclude data on participants for whom specialist data were unavailable.

The nature of summer school participants

Age of participants

60. For the period as a whole, just under half of participants were from school year 11, the final year of compulsory education and typically when GCSE examinations would be taken. Around two in five participants were from school year 10 and around one in ten were from school year 12, the first year of post-compulsory education.

61. These averages conceal substantial changes across the five years of the programme, with increasing shares of year 10 participants reducing the number of those from year 11. There has been a steady decline in the proportion of participants from school year 11, falling from 65 per cent in 2003-04 to 26 per cent in 2007-08 (see Table G5 in Annex G and Figure 6). The proportion from school year 10 increased from 26 per cent to 60 per cent over the same period. Aimhigher partnerships report that one reason for this change was that periods of study leave for the GCSE examinations led to low attendance rates for year 11 pupils.

62. The age of a participant in a summer school depends on when the event is held as well as the

school year they are from. Figure 7 shows the distribution of summer school participants from school years 10 and 11 by the month the event took place. Although there were participants on summer schools in each month, the majority of participants (72 per cent) attended summer schools in July. This means that, for example, most year 10 participants were aged 15 by the time they attended the summer school.

63. The distributions for participants in school years 10 and 11 are different, with year 11 participants being more likely to attend events late in the school year. Of participants from school year 11, 89 per cent attended events in July, with 8 per cent attending in June. Of those from school year 10, 47 per cent attended in July, 18 per cent attended in June and 11 per cent attended in April. Of those who attended in July, almost three-quarters were from school year 11, while 61 per cent of those who attended in June were from school year 10. In fact for summer schools which were run in months other than July, the majority of participants were from school year 10. Table G6 in Annex G gives complete figures.

Figure 6 Trend in the proportion of participants from schools years 10 and 11

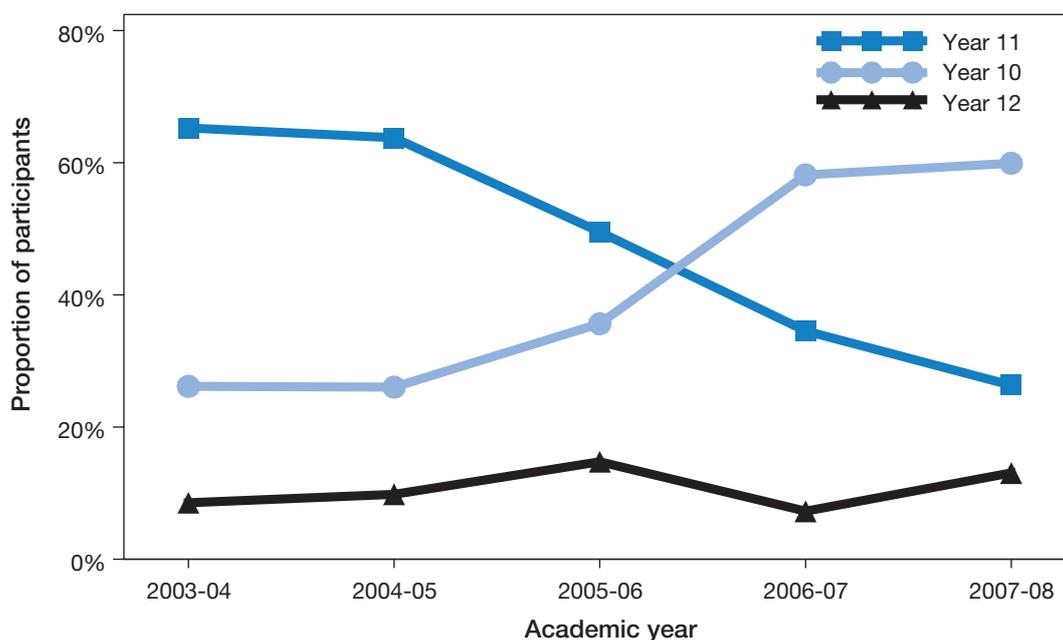
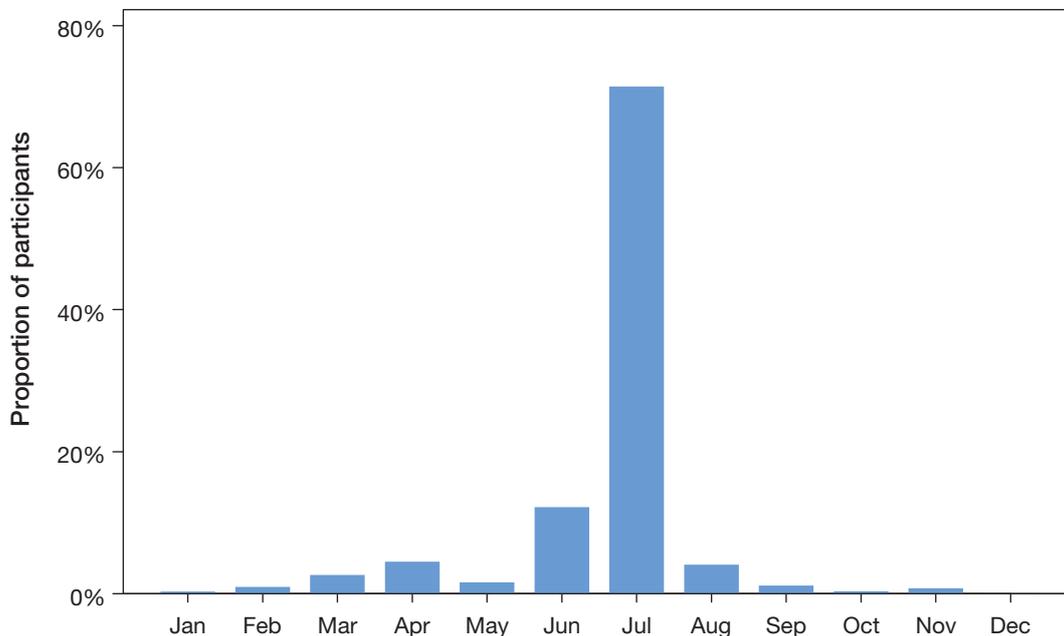


Figure 7 Monthly distribution of year 10 and 11 summer school participants



Sex

64. On average there are two girls for every boy on summer schools, resulting in girls having a participation rate just over twice that of boys (see Table 3). This 2:1 ratio of girls to boys is stable across time and persists when the results are split by factors such as region of residence, age, ethnic group and type of provision. The summer schools funded by the Sutton Trust report a similar ratio of girls to boys.

Table 3 Summer school participants and participation rates by sex

	Participants (%)	Participation rate (%)
Male	34	0.8
Female	66	1.7

Note: Figures exclude participants whose sex was unknown.

Disability

65. The majority, 92 per cent, of participants responded to a question about whether they considered themselves to have a disability. Of those who responded, 1 in 25 (4 per cent) reported a disability (see Table 4). Participation rates were not calculated due to the difficulties of estimating populations by equivalent definitions.

Table 4 Participants by disability

Disability	Participants (%)
Disability reported	4
No disability reported	96
Total number	37,371

Note: Figures exclude participants whose disability status was unknown.

Ethnic group

66. A number of coding schemes were used to record the ethnic group of participants across the period of the data return. To accommodate this, and to allow a robust link to population data, we use only summary ethnic groups (see Annex C). Table 5 shows the distribution of participants on summer schools by ethnic group. The majority of participants, 72 per cent, were from White ethnic groups with 13 per cent from Asian groups and 8 per cent from Black groups.

Table 5 Participants by aggregated ethnic group

Aggregated ethnic group	Percentage
White	72.0
Black	7.9
Asian	12.5
Chinese	0.8
Mixed	1.7
Other	3.9
Not known	1.0
Information refused	0.2
Total number	40,538

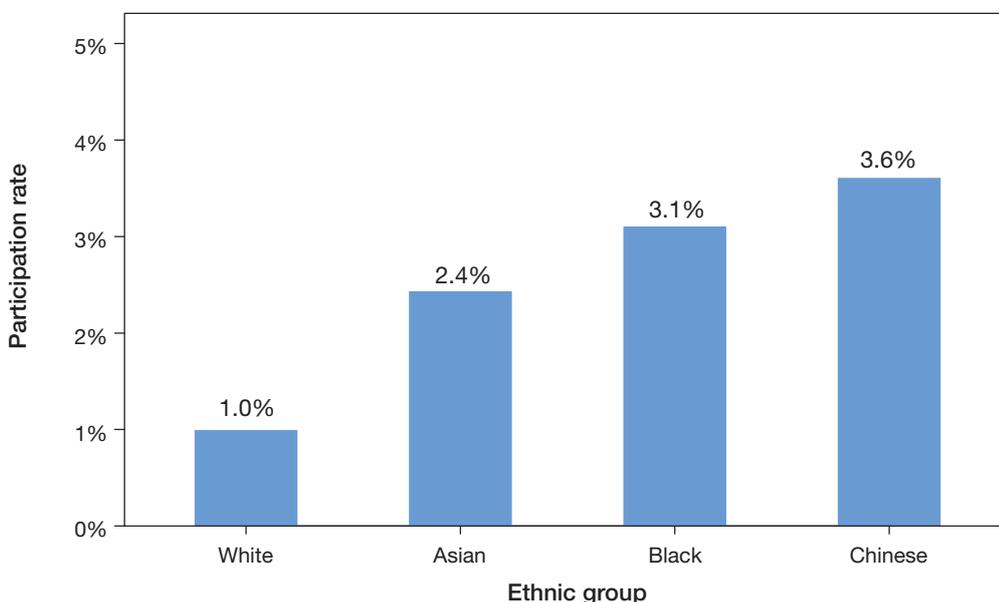
Note: Figures exclude participants whose ethnic group was unknown.

67. The large differences in the population shares of different ethnic groups make it especially important to consider participation rates as well as simple proportions of participants. Figure 8 reports estimated participation rates for the four summary ethnic groups that could be robustly aligned with population data. This shows that, despite having the largest proportion of participants, the aggregated White ethnic group has the lowest participation rate of these four summary ethnic groups.

Socio-economic group

68. Participants were asked to provide job titles for each of their parents/carers to provide an indication of socio-economic group. In most cases these would have been provided by the parents/carers themselves on the consent form. These job titles were then processed to assign each parent to broad groups within the National Statistics Socio-economic Classification (NS-SEC) system in a way consistent with how UCAS process applicant data. Participants were allocated to a broad NS-SEC background using these parental assignments. If one parent was assigned to the NS-SEC 1-3 group and the other to the NS-SEC 4-7 group then the participant background is taken as being the NS-SEC 1-3 group. The process of assigning participant NS-SEC background from the supplied parental job titles

Figure 8 Participation rates by ethnic group



Note: Figure 8 was modified on 2 April 2009 to correct the previously shown participation rates, which were over-estimated by 25 per cent. The ratios of participation rates across the ethnic groups, and therefore the findings, remain unchanged.

and creating an aligned population estimate was difficult and uncertain; see Annex D for details. This means it is hard to draw firm conclusions from the NS-SEC data.

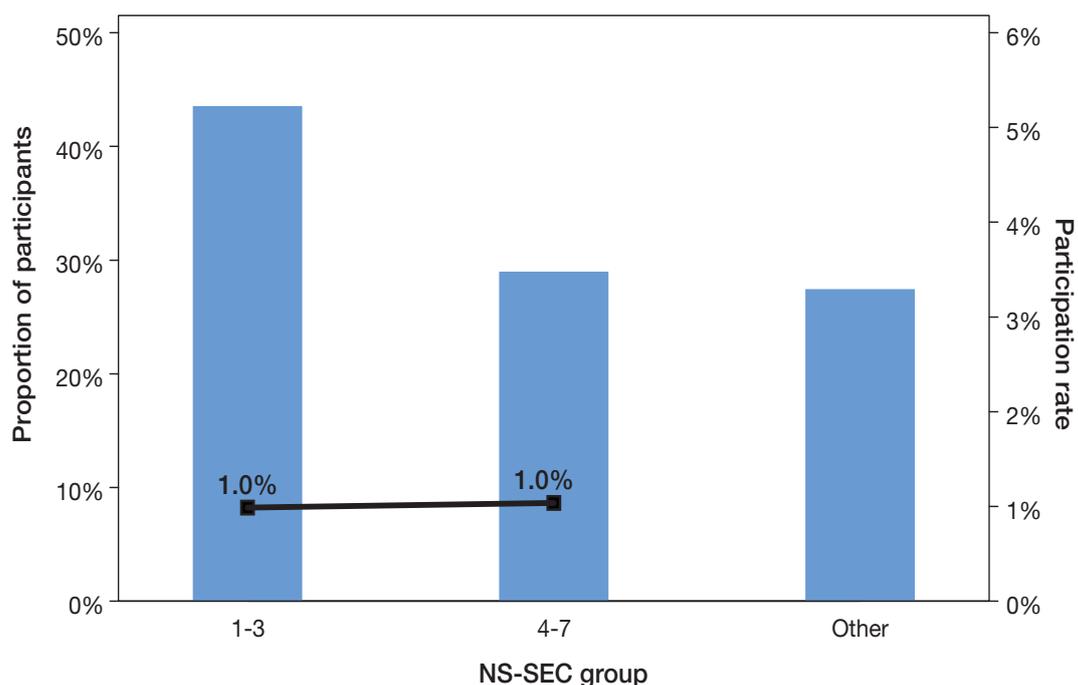
69. Figure 9 shows the share of participants (bars), and the estimated participation rates (line), for the two broad NS-SEC 1-3 and 4-7 groups. The proportion of participants not assigned to an NS-SEC group are shown as ‘Other’. More participants, 44 per cent, were assigned to NS-SEC 1-3 backgrounds, than were assigned to the NS-SEC 4-7 group, 29 per cent. Taking the population into account, the estimated participation rates for both groups were roughly the same at about 1 per cent (exact numbers are shown in Table G7 of Annex G).

70. We investigated the effect of different ways of assigning participant NS-SEC from parental NS-SEC (for example, only using mother’s occupation). These different approaches altered the proportion of participants from the different NS-SEC groups but, because the effect was similar on the population estimates, did not alter the result of approximately equal participation rates of the

two NS-SEC groups (see Annex E). The relative participation rates of the groups do not change much across the years of the programme, although there is some movement in favour of the NS-SEC 4-7 group in the final two years (see the ‘Changes in targeting through time’ section and Table G8 in Annex G).

71. Over a quarter of the participants (27 per cent) could not be assigned to an NS-SEC group for a number of reasons, predominantly missing or inadequate job title descriptions. Looking at the neighbourhood background of these unknown NS-SEC participants did suggest that they tended to come from areas more similar to those assigned to the NS-SEC group 4-7 than those assigned to NS-SEC 1-3. However, making the assumption that within a neighbourhood, participants with unknown assignments are similar to participants with known assignments, this effect was not strong enough to materially alter the finding of roughly equal participation rates for the two NS-SEC groups. Annex E provides further details of these results.

Figure 9 Share of participants and participation rates for NS-SEC groups



Parental education

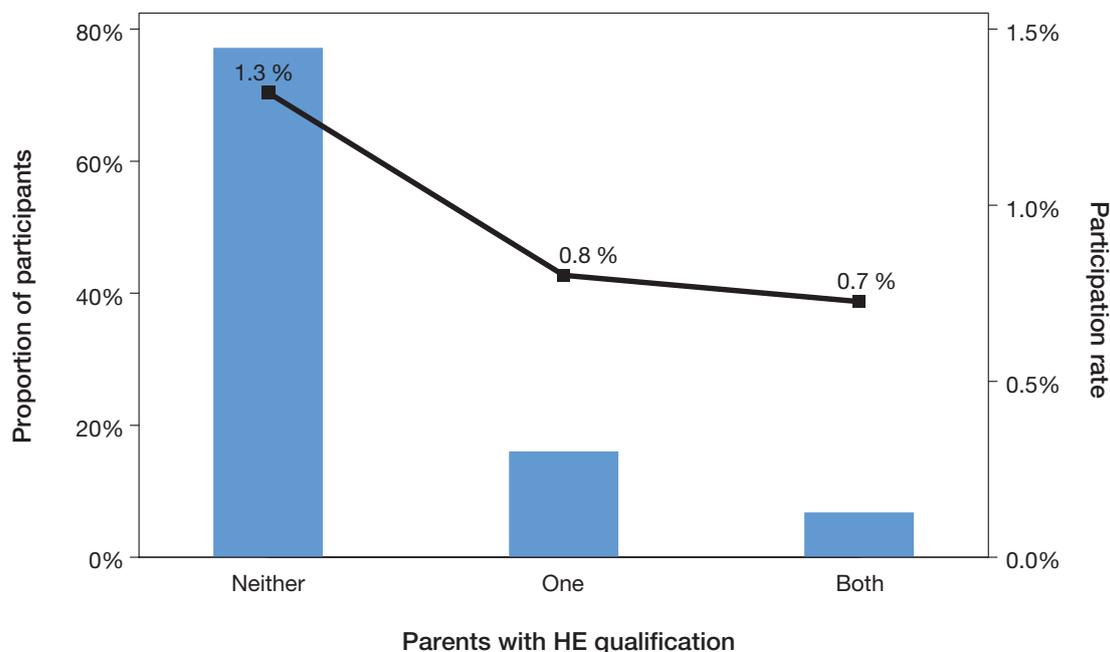
72. Participants were asked about the education level of their parents; typically this would have been supplied by the parents themselves on the consent form. These data were processed to assign participants to one of three parental education background groups: those participants who had parents with no HE qualifications; those who had one parent with an HE qualification; and those with both parents having HE qualifications. Comparable population estimates were obtained from the Labour Force Survey (see Annex F) to estimate summer school participation rates.

73. Figure 10 shows the distribution of participation (bars) and the corresponding participation rates (line) for each of the parental education background groups. The large majority of participants, over three-quarters, reported neither parent having an HE level qualification. The

participation rate for this group is almost twice that estimated for children coming from families where one or both parents have a HE level qualification.

74. This way of measuring the background of participants is unusual in that it shows a strong trend across the five years of the programme, (Figure G2 in Annex G). In 2003-04 the participation rate of those where neither parent had a HE qualification was around the same, or less than, those who came from backgrounds where one or both parents had HE qualifications. However this was mainly due to the North West which accounted for 926 of the 1,042 participants in that year from backgrounds where both parents had HE qualifications. By 2007-08 the participation rate for those from backgrounds where neither parent had a HE qualification was between two and four times higher than those from backgrounds where one or both parents had HE qualifications (see Table G10 in Annex G).

Figure 10 Participation and participation rates by parental education



Income background

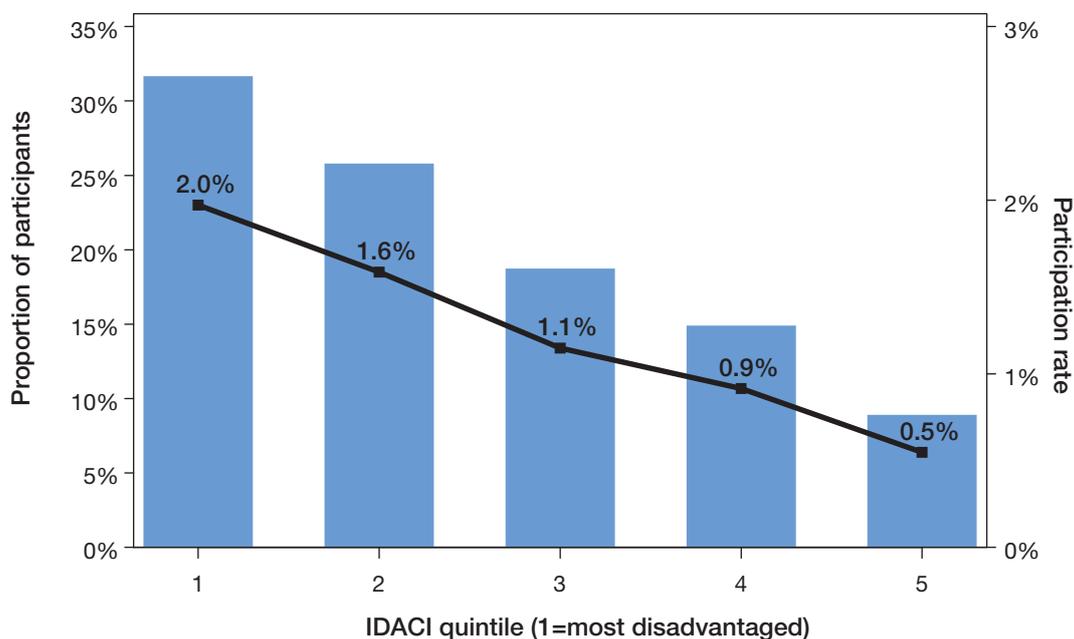
75. Information on household income levels was not collected for participants. However, we can investigate the likely income background of participants by using an area based proxy. For this analysis we used the Income Deprivation Affecting Children Index (IDACI)¹⁰ which allowed us to rank small areas according to the proportion of children living in low income households. We grouped these ranked areas into five quintiles, each with an approximately equal share of the young population, but representing neighbourhoods with different levels of children living in low income households.

76. Figure 11 shows the distribution of participants (bars) and corresponding participation rates for each of these five quintiles (quintile 1 represents

those areas with the highest levels of children living in low income households). A clear relationship between participation and neighbourhood income levels can be seen: participants are more likely to come from areas with the higher proportions of children in low income households. The 40 per cent of areas with the highest levels of children in low income households account for 57 per cent of the summer school participants.

77. Since the quintiles were defined to have equal populations the pattern for participation rates is the same as for the participant proportions, with higher participation rates seen for areas with higher income deprivation. The summer school participation rate for those living in the most deprived areas is four times that for the least deprived areas.

Figure 11 Participants and participation rates by IDACI quintiles



¹⁰ English Indices of Deprivation, Department for Communities and Local Government.

Young participation

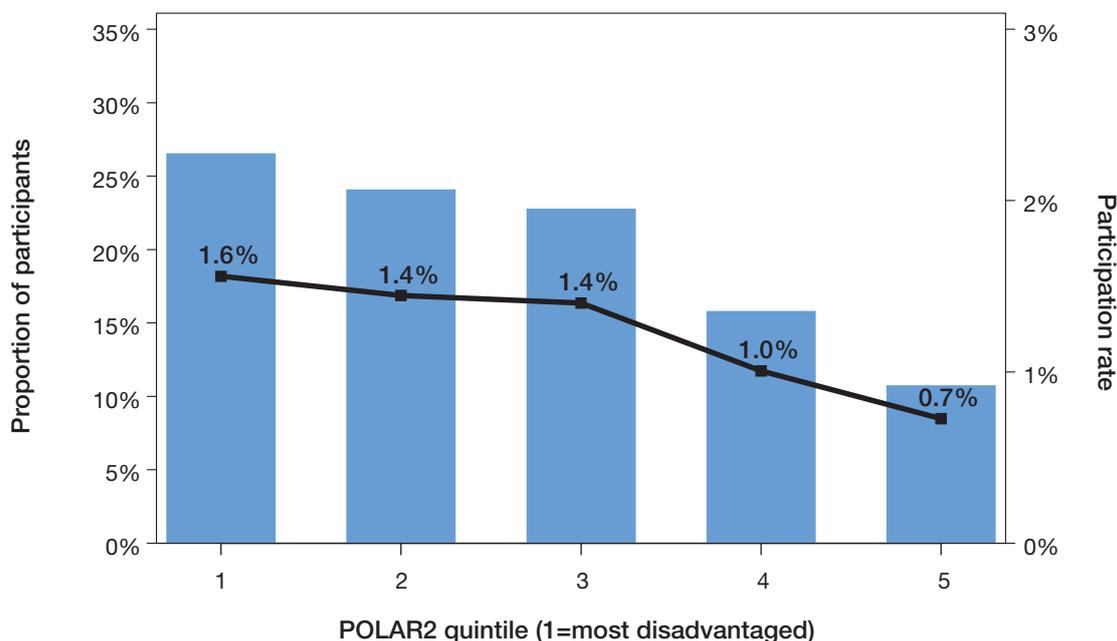
78. One way of identifying disadvantage which is particularly relevant to summer schools is whether the neighbourhood that a participant comes from has high or low levels of young participation in higher education. For this analysis we use the HEFCE POLAR2 classification¹¹ which assigns neighbourhoods into five equal population quintiles according to their level of young participation in higher education.

79. Figure 12 shows the distribution of participants (bars) and corresponding participation rates for each of the five POLAR2 groups (quintile 1 represents those areas with the lowest levels of HE participation). A pattern similar to that from the area income background analysis is seen: summer

school participants are more likely to come from areas where young participation in HE is low. The participation rates show that those living in the fifth of areas with the lowest young HE participation rates were around twice as likely to attend a summer school than those from the fifth of areas where young HE participation is highest.

80. The fall in participation seen when moving from more disadvantaged areas to less disadvantaged ones is not as marked for the young HE participation grouping as it is for the income background grouping. This difference may relate to how different Aimhigher partnerships defined target groups or reflect how previous funding models allocated resources between regions.

Figure 12 Summer school participation by POLAR2 quintiles



¹¹ See www.hefce.ac.uk under Widening participation/POLAR and participation rates

Secondary school background: type and admission policy

81. We analysed the types of secondary schools attended by summer school participants, by linking the participant data to the school and college achievement and attainment tables¹². Linking was achieved by using the school postcodes and names.

82. Groups of schools were formed from combinations of the school type and school admissions policy used in the achievement tables. Figures 13 and 14 report the distribution of participants and the corresponding participation rates for summer school

participants from 2003-04 and 2004-05 (since school data for only these years was readily available).

83. The majority of summer school participants attended community secondary schools with comprehensive admissions policies. Most of the remaining participants attended voluntary aided and foundation secondary schools with comprehensive admissions policies (Figure 13). Taking the different school population sizes into account shows community secondary moderns and voluntary aided comprehensives had the highest participation rates at 1.5 per cent (Figure 14).

Figure 13 Participants by secondary school type and admission policy

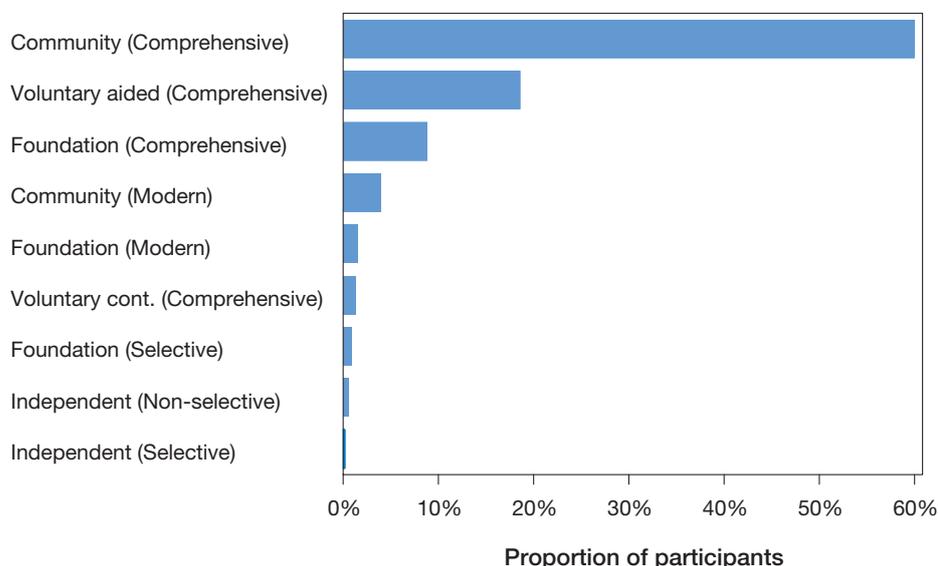
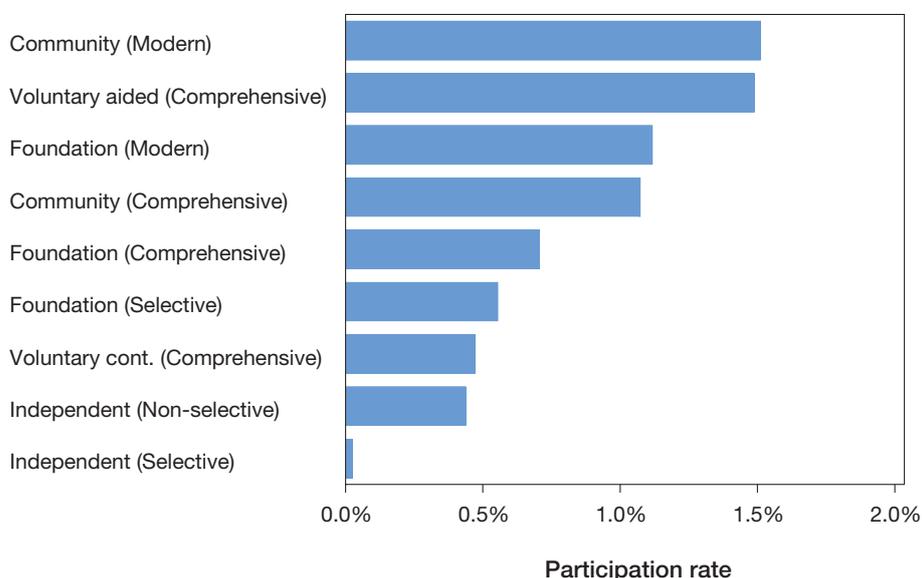


Figure 14 Participation rates by secondary school type and admission policy



¹² See www.dcsf.gov.uk/performance/tables/

Secondary school background: GCSE attainment

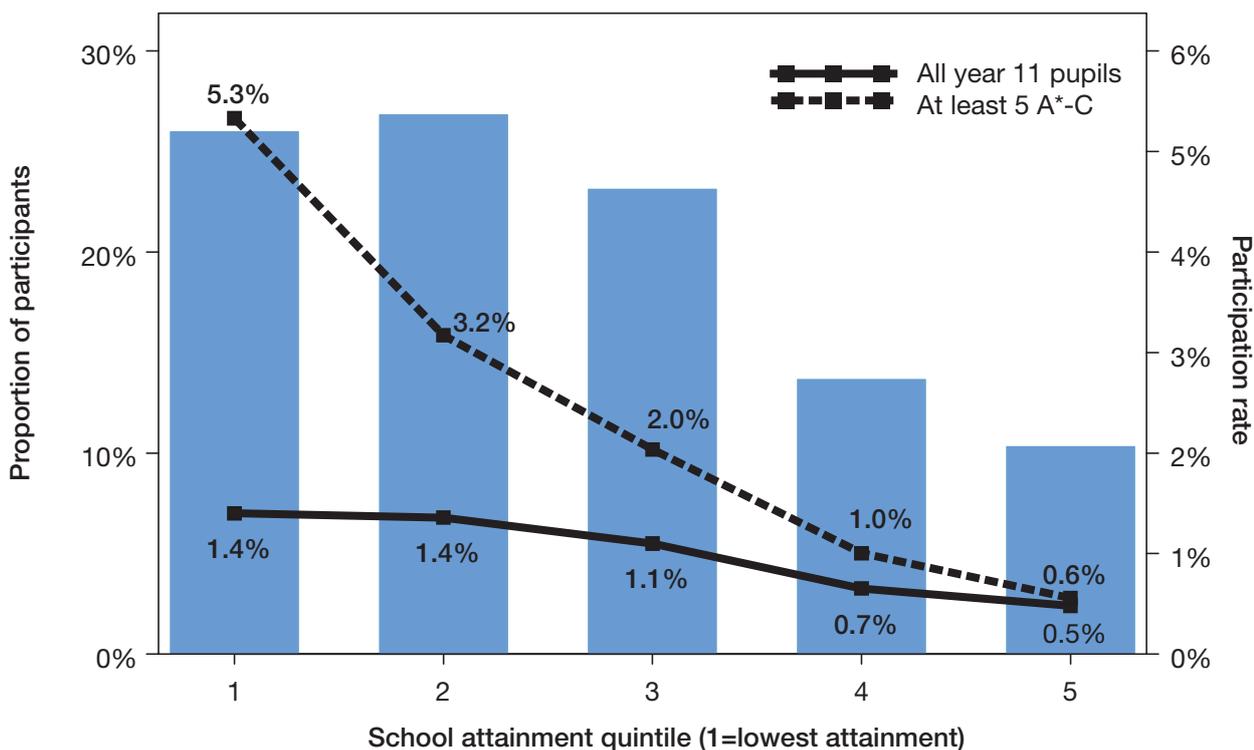
84. An alternative way of grouping secondary schools is by their GCSE attainment. Here we rank secondary schools by the proportion of pupils who obtained at least five GCSEs at grades at A* to C to form five, equal population, school attainment quintiles. Figure 15 shows the proportion of participants (bars) and corresponding participation rate (line) across the five school attainment quintiles (quintile 1 is the group of schools with the lowest proportions of pupils obtaining at least five GCSEs at grades at A* to C).

85. Summer school participants are more likely to come from secondary schools with lower levels of GCSE attainment. Over half of participants come from the 40 per cent of schools with the lowest attainment at GCSE. The participation rate for those attending the lowest attaining quintile of schools is nearly three times that of those attending the highest attaining quintile of schools.

86. The link to school data also allows the calculation of participation rates using an alternative denominator: those likely to attain five GCSEs at grades at A* to C rather than the entire school population. If summer schools concentrate on pupils who are likely to attain sufficient strong Level 3 qualifications to enable entry into HE, then this alternative denominator might be a better indicator of targeting of particular types of school.

87. The participation rate calculated on this basis is shown by the dotted line in Figure 15. This shows a much greater ratio between the participation rate of the lowest and highest attaining school quintiles, because of the much lower numbers of pupils attaining five GCSEs at grades at A* to C in the lowest attaining schools. However, we do not yet know if summer school participants typically attain such GCSE qualifications to know if this is a better measure of participation.

Figure 15 Participants and participation rates in summer schools by school attainment quintiles



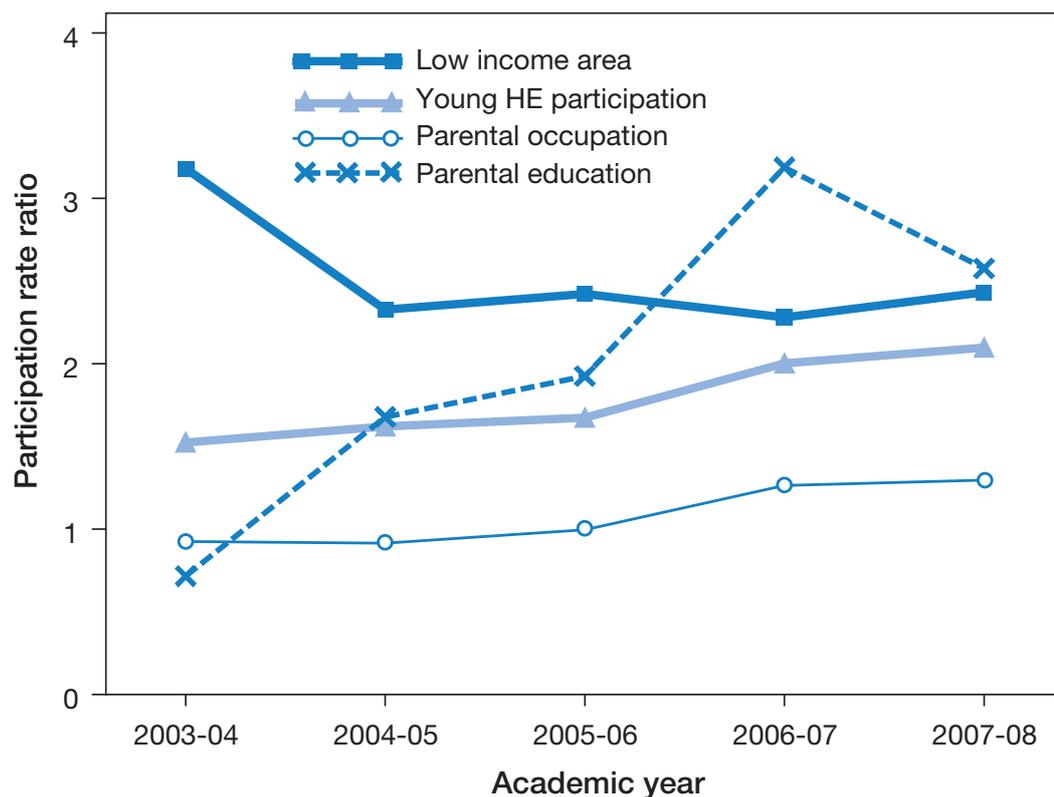
Changes in targeting through time

88. The background of participants has been reported using different groups, reflecting the different ways that target groups for summer school activity may be identified. Figure 16 shows how the degree of success in recruiting the target group into summer schools has changed over time using different background measures. Here targeting is measured using a simple ratio of the participation rate of the target group to the non-target group. Higher values of the targeting statistic correspond to a greater degree of successful targeting. For the income deprivation and POLAR2 measures (see paragraphs 75 to 80), the ratio used is the participation rate of those in quintiles 1 and 2 (low income or low HE participation) to that of those in quintiles 4 and 5 (high income or high HE participation). For the NS-SEC measure the ratio was the participation rate of those in NS-SEC groups 4-7 to those in groups 1-3. For the parental education measure, the ratio was the participation rate in summer schools of those where neither

parent has HE level qualifications to those where one or both parents have HE qualifications. A trend was not calculated for participation rates using the secondary school groupings, since only data for 2003-04 and 2004-05 were used for that analysis (see paragraphs 81 to 83).

89. The degree of targeting varies across the different measures, in part because they identify differing proportions of the population. The degree of targeting by low income neighbourhood is generally high, but does not show a clear trend across the five-year period. The degree of targeting by level of HE participation and parental occupation background has increased over the period, notably so for the final two years. Targeting of children by their parental education background shows a strong increase over the period. However as noted earlier (see paragraph 74), the low ratio in 2003-04 may be due in part to the influence of the North West region, in which most participants in that year reported two parents with HE qualifications.

Figure 16 Trends in the targeting of summer schools



Geography of summer school provision

90. For the period covered by this analysis summer schools were funded and organised at a regional level. Table 6 shows the distribution of participants and the participation rates by region of domicile. Figure 17 shows the variation in regional participation rates as a map.

91. There is substantial variability across regions in the number of participants and the participation rates. The North West had the most participants with 8,920, and London had the second most with 7,870. The South West and the West Midlands had the fewest participants with 1,476 and 2,246 respectively. When the populations are taken into account the North East is found to have the highest participation rate of 2.8 per cent, much higher than other regions. The North West and London regions had high rates of 1.9 and 1.7 per cent respectively. The South West had the lowest participation rate of 0.5 per cent, less than half the national average and only one-sixth of the rate recorded for the North East.

Figure 17 Summer school participation rates by region

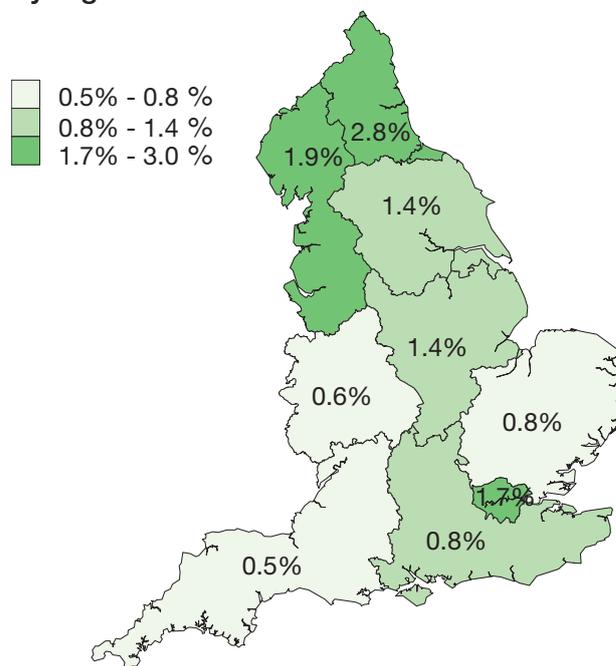


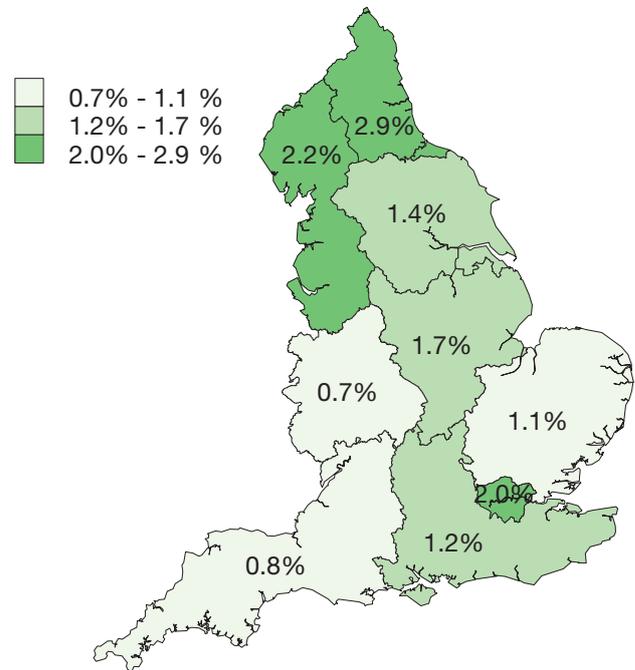
Table 6 Summer school participants and participation rates by region

Region	Number of participants	Percentage of total	Participation rate (%)
North East	4,698	12	2.8
North West	8,920	22	1.9
Yorkshire & Humberside	4,666	11	1.4
East Midlands	4,008	10	1.4
West Midlands	2,246	6	0.6
East of England	2,709	7	0.8
London	7,870	19	1.7
South East	4,090	10	0.8
South West	1,476	4	0.5
All	40,683	100	1.2

92. These regional variations in participation rates could be explained by regional variations in the need for summer school activity, as indicated by the proportion of the population in the summer school target group. For example, a region with only a small proportion of its population in the target group might be expected to have a low participation rate if the entire population were used as the denominator. One way of investigating this is to look at variations in the participation rate of the target group alone. Doing this would exclude differences in regional participation rates caused by the differing shares of the population in the target group.

93. Figure 18 maps regional participation rates in summer schools for the target group where, for the purposes of this analysis, the target group is defined as living in a neighbourhood with low HE participation (using the POLAR2 classification). The regional target group participation rates are generally higher than the whole population rate (as would be expected from the higher participation rates found for this group in the national analysis, see paragraphs 78 to 80) but the pattern of widely different regional participation rates remains. For example, those in the target group living in the North East have a participation rate four times higher than those in the target group living in the West Midlands or the South West. We find that this variation in regional participation rates persists when we look at those who are in non-target groups (such as those areas with the highest levels of HE participation) and if we use alternative definitions of target groups (for example, using the grouping of areas based on income deprivation affecting children). Results from these analyses are shown in Annex G. We conclude therefore that the differing participation rates in regions are not a result of varying proportions of young people belonging to the target group. The following section investigates these regional differences against the levels of funding provided.

Figure 18 **Summer school participation rates by region for POLAR2 quintile 1**



Funding and summer school participation rates

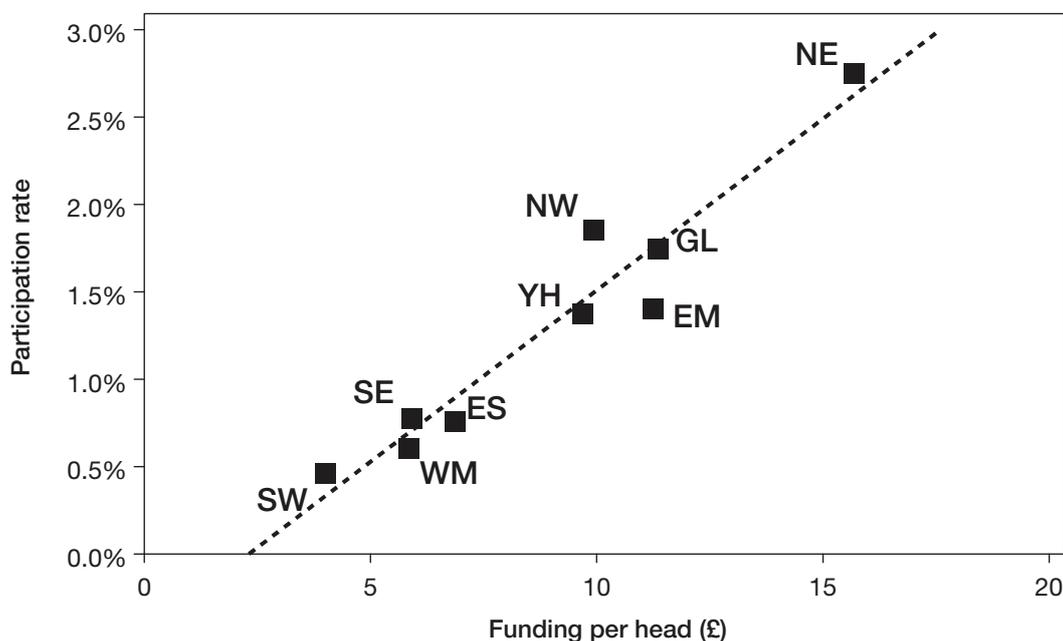
94. The Aimhigher summer school programme has had a particularly multifaceted funding history resulting from it having absorbed different schemes, notably Excellence Challenge and Partnerships for Progression, each with their own definitions of need and funding models. This history combined with the desire to avoid large annual changes in funding levels has left a legacy of different funding rates across the regions. This section examines summer school participation rates and the degree of targeting against the rate of funding per head provided to each region. Further details regarding how funding was calculated and the amount of funding received by regions is at Annex A.

95. Figure 19 shows the overall participation rate against the average level of funding (per head of the 15 year-old population) for each region. The funding per head of population varies across regions from £16 per head in the North East to £4 per head in the South West. There is a clear linear association between the funding per head and the participation rate, with higher participation rates being generally associated with higher levels of funding per head.

96. The participation rates shown in Figure 19 are for the whole young population. This analysis might be affected by different regions having different proportions of the Aimhigher target group, and consequently different rates of funding and overall participation rates. If this was the case then we would not expect to see an association between the target group participation rate and the funding per head of the total population.

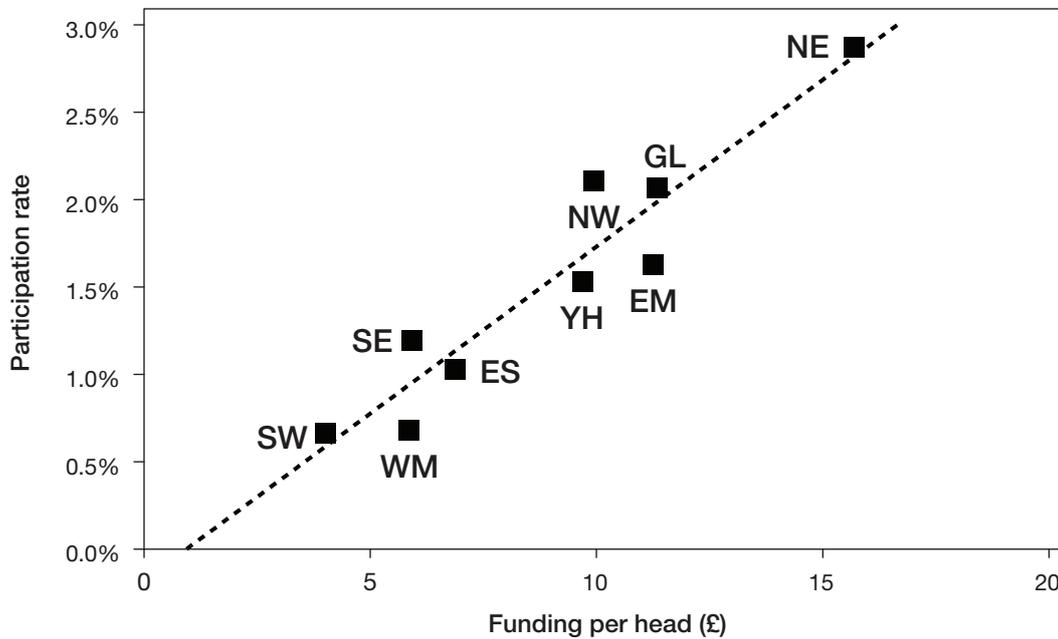
97. One definition of a target group is living in an area of low young HE participation rates. Figure 20 shows the participation rate for those who live in low HE participation areas (quintiles 1 and 2 from the POLAR2 classification) against funding per head of the total population for each region. The target group participation rates are generally higher than the whole population rates, reflecting the focus of the programme on the target groups, but the relationship of higher participation rates for higher levels of funding per head remains. If the target group is defined as those attending schools with lower levels of GCSE attainment or those living in areas of higher income deprivation then similar results are obtained (see Figures G3 and G4 in Annex G). These results suggest that regional participation rates, both overall and for the target group, are associated with the rate of funding for each region.

Figure 19 Participation rate against average funding per head of the total 15 year-old population for each region



Note: Region abbreviations are as follows; NE – North East; NW – North West; YH – Yorkshire & Humberside; EM – East Midlands; WM – West Midlands; ES – East of England; GL – London; SE – South East; SW – South West.

Figure 20 Participation rate for those living in POLAR2 quintiles 1 and 2 against the funding per head of population for the region

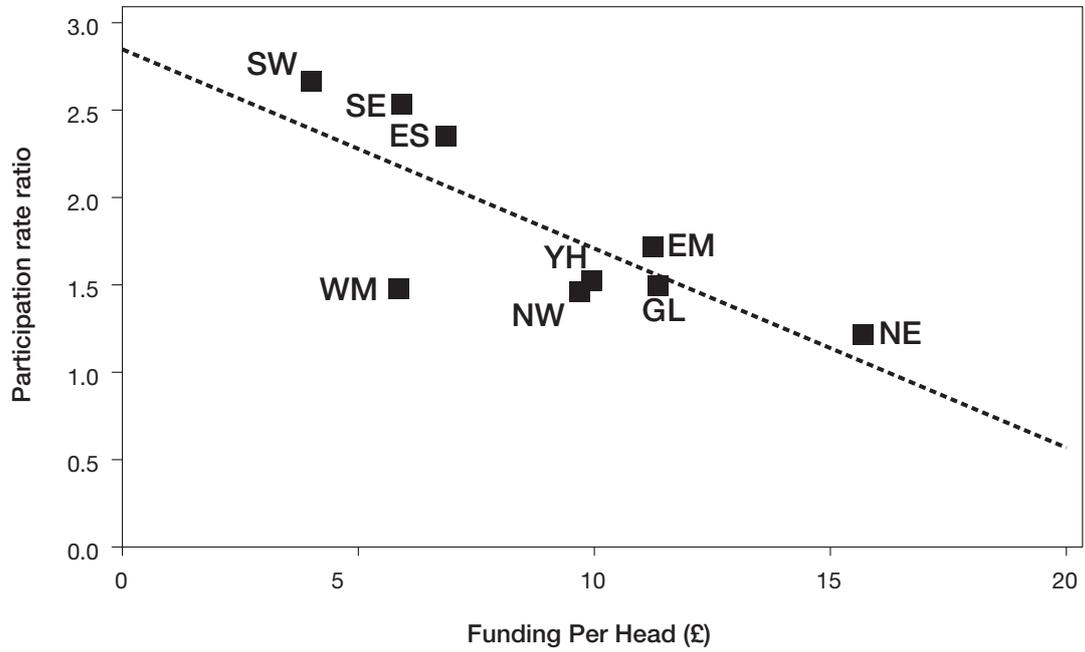


Note: Region abbreviations are defined in the note to Figure 19.

98. There is mixed evidence about whether the degree of targeting of summer school activity is related to the level of funding per head. A simple measure of the degree of targeting is the ratio of the participation rate of the target group to that of the non-target group. Figure 21 shows such a statistic plotted against funding per head of the total 15 year-old population by region. For this analysis the target group is taken as those living in areas with low HE participation (POLAR2 quintiles 1 and 2) while the non-target group is represented by those living in areas of high HE participation (POLAR2 quintiles 4 and 5). A relationship between this simple targeting statistic and the rate of funding is

seen: where funding per head levels were at the lower end of the scale, those from low HE participation neighbourhoods were relatively more likely (compared to the non-target group) to attend summer schools, than was the case for those areas with higher levels of funding per head. However, equivalent analyses using school attainment and income deprivation (see Figure G5 and G6 in Annex G) did not show a clear relationship between the targeting statistic and the rate of funding per head. This suggests that these findings may well reflect different targeting priorities and programme histories between regions rather than being evidence of varying targeting effectiveness.

Figure 21 Targeting for POLAR2 against funding per head of population for the region

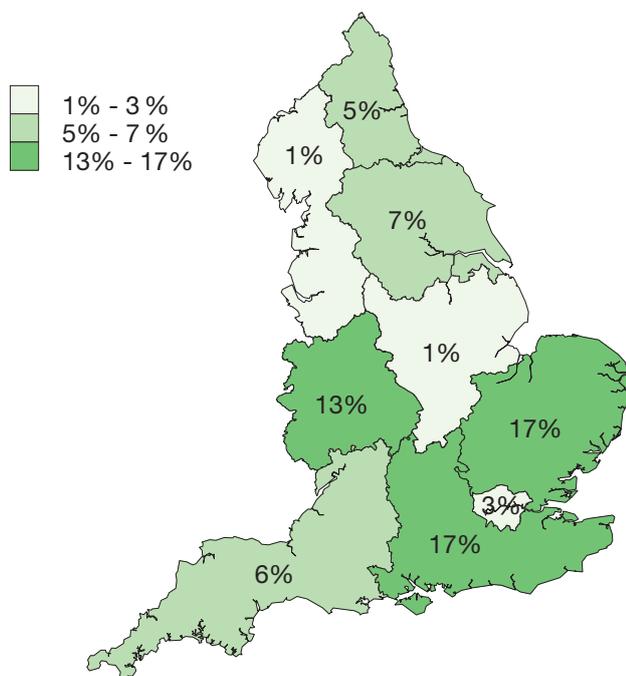


Note: Region abbreviations are defined in the note to Figure 19.

Travel patterns

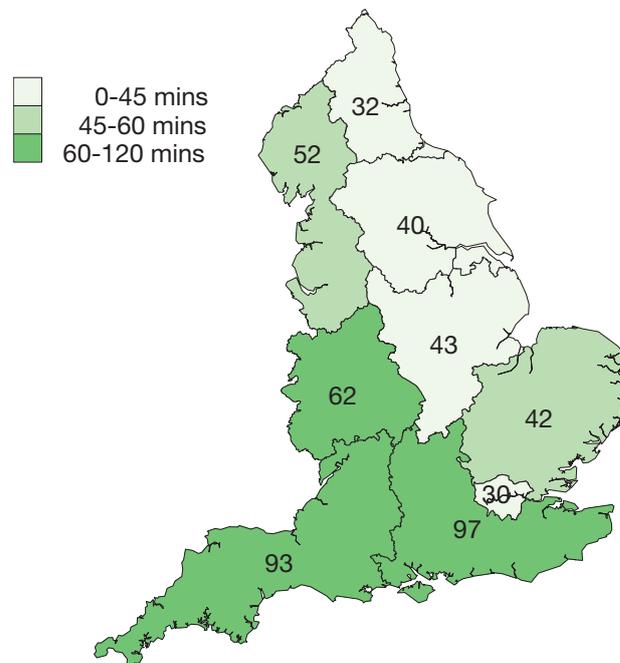
99. Some participants attended summer school events provided by a host HEI outside the region they live in. Figure 22 maps the proportion of these participants across regions. For most regions the proportion of participants attending events outside their home region is small, between 1 and 7 per cent. Much higher proportions, however, are seen for the West Midlands (13 per cent), the South East (17 per cent) and the East of England (17 per cent)¹³.

Figure 22 Percentage of participants attending events outside of home region



100. Another way of looking at the travel patterns of summer school participants is to estimate a simple road based travel time from where they live to where they attended their summer school event. Figure 23 maps the median travel time on this basis for participants from each region. Participants who lived in London had the lowest travel times, with a median of 30 minutes, followed by those from the North East at 32 minutes. Participants from the South East (97 minutes) and South West (93 minutes) had the highest travel times.

Figure 23 Median drive time in minutes for participants by region

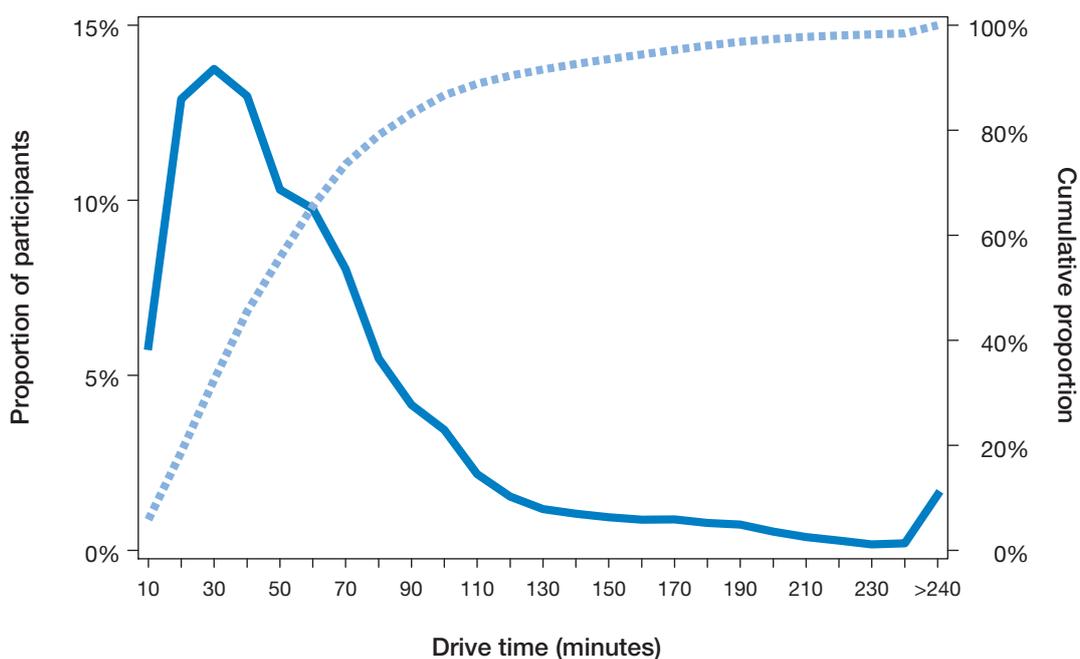


¹³ The result for the East of England is uncertain since over half the participants from this region did not have the host HEI of their summer school event recorded. If all of these unknown host HEIs were in the home region then the rate would be 9 per cent.

101. Figure 24 shows the detailed distribution of travel times at the national level. Although most participants attend a summer school near to where they live (the median travel time is 44 minutes), some travel substantial distances. Recent HEFCE analysis of local provision¹⁴ suggests that local study (where someone commutes daily to their HE provision site) is rare beyond 45 minutes travel time distance. Using this as a measure against the distribution of summer school travel times suggests that about 50 per cent of the summer school provision can be thought of as reflecting an HE experience that would require a move away from home.

102. Travel times for different kinds of summer school are given in Table 17 in Annex G. Nationally, travel times to specialist summer schools are higher than for non-specialist summer schools, with the median being 15 minutes longer. Average travel times to specialist summer schools can be high even in regions with generally low travel times to summer schools. This reflects the fact that specialist summer schools were coordinated at a national level, unlike non-specialist summer schools which were coordinated at an Aimhigher regional level. Travel times to residential summer schools are higher than for non-residential, with median times of 51 and 26 minutes respectively.

Figure 24 **Travel times of summer school participants**



¹⁴ See www.hefce.ac.uk under Widening participation/A new 'University Challenge'.

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