

Access to extra-curricular provision and the association with outcomes

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**Higher Education,
Further Education,
and Skills**



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The Education Policy Institute is an independent, impartial and evidence-based research institute that promotes high quality education outcomes, regardless of social background. We achieve this through data-led analysis, innovative research and high-profile events.

Education can have a transformative effect on the life chances of young people, enabling them to fulfil their potential, have successful careers, and grasp opportunities. As well as having a positive impact on the individual, good quality education and child wellbeing also promotes economic productivity and a cohesive society.

Through our research, we provide insight, commentary, and a constructive critique of education policy in England – shedding light on what is working and where further progress needs to be made. Our research and analysis spans a young person's journey from the early years through to entry to the labour market.

Our core research areas include:

- Benchmarking English Education
- School Performance, Admissions, and Capacity
- Early Years Development
- Social Mobility and Vulnerable Learners
- Accountability, Assessment, and Inspection
- Curriculum and Qualifications
- Teacher Supply and Quality
- Education Funding
- Higher Education, Further Education, and Skills

Our experienced and dedicated team works closely with academics, think tanks, and other research foundations and charities to shape the policy agenda.

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Executive Summary

Many young people take-up extra-curricular activities because they are intrinsically motivated by the activity. But these activities are often thought to also provide longer-lasting benefits to young people through the development of soft skills, improved health, cognitive development, and through establishing new friendships. However not all young people are equally able to access such activities, as they often have both direct and indirect costs to parents, and schools don't offer them in equal measure. This research aims to add to the evidence base on who is accessing extra-curricular activities and the potential longer-term benefits of such activities.

We use longitudinal data to consider which student characteristics are most strongly associated with take up of sporting clubs or clubs for hobbies, arts or music when young people were aged 13-15, in 2013 and 2014. We then consider whether take-up of these activities is associated with a range of outcomes eight years later in 2021, when the young people were 21-22.

Vulnerable groups were less likely to attend both sports clubs, and clubs for hobbies, arts and music

- Turning first to sports clubs, vulnerable students were less likely to participate than their peers. This includes students:
 - who were eligible for free school meals (11 per cent less likely),
 - with lower prior attainment (17 per cent less likely),
 - with poorer health (21 per cent less likely),
 - who were bullied (5 per cent less likely), or
 - with special educational needs or disabilities (23 per cent less likely).
- Female students were also 12 per cent less likely to attend sports clubs than male students.
- Many of the groups less likely to attend sports clubs were also less likely to attend clubs for hobbies, arts or music. This includes students:
 - who were eligible for free school meals (9 per cent less likely),
 - with lower prior attainment (20 per cent less likely),
 - with poorer health (18 per cent less likely), or
 - with special educational needs or disabilities (17 per cent less likely).
- Unlike sports clubs, female students and students who were bullied were more likely to attend other types of clubs, by five per cent and four per cent respectively.
- All of the groups listed above remained less likely to attend these clubs even when comparing students with otherwise similar characteristics.

Controlling for other factors, students in local authority schools were less likely to attend clubs for hobbies, arts and music than students in academies

- Students from independent schools were much more likely to attend sports clubs (91 per cent of students), and clubs for hobbies, arts and music (86%) than students from academy converters (71% and 61% respectively), sponsored academies/free schools (69% and 57%), local authority maintained schools (67% and 52%), and special schools (47% and 37%).
- When comparing otherwise similar students, most of the differences between school types are no longer statistically significant, though students from local authority schools remain

less likely to attend clubs for hobbies, arts and music than students in academies. It should be noted, however, that many more local authority schools have become academies since these cohorts passed through secondary school, and results may be different for more recent cohorts.

Students from Yorkshire and the Humber were less likely to attend clubs for hobbies, arts and music than students from London

- Students from London, the South West and the South East were the most likely to attend sports clubs (75%, 73% and 72% respectively), whilst students from Yorkshire and the Humber, the North East and the West Midlands were the least likely (60%, 64% and 67%).
- Students from London, the South West and the East of England were the most likely to attend clubs for hobbies, arts and music (66%, 66% and 63% respectively), whilst students from Yorkshire and the Humber, the East Midlands and the West Midlands were the least likely (46%, 53% and 54%).
- When comparing otherwise similar students, most of the differences between regions are no longer statistically significant, though students from Yorkshire and the Humber remain less likely to attend clubs for hobbies, arts and music than students from London.

Students who attended sports clubs were more likely to be in employment or education in their early twenties

- There is a positive association between attending sports clubs in secondary school and being in employment or education aged 21/22. This association persists after including a wide range of controls and is equivalent to an increase in the odds of being in employment or education of 42 per cent. This corresponds to 59 of every 100 students who attended sports clubs being in employment or education, compared with 50 of every 100 students who attended no clubs.
- We found no statistically significant association between sports club participation and other outcomes at age 21/22, including progression to higher education, sporting participation, physical and mental health.

Students who attended clubs for hobbies, arts and music were more likely to progress to higher education, but tended to have poorer self-reported health

- There is a positive association between attending clubs for hobbies, arts and music in secondary school and progressing to higher education by age 21/22. This association persists after including a wide range of controls and is equivalent to an increase in the odds of attending higher education of 56 per cent. This corresponds to 61 of every 100 students who attended these clubs attending higher education, compared with 50 of every 100 students who didn't.
- There is a negative association between attending clubs for hobbies, arts and music in secondary school and self-reported health at age 21/22. This association persists after including a wide range of controls and is equivalent to an increase in the odds of reporting poor health of 33 per cent. This corresponds to 57 of every 100 students who attended

these clubs subsequently reporting poor health, compared with 50 of every 100 students who attended no clubs.

- We found no statistically significant association between attending clubs for hobbies, arts and music at school and other outcomes at age 21/22, including sporting participation, being in employment or education and mental health.

Students who attended both sports clubs and clubs for hobbies, arts and music were more likely to participate in sporting activities in their early twenties

- There is a positive association between attending both sports clubs and clubs for hobbies, arts and music in secondary school and participation in sporting activities at age 21/22. This association persists after including a wide range of controls and is equivalent to an increase in the odds of participating in sports of 24 per cent. This corresponds to 55 of every 100 students who attended these clubs progressing to a positive outcome, compared with 50 of every 100 students who attended no clubs.

It's important to note that, although the associations between club participation and outcomes persist after controlling for a wide range of student characteristics, we cannot be sure that participation caused the difference in outcomes. There may be other unobserved characteristics that are common to both higher club participation and improved outcomes, such as being more extraverted. Similarly, where we have found no statistically significant relationship between participation and outcomes, this does not necessarily mean there is no effect at all, just that we could not observe an effect on outcomes in the datasets we analysed.

Further research on the longer-term benefits of participation should consider using data sources that allow for greater differentiation between the types of clubs attended. Furthermore, study designs that can build on this research to further tease out the causal impact of participation on longer-term outcomes would be a welcome addition to the evidence base.

Nevertheless, the broader evidence base, which also considers the short and medium outcomes of students, indicates that there are a multitude of potential benefits to extra-curricular provision.¹ But differences in access mean these benefits are bypassing those who have the most to gain. **This research adds further weight to the need for the government to support schools to offer an extended school day, including through additional funding weighted towards schools with more disadvantaged intakes.** The extended day should include enrichment activities including sports, hobbies, music, art alongside academic activities. As well as spreading opportunities for enrichment more evenly, a well-designed extended school day also has the potential to contribute towards improving attendance levels in schools.

Our analysis suggests there may be more than just financial barriers to take-up, with students with special educational needs or disabilities, bullied students, and those with lower prior attainment less likely to participate. To support good quality provision that is accessible and appealing to a broad spectrum of students, the **government should introduce a set of benchmarks for extracurricular activities, akin to the Gatsby benchmarks** that are used to support good quality careers information, advice and guidance.

¹ Donnelly, Lažetić, and Sandoval-Hernandez, 'An Unequal Playing Field':

Introduction

Extra-curricular activities form a key aspect of childhood and adolescence for many children and young people. These activities are taken up for a wide range of reasons. As well as for the intrinsic enjoyment of the activity itself, young people and their parents hope for the development of soft skills, the health benefits of more physical activities, improved wellbeing, cognitive development, and for new and lasting friendships. Activities undertaken before and after the school day may also support working parents from a childcare perspective.

Indeed, there is an established evidence base on the many benefits of extra-curricular activities. The Education Endowment Foundation's summaries of evidence on physical activity and arts participation, including as an extra-curricular activity, indicate improvements equivalent to one- and three-months additional learning respectively.² Furthermore, a review of the evidence commissioned by the Social Mobility Commission in 2019 highlights a range of evidence showing an association between participation in extra-curricular activities and improvement in soft skills such as persistence, independence, following instructions, working well within groups, dealing with authority figures and fitting in with peers.³ They also highlight studies showing an association between participation and higher level of civic participation as adults. And a study from Joseph (2009) identified an association between extra-curricular participation and employment for high school graduates in the United States.⁴ However, in general, there is limited evidence on the link between participation and longer-term outcomes.

Whatever the benefits of extra-curricular activities, not all groups of students are equally likely to participate. Polling conducted for a 2021 report by the Centre for Social Justice showed that only 61 per cent of parents in the most disadvantaged groups reported that their child did any enrichment activities in an average week, compared to 81 per cent in the least disadvantaged group.⁵ A 2014 report from the Sutton Trust showed that parents with professional or administrative occupations were 15 per cent more likely than those with manual or routine jobs to involve their children in these activities.⁶ And a 2019 report commissioned by the Social Mobility Commission also found significant gaps in extra-curricular participation between income groups, most strikingly in sports and music activities. The government has introduced an award scheme that recognises those schools that have improved equal access to PE and extracurricular sporting activities. It has also provided £300,000 for a national network of 50 Lead Inclusion Schools in this programme to continue to support teachers to improve opportunities for pupils with special educational needs and disabilities to engage and participate in PE, sport and physical activity.

Whilst existing studies have highlighted the differences in take-up between certain groups, there remains a need to understand which student characteristics are most predictive of participation.

² 'Physical Activity'; 'Arts Participation'.

³ Donnelly, Lažetić, and Sandoval-Hernandez, 'An Unequal Playing Field':

⁴ Joseph, 'Exploring the Relationship between Extracurricular Participation & Probability of Employment for High School Graduates'.

⁵ 'A Level Playing Field'.

⁶ 'Extracurricular Inequality'.

In this context, this research aims to add to the evidence base by answering the following overarching research questions:

- How does the availability and take up of extra-curricular activities in secondary school vary by student characteristic? And which characteristics are most predictive of participation?
- Is take-up of extra-curricular activities associated with positive outcomes by age 21/22?

To address these research questions, we have used data from the Longitudinal Survey of Young People in England 2 (LSYPE2), otherwise known as Our Future. It should be noted that though our analysis includes a wide range of controls, it is not a causal study on the impact of these activities on life outcomes. We only consider to which degree these activities are correlated with later outcomes.

The rest of the report is structured as follows:

We begin with a description of the data sources. Further information on methodology is covered in the relevant chapters.

Section 1 provides a descriptive analysis of the take-up of sports clubs, hobbies, art or music clubs, exam support and one to one careers advice by students in years 9 or 10 (relating to 2013 and 2014 respectively) across a wide range of student characteristics.

Section 2 provides an analysis of which student characteristics are associated with higher levels of take up of sports clubs and hobbies, art or music clubs and one to one careers advice, once other characteristics are adjusted for.

Section 3 provides an analysis of the association between take up of sports clubs and hobbies, art or music clubs in year 9 or 10 and a range of outcomes for these young people as they reach the age of 21/22 (in the year 2021).

Data Sources

For this research we use data from the Longitudinal Survey of Young People in England: Cohort 2 (LSYPE2).⁷ LSYPE2 is a longitudinal survey of young people that surveys young people on a wide range of questions, for example, educational experiences, risky behaviours, relationships, future plans, employment, use of leisure time and take-up of extra-curricular activities.

LSYPE2 participants were born between 1st September 1998 and 31st August 1999. The participants were first surveyed in 2013 when they were in year 9. They were then surveyed annually for another eight years (waves) until they were 21/22. Approximately 17,770 participants were invited to LSYPE2, with 13,100 households interviewed (72% response rate). After filtering the data to ensure availability of key variables, we retain around 10,500 students in our analysis. Sampling procedures aimed to be nationally representative, and the data include weights to support this. However, we do not attempt to reweight or impute for variables with missing values. The LSYPE2 data were matched to the National Pupil Database to include students' Key Stage 2, Key Stage 4 and 16-19 attainment of students, additional student characteristics (such as eligibility for Free School Meals) and to identify the type of school they attended. We also matched LSYPE2/NPD data to Higher Education Statistics Agency (HESA) data to reliably identify which students progressed to higher education.

For this research we were principally interested in responses to the following survey questions on provision and take-up of extra-curricular activities:

- Whether the young person has attended times outside lessons when you can use school sports facilities including organised sports clubs.
- Whether the young person has attended clubs and societies outside lessons for things like hobbies, art or music.

Additionally, we considered provision of exam support and careers advice through the following questions:

- Whether the young person has attended times outside lessons when you can work with a teacher to prepare for exams or tests.
- Whether the young person has ever received careers advice from a careers advisor who comes into the school.

Students' reporting participation in either year 9 or year 10 were considered as having taken up the activity. We were unable to include activities from year 11, as there was a low response rate on these questions in this wave. This may be particularly pertinent to differences in exam support, which is likely to be more prevalent in year 11, in the run up to GCSEs, than in years 9 and 10.

It should be noted that the students included in our analysis were in year 9 in 2013, year 10 in 2014 and were aged 21/22 (when we consider their outcomes) in 2020/2021. As such there may have been changes to access to extra-curricular activities for more recent cohorts.

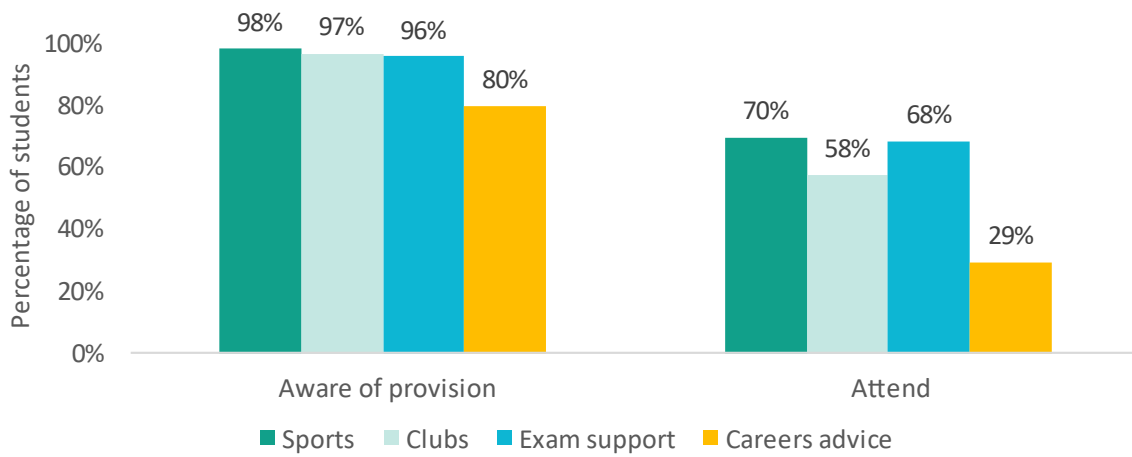
Further details on the methodology used can be found at the beginning of each chapter.

⁷ <https://closer.ac.uk/study/lstype-2/>

1: Take-up across different groups of students

In this section we provide a descriptive analysis of take-up of sports clubs, hobbies, art or music clubs, exam support and one to one careers advice by students in years 9 or 10 (relating to 2013 and 2014 respectively). We consider take-up by a wide range of student characteristics. We have derived these characteristics from both the LSYPE2 and the NPD. When using characteristics from the LSYPE2, we take data when the students were in year 9, and where this is unavailable we have used data from when they were in year 10.

Figure 1: Awareness of provision and attendance at extra-curricular activities, year 9 and 10 students, by activity type



Source: LSYPE2

Figure 1 shows the levels of awareness and participation of the different activities of students in either year 9 or 10. Almost all students are aware of their school having sports clubs, other clubs (e.g. for hobbies, art or music) or out of class exam support. A smaller, but still sizable, proportion (80 per cent) of students are aware of the school providing careers advice (from an external advisor). Seven out of ten students either attended sports clubs, or receive out of class exam support, with just under six in ten students attending other clubs. Under three in ten students received one to one careers advice from an external advisor.

Figure 2: Students aware of availability of activity at school: school type and region

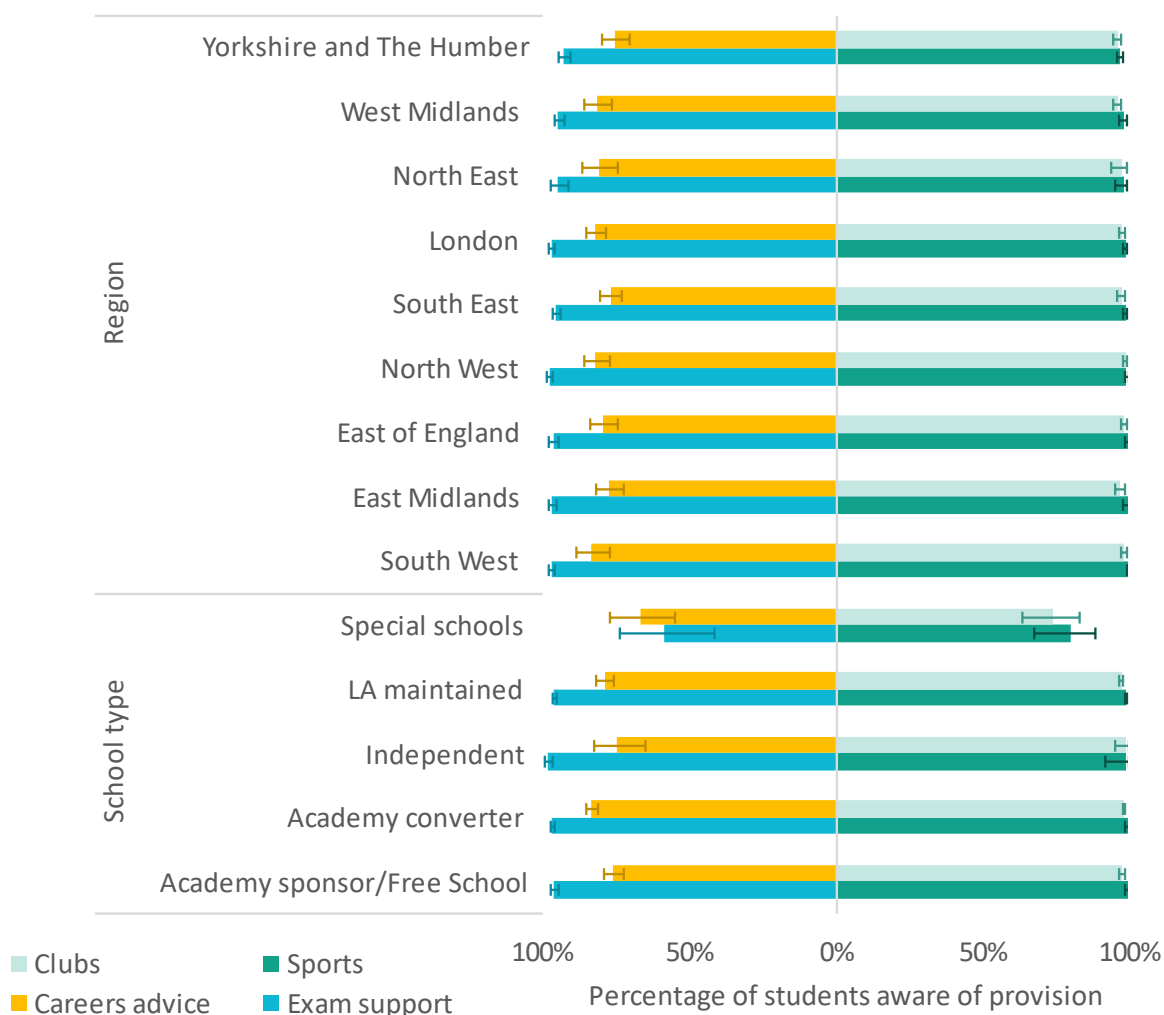


Figure 2 shows how the availability (or at least students’ awareness of the availability) of each activity, by school type and region. It appears that the availability of at least some sports and other clubs is near universal across regions, and across mainstream school types. However, in special schools only 80 per cent of students were aware of the availability of sports clubs, and 74 per cent for other clubs. Similarly, only 59 per cent of students in special schools were aware of out of class exam support, and 67 per cent were aware of the availability of individualised careers advice.

Outside of special schools levels of awareness of exam support were around 97 per cent in state maintained schools and around 99 per cent in independent schools. The lowest figures across regions were for Yorkshire and the Humber (93 per cent), the West Midlands (95 per cent), and the North East (95 per cent). In all other regions 96 per cent or more of students were aware of the availability of exam support.

Levels of availability of individualised careers advice were more variable than for other activities. Only Yorkshire and the Humber, the South East and the East Midlands had below 80 per cent availability. Converter academies had the highest availability of careers advice, at 84 per cent. The figures for all other mainstream school types were between 75 and 80 per cent.

Figure 3: Students attending activity: school type and region



Figure 3 shows the percentage of students attending each activity (not just aware of activity as in Figure 2), by school type and region. Students from London, the South West and the South East were the most likely to attend sports clubs (75 per cent, 73 per cent and 72 per cent respectively), whilst students from Yorkshire and the Humber, the North East and the West Midlands were the least likely (60 per cent, 64 per cent and 67 per cent).

Students from London, the South West and the East of England were the most likely to attend clubs for hobbies, arts and music (66 per cent, 66 per cent and 63 per cent respectively), whilst students from Yorkshire and the Humber, the East Midlands and the West Midlands were the least likely (46 per cent, 53 per cent and 54 per cent).

Students from independent schools were much more likely to attend sports clubs (91 per cent of students), and clubs for hobbies, arts and music (86 per cent) than students from academy converters (71 per cent and 61 per cent respectively), sponsored academies/free schools (69 per cent and 57 per cent), local authority maintained schools (67 per cent and 52 per cent), and special schools (47 per cent and 37 per cent).

Figure 4: Student attending activity: Family background

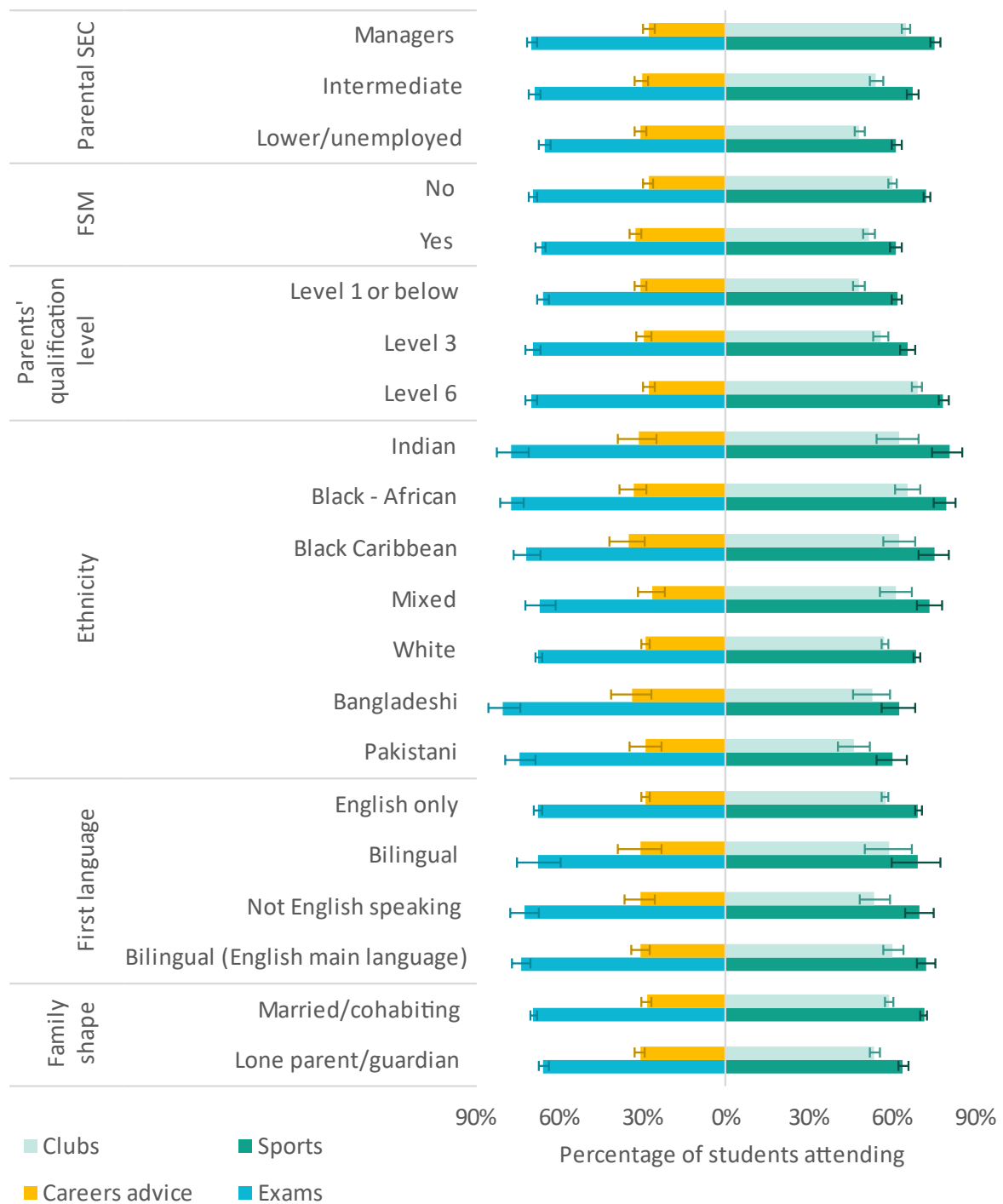
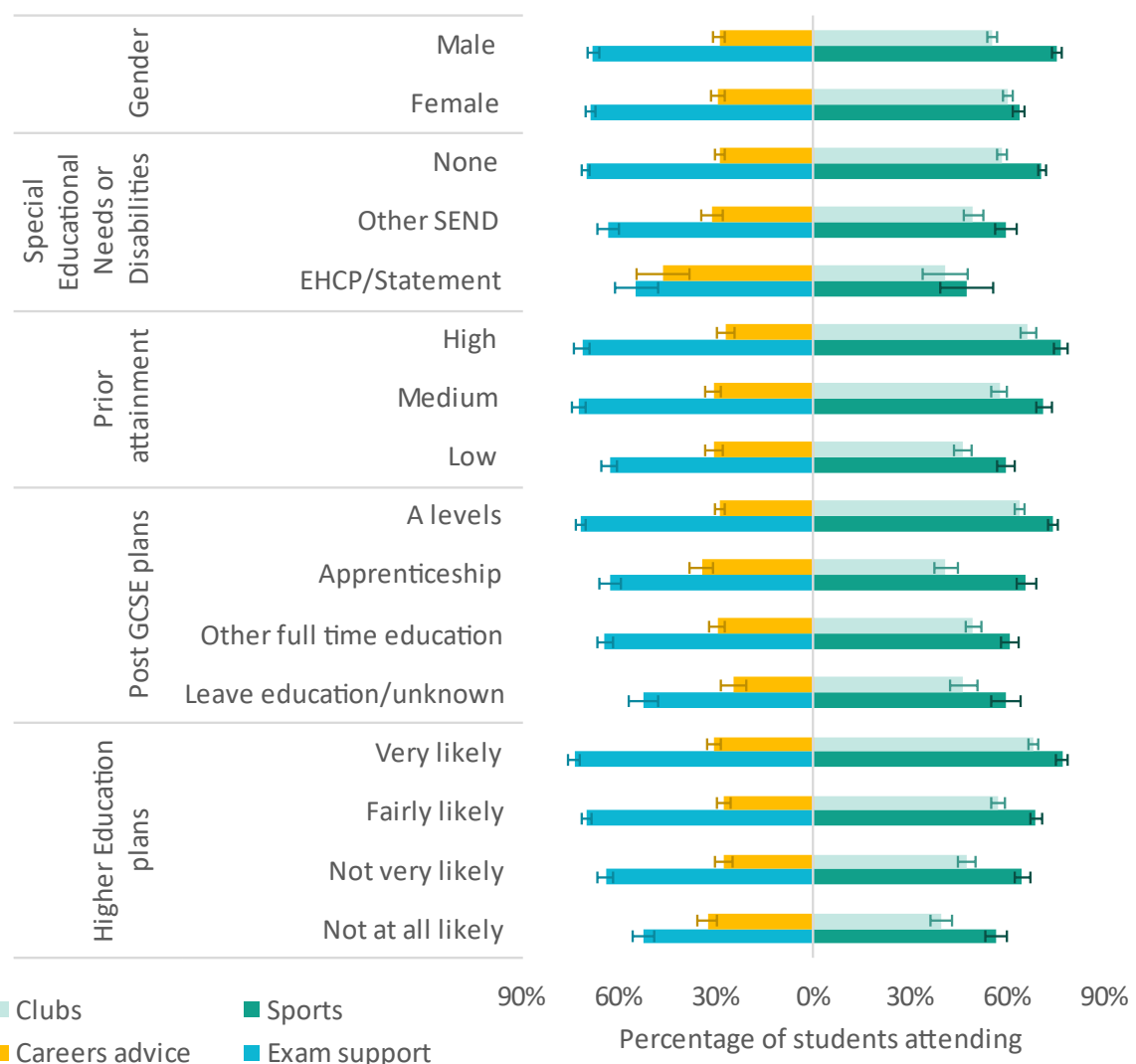


Figure 4 shows the percentage of students attending each activity, with figures shown for different aspects of students' backgrounds. Across sports clubs, other clubs and exam support there are similar trends across student characteristics. Students more likely to attend these activities were students with parents who were in managerial level jobs, married/cohabiting and with higher qualification levels and students who weren't eligible for Free School Meals (FSM). For example, students eligible for Free School Meals were 11 per cent less likely to attend sports clubs, and 9 per cent less likely to attend other clubs.

However, the opposite trends can be seen when considering which students received one to one careers advice: students whose parents were in lower level jobs, with lower qualification levels, lone parents and students who were eligible for Free School Meals (FSM) were more likely to have received this careers advice. In terms of ethnicity, Black – African and Indian students were the most likely to participate in sports clubs, other clubs and exam support, whilst Black Caribbean students were most likely to receive one to one careers advice. Pakistani students were the least likely to attend sports and other clubs, whilst Mixed students were the least likely to receive out of class exam support or careers advice.

Figure 5: Student attending activity: Student characteristic and future education plans



In terms of student characteristics, Figure 5 shows that students with no special educational needs or disabilities, high prior attainment, and those who plan to take A levels and then progress to higher education were the most likely to attend sports clubs, other clubs and receive out of class exam support. However, these groups were the least likely to receive one to one careers advice. Students planning on taking an apprenticeship or to learn a trade were more likely to receive one to one careers advice than those taking A levels or those with less clear plans for their post 16 education.

Male students were more likely to attend sports clubs - 75 per cent compared with 64 per cent for female students – whilst female students were more likely to attend other clubs – 60 per cent compared with 55 per cent for males. There was no significant gender differences in receipt of additional exam support or careers advice.

Figure 6: Student attending activity: Health, mental health, risk factors

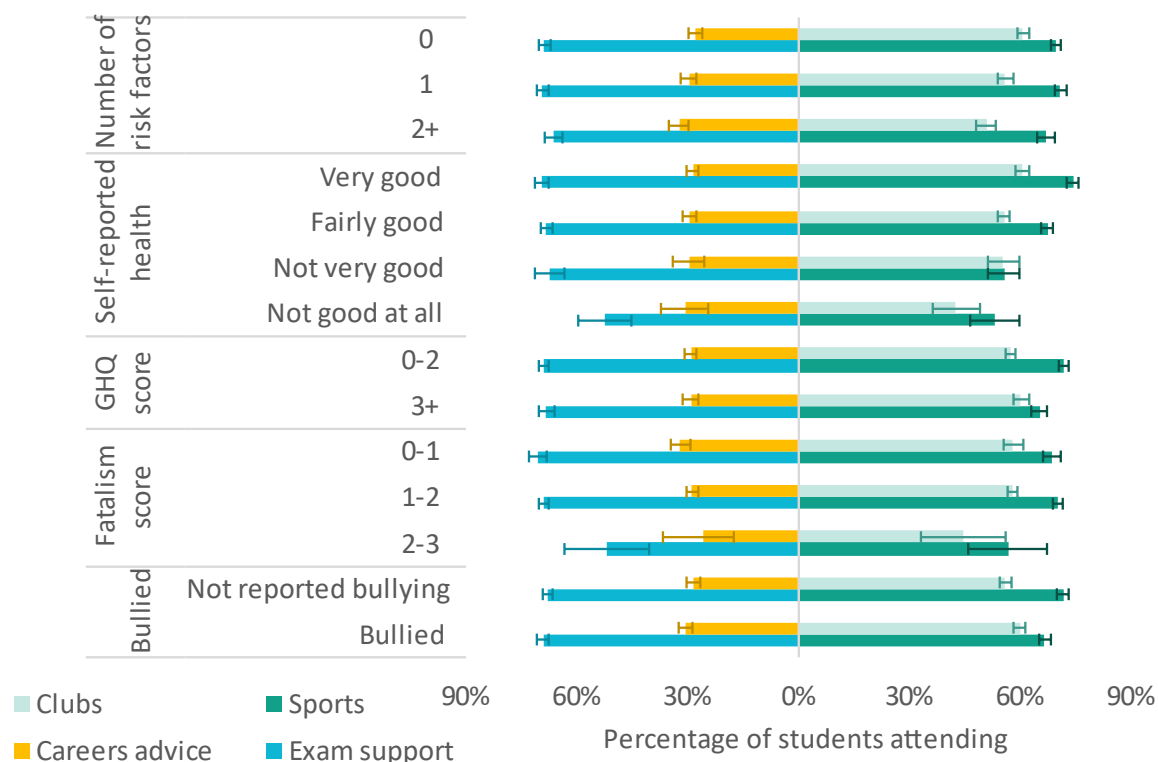
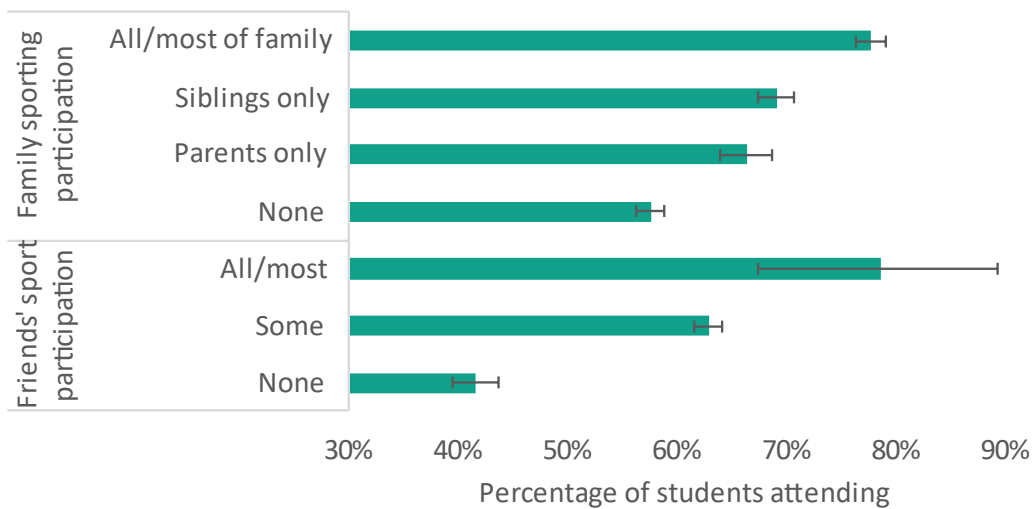


Figure 6 shows that students who report their own health as being better, and with fewer self-reported risk categories and lower levels of fatalism (using a proxy based on a series of questions), were more likely to attend sports clubs, other clubs and to receive additional exam support.⁸ Students with fewer risk categories were also less likely to receive one to one careers advice. Students who reported being bullied as school were less likely to attend sports clubs (67 per cent compared with 72 per cent), but more likely to attend other clubs (60 per cent compared with 56 per cent). Students who reported more aspects of psychological distress (GHQ score, a self-reported proxy for psychological distress) were also less likely to attend sports clubs (65 per cent compared with 72 per cent).

⁸ Risk factors include drinking, smoking, truanting, vandalism, shoplifting, fighting, being part of a street gang, or using cannabis.

Figure 7: Student attending school sports clubs: participation of family and friends



Students whose friends and family regularly participated in sports were also more likely to participate in sport clubs themselves. 78 per cent of students from families who all/mostly participated in sport attended sports clubs compared with 58 per cent of those students from families that did not participate in sport at all. 79 per cent of students who had friends who all/mostly participated in sport attended sports clubs, compared with just 42 per cent of students who had no friends that participated in sports. This stark difference may be because students may be influenced by their peers to attend sports clubs, may be more likely to make friends who have similar sporting participation levels, and because they may make friends at the sports clubs they attend.

2: Modelled likelihood of differences in attendance across different groups of students

In this section we consider which student characteristics are associated with higher levels of take up of sports clubs and hobbies, art or music clubs and one to one careers advice, once other characteristics are adjusted for.

For each activity we have developed a logistic regression model with whether or not a student has attended the activity as the dependent variable, and a wide range of student characteristics as the independent variables. The charts show the percentage change in odds of attending each activity associated with each characteristic value compared with the reference category, converted from the log odds. 95 per cent confidence intervals are shown to indicate whether the likelihood of attending for each characteristic is statistically significantly different from the reference category (those that overlap zero are not statistically significant at the 95 per cent level).

This modelling gives us an understanding of whether a particular student characteristic is related to take up of an activity, once other student characteristics are controlled for.

Sports clubs

Figure 8 shows the association between different student characteristics and the odds of attending sports clubs, once other factors have been adjusted for. From our basic model (using only the variables shown) students from Yorkshire and The Humber are less likely to attend sports clubs than those from London. However, once a fuller range of student level controls are included this result is no longer statistically significant, suggesting the lower likelihood in Yorkshire may partly reflect student intakes. Conversely students from the North East are less likely to attend sports clubs than students from London, only once all student level controls are included.

In our basic model, students attending sponsored academies were more likely to attend sports clubs than those from Local Authority (LA) maintained schools though this result was no longer statistically significant after controlling for further student characteristics. Similarly, students of Mixed, Indian and Black Caribbean ethnicities are more likely to attend sports clubs than White students, but only in our basic model. Black – African students remain more likely to attend even in our full model.

Female students and students who have special educational needs or disabilities (but not a full Education Health and Care Plan or Statement) are less likely than their male and peers without SEND to attend sports clubs. Students with an EHCP are statistically significantly less likely to attend sports clubs only in our basic model.

Figure 8: Sports clubs: modelled association of basic characteristics with likelihood of attendance: Basic model and full model⁹

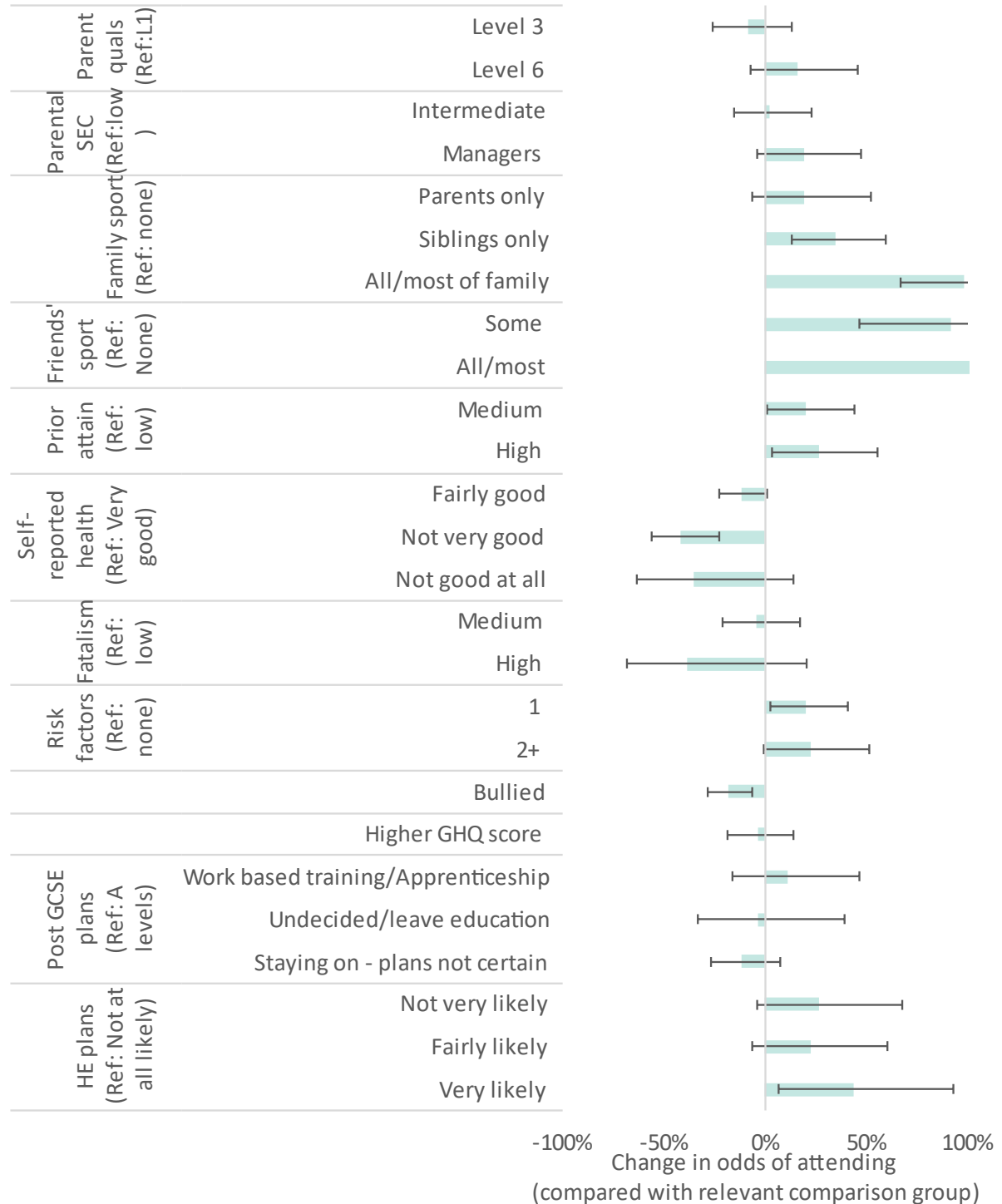


Figure 9 shows the association between the odds of attending sports clubs and the additional student characteristics from our full model. Parental qualifications and Socio-Economic Classification do not appear to be strongly associated with participation in sports clubs. However, students from families that all participate in sporting activities, or who have siblings that participate are more likely to attend sports clubs, as are students whose friends participate in sports. Controlling for other factors, students with higher prior attainment, those with better health and those planning to attend university are also more likely to attend sports clubs. Students with one risk factor appear more

⁹ Independent schools have been removed due to small numbers.

likely to attend sports clubs (than those with none), whilst students who have been bullied are less likely.

Figure 9: Sports clubs: modelled association of characteristics with likelihood of attendance: Full model's additional characteristics



Hobbies, art or music clubs

Figure 10: Hobbies, art or music clubs: modelled association of basic characteristics with likelihood of attendance: Basic model and full model¹⁰

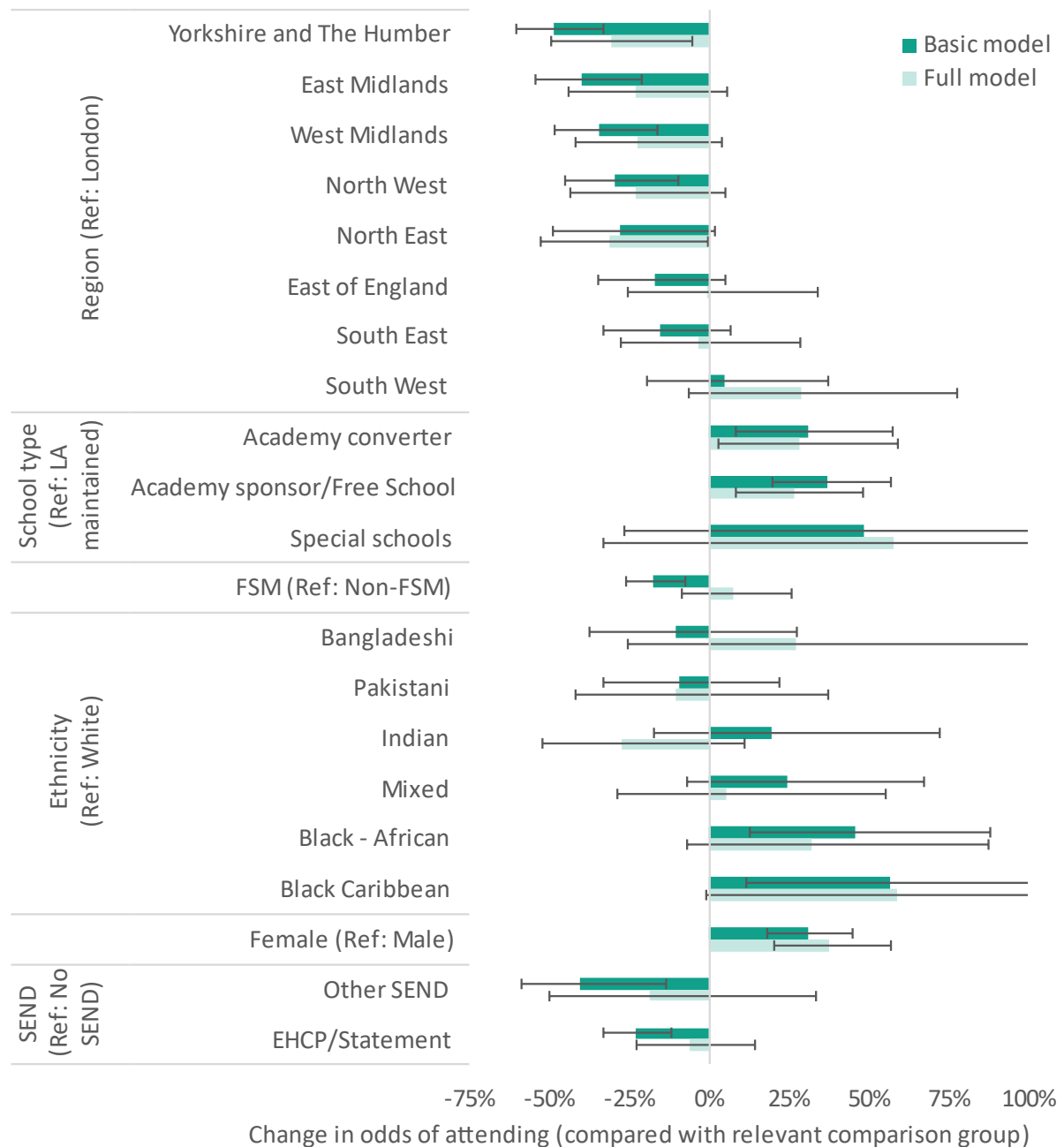


Figure 10 shows the association between different student characteristics and the odds of attending hobbies, art or music clubs (henceforth referred to as clubs), once other factors have been adjusted for. From our basic model, students in Yorkshire and The Humber, the East Midlands, West Midlands and the North West are all less likely than students from London to attend clubs. However, once the full range of student characteristics have been controlled for only students from Yorkshire and the Humber remained less likely to attend clubs. Students attending academies are more likely to attend clubs than students from LA maintained schools.

¹⁰ Independent schools have been removed due to small numbers.

FSM students and students with SEND are both less likely than their peers to attend clubs, though this result is no longer statistically significant in our full model. Again, in our basic model only, Black – African and Black Caribbean students are more likely to attend clubs than White Students. Female students remain more likely to attend clubs than male students, even once the full range of pupil characteristics have been controlled for.

Figure 11: Hobbies, art or music clubs: modelled association of characteristics with likelihood of attendance: Full model’s additional characteristics

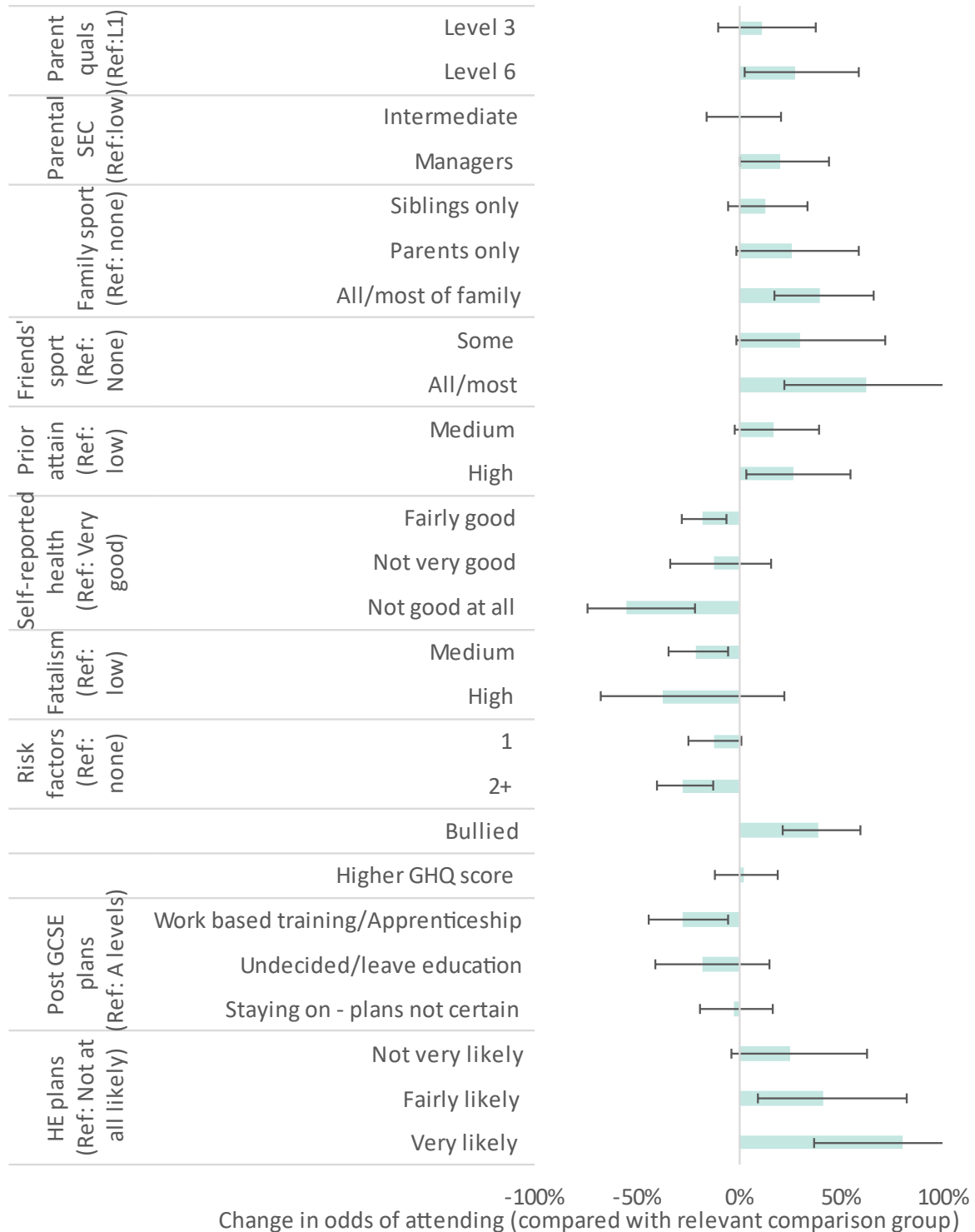


Figure 11 shows the association between the odds of attending hobbies, art or music clubs and the additional student characteristics from our full model. After controlling for the full range of student characteristics, students with parents in a higher professional classification and with higher level qualifications are more likely to attend clubs. The inclusion of these variables in the full model has likely attenuated the effect of FSM shown in Figure 10 i.e. FSM is no longer statistically significant because we have included other variables that also describe the Socio-economic background of the students. This does not necessarily mean that FSM students are not less likely than their otherwise similar peers to attend clubs.

Students with families and friends who regularly participate in sport are also more likely to attend non-sports clubs, though the effect is less pronounced than the effect for student's attendance at sports clubs (Figure 9). And unlike sports clubs, students who reported being bullied are more likely to attend other kinds of clubs. Students with higher levels of prior attainment, and who consider themselves likely to attend higher education are more likely to attend clubs, whilst those with medium to high levels of fatalism, more risk factors, and those who plan on taking an apprenticeship are less likely to attend clubs.

3: Association between club attendance and outcomes at age 21/22

In this section we consider the association between take up of sports clubs and hobbies, art or music clubs in year 9 or 10 and a range of outcomes for these young people as they reach the age of 21/22 (in the year 2021). For those students that progress to an undergraduate degree at 18, this will reflect their outcomes the year after their degree is completed. Clearly some young people will have left education years earlier whilst others may still be in education, for example on a masters degree.

We consider the following outcomes of the young people at age 21/22:

- **Employment or education:** is the young person currently in employment or education?
- **Higher Education:** has the young person progressed to higher education?
- **Sport participation:** does the young person participate in sports regularly?
- **Health:** does the young person have (an absence of) any physical or mental health conditions or illnesses?
- **Mental Health:** does the young person have a low score on the Generalised Health Questionnaire (GHQ), a self-reported proxy for psychological distress?

For each outcome we have developed a logistic regression model with the outcome as the dependent variable.

We then include a flag to whether, during year 9 or 10, students attended:

- sports clubs only,
- hobbies, arts or music clubs only,
- both kinds of club, or
- neither club (as the base for comparison).

This flag is included as an explanatory variable, alongside a wide range of other student characteristics (from when they were in year 9/10) included as controls, including:

- **Family background:** Ethnicity, Family shape, Parents' Socio-economic Classification, Parents' highest qualification level, Free School Meals eligibility, Family sporting participation
- **Interaction with peers:** Friends sporting participation, Whether the student was bullied
- **School characteristics:** School type, Region
- **Student characteristics:** Gender, Age within school year, Special Educational Needs, Key Stage 4 attainment, First language,
- **Student behaviours and beliefs:** Regularity of sporting participation, Number of risk factors, Fatalism score
- **Student health:** Self-reported health, Generalised Health Questionnaire score
- **Student education plans:** Post 16 education plans, Likelihood of attending Higher Education

As previous research has shown an association between take-up of extra-curricular activities and improved education outcomes, we also produce an additional model for each outcome that also includes:

- **Post 16 education outcomes:** Average grade in level 3 qualifications, Higher Education entry

These variables are derived from the NPD and HESA data. They are included so that we can begin to identify whether take-up of activities has an effect on outcomes that is not just due to improved education outcomes e.g. do young people who take up activities have better health outcomes because they have better education outcomes, and those with better education outcomes tend to have better health outcomes? Or is there an association that goes beyond those that results from better education outcomes?

Each of the outcomes models excluding education controls are based on around 4,000 young people, down from around 7,000 in the first wave of data due to attrition. Our models including educational controls are based on around 3,000 young people, as not all young people in the survey were also in the NPD and HESA data.

The charts show the percentage change in the odds of each outcome associated with take-up of each activity, converted from the log odds. 95 per cent confidence intervals are shown to indicate whether the likelihood of each outcome is statistically significantly different (those that overlap zero are not statistically significant at the 95 per cent level).

It should be noted that whilst these results may be indicative of a causal relationship between attendance at the clubs and outcomes years later, they cannot provide clear evidence of such a relationship. Any statistically significant results only indicate an association between take-up of clubs and outcomes, once a range of other available factors have been controlled for. There may therefore remain unobserved confounders which contribute to our results. Further research will be required to identify whether any findings reflect an underlying causal relationship.

Figure 12: Modelled association of attendance at clubs with a range of outcomes at age 21/22

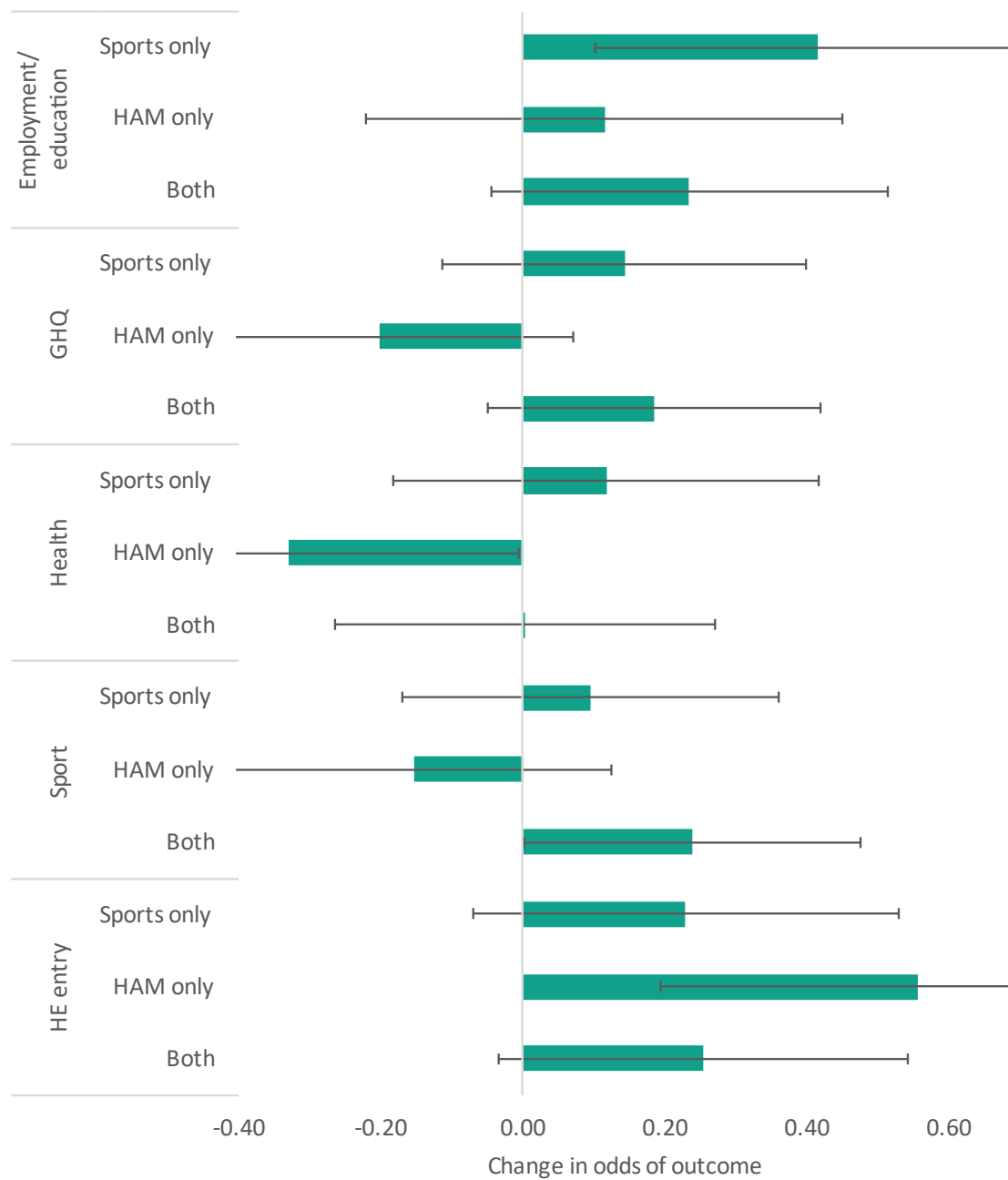


Figure 12 shows the association between attendance at clubs with a range of life outcomes at age 21/22. In the many cases, as shown by the confidence intervals overlapping zero, there is no statistically significant association between attendance at either sports clubs or clubs for hobbies, arts and music (HAM) in years 9 and 10 and outcomes at age of 21/22. However, there are a number of exceptions.

Firstly, there is a positive association between sport club participation (excluding students who also attended other clubs) and being in employment or education at age 21/22. Our model suggests that attendance at sports clubs is associated with a 42 per cent increase in the odds of being in employment or education, compared with students who attended no clubs. This does not mean that those attending sports clubs are 42 per cent more likely to be employed aged 21/22. To give an example of the scale of this difference, if 50 out of 100 students who didn't attend any clubs were

employed or in education aged 21/22, we might expect 59 out of 100 students who did attend sports clubs to be employed or in education, once other student characteristics had been controlled for.

We also find a positive association between attendance at clubs for hobbies, arts and music (excluding students who also attended sports clubs) and progression to higher education by age 21/22. Our model suggests that attendance at these clubs is associated with a 56 per cent increase in the odds of progressing to higher education, compared with students who attended no clubs. Again, to give an idea of scale, if 50 out of 100 students who didn't attend any kind of clubs progressed to higher education, we might expect 61 out of 100 students who did attend these clubs to progress.

We also find a positive association between attendance at both kinds of clubs (sports and hobbies, arts and music) and sports participation at age 21/22. Our model suggests that attendance at both clubs is associated with a 24 per cent increase in the odds of sporting participation, compared with students who attended no clubs. This is equivalent to 55 out of 100 of students who attended both clubs participating in sports, compared with 50 in 100 of those that attended neither club.

We have included sports participation (not just attendance at a school sports club) as a control in our model, so we have, at least partly, mitigated the possibility that this result is largely due to general sporting participation at a younger age leading to both school sporting clubs attendance at a younger age and sporting participation at 21/22. We find similar results without this control. Again, and as is the case more broadly with this research, there may still be other unobserved confounders that contribute to this result.

Finally, we also find a negative association between attendance at clubs for hobbies, arts or music (excluding students who also attended sports clubs) and self-reported health at age 21/22. Attendance at these both clubs is associated with a 33 per cent increase in the odds of young people reporting any physical or mental health conditions or illnesses at age 21/22. This is equivalent to 57 out of 100 of students who attended these clubs having poorer health, compared with 50 in 100 of those that attended no clubs club.

It is difficult to identify the mechanism by which attending these clubs may lead to poor health for young people. Speculatively, it could be that involvement in these activities over a longer period of time displaces opportunities for other activities conducive with better health (such as more physical activities). Alternatively, this finding could be due to selection effects. Whilst we do include controls for health at age 14/15, this doesn't remove the possibility that there may be other unmeasured characteristics or health related factors that are both more common in those that attend these clubs and are associated with poorer long term health outcomes. It's also worth noting that this finding is only just statistically significant at the 95 per cent level. This raises the possibility that this result may not reflect the underlying association.

Figure 13: Modelled association of attendance at clubs with a range of outcomes at age 21/22

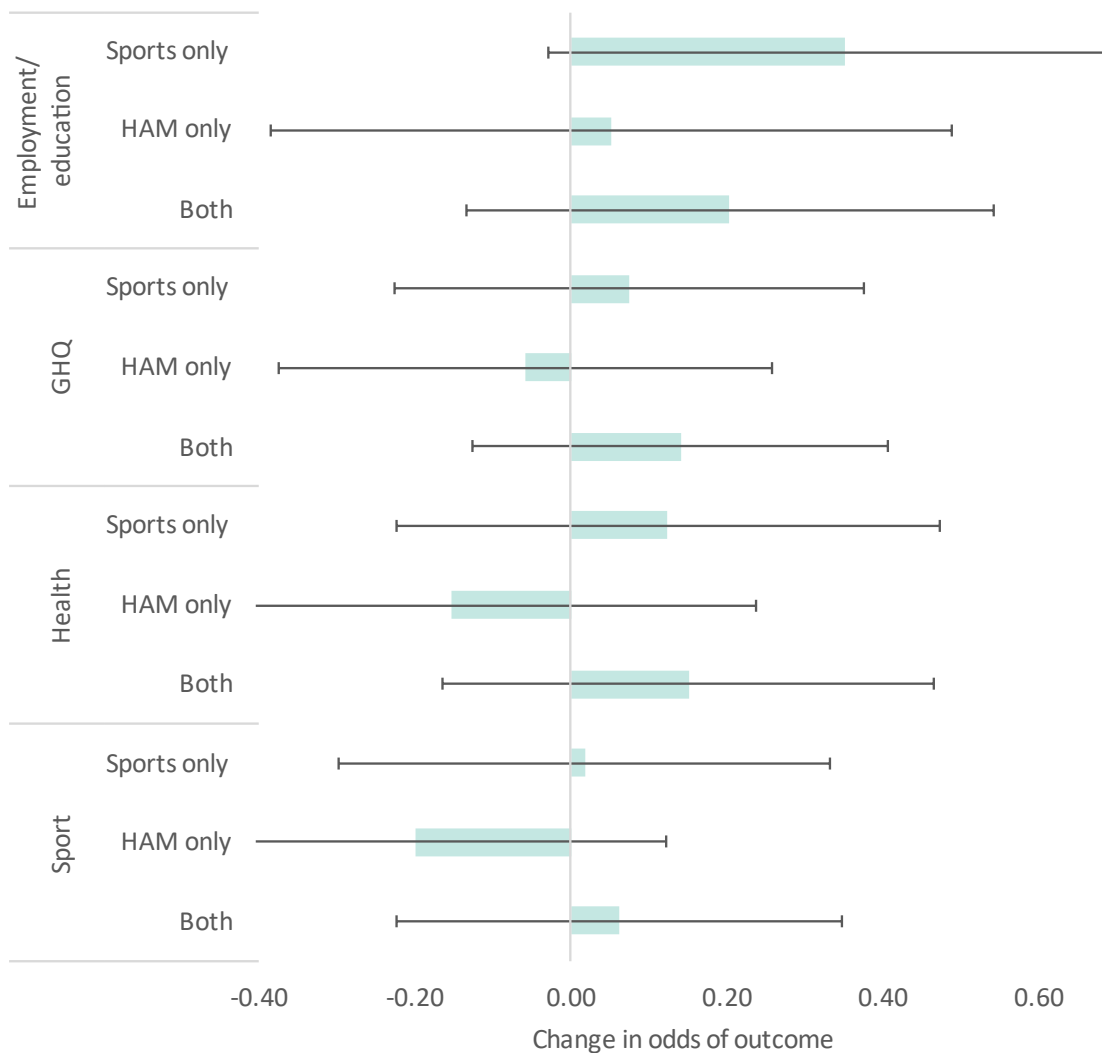


Figure 13 shows the association between attendance at clubs and a range of life outcomes at age 21/22. Unlike in Figure 12 these figures are derived from a model that includes educational outcomes (A level grades and HE entry) that occurred after their attendance at the clubs, in addition to the controls used previously. For all of the outcomes that had a statistically significant in the previous model the estimates are both lower and no longer statistically significant once we include post 16 education controls. This raises the possibility that the outcomes are at least partly mediated by post 16 education outcomes e.g. participation at hobbies, arts and music clubs may be leading to improved education outcomes, which in turn leads to a higher likelihood of progression to higher education.

4: Conclusion

Our research has shown that attending clubs is associated with a range of positive outcomes, even after a number of student characteristics have been controlled for, though we also find one negative association. As we have made clear, our study could not show that take up of clubs was the cause of improved outcomes, but this analysis should be taken alongside the existing evidence which points to a wide range of benefits emerging from participation in a range of enrichment activities. **Further research on the longer-term benefits of participation should consider using data sources that allow for greater differentiation between the types of clubs attended. Furthermore, study designs that are able to build on this research to further tease out causation would be a welcome addition to the evidence base.**

What is clear from our research is that not all students have equal access to such activities, and their benefits. Not only are economically disadvantaged groups less likely to participate, but students with lower prior attainment, those with special education needs or disabilities and those with poorer health were all less likely to participate in both kinds of clubs whilst students who had reported being bullied were less likely to participate in sports clubs (though more likely to participate in other kinds of clubs). Girls are also less likely to participate in sports clubs. This suggests that economic barriers are not the only factor in preventing take-up. Certainly, some geographic areas appear to lack provision, and the type of school students attend also appears to be a factor, but it also appears that there may be other factors holding young people back. Qualitative research suggests that a lack of confidence, a feeling of not fitting in, or a lack of appetite for the activities offered may all be contributing to the lower participation rates of some groups.¹¹ Both making existing provision more accessible to a range of students and increasing the variety of activities available could play an important role in increasing participation in groups who are currently missing out. **To support good quality provision that is accessible and appealing to a broad spectrum of students, the government should go beyond the award scheme that already exists for sporting activities and introduce a set of benchmarks for extracurricular activities akin to the Gatsby benchmarks that are used to support good quality careers information advice and guidance. Whilst these benchmarks would be non-statutory they should set the expected standard for extra-curricular provision that is both high quality and accessible.**

It is important to note that our analysis is based on a cohort who are now in their twenties. There are good reasons to think that gaps in participation have worsened for more recent cohorts. The cost-of-living crises and increasing level of poverty are likely to have led many families to drop activities with a cost. A 2023 survey for the Department for Education showed that cost pressures contributed to almost one in five parents reporting their child could not participate in or had reduced usage of after-school clubs and extra-curricular activities. Furthermore, the pandemic has left an enduring impact on school attendances levels, with absence levels highest for the same vulnerable groups that this research has shown as least likely to participate in extra-curricular activities.¹² If students aren't in school, they almost certainly won't be at school clubs. And alongside falling attendance levels the wellbeing of young people has also been worsening: whilst 35 per cent

¹¹ Donnelly, Lažetić, and Sandoval-Hernandez, 'An Unequal Playing Field'; Hingley et al., 'Parent, Pupil and Learner Panel 22/23 Recruitment Wave 1'.

¹² Hunt, 'Examining Post-Pandemic Absences in England (2)'.

of students in the cohort in our study reported elevated levels of psychological distress at age 16/17, by 2021 44 per cent of students at that age were reporting distress.¹³ As well as more barriers to school based extra-curricular activities, youth services outside of school have also suffered with £1 billion less spent on youth services than a decade ago.¹⁴

There are a multitude of potential benefits to extra-curricular provision. But differences in access mean these benefits are bypassing those who have the most to gain. **This research adds further weight to the need for the government to support schools to offer an extended school day, including through additional funding weighted towards schools with more disadvantaged intakes.**¹⁵ **The extended day should include enrichment activities including sports, hobbies, music, art alongside academic activities.** As well as spreading opportunities for enrichment more evenly, a well-designed extended school day also has the potential to contribute towards improving attendance levels in schools.

If policymakers are serious about addressing the many inequalities of opportunities for young people, access to these activities should not be considered as a nice “extra” for those that can afford it, but an integral part of childhood for all.

¹³ Holt-White et al., ‘Briefing No. 4. COVID Social Mobility & Opportunities (COSMO) Study’.

¹⁴ ‘Persistent Absence and Support for Disadvantaged Pupils’.

¹⁵ Sibieta, ‘Reviewing the Evidence on Extending School Time: The Good, the Bad and the Pretty Strong’.

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