

Land of hopes and dreams: education aspirations and parental influence among England's ethnic minorities

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Abstract

In this paper we consider a wide range of factors that potentially influence young people's educational aspirations, and investigate the extent to which they explain observed differences across ethnic groups. We combine data from the Longitudinal Study of Young People in England with data from the National Pupil Database and the Census to build up a rich dataset which enables us to investigate potential influences at the level of the individual, the family, the school and the neighbourhood. While staying on at school after the age of 16 is the aspiration for the majority of all students, we find large differences both across ethnic groups and within groups by gender. While high parental aspirations are consistently the most important influencing factor, we find little evidence of the routes by which such high aspirations are transmitted to the students.

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Introduction

Education is a key factor in social mobility, and, for young people, one of the first foci for their aspirations. Furthermore, the role of students' aspirations, attitudes and beliefs are increasingly cited in policy circles as important drivers of the differences in educational attainment across socio-economic groups (Cabinet Office 2009). It is these educational aspirations that we analyse here. Understanding how aspirations are formed is crucial for clarifying why educational aspirations eventuate in diverse educational outcomes along ethnic, socioeconomic and gender lines (Kao and Tienda 1998; Cabinet Office 2008).

Understanding aspiration formation has been a longstanding interest in both the sociological and psychological literatures. Factors identified as important occur at the level of the individual, the family, the school and the neighbourhood. At the individual level, one key determinant of a child's educational aspirations is their own ability or academic capital (Sewell and Shah 1968; Marjoribanks 1998; Gutman and Akerman 2008). Looker and Thiessen (2004), for example, find that prior attainment at school drives the desire to continue in schooling. Aspirations are also influenced by an individual's perception of their talents: an individual with high academic capital may only develop high educational aspirations if they are fully aware of their ability (Wigfield and Eccles 2000). Exploring differences in aspirations across ethnic groups, Feliciano (2006) identifies immigration history and the pre-migration status of students, as providing one cause of the observed differences.

Differences in the home and family environment may also contribute to differences in how aspirations are formed (Marjoribanks 1998). Gutman and Akerman (2008) suggest that young people from more advantaged homes have greater access to material and financial resources such as computers and additional tutoring. In particular, they state that the educational aspirations of male adolescents are more adversely affected by financial difficulties. A key factor identified in the literature for the formation of a child's aspirations are those of her parents (Feinstein et al 2004; Strand and Winston 2008) and their transmission to the child (Khattab 2003; Modood 2004) and we discuss this further below.

A third level of influence discussed in the literature is that of the community or neighbourhood in which the individual lives. (Lupton 2006; Asmussen et al 2007). A recent Cabinet Office report (Cabinet Office 2008) argues that young people with low educational aspirations are more likely to live in certain types of neighbourhoods, and in particular are found in communities with close knit social networks, low levels of population mobility and a history of economic decline. Zhou (2005) describes how a combination of shared norms about the importance of education and social mobility, plus strong parental and community involvement in various ethnic institutions combine to produce a form of ethnic social capital. This has resonance with the way ethnic capital has been discussed in the economics literature (Borjas 1992; 1995; Cutler et al 2005). Cutler et al (2005) define ethnic capital to be a set of individual attributes, cultural norms and group-specific institutions that contribute to an ethnic group's economic productivity, and argue that differences in ethnic capital could be due to differences in the (often highly segregated) neighbourhoods and networks within which the groups are located. Zhou's (2005) work concurs with this. She

distinguishes the value of social capital found in enclaves compared to ghettos, with the former providing the role models, support and opportunities which combine to create the possibility for upward mobility. Modood (2004) uses Zhou's notion of ethnic social capital in his search for the source of the ability to drive through large-scale, sociologically corroborated disadvantages among certain minority ethnic groups such as South Asian and Chinese. He argues that the answer lies in both families and communities, and that it may comprise three elements: parental/community shared ambitions with regard to upward mobility; the ability to successfully convey this to the children who internalise it to a large degree; the ability of parents and the community to enforce behaviour that enables ambitions to be realised. Our data enable us to explore the extent to which these three elements are important in the formation of young people's aspirations.

Previous work has found differences in educational aspirations across ethnic groups. A consistent finding from the US is that, once social class is controlled for, Black students have higher aspirations than Whites (Kao and Tienda 1998; Cheng and Starks 2002). For the UK, using the same dataset as the present study, Strand (2007) finds that Black African, Indian, Pakistani and Bangladeshi pupils have higher aspirations on average than their White British peers. Addams and Johnson (2005) concur with White British students in London having relatively low educational aspirations.

In terms of what may be influencing these observed differences, the closest study to the present one is by Strand and Winston (2008). They analyse survey responses from a sample of 849 Year 7 and Year 9 pupils in the West Midlands (approximately two thirds of whom were in Year 9) who were asked about their intentions to carry on in full-time education: 80% of White British responded positively, with this number rising to 97% and 98% for Asian (Indian, Chinese and other) and Black African pupils respectively. The authors investigate the influence of eight potential factors in the pupils' intention to continue in full-time education past the age of 16. Four factor scores were significant: high 'commitment to schooling'; high 'positive peer support'; low 'disaffection/negative peers' and high 'home educational aspirations'¹, and show that different factors contribute to observed differences in aspiration across the ethnic groups. For example the highly aspirant Black African group had the highest score of any group for both 'commitment to schooling' and 'academic self-concept', along with high scores for 'positive peer support' and 'home educational aspirations', and a very low score for 'disaffection/negative peers'. The present study builds on this work by investigating potential influencing factors – and the extent to which they explain ethnic group differences in aspiration – at the individual, family, school and neighbourhood level for a large representative sample of 14 year old (Year 9) pupils in England, the Longitudinal Study of Young People in England (LSYPE).

The LSYPE respondents are asked whether they want to leave school at the first opportunity, age 16, or to stay on. They are also asked about university and career plans. The dataset, described in the next section, contains a rich set of variables about

¹ The other factors were: 'academic self-concept'; teacher support'; 'home support for learning'; 'laissez-faire'. Strand and Wilson (2008) also investigate the influence of these eight factors on the level of qualifications that the students expected to achieve. High 'academic self-concept' was significant here, while high 'positive peer support' was not. As we discuss below, however, we separate the 'expectations' questions from the 'aspirations' questions within our data.

the individual young person, their family and their school. We also match in additional school and neighbourhood characteristics to build up a picture of the potential influences leading to the young person's educational aspirations at age 14. In particular we focus on the explanatory factors suggested by the literature, at the levels of the individual, the family, the school and the neighbourhood. We both document differences in aspirations by ethnicity and by a number of other simple breakdowns, as well as modelling the correlates of these aspirations using the rich set of variables available in the data.

Data

a. Main Dataset

For this analysis we use the first wave of the Longitudinal Study of Young People in England (LSYPE), a survey administered by the Department for Children, Schools and Families (DCSF)². Wave 1 comprises interviews and administrative data of a representative sample of young people who were in Year 9 at school in February 2004. The sample was drawn from people born between 1 September 1989 and 31 August 1990 and the respondents were aged 13 or 14 at the time of interview.

Respondents were sampled in a two stage sampling procedure across schools in England. First, a sample of schools was selected at random. Then a random sample of young people was taken from the chosen schools. The original sample of Wave 1 covered just over 21,000 young people and contained boost elements for deprivation and ethnicity. Schools that had 20 percent or more of their pupils eligible for free school meals (a marker of low household income) were over-sampled, and a boost sample of minority ethnic pupils was taken. All our results are therefore weighted by both the sample and the non-response weights. The final Wave 1 sample comprised 15,770 respondents.

The LSYPE contains detailed background information about each young person's household, including parental education, employment and health. The main parent respondent (usually the mother) was interviewed about the young person's health, pre-school childcare and education, school history, choice of current school and family relationships. The young person was interviewed about a variety of issues, including attitudes to both their school and home environments. Both were asked questions about their aspirations for the young person's future education and career choices.

The information obtained from LSYPE questionnaires has been linked to the National Pupil Database (NPD), an administrative dataset which contains records of pupil attainment, school performance and school characteristics.

b. Sample Definition

We restrict our sample to young people studying in mainstream (non-special) schools, who were not registered as being in care at the time of interview. We focus only on

² <http://www.esds.ac.uk/longitudinal/access/lstype/L5545.asp> has more information on the LSYPE.

ethnic groups with sufficiently large sample sizes, which are: White, Mixed White and Black Caribbean, Black Caribbean, Black African, Indian, Pakistani, Bangladeshi. LSYPE data contains both parent (or carer) and young person's reports of the young person's ethnicity. We omit cases of missing or inconsistent ethnicity, except when both natural parents were respondents to the Individual Parent Section and both reported the same ethnicity. In these cases we report the young person's ethnicity as that of his/her parents. Our final sample comprises 14,314 young people. Appendix Table 1 breaks the sample into the different ethnic groups.

c. Main variables used

The dependent variable for our analysis is 'What do you want to do when you are 16?' We create this by combining the responses to two questions asked in the young person's interview: 'When you're 16 and have finished Year 11 at school what do you want to do next?' and the sub-question asked of those who don't want to stay on at school, 'What do you want to do when you're 16 rather than stay on in education?' There are five possible responses in the combined variable: stay in education; start work; start to learn a trade; other; don't know. In most of our analyses we focus on the first – the aspiration to stay on in education post compulsory schooling. The main parent is asked an equivalent question: 'What would you yourself like [young person] to do when he/she reaches 16 and can leave school?', which is what we use as our Main Parent aspirations variable. We also report responses relating to university and career plans. While both the young person and the main parent are also asked 'How likely is it do you think that [you/young person] will ... go to university to do a degree?', we do not directly use the responses to these questions as an indicator of educational aspiration. This is following the distinction made in the literature between aspiration – a statement of intention, a dream or ambition – and expectation – an evaluation of a student's own ability to obtain a certain level of, for example, education (Khattab 2002; Mickelson 1990). Our main dependent variable picks up what the student *wants* to do; the university variable reports the young person's assessment of his/her likelihood of getting that far.

The independent variables we use can be grouped according to the different levels at which the factors influencing aspiration formation have been identified in the literature. At the individual level we have data on the young person's month of birth, gender, a marker for whether they have a severe disability, plus their ethnic group as categorised above. We also have measures of prior attainment (in their Key Stage 2 tests at age 11) and of the young person's academic self perception³.

At the level of the family the dataset includes information on family demographics, parental qualifications and occupations, household income and housing tenure⁴. A key variable is the main parent's aspirations, discussed above. We also know if the young person was born in the UK, and the language spoken at home. There is a wealth of variables which together form a picture of the home environment, including indicators of attendance at religious classes; of frequency of discussing daily events at school and future plans with the family; measures of parental contact with the school;

³ This is a scale variable constructed from the young person's answers to the questions '..How good would you say you are at [maths; English; science; ICT]?' and 'How good do you think you are at school work?'. Full details are given with Appendix Table 2.

⁴ Note that there are a large number of missings for father's occupation.

whether the family has a computer; whether the young person attends extra curricular classes in either school or more ‘hobby’-type subjects; perceived levels of discipline; perceived levels of family togetherness.

We have information at the school level from both the LSYPE and the NPD. The NPD provides information on the characteristics of the school attended by each respondent, including admissions policy and whether it is a religious school, as well as information on the school composition. The LSYPE includes data on respondents’ attitudes to their subjects, their teachers and their school; indicators of the extent to which they discuss future plans with their teachers; perceptions of different aspects of their school including facilities provided, cleanliness, discipline.

Finally, at the neighbourhood level, the data supplied with the LSYPE contain two neighbourhood deprivation indicators at the Lower-layer Super Output Area level (LSOA; mean population of 1,500). These are the Overall Index of Multiple Deprivation (IMD) and the Income Deprivation Affecting Children Index (IDACI). In some of our analyses we also control for additional neighbourhood variables available from the Census of Population at Standard Table ward level. These are all ethnicity specific: proportion of unemployed; proportion of economically inactive; proportion of non-UK born; proportion of people of the age 25-74 with education of university degree or equivalent; proportion of people of National Statistics Socio-economic Classification (NS-SeC) of Higher or Lower Managerial or professional occupations and ethnicity specific proportion of people of NS-SeC of Intermediate Occupations or small employer and own account worker. Given the discussion above regarding ethnic social capital, we are interested in the extent to which parental aspirations and variables that capture family togetherness and discipline are significant in aspiration formation, alongside those neighbourhood composition variables that may reinforce shared ambitions regarding upward mobility.

Appendix Table 2 reports the means of all independent variables. In some instances we group sets of variables together to create a scale variable. Details of how these are constructed are provided with the table. Taken together, the combination of the LSYPE plus the matched-in neighbourhood and school level variables provide an extremely rich dataset which enables us to fully explore the complex and various influences on how young people’s educational aspirations are formed, and how these vary across different ethnic groups.

Results I: Descriptive statistics

a. Educational aspirations by ethnicity and gender

We start in Table 1 by looking at the simple raw means of educational aspirations by ethnicity and gender. All tables are weighted to yield a representative picture, as discussed in the previous section. The first point to note is that staying on at school is by far the most common aspiration for both male and female pupils across all ethnic groups. Within this category there are, however, huge differences between the different ethnic groups. For female pupils there is a ten point gap between White students at 85% and the South Asian and Black Caribbean groups at 94 or 95%. The proportion of Black African girls wanting to stay on at school is even higher, at 99%,

while the proportion for Mixed White-Black Caribbean girls (89%) is closest to White students.

There is generally a similar pattern for male students across the ethnic groups. Again, over 90% of boys in the South Asian and Black African groups want to stay on, and again the proportion of White boys staying on is the lowest of all the ethnic groups at only 73%. Mixed White-Black Caribbean and Black Caribbean display a slightly higher proportion on average, at 78 and 81% respectively.

In terms of male-female differences within ethnic groups, across all groups more girls want to stay on than boys (equal for Indian students). The gap is small for Pakistani, Bangladeshi and Black African students (around 2%), but much greater for White, Black Caribbean and Mixed White-Black Caribbean – over 10%. The difference is largest for Black Caribbeans (14%), and represents a much lower level of aspiration for boys.

Since staying on at school is the aspiration for the vast majority of students, there are not great differences across ethnic groups regarding other options at age 16. Training is generally the most popular alternative aspiration, particularly for White and Mixed White-Black Caribbean boys, followed by work and/or ‘don’t know’.

It is interesting to briefly note that the aspirations of the respondents in this survey reflect actual activity at the age of 16 of a previous cohort. Table 2 presents data from the 2004 Youth Cohort Survey (YCS)⁵, which show the actual percentages of 16 year olds in full time education by ethnicity (albeit more aggregated categories than those in the present study). White students exhibit the lowest proportion (70%) and Indian students the highest at 91%.

So the overall picture is one of large differences between ethnic groups in terms of their aspiration to stay on at school. There is almost unanimity for both male and female students in the South Asian groups in wanting to stay on, while White male students exhibit the lowest proportion. The largest gender gap is within the Black Caribbean group, in which girls are similar to the South Asian groups while boys are more like their White male peers.

b. Career and university plans by ethnicity and gender

The LSYPE also contains a series of questions about both career and university plans; about the students’ expectations of the likelihood of going to university, for example. We consider these in Tables 3a (females) and 3b (males). Consider first Table 3a. There are large ethnic differences across females regarding how likely –or not – it is that they will apply to university. Almost all Indian and Black African girls state they are likely to do so; while approximately 15% of Pakistani, Bangladeshi and Black African think it is unlikely. That figure rises to 30% of White and Mixed White-Black Caribbean female students.

In terms of career plans, most respondents say that they have thought about the future, and most disagree that they will just wait and see where they end up. There is little

⁵ <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=10098> has more information on the YCS.

variation across ethnic groups. Similarly, there are not large differences across the groups regarding the importance of having a job or career in the future, and almost everyone (over 95%) agree that it is important to have a job that leads somewhere. There are more differences in wanting to get on in the job: The response to whether having a job “where I can get promoted and get ahead” matters a lot varies from 51% of White female students to 70% and over among the Bangladeshi, Pakistani, Black Caribbean and Black African groups. This is not inconsistent with the pattern of educational aspirations, with White students showing the least interest in getting ahead.

The patterns are similar for male students in Table 3b. There are, however, even more striking differences across groups in their likelihood of not applying to university: over 30% of White and Mixed White-Black Caribbean are not likely to apply, compared to 15% of Black Caribbean and smaller proportions still across the other groups. There is also more variation in thinking about the future than across female students: the percent saying that they do think about what they may be doing in few years time ranges from 53% (Bangladeshi) to 71% (Mixed White-Black Caribbean).

c. Factors associated with aspirations

Here we look at factors correlated with aspirations in general, before seeing the extent to which they vary by ethnicity. In Table 4 we list some of the factors most correlated with the respondent expressing the wish to stay on at school at age 16 across all ethnic groups. There are several points to note. First, the student’s own view of their ability, their academic self-perception, is strongly related to this aspiration. Second, there is a strong positive relationship between prior attainment – performance in Key Stage 2 tests at age 11 – and educational aspiration. Figure 1 illustrates this for the different ethnic groups. It shows the group mean KS2 score. Added to the figure is a line illustrating the overall relationship between individual aspirations and individual ability⁶. This is strongly and unambiguously positive. Notice, however, that the vertical gap between the line and the group mean score for the minority ethnic groups shows how much more likely they are to want to stay at school given their KS2 score than their White peers with the same measured ability. We return to this result in a multivariate context below.

If we look now at parental influences, there is a strong, positive gradient across both mother’s and father’s occupation and mother’s qualification: 85% of pupils whose mother has A levels or equivalent want to stay at school, compared to 70% of those whose mother has no qualifications. There is similar relationship with income, ranging from 75% wanting to stay on in the lowest income quintile to 88% in the highest. These results concur with results from the previous literature, which show a positive correlation between socio-economic status and educational aspiration; below we explore the extent to which this relationship holds across different ethnic groups.

Finally, parental aspirations are a very strong correlate: 89% of students whose parents want them to stay on at school express the same wish, while 49% of students want to stay on despite their parents wanting otherwise. There is a sizeable number of

⁶ The regression line is based on individual scores. It lies so close to the White group mean because the vast majority of our sample are White.

families, therefore, where the parent wants the student to leave school, but s/he wants to stay on. The overall average hides differences across ethnic groups, however. In Figure 2 we plot differences in parental aspirations and differences in the students' aspirations conditional on their parents' views for each ethnic group in our sample. The group percentages of parents wanting their children to stay on at school are displayed along the horizontal axis. The vertical axis shows the group percentages of students wanting to stay on only for those students whose parents also want this. The figure illustrates the great disparity in parental aspirations between White and Mixed White-Black Caribbean and the South Asian groups, which we show formally below.

Results II: Ethnic differences in factors influencing aspirations

The main aim in this section is to analyse the correlates of individual differences in educational aspirations. We use multivariate analysis to look at the influence of a host of different factors. We then take those factors that we identify as statistically significant (those which have a p value of 5% or less), and look at the extent to which they are quantitatively significant in explaining the differences across the ethnic groups. Following on from this, we look at the implications for the ethnic group differences in aspirations. That is to say we investigate the extent to which the inclusion of variables measuring aspects of the pupil's environment account for ethnic group differences.

a. Results on individual aspirations

As we have described above, the LSYPE has a rich set of relevant variables. To make interpretation of the results easier we group these into a number of domains. The domains are: base individual demographic characteristics (1); school attainment (2) and academic self-perception (3); parental characteristics (4) and income (5); parental aspirations (6) and family involvement and togetherness (7); young person's attitude to school (8); neighbourhood characteristics (9) and school characteristics (10). The variables included in each domain and their means are listed in Appendix Table 2.

We run a probit analysis on the likelihood that an individual pupil does not want to stay on at school at 16. We parameterise it this way round as this is the minority outcome. The results are in Table 5, where we present all the estimated coefficients (marginal effects) grouped in the domains set out above. We include all our variables, rather than just report those that are significant. This reflects our interest in the factors that *don't* influence students' aspirations as well as those that do. Given the way we have parameterised the regression, a negative coefficient implies that an increase in that variable increases the probability of the young person wanting to stay on at school. In some instances the results need to be read relative to an omitted category. So, for example, the coefficients on the ethnic groups are relative to (the omitted category of) White students. All these are negative, indicating that all minority ethnic groups are more likely to want to stay on at school than their White peers, although only the coefficients on the Indian and African groups are significant. The coefficient on male is positive and significant, showing that girls are more likely to want to stay on than boys. Both prior attainment and academic self-perception are highly significant in wanting to stay on at school.

In terms of parental and family background, the probability of wanting to stay at school increases as the mother's education increases, but only the top two education levels are significant. Similarly, it is only the top two maternal occupational categories that are significant in the young person's aspiration to stay at school, with the sign on the coefficient as expected. No other family demographics variables are significant, nor are any of the household income variables⁷. It is worth highlighting that this includes housing tenure and whether the young person lives in a single parent household. Also relevant to this analysis, neither the language spoken at home nor whether the young person was born in the UK has an affect on his/her educational aspiration. What is hugely significant, however, as alluded to earlier, is the main parent's aspiration for their child, which has a positive effect on him/her wanting to stay on at school.

Looking at the variables in the home environment domain, there are not many that are significant. There is some indication that students who attend extra curricular classes (in non-core subjects) are more likely to want to stay at school. The fact that whether the parent thinks Year 10 (i.e. GCSE subject) choices are or are not important are both significant is difficult to interpret. There is a suggestion of influence regarding parents' involvement with the school: attendance at parents' evenings is positively associated with aspiration; in contrast with attendance at other, specially arranged, meetings with the teacher.

Some of the school environment variables are also difficult to interpret. Experiencing bullying appears to have a positive effect on wanting stay on, which perhaps reflects the sometimes negative peer pressure on more 'studious' types at school? The more positive an attitude the young person has about school, and the greater his/her inclination to discuss future study plans also have a positive effect, although these appear somewhat tautological. It is interesting to note that the variables relating to students' perceptions of their teachers' expectations of their ability don't influence educational aspirations.

The only neighbourhood composition that approaches significance is the ethnicity-specific proportion of unemployed. This makes sense: a poor job market makes leaving school to go to work less attractive. Of the other variables, local ethnicity-specific human capital measures appear to play little role. Finally, in terms of school composition, attending a grammar school has a positive effect on a student's aspiration to stay on at school at age 16.

It is clear, therefore, that the aspirations of the main parent are a key factor explaining the differences in the aspirations of young people in our sample. We don't, however, find much evidence in the full model above of how these parental aspirations may be transmitted to their children via either the home environment or through wider neighbourhood effects, i.e. we don't find evidence of how the contributory elements of ethnic social capital may be influential in aspiration formation. We further examine this in a very stripped down model with only the variables concerned with family

⁷ We do not report father's education and occupation variables in Table 5. These are not significant once the mother's equivalents are included, and, as stated above, there are problems of missing data for fathers.

togetherness and discipline, and neighbourhood composition⁸. In no cases were these variables important as interactions or in their own right.

In Table 6 we display the means by ethnicity for the subset of factors in Table 5 which have a p-value of 5% or less. The table also displays the estimated marginal effects for these factors from Table 5. A combination of big differences in the means across ethnic groups, plus a large marginal effect means that that factor has a big effect on the differences in aspirations across ethnicities. Recall that a negative marginal effect means an increase in the likelihood of wanting to stay at school.

The largest marginal effect across all factors comes from parental aspirations. As we illustrated in Figure 2, parental aspirations also differ quite dramatically between groups: 77% of White and 83% of Mixed White and Black Caribbean parents want their children to stay on; for all other groups the figure is over 92%. Parental aspirations matter for student aspirations, and they differ by ethnicity. This is therefore clearly a key factor in explaining ethnic differences in young persons' educational aspirations. Similarly, the young persons's self-perception and their attitude towards school also help explain the observed aspirations gap.

There are, however, some factors that go the 'wrong way', i.e. that increase the differences in the aspiration gap to be explained. Prior attainment shows a negative marginal effect: as we showed in Figure 1 there is a positive correlation between KS2 score and wanting to stay at school. But the group with the lowest aspiration levels – White students – have the highest score, while several highly aspirant groups score less well at KS2. There is therefore an intriguing difference between previous attainment at age 11 and academic self perception at age 14. White students have the highest KS2 average score; Pakistani and Black African among the lowest. These two groups have among the highest self perception scores, however, somewhat higher than those of White and Mixed White-Black Caribbean students. There are clearly sources of high self perception that are not highly correlated with actual prior test scores. Moreover, it is the self perception scores that more closely relate to the group level differences in aspiration.

Some of the parental qualification and occupation variables also go the 'wrong way'. For example, maternal qualifications and occupation are strongest among White and Black Caribbean households and weakest among Pakistani and Bangladeshi. This, coupled with a strong positive correlation between these factors and aspirations, implies a wide aspiration gap in favour of White and Black Caribbean students. Pakistani and Bangladeshi students have higher aspirations in spite of this, suggesting that the usual relationship between socio-economic status and aspiration does not hold for at least some minority ethnic groups.

b. Results for ethnic group differences

It is clear that there are very strong raw ethnic differences in educational aspirations. As we add more personal, parental and contextual variables to the analysis, the importance of the ethnic identifiers changes. We show this in Table 7, where we run a sequence of probits on the likelihood of not wanting staying at school. We start with

⁸ Results available from the authors.

the baseline model, and then successively add groups of variables, one domain at a time, in order to investigate the extent to which the inclusion of variables measuring aspects of the pupil's environment account for ethnic group differences.

In the baseline model (column 1) there are large and very significant differences for the minority ethnic groups relative to White students (omitted), which mirrors the descriptive statistics discussed above. Adding prior attainment (which is highly significant; model 2), actually makes the ethnic differences larger and more significant. As discussed above, this is because KS2 score differences don't explain the gap, but go the 'wrong way'; i.e. they make the observed gaps harder to explain. From then on, the ethnicity coefficients become smaller and less significant as each additional group of variables is added, until they are collectively insignificant in model 9. The individual ethnicity coefficients change as more variables are added. For example, for Indian students the coefficient changes from -0.141 to -0.066 (z-score from 16.46 to 2.3); for Bangladeshi from -0.115 to -0.048 (8.9 to 1.2); Black Caribbean from -0.082 to -0.021 (5.4 to 0.5); and Black African from -0.166 to -0.097 (25 to 4.7). In each case, the unexplained ethnic difference in aspirations has decreased as more explanatory variables are added.

c. The educational aspirations of low income boys

Both the aspirations and the longer term educational and labour market prospects for White boys from low income families are a particular current concern for policy (Cabinet Office 2008). It is certainly striking how different the aspirations of White boys are from the other groups in our sample (Table 1). In Table 8 we narrow the focus to boys whose fathers' occupational status is classified as routine, semi-routine or long-term unemployed, and compare their educational aspirations along with some of the key influencing factors identified above across ethnic groups⁹.

There are big differences across the groups. A third of White and a third of Black Caribbean low-income boys do not want to stay on, with that proportion rising to a half of Mixed White and Black Caribbean boys. By contrast, around 90% of the other ethnic groups do want to stay at school at age 16. So what's driving these differences? Again, it is not prior attainment: some of the highly aspirational groups are so despite lower prior attainment, whereas low-income White boys score highest on average at KS2. Self-perception does help explain the differences, however. Black African boys have a very high view of their own academic ability, relative to their White and Mixed White and Black Caribbean peers in particular. Boys' attitude to school exhibits similar patterns: a negative attitude (particularly strong for White students) is associated with wanting to leave. Finally, there are marked differences in parental aspirations across the groups: just under 60% of low-income White boys' parents want their sons to stay on at school, compared to around 90% or over for Indian, Pakistani, Bangladeshi and Black African boys. There are high parental aspirations within these ethnic groups across the income distribution.

⁹ Note that there are small numbers of individuals in some of the categories.

Conclusion

In this paper we consider a wide range of factors that potentially influence young people's educational aspirations, and investigate the extent to which they explain observed differences across ethnic groups. We combine data from the Longitudinal Study of Young People in England with data from the National Pupil Database and the Census to build up a rich dataset which enables us to investigate potential influences at the level of the individual, the family, the school and the neighbourhood.

While staying on at school after the age of 16 is the aspiration for the majority of all students, there are large differences across ethnic groups. There is almost unanimity for both male and female students in the South Asian groups in wanting to stay on, while White male students exhibit the lowest proportion. The largest gender gap is within the Black Caribbean group, in which girls are similar to the South Asian groups while boys are more like their White male peers.

In terms of factors that help explain these differences, we find that the most important by some distance is parental aspirations. Having a high academic self-perception also contributes to wanting to stay at school, and this is strong even in groups who have lower prior attainment. There are clearly sources of high self perception that are not highly correlated with actual prior test scores, and it is the self-perception scores that more closely relate to the group level differences in aspiration.

The higher aspirations of some of the minority ethnic groups also do not follow the more general correlation between socio-economic status and aspiration. For example, while maternal qualifications and occupation are strongest among White and Black Caribbean households and weakest among Pakistani and Bangladeshi, the reverse is true for educational aspirations. More generally, there is a picture of some of the minority groups – Pakistani, Bangladeshi, Indian, Black African – 'bucking the trend', of them having higher aspirations than either their socio-economic status or prior attainment would suggest.

It is also interesting to note the factors that we find do not have an influence on aspirations. At the family level these include housing tenure and whether the young person is being brought up in a lone parent household. We also find no significance for our variables measuring family togetherness or discipline. At the school level it appears that teachers' expectations of an individual do not influence his/her aspiration to stay on, and all but one of the neighbourhood composition variables are not significant.

So our results confirm the importance of high parental aspirations, but provide little evidence regarding the possible ways in which such aspirations may be effectively transmitted to the children, either within the family or with the help of the broader local community in which the family is situated. Further investigating such transmission routes should be a focus for future research.

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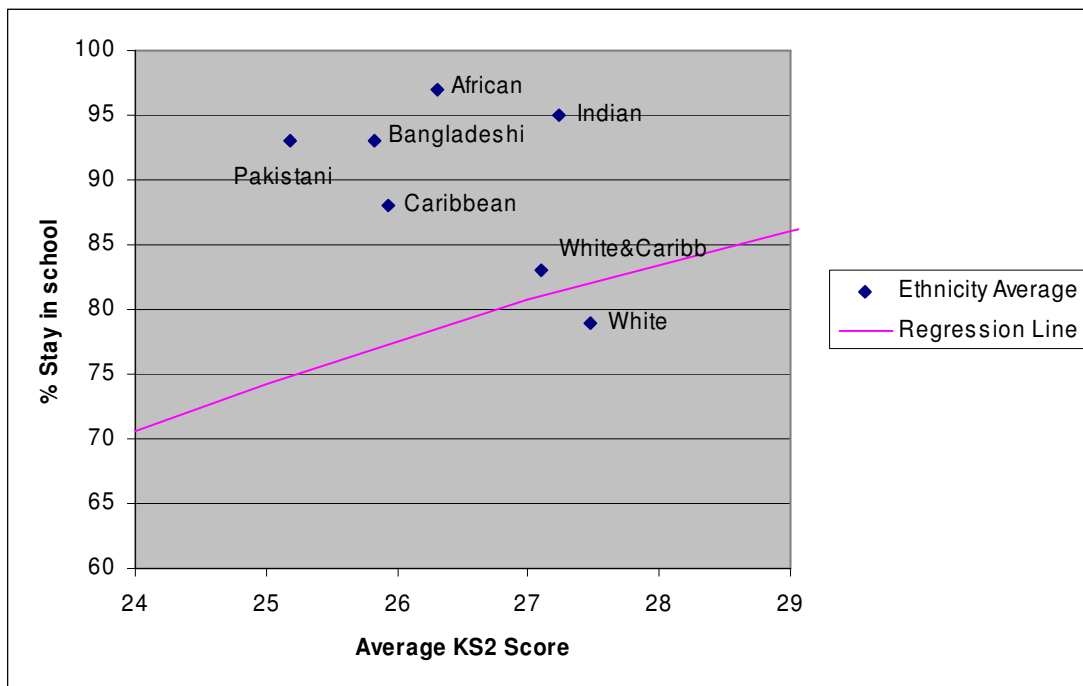
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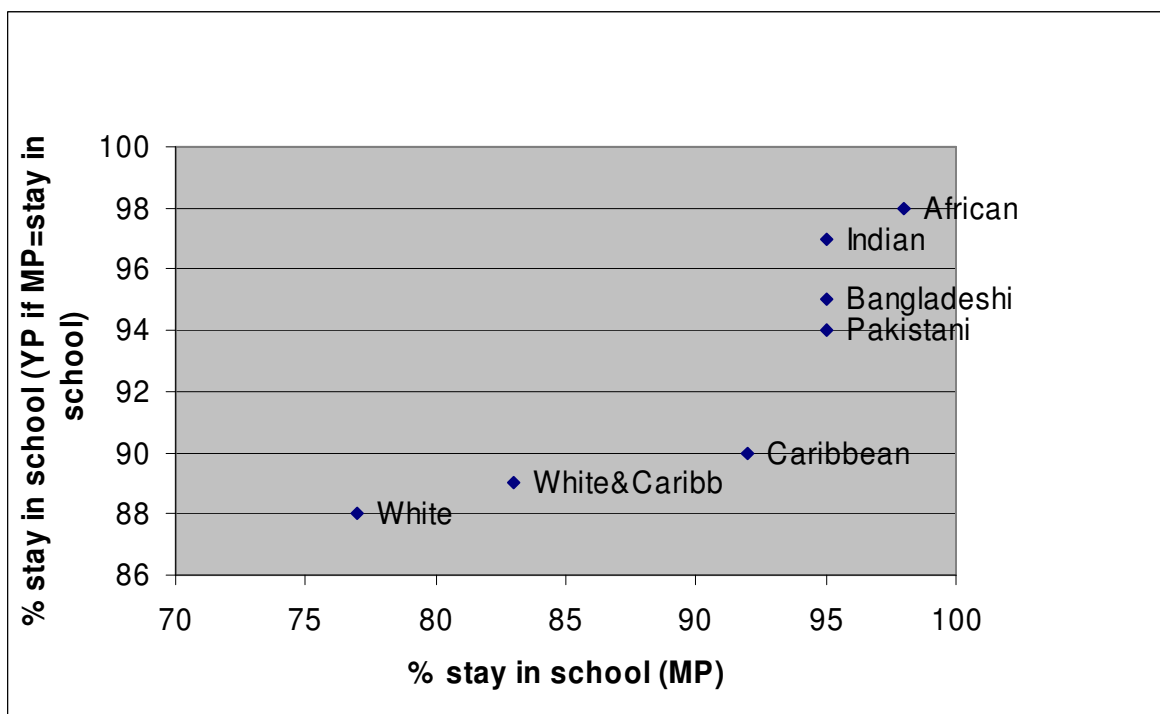
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Figure 1



Note: the regression line is for all individual scores. It lies so close to the White group mean because the vast majority of young people in our sample are White.

Figure 2



Note: MP = main parent; YP = young person

Table 1: Educational aspirations by ethnicity and gender

Ethnicity and Gender	Pupil's aspiration for age 16 (weighted proportion)					Number (unweighted)
	Stay at school	Work	Training	Other	Don't know	
White						10,226
Female	0.85	0.04	0.04	0.01	0.05	
Male	0.73	0.07	0.11	0.02	0.07	
Mixed - White & Caribbean						336
Female	0.89	0.01	0.04	0.00	0.05	
Male	0.78	0.02	0.09	0.02	0.09	
Indian						998
Female	0.95	0.01	0.02	0.00	0.02	
Male	0.95	0.01	0.01	0.00	0.03	
Pakistani						940
Female	0.94	0.01	0.01	0.01	0.04	
Male	0.92	0.02	0.01	0.00	0.05	
Bangladeshi						722
Female	0.94	0.01	0.01	0.00	0.04	
Male	0.92	0.02	0.01	0.00	0.04	
Caribbean						519
Female	0.95	0.01	0.02	0.00	0.02	
Male	0.81	0.05	0.03	0.01	0.09	
African						573
Female	0.99	0.00	0.00	0.00	0.01	
Male	0.96	0.01	0.00	0.00	0.03	
Total						14,314

Source: LSYPE, authors' calculations

Note 'Other' – includes being unemployed or something else

Table 2: Actual Activity at age 16, by Ethnicity

Ethnicity	Full time Education	In work (full time or part time)	Government supported Training	Out of Work	Other
White	70	12	10	6	3
South Asian:	85	3	3	5	4
Indian	91	3	2	2	1
Pakistani	78	1	6	7	7
Bangladeshi	77	0	0	9	8
Black	83	5	3	7	2
Other	81	6	4	6	2

Source: YCS, 2004 (main activity)

Table 3a: Career and University Plans: Female Pupils
Weighted Proportions

	White	Mixed - White & Caribbean	Indian	Pakistani	Bangladeshi	Caribbean	African
Not likely to apply to a University	0.29	0.30	0.05	0.13	0.15	0.14	0.03
I don't really think much about what I might be doing in a few years time (% Disagree)	0.73	0.71	0.70	0.70	0.64	0.79	0.80
I'll just wait and see where I end up (% Disagree)	0.82	0.80	0.75	0.70	0.63	0.84	0.82
Having any kind of job is better than being unemployed (% Agree)	0.89	0.78	0.86	0.87	0.85	0.79	0.77
Having a job or career in the future is important to me (% Strongly Agree)	0.90	0.92	0.92	0.87	0.85	0.94	0.92
Having a job that leads somewhere is important (% Agree)	0.97	0.97	0.97	0.98	0.97	0.96	0.97
To have a job where I can get promoted and get ahead (% Matters a lot)	0.51	0.59	0.66	0.71	0.70	0.74	0.79

Source: LSYPE, authors' calculations

Table 3b: Career and University Plans: Male Pupils
Weighted Proportions

	White	Mixed - White & Caribbean	Indian	Pakistani	Bangladeshi	Caribbean	African
Not likely to apply to a University	0.36	0.33	0.08	0.11	0.12	0.15	0.05
I don't really think much about what I might be doing in a few years time (% Disagree)	0.65	0.71	0.64	0.62	0.53	0.70	0.70
I'll just wait and see where I end up (% Disagree)	0.78	0.81	0.81	0.66	0.58	0.77	0.75
Having any kind of job is better than being unemployed (% Agree)	0.90	0.83	0.88	0.91	0.84	0.87	0.82
Having a job or career in the future is important to me (% Strongly Agree)	0.87	0.86	0.90	0.90	0.83	0.93	0.93
Having a job that leads somewhere is important (% Agree)	0.98	0.98	0.98	0.98	0.93	0.97	0.98
To have a job where I can get promoted and get ahead (% Matters a lot)	0.61	0.65	0.77	0.76	0.74	0.77	0.82

Source: LSYPE, authors' calculations

Table 4: Selected Correlates of Aspirations

	Pupils that want to stay at school (Weighted proportion)
Parental Aspirations	
Stay at school	0.89
Leave school	0.49
KS2	
Lowest Q1	0.58
Q2	0.69
Q3	0.79
Q4	0.85
Highest Q5	0.92
Self Perception	
Lowest Q1	0.66
Q2	0.78
Q3	0.83
Q4	0.88
Highest Q5	0.89
Mother's Qualification	
Mother has a degree/ equivalent	0.94
Mother has higher education below degree level	0.88
Mother has GCSE A level/ equivalent	0.85
Mother has GCSE grades A-C/equivalent	0.79
Mother has other qualifications	0.73
Mother has no qualifications	0.70
Mother's Occupation	
Higher Managerial and Professional	0.93
Lower Managerial and Professional	0.89
Intermediate Occupations	0.83
Small employer or own account worker	0.80
Lower supervisory or technical occupations	0.75
Semi-routine	0.77
Routine	0.72
Has never worked/ long term unemployed	0.77
Father's Occupation	
Higher Managerial and Professional	0.92
Lower Managerial and Professional	0.87
Intermediate Occupations	0.83
Small employer or own account worker	0.79
Lower supervisory or technical occupations	0.77
Semi-routine	0.79
Routine	0.71
Has never worked/ long term unemployed	0.78
Income	
Lowest Band 1	0.75
Band 2	0.77
Band 3	0.78
Band 4	0.83
Highest Band 5	0.88

Source: LSYPE, authors' calculations

Table 5: Influences on not wanting to stay at school

Variable	Marginal Effect	z score
Baseline:		
White & Caribbean	-0.018	0.41
Indian	-0.066	2.28
Pakistani	-0.046	1.26
Bangladeshi	-0.048	1.17
Caribbean	-0.021	0.51
African	-0.097	4.68
Male	0.067	8.59
Prior attainment:		
Average KS2 score	-0.011	9.17
Self-perception:		
Young person's academic self-perception	-0.019	4.26
Parental education/occupation and family demographics:		
Mother has a degree or equivalent qualification	-0.045	2.75
Mother has higher education below degree level	-0.033	2.34
Mother has A level or equivalent	-0.012	0.85
Mother has GCSE (grades A-C) or equivalent	-0.011	0.99
Mother has other qualifications	0.007	0.51
Mother's qualification is missing	-0.013	0.42
Mother's occupation ¹ : higher managerial and professional	-0.068	4.13
Mother's occupation: lower managerial and professional	-0.028	2.19
Mother's occupation: intermediate occupations	-0.004	0.27
Mother's occupation: small employer or own account worker	0.014	0.72
Mother's occupation: lower supervisory or technical occupations	0.017	0.98
Mother's occupation: semi-routine	0.021	1.63
Mother's occupation: routine	-0.009	0.58
Mother's occupation is missing	0.009	0.37
Young person lives in rented housing.	0.013	0.8
Young person lives in social housing	-0.008	0.74
Other housing tenure	-0.039	1.47
Young person born outside UK	-0.028	1.27
Young person's mother tongue is not English	-0.019	0.95
Young person is bilingual	-0.028	0.9
Young person lives with single natural parent	-0.003	0.18
Young person lives with one natural parent who has a partner	0.000	0.01
Other family demographics	-0.007	0.19
Income:		
Household income in 2 nd quintile	-0.023	1.85
Household income in 3 rd quintile	-0.013	1.07
Household income in 4 th quintile	-0.009	0.64
Household income in 5 th quintile	0.005	0.32
Household income information is missing	-0.003	0.24
Household income info is missing * Ethnic minority	-0.044	2.62

Parental aspirations:		
Main parent wants young person to stay at school when he/she reaches 16	-0.182	12.99
Main parent thinks that leaving school at 16 limits young people's career opportunities later in life	-0.040	1.19
Main parent does not think that leaving school at 16 limits young people's career opportunities later in life	-0.007	0.23
Main parent want young person to have better education than s/he has	-0.047	1.04
Main parent does not want young person to have better education than s/he has	-0.023	0.7
Parents and/or relatives would support/give money if young person decided to stay in education after 16	-0.019	1.53
Home environment:		
Young Person is not religious	0.014	1.75
Young Person is religious and attends religious classes	-0.013	0.87
Parents do not impose a strict curfew but know where child is when he/she goes out	0.001	0.05
Parents impose a strict curfew and know where child is when he/she goes out	-0.017	0.86
Parents impose a strict curfew but do not know where child is when he/she goes out	0.016	0.68
Parental discipline indicator is missing	-0.023	0.82
Young person sometimes talks to parents about the day's events at school	-0.018	1.14
Young person often talks to parents about the day's events at school	-0.016	1
Indicator for whether young person discusses school with his/her parents is missing	-0.020	0.87
Young person attends extra curricular classes in maths/English/science	-0.026	1.7
Young person attends extra curricular classes in other subjects (e.g. dance, drama)	-0.025	3.03
Household has a computer	-0.010	0.78
Scale indicating family togetherness	0.004	1
Main parent has talked to young person about Year 10 choices but has not given advice	-0.002	0.12
Main parent has talked to young person about Year 10 choices and has given advice	-0.005	0.3
Main parent thinks that Year 10 choices are important for what young person will be able to do after the age of 16	-0.068	2.02
Main Parent thinks that Year 10 choices are not important for what young person will be able to do after the age of 16	-0.054	2.66
Main Parent and/or her/his partner have attended a parents meeting in last 12 months	-0.026	1.9
Main Parent and/or her/his partner have attended a specially arranged meeting with teacher in last 12 months	0.014	1.6
Main Parent feels that s/he is involved in young person's school life	-0.002	0.19
School environment:		
Young person likes most of his/her teachers	-0.015	1.11
Young person likes some of his/her teachers	-0.016	1.38
Young person thinks that his teachers would describe his/her work as very good/above average	-0.012	0.55
Young person thinks that his teachers would describe his/her work as average	-0.011	0.61
Young person indicates misbehaviour by others in more than half of classes	0.005	0.62

Young person indicates misbehaviour by others in half of classes	0.014	1.31
A scale of teachers' involvement in discipline	0.007	1.97
Young person has been called names/excluded from a group/taken money from/threatened to be hit/has been hit in last 12 months	-0.020	2.71
Bullying information is missing	-0.009	0.51
Young person has homework	-0.021	1
Scale describing the availability of resources at school	-0.004	0.89
Young person considers his/her school to be clean and tidy	-0.015	1.97
Young person likes maths, English, science and ICT	-0.006	0.68
Positive-negative school attitude scale	-0.019	6.32
Scale of the inclination of young person to discuss his/her future plans to study	-0.015	4.36
Scale describing main parent's relationship with young person's school	0.005	1.76
Neighbourhood composition:		
IDACI measure of deprivation in young person's neighbourhood ²	-0.040	1.07
Ethnicity-specific proportion of unemployed in young person's neighbourhood	-0.229	1.72
Ethnicity-specific proportion of economically inactive people in young person's neighbourhood	0.067	0.84
Ethnicity specific proportion of non-UK born in young person's neighbourhood	-0.064	0.68
Ethnicity-specific proportion of people of the age 25-74 with education of university degree or equivalent in young person's neighbourhood	-0.021	0.21
Ethnicity specific proportion of people with higher or lower managerial or professional occupations in young person's neighbourhood ¹	-0.079	0.8
Ethnicity specific proportion of people with intermediate occupations or who are small employers or own account workers in young person's neighbourhood	-0.076	0.71
Proportion of people in young person's neighbourhood that are of the same ethnicity	-0.014	0.22
School composition:		
Proportion of FSM-eligible students in young person's school	-0.016	0.38
Young person attends a grammar school	-0.054	3.33
Young person attends a school with a religious denomination	-0.023	1.96
Proportion of non-English students in young person's school	-0.113	1.21
Proportion of White students in young person's school	-0.124	1.49
Proportion of students with young person's ethnicity in young person's school	0.001	0.02

Number of observations: 9941

Pseudo R² = 0.253

Weighted

Standard errors clustered on school id

Additional variables in the regression but not reported: Young person's month of birth; indicator of severe disability; father's education; father's occupation.

¹ Occupation categories from NS-SeC (National Statistics Socio-economic Classification).

² Income Deprivation Affecting Children Index – at Lower level Super Output Level; all other neighbourhood variables are at ST ward level.

Notes on how the scale variables are constructed are given in Appendix Table 2.

Note: Year 10 choices are the choices of which GCSE subjects to take.

Table 6: Aspiration Correlates by Ethnicity

Dependent variable: Young person does **not** want to stay at school after age 16

	White	Mixed – White & Caribbean	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African	Marginal effect
Baseline:								
Male	0.499	0.487	0.524	0.496	0.477	0.512	0.481	0.067
Prior attainment:								
Average KS2 score	27.469	27.098	27.239	25.186	25.828	25.931	26.306	-0.011
Self-perception:								
Young person's academic self perception	-0.313	-0.336	0.185	0.197	0.085	-0.027	0.276	-0.019
Parental education/occupation and family demographics:								
Mother has a degree or equivalent qualification	0.116	0.093	0.132	0.092	0.015	0.094	0.198	-0.045
Mother has higher education below degree level	0.125	0.128	0.057	0.030	0.010	0.210	0.154	-0.033
Mother's occupation: higher managerial and professional	0.037	0.020	0.016	0.017	0.000	0.044	0.038	-0.068
Mother's occupation: lower managerial and professional	0.209	0.213	0.142	0.040	0.014	0.261	0.181	-0.028
Father's occupation: higher managerial and professional	0.114	0.051	0.074	0.027	0.004	0.028	0.081	-0.045
Parental aspirations:								
Main parent wants young person to stay at school when s/he reaches 16	0.774	0.831	0.951	0.946	0.945	0.924	0.985	-0.182
Home environment:								
Young person attends extra curricular classes in subjects other than maths/English/science	0.255	0.217	0.162	0.065	0.071	0.183	0.141	-0.025
Main parent thinks that Year 10 choices are important for what young person will be able to do after the age of 16	0.932	0.908	0.953	0.942	0.920	0.944	0.962	-0.068

Main parent thinks that Year 10 choices are not important for what young person will be able to do after the age of 16	0.050	0.070	0.026	0.019	0.018	0.030	0.013	-0.054
Main parent and/or his/her partner have attended a parents meeting in the last 12 months	0.900	0.888	0.950	0.890	0.835	0.911	0.924	-0.026
School environment:								
A scale of teachers' involvement in discipline	-0.163	-0.247	0.142	0.186	0.127	-0.185	0.143	0.007
Young person has been called names/excluded from a group/ taken money from/threatened to be hit/has been hit in the last 12 months	0.453	0.366	0.321	0.333	0.266	0.396	0.408	-0.02
Positive-negative school attitude scale	-0.333	-0.370	0.486	0.523	0.266	-0.149	0.422	-0.019
Scale of the inclination of young person to discuss his/her future plans to study	-0.203	-0.026	-0.023	0.145	0.101	0.123	0.185	-0.015
School composition:								
Young person attends a grammar school	0.036	0.033	0.065	0.017	0.012	0.020	0.028	-0.054

Source: LSYPE, authors' calculations.
Weighted means.

Table 7: Ethnic group differences across the different models

	baseline	model 2	model 3	model 4	model 5	model 6	model 7	model 8	model 9	model 10
Mixed White-Black Caribbean	-0.039	-0.049	-0.042	-0.040	-0.031	-0.020	-0.018	-0.020	-0.035	-0.018
	1.8	2.5	2.17	2.15	1.52	0.91	0.85	0.9	0.89	0.41
Indian	-0.141	-0.135	-0.123	-0.111	-0.105	-0.086	-0.075	-0.070	-0.071	-0.066
	16.46	20.08	17.09	13.34	10.99	7.27	5.66	5.33	2.49	2.28
Pakistani	-0.110	-0.126	-0.109	-0.096	-0.087	-0.063	-0.052	-0.046	-0.051	-0.046
	9.17	17.41	12.8	8.45	6.38	3.65	2.58	2.25	1.43	1.26
Bangladeshi	-0.115	-0.126	-0.110	-0.099	-0.088	-0.070	-0.062	-0.057	-0.057	-0.048
	8.91	16.03	11.75	8.18	5.72	3.88	3.08	2.78	1.5	1.17
Black Caribbean	-0.082	-0.099	-0.085	-0.074	-0.066	-0.038	-0.034	-0.035	-0.028	-0.021
	5.37	7.93	6.29	5.14	4.09	1.96	1.71	1.89	0.68	0.51
Black African	-0.166	-0.151	-0.141	-0.129	-0.127	-0.115	-0.111	-0.108	-0.101	-0.097
	25.42	31.32	28.17	20.36	17.99	12.9	10.76	10.44	5.35	4.68
test 1 - signif of ethnicity as a group chi(6)	191.12	262.26	204.98	93.3	63.87	37.45	28.06	26.79	8.120	7.380
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.229	0.287
test 2 - signif of added variables as a group	n/a	562.94	191.48	140.55	9.72	380.05	89.47	127.56	chi(8)	11.710
p-value		0.000	0.000	0.000	0.137	0.000	0.000	0.000	0.467	0.069
obs	9941	9941	9941	9941	9941	9941	9941	9941	9941	9941

Clustered standard errors.

Model 2 = baseline + KS2 score; model 3: add academic self-perception; model 4: add family background; model 5: add household income;

model 6: add parental aspiration; model 7: add home environment; model 8: add school environment; model 9: add neighbourhood composition;

model 10: add school composition.

Table 8: Educational aspirations of low-income boys

	White	Mixed White & Black Caribbean	Indian	Pakistani	Bangladeshi	Black Caribbean	Black African
Young person does not want to stay at school after age 16	0.349	0.513	0.111	0.081	0.101	0.327	0.016
Average KS2 score	26.065	24.415	25.630	25.127	24.842	25.898	24.372
Young person's academic self-perception	-0.428	-0.462	0.181	0.370	0.151	0.152	0.817
Mother has a degree or equivalent qualification	0.034	0.000	0.026	0.000	0.016	0.082	0.151
Mother has higher education below degree level	0.075	0.082	0.039	0.000	0.000	0.255	0.100
Main parent wants young person to stay at school when s/he reaches 16h	0.595	0.816	0.882	0.983	0.939	0.775	0.978
Main Parent and/or her/his partner have attended a parents meeting in last 12 months	0.870	0.924	0.947	0.898	0.830	0.912	0.916
Main parent wants young person to stay at school when s/he reaches 16	0.595	0.816	0.882	0.983	0.939	0.775	0.978
A scale of teachers' involvement in discipline	-0.176	-0.456	0.085	0.268	-0.064	-0.266	0.409
Positive-negative school attitude scale	-0.668	-0.030	0.584	0.458	0.255	0.171	1.148
Scale of the inclination of young person to discuss his/her future plans to study	-0.368	-0.215	-0.118	-0.085	-0.228	-0.616	0.174
Young person attends a grammar school	0.018	0.000	0.000	0.020	0.000	0.000	0.000
Number of observations	680	16	119	115	91	22	43

Weighted means.

Sample: boys; father's occupation classification: semi-routine, routine, long-term unemployed.

Appendix Table 1: Sample by ethnicity

Ethnicity	Non-weighted sample	Weighted sample
White	10,226	13,249
Mixed white and Caribbean	336	142
Indian	998	364
Pakistani	940	337
Bangladeshi	722	138
Caribbean	519	190
African	573	209
Total	14,314	14,628

Appendix Table 2: Means of variables

Variable	Mean	Std. Dev
Young person does not want to stay at school at age 16	0.180	0.384
Baseline:		
White	0.912	0.283
Mixed heritage White & Black Caribbean	0.010	0.098
Indian	0.025	0.157
Pakistani	0.020	0.139
Bangladeshi	0.008	0.088
Black Caribbean	0.014	0.117
Black African	0.012	0.108
Born in October 1989	0.081	0.273
Born in November 1989	0.078	0.268
Born in December 1989	0.076	0.265
Born in January 1990	0.081	0.273
Born in February 1990	0.080	0.271
Born in March 1990	0.084	0.277
Born in April 1990	0.084	0.277
Born in May 1990	0.089	0.285
Born in June 1990	0.087	0.282
Born in July 1990	0.089	0.285
Born in August 1990	0.088	0.283
Male	0.504	0.500
Disability that affects school work / school attendance	0.058	0.234
Prior attainment:		
Average Key Stage 2 score ⁱ	27.663	3.880
Self-perception:		
Young person's academic self perception ⁱⁱ	-0.232	1.214
Parental education/occupation and family demographics:		
Mother has a degree or equivalent qualification	0.105	0.306
Mother has higher education below degree level	0.127	0.334
Mother has A level or equivalent	0.139	0.346
Mother has GCSE (grades A-C) or equivalent	0.337	0.473
Mother has other qualifications	0.104	0.305
Mother's qualification is missing	0.033	0.179
Mother's occupation ⁱⁱⁱ : higher managerial and professional	0.032	0.177
Mother's occupation: lower managerial and professional	0.210	0.407
Mother's occupation: intermediate occupations	0.136	0.342
Mother's occupation: small employer or own account worker	0.051	0.221
Mother's occupation: lower supervisory or technical occupations	0.056	0.231
Mother's occupation: semi-routine	0.162	0.368
Mother's occupation: routine	0.062	0.242
Mother's occupation is missing	0.063	0.243
Father has a degree or equivalent qualification	0.103	0.305
Father has higher education below degree level	0.084	0.278
Father has A level or equivalent	0.141	0.348

Father has GCSE (grades A-C) or equivalent	0.217	0.412
Father has other qualifications	0.053	0.225
Father's qualification is missing	0.288	0.453
Father's occupation: higher managerial and professional	0.104	0.305
Father's occupation: lower managerial and professional	0.158	0.365
Father's occupation: intermediate occupations	0.028	0.166
Father's occupation: small employer or own account worker	0.107	0.309
Father's occupation: lower supervisory or technical occupations	0.100	0.300
Father's occupation: semi-routine	0.049	0.216
Father's occupation: routine	0.066	0.249
Father's occupation is missing	0.321	0.467
Young person lives in rented housing.	0.046	0.210
Young person lives in social housing	0.202	0.401
Other housing tenure	0.015	0.120
Young person born outside UK	0.029	0.167
Young person's mother tongue is not English	0.034	0.182
Young person is bilingual	0.009	0.093
Young person lives with single natural parent	0.220	0.414
Young person lives with one natural parent who has a partner	0.136	0.342
Other family demographics	0.012	0.109
Income:		
Household income in 2 nd quintile	0.116	0.321
Household income in 3 rd quintile	0.192	0.394
Household income in 4 th quintile	0.162	0.369
Household income in 5 th quintile	0.172	0.378
Household income information is missing	0.201	0.401
Household income info is missing * Ethnic minority	0.026	0.159
Home environment:		
Young Person is not religious	0.382	0.486
Young Person is religious and attends religious classes	0.097	0.297
Parents do not impose a strict curfew but know where child is when he/she goes out	0.149	0.356
Parents impose a strict curfew and know where child is when he/she goes out	0.730	0.444
Parents impose a strict curfew but do not know where child is when he/she goes out	0.072	0.258
Parental discipline indicator is missing	0.019	0.136
Young person sometimes talks to parents about the day's events at school	0.476	0.499
Young person often talks to parents about the day's events at school	0.445	0.497
Indicator for whether young person discusses school with his/her parents is missing	0.021	0.144
Young person attends extra curricular classes in maths/English/science	0.056	0.230
Young person attends extra curricular classes in other subjects (e.g. dance, drama)	0.240	0.427
Household has a computer	0.909	0.287
Scale indicating family togetherness ^{iv}	-0.091	0.965
Main parent has talked to young person about Year 10 choices but has not given advice	0.093	0.291
Main parent has talked to young person about Year 10 choices and has given advice	0.851	0.356
Main parent thinks that Year 10 choices are important for what	0.944	0.231

young person will be able to do after the age of 16		
Main Parent thinks that Year 10 choices are not important for what young person will be able to do after the age of 16	0.041	0.199
Main Parent and/or her/his partner have attended a parents meeting in last 12 months	0.914	0.280
Main Parent and/or her/his partner have attended a specially arranged meeting with teacher in last 12 months	0.307	0.461
Main Parent feels that s/he is involved in young person's school life	0.701	0.458
Parental aspirations:		
Main parent wants young person to stay at school when he/she reaches 16	0.800	0.400
Main parent thinks that leaving school at 16 limits young people's career opportunities later in life	0.712	0.453
Main parent does not think that leaving school at 16 limits young people's career opportunities later in life	0.274	0.446
Main parent want young person to have better education than s/he has	0.907	0.291
Main parent does not want young person to have better education than s/he has	0.083	0.276
Parents and/or relatives would support/give money if young person decided to stay in education after 16	0.881	0.323
School environment:		
Young person likes most of his/her teachers	0.438	0.496
Young person likes some of his/her teachers	0.436	0.496
Young person thinks that his teachers would describe his/her work as very good/above average	0.589	0.492
Young person thinks that his teachers would describe his/her work as average	0.375	0.484
Young person indicates misbehaviour by others in more than half of classes	0.401	0.490
Young person indicates misbehaviour by others in half of classes	0.273	0.445
A scale of teachers' involvement in discipline ^v	-0.160	1.212
Young person has been called names/excluded from a group/taken money from/threatened to be hit/has been hit in last 12 months	0.448	0.497
Bullying information is missing	0.042	0.200
Young person has homework	0.960	0.196
Scale describing the availability of resources at school ^{vi}	0.017	0.818
Young person considers his/her school to be clean and tidy	0.489	0.500
Young person likes maths, English, science and ICT	0.337	0.473
Positive-negative school attitude scale ^{vii}	-0.233	1.776
Scale of the inclination of young person to discuss his/her future plans to study ^{viii}	-0.119	1.184
Scale describing main parent's relationship with young person's school ^{ix}	-0.128	1.387
Neighbourhood composition:		
IDACI measure of deprivation in young person's neighbourhood ²	0.199	0.172
Ethnicity-specific proportion of unemployed in young person's neighbourhood	0.059	0.047
Ethnicity-specific proportion of economically inactive people in young person's neighbourhood	0.332	0.076
Ethnicity specific proportion of non-UK born in young person's neighbourhood	0.080	0.133

Ethnicity-specific proportion of people of the age 25-74 with education of university degree or equivalent in young person's neighbourhood	0.196	0.112
Ethnicity specific proportion of people with higher or lower managerial or professional occupations in young person's neighbourhood ⁱ	0.345	0.122
Ethnicity specific proportion of people with intermediate occupations or who are small employers or own account workers in young person's neighbourhood	0.217	0.047
Proportion of people in young person's neighbourhood that are of the same ethnicity	0.871	0.251
School composition:		
Proportion of FSM-eligible students in young person's school	0.137	0.119
Young person attends a grammar school	0.039	0.194
Young person attends a school with a religious denomination	0.120	0.325
Proportion of non-English students in young person's school	0.081	0.155
Proportion of White students in young person's school	0.878	0.194
Proportion of students with young person's ethnicity in young person's school	0.850	0.251

Weighted means.

Number of observations = 9941

ⁱ Imputed for missing using ethnicity specific regressions of Key Stage 2 score on Key Stage 3 score and gender using the National Pupil Database 2004.

ⁱⁱ Scale combines answers to variables **GMath** "And still thinking about some subjects at school, how good would you say you are at Maths? 1.Very good 2. Fairly good 3. Not very good 4. Not good at all", **GEng** "And still thinking about some subjects at school, how good would you say you are at English? 1.Very good 2. Fairly good 3. Not very good 4. Not good at all", **GSci** "And still thinking about some subjects at school, how good would you say you are at Science? 1.Very good 2. Fairly good 3. Not very good 4. Not good at all", **GICT** "And still thinking about some subjects at school, how good would you say you are at. Information Communications Technology/Information Technology that is lessons on using computers and similar things? 1.Very good 2. Fairly good 3. Not very good 4. Not good at all" and **YYS22** "How good do you think you are at school work? 1. Very good 2.Above average 3. Average 4.Below average 5 Not at all good".

An increase in scale implies a greater self-perception.

Scale was created using principal component analysis on the polychoric correlation matrix

ⁱⁱⁱ All occupational data is National Statistics Socio-Economic Classification (NS-SeC).

^{iv} Scale combines answers on questions **fammeal** "I would like to talk to you about a few things you might do together as a family (by family I mean you, (your spouse/partner) and any young people aged 16 or under who live here with you). In a normal week, that is from Sunday to Saturday, how often do you have an evening meal together as a family? 1. Every night 2.Most nights 3. Once or twice or 4. Not at all ", **famin** "How often do you spend an evening at home together as a family, doing something like watching TV together or something else you can all take part in? Is that 1. Once a week or more, 2. Two or three times a month 3. About once a month 4. Two or three times a year 5.. About once a year 6. Never or hardly ever 7.Varies" and **fammus** "How often would you say you go out together as a family to some sort of event or entertainment or on a special visit somewhere, (not counting just going out for the normal weekly shopping)? Is that 1.Once a week or more 2.Two or three times a month 3.About once a month 4. Two or three times a year 5. About once a year 6. Never or hardly ever 7.varies".

An increase in scale implies a greater family togetherness.

Scale was created using principal component analysis on the polychoric correlation matrix

^v Scale combines answers on questions **YYS15** "And how many of your teachers does the following statement apply to...The teachers at my school make it clear how we should behave. 1.All of the teachers 2. Most of teachers 3. Some of the teachers. 4.Hardly any of the teachers 5. None of the teachers", **YYS16** "And how many of your teachers does the following statement apply to.. The teachers in my school take action when they see anyone braking school rules. 1. All of the teachers 2.

Most of the teachers. 3. Some of the teachers 4. Hardly any of the teachers 5. None of the teachers” and **YYS19** “*And how many of your teachers does the following statement apply to... My teachers can keep order in class. 1. All of my teachers 2. Most of my teachers 3. Some of my teachers 4. Hardly any of my teachers 5. None of my teachers”* .

An increase in scale implies a greater teachers’ willingness and ability to impose discipline. Scale was created using principal component analysis on the polychoric correlation matrix

^{vi} Scale combines answers on questions **SSsport** “*I’d like to ask you a few questions now about things your school might put on, outside the lessons with teachers, for the people who go there. First of all, does your school have time outside lessons when you can go in and use school sport facilities if you want to? 1. Yes 2.No”*, **SSclub** “*Next does your school have clubs and societies after lessons for things like hobbies, or art or music, which you can go to if you want to? 1. Yes 2. No”*, **SSexam** “*Next, does your school have time outside lessons when, if you want to, you or other people in your year can work with teacher to prepare for exams? 1. Yes 2 .No”*, **SSdrop** “*Next, does your school have times, either before or after lessons, when you can just drop in to work on your own or with other students rather than with a teacher. 1. Yes 2.No”* and **SShol** “*Last of all, does your school have any times during school holidays when, if you wanted to, you can go in and do things like work with a teacher or just work by yourself? 1.Yes 2.No”*. A large number of respondents indicated that they do not know whether their school had the facilities mentioned above. Due to this, for each variable we created a binary response (0/1) of whether young person is aware that such a facility exists. A scale was then created using principal component analysis on tetrachoric correlation matrix of binary response variables.

^{vii} Scale combines answers on questions **YYS1** “*Below are some things young people have said about how they feel about school. For each statement below please say whether or not you agree with it. Please give an answer for each of them.... I am happy when I am at school. 1 Strongly agree 2. Agree 3.Disagree 4. Strongly disagree”*, **YYS2** “*And how much you agree or disagree that... School is a waste of time for me. 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree”*, **YYS3** “*And how much you agree or disagree that.... School work is worth doing. 1.Strongly agree 2. Agree 3. Disagree 4. Strongly disagree”*, **YYS4** “*And how much do you agree or disagree that... Most of the time I don’t ant to go to school. 1. Strongly agree 2. Agree 3. Disagree 4.Strongly disagree”*, **YYS6** “*And how much do you agree or disagree that... On the whole I like being at school. 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree”*, **YYS8** “*And how much do you agree or disagree that... In a lesson, I often count the minutes till it ends. 1.Strongly agree 2.Agree 3.Disagree 4.Strongly disagree”*, **YYS9** “*And how much do you agree or disagree that... I am bored in lessons. 1.Strongly agree 2.Agree 3.Disagree 4.Strongly disagree”*, **YYS10** “*And how much do you agree or disagree that... The work I do in lessons is waste of time. 1. Strongly agree 2. Agree 3. Disagree 4.Strongly disagree”*, **YYS11** “*And how much do you agree or disagree that... The work I do in lessons is interesting to me. 1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree”* and **YYS18** “*And how many of your teachers does the following statement apply to... 1. All of my teachers 2. Most of my teachers 3. Some of my teachers 4. Hardly any of my teachers 5. None of my teachers”* . Large number of respondent gave a reply of “Do not know”. For variables YYS1, YYS2, YYS3, YYS4, YYS6, YYS8, YYS9, YYS10, YYS11 we re-created alternative ordinal scale of 1.Strongly disagree 2.Disagree 3.Do not know 4. Agree 5. Strongly agree. . Scale was then created using principal component analysis on the polychoric correlation matrix of the variables.

An increase in scale implies a more positive attitude to school and studying.

^{viii} Scale combines answers on questions **AdvFrS** “*I’d now think about other people you may talk to about what you might do later on. Thinking about your plans for studying in the future, how often do you talk about these with teachers as part of a lesson? 1.Not at all 2.Not very often 3. A little 4.Quite a lot 5.A lot”*, **AdvTeac** “*Thinking about your plans for study in the future, how often do you talk about these with teachers outside lessons? 1 Not at all 2. Not very often 3. A little 4. Quite a lot 5. A lot”*, **AdvFam** “*Thinking about your plans for studying in the future, how often do you talk about these with members of your family e.g. your mum or dad, a brother or a sister? 1.Not at all 2.Not very often 3.A little 4.Quite a lot 5. A lot”*, **AdvPal** “*Thinking about your plans for studying in the future, how often do you talk about these with friends? 1. Not at all 2. Not very often 3.A little 4. Quite a lot 5. A lot”*. An increase in scale implies a greater inclination of young person to discuss his future plans to study. Scale was created using principal component analysis on the polychoric correlation matrix

^{ix} Scale combines answers on questions **Teawel** “*How much do you agree or disagree that... I find it easy to deal with the people at young person’s school. 1.Agree strongly 2.Agree a little 3.Disagree a*

little 4.Strongly disagree”, **Teaclea** “How much do you agree or disagree that young person’s school gives me clear information on how he/she is getting on. 1.Agree strongly 2. Agree a little 3.Disagree a little 4.Disagree strongly”, **Teainv** “How much do you agree or disagree that ... young person’s school makes it easy for me to get involved in his/her education.1.Agree strongly 2.Agree a little 3.Disagree a little 4.Disagree strongly” and **Teachel** “How much do you agree or disagree that... I know all I need to know about how I can help with young person’s education. 1.Agree strongly 2.Agree a little 3. Disagree a little 4.Disagree strongly”

An increase in scale implies improvement in main parent’s and school’s relationship.

Scale was created using principal component analysis on the polychoric correlation matrix