The development of social and gender disparities in political engagement during adolescence and early adulthood: what role does education play?

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About the authors

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Executive summary

Research objectives

A large gap in political engagement between people with different social backgrounds is problematic for democracy as it skews democratic decision-making in favour of the privileged and undermines the public legitimacy of democracy. Little is known, however, about how this gap arises and what role education plays in influencing it. **Hence, this project aims to investigate the development of social inequality in political engagement during adolescence and early adulthood and the educational factors that can explain this development**. It focuses on political interest, voting intentions and support for a political party as indicators of political engagement, as these indicators are good predictors of actual political participation (Finkel 2002; Prior 2010; Achen and Blais 2010).

It proposes that the diversified post-16 educational landscape, characterised by pathways that differ in the type (academic or vocational) and level of the education provided, amplifies social inequality in political engagement. It is argued to have this effect through the disproportional allocation of young people from disadvantaged backgrounds, who have lower levels of political engagement to begin with, to the vocational and lower level pathways, where they experience less stimulating civic learning opportunities than their peers from more privileged backgrounds in the academic and higher level pathways. Such opportunities, for instance, concern having a say in school matters and engaging in open discussions of political and social issues in class. The project also assesses whether these post 16 pathways leave a lasting imprint on political engagement in adulthood.

Data and methods

The research uses the British Household Panel Study / Understanding Society (BHPS/US) and the Citizenship Education Longitudinal Study (CELS) to examine these questions. BHPS and its successor US include nationally representative panel data from the UK population from 1991 to the present. The advantage of BHPS/US is that it includes repeated, annual measures of

political engagement from age 11 onwards, allowing us to track how political engagement – and social inequalities in political engagement – develop during adolescence and early adulthood. CELS is a nationally representative panel study of a cohort of Year 7 pupils who were repeatedly surveyed between 2002 and 2014. It has useful information on educational conditions during the lower secondary phase. Aside from good indicators on political engagement, both data sources also have information on parents, including their education levels, job status, and political engagement. We use parental education as an indicator of social background and use its relationships with political interest, voting intentions and support for a political party as measures of social inequality in political engagement. We draw on a variable in BHPS/US on both the highest level and type of qualification achieved at ages 20 and 25 to measure post-16 educational pathways, assuming that the qualification achieved accurately reflects the pathway experienced. Measured in this way, the pathways variable also includes those who may have left education after age 16.

We use a variety of methods, including trend analyses and growth curve modelling, to investigate how social disparities in political engagement evolve during adolescence and early adulthood and which educational factors can explain this development.

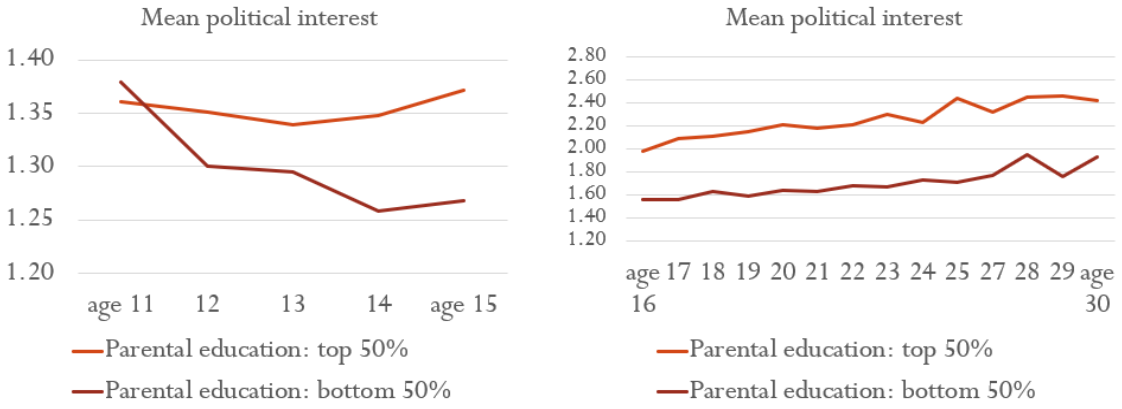
Findings

Key finding 1: Between ages 11 and 15 children from different social backgrounds drift apart in political engagement

We find that the social gap in political interest and in voting intentions opens up quickly in early adolescence and remains stable thereafter. At age 11 there is no difference between children with well-educated and less well-educated parents in these outcomes but by the time they reach 15 the former show significantly higher levels of engagement than the latter (see Figures A and B below). Between ages 15 and 30 the social gap in political interest and voting intentions remains stable. These results indicate that early adolescence is the crucial period when the social gap emerges and that educational conditions relating to *lower secondary* are therefore the factors that could explain this growing gap rather than those relating to later periods, such as post-16 educational pathways. We indeed find that post-16

educational pathways are not related to the development of the social gap in political engagement between ages 16 and 25.

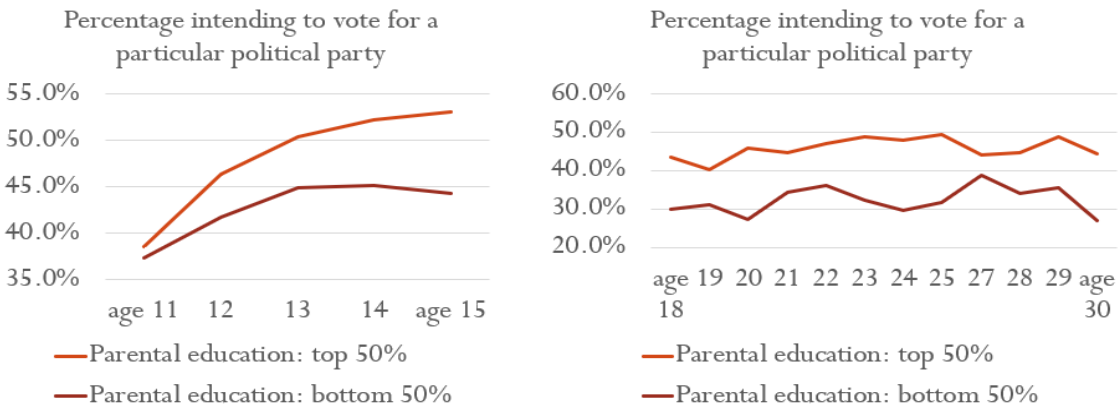
Figure A. The development of political interest during adolescence and early adulthood by parental education



Nb: The lines represent the mean of responses on a three-point likert scale for the 11-15 group (1 = not interested; 2 = fairly interested; 3 = very interested) and on a four-point likert scale for the 16 to 30 group (1 = not at all; 2 = not very interested; 3 = fairly interested; 4 = very interested)

Source: British Household Panel Study and Understanding Society

Figure B. The development of voting intentions during adolescence and early adulthood by parental education



Key finding 2: schools exacerbate the social gap in political interest

Zooming in on early adolescence, we identified conditions relating to the home, the school and the wider community as possible factors that could explain the growing social gap during this life phase. The ones relating to the school, i.e. school social composition, taking part in school political activities and experiencing an open climate of classroom discussions, proved quite influential, explaining about half of the growing social gap in political interest. It appears that children with well-educated parents have higher levels of participation in civic learning opportunities, such as school political activities and classroom discussions of political and social issues, and that participation in these opportunities, in turn, is related to a steeper rise in political interest than not taking part in these opportunities. These findings lead us to conclude that schools *amplify* social inequality in political engagement by not offering equal access to civic learning opportunities for children from disadvantaged backgrounds.

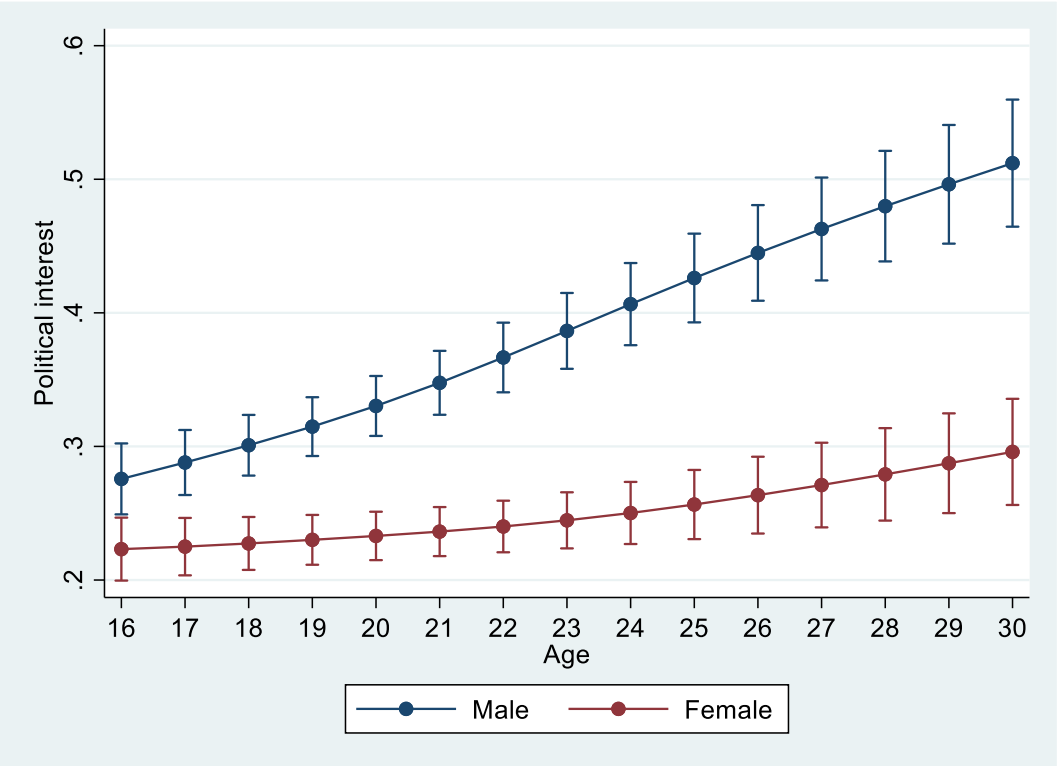
Key finding 3: People with A levels show a steeper growth in political engagement between ages 16 and 30 than those with post-16 vocational qualifications

Although post-16 pathways are not related to the post-16 development of *social inequality* in political engagement, they do turn out to be related to rates of growth in political engagement after the age of 16. Specifically we find that those with an upper secondary vocational qualification (such as a Btech or NVQ) as their highest level of education have a significantly lower rate of growth in political interest and support for a political party between ages 16 and 30 than those with an upper secondary academic qualification (i.e. A levels) as their highest level of education at age 25. This shows that post-16 pathways can have effects on political engagement that last deep into adulthood.

Key finding 4: The growing gender gap in political interest between ages 16 and 30 is partly explained by women with lower level and vocational qualifications showing lower growth rates in political interest

While the social gap in political engagement did not increase after age 16, the *gender* gap did. We found that men not only had a slightly higher level of political interest at age 16 but also that their political interest grew faster than that of women between ages 16 and 30 (see Figure C below). This conspicuous finding led us to examine the factors responsible for this growing gender gap. Assessing factors relating to family socialization, education and the assumption of adult roles, we found that only educational qualifications can account for the growing gender gap: women with lower level and upper secondary vocational qualifications at age 25 turned out to have significantly lower growth rates in political interest than women with upper secondary academic qualifications (i.e. A levels) and degrees. Women with such vocational qualifications actually experienced a decline in political interest between ages 16 and 30. However, educational qualifications could only explain a small part of this gap. Other factors could not explain this growing gap at all.

Figure C. The development of political interest between ages 16 and 30 by gender



Nb: The lines in the figure represent the predicted probability of being quite or very interested

Source: British Household Panel Study and Understanding Society

Recommendations for policy and practice

Our finding that schools do not offer equal access to civic learning opportunities for children from disadvantaged backgrounds leads us to call on schools to develop strategies that counter these unintended exclusionary processes. These strategies would be most effective in the lower secondary phase since we found the social gap in political engagement to open up between ages 11 and 15. We suggest that constraining the voluntary nature of participation in such opportunities by, for example, giving turns to children from disadvantaged backgrounds to speak up in class, or asking such children to take on leadership roles and other responsibilities, might be useful strategies. These strategies imply a much more active role for the teacher in guiding and facilitating participation. The finding that school social composition can also partly explain the growing social gap leads us to propose that the social segregation in England's school system needs to be reduced in order to mitigate social disparities in political engagement.

Our finding that post-16 educational pathways are related to diverging trajectories in political engagement, both in general and for women in particular, leads us to advocate for more civic learning opportunities in the vocational tracks in upper secondary, especially those that are highly gender segregated and attract mainly girls, such as courses in care, hospitality and beauty. We propose that England could learn a lot from France in this respect, where the curriculum of vocational education in upper secondary is quite comprehensive, including courses such as citizenship education, history and geography. Including such civic learning opportunities in the vocational tracks in England could well help to reduce the cross-pathway and gender gaps in political engagement.

1. Introduction

It is common knowledge that people from disadvantaged backgrounds have lower rates of political participation than those of middle-class origin. This social inequality in political engagement has been an enduring characteristic of all western democracies and appears to be increasing (Armingeon and Schaedel 2015). Moreover, this gap is particularly wide in the United Kingdom: Hoskins and Janmaat (2019) found that the correlation between social background and voting intentions, as a measure of social inequality in political engagement, was 0.25 among teenagers and 0.30 among young adults, which was stronger than in any other European country.

Pronounced social disparities in political participation (such as voting) are generally considered undesirable as they make democratic governance less responsive to the needs of the socially disadvantaged and undermine the public legitimacy of liberal democracy. Due to their stronger voice, the educated and wealthy will acquire a greater influence on public policy (Verba et al 1995), leaving the poor and least educated feeling alienated and powerless.

Although these social gaps have been a persistent issue, they are particularly problematic at present amidst talk of the growing divide between the educated and the left behind, growing support for populist anti-immigrant parties in Western Europe and advancing authoritarian rule in Eastern Europe. Possibly, this context prompts the disengaged to become indifferent or hostile to democracy as a system of government.

So far little is known about how such inequalities evolve during people's formative years and what role education plays in influencing these disparities. We already know that children from disadvantaged backgrounds are less likely to be politically engaged than those from middle-class families (Lauglo, 2011). We further know that educational attainment (measured with years of education or highest qualification achieved) has a strong positive effect on political participation (Nie et al 1996). An equally well-established finding is the strong link between social background and educational attainment. Not only are children from families with a low socio-economic status (SES) less likely to achieve a high level of education, they are also underrepresented in the academic pathway (A levels) and overrepresented in the less prestigious vocational ones (such as a Level 3 National Vocational

Qualification (NVQ) or a Bachelor of Technology (BTech)) (Loveless 1999). The latter is relevant because the academic pathway has been found to foster political engagement more than vocational education (Janmaat et al 2014; Hoskins and Janmaat 2016) (this finding is explained in greater detail below).[1] Considering these findings in combination, one might propose that education only perpetuates or even exacerbates the social gap in political engagement as young people grow older (Janmaat et al 2014; Hoskins and Janmaat 2019). Yet, to our knowledge no study until this one examined this proposition. The current report therefore aims to explore the following research questions (RQs):

(RQ1) How do social disparities in political engagement evolve over the life course?

(RQ2) How strong is the influence of post-16 educational pathways on these disparities compared to that of earlier educational experiences and other conditions during adolescence?

(RQ3) Do these pathways have lasting effects on political engagement deep into adulthood?

We are especially interested in the post-16 period as educational experiences vary maximally at this stage and late adolescence is an impressionable age regarding political engagement.

This project builds on our existing research, mentioned above, on the effect of pathways on political engagement (i.e. Janmaat et al 2014; Hoskins and Janmaat 2016; Hoskins and Janmaat 2019). This research theorised that the branching out of the post-16 education system into different pathways leads to greater inequalities in political engagement because of differences across pathways in curriculum, pedagogy, social composition and self-concept. Regarding the curriculum, previous studies have argued that vocational pathways provide less *general* courses, including citizenship education or history. These courses do not only offer relevant knowledge helping young people to better understand and navigate the world of politics but also training in skills, such as critical analysis and developing and

[1] Both Janmaat et al (2014) and Hoskins and Janmaat (2016) relied on longitudinal data sources to assess the effect of pathway on voting intentions and political participation. The latter, moreover, could control for measures of political participation prior to the allocation to different tracks, which allows one to make causal statements with greater certainty.

defending an argument, that foster political engagement (Niemi and Junn 1998; Hillygus 2005; Ichilov, 2003; Ten Dam and Volman, 2003). With respect to pedagogy, vocational education has been associated with the promotion of discipline, conformism and good manners, rather than giving students a say in their own learning, which is said to have an alienating effect (Whitty 1985; Apple, 1990; Leenders et al 2008; Kelly and Carbonaro 2012). Regarding social composition, it has been argued that the concentration of working class children in vocational pathways yields peer effects that are not conducive for political engagement (Ichilov, 2002; van de Werfhorst, 2007; Jacobsen et al 2012). Finally, with respect to self-concept, allocation to a vocational pathway has been argued to undermine self-confidence and lead to disengagement with education and the world of politics more broadly in contexts where a large status difference exists between academic and vocational education and where the latter is associated with failure (Hoskins et al 2016). Interestingly, based on these theoretical considerations, we might expect the effect of pathways to be particularly strong in England because of the large status difference between vocational and general education (Swift & Fisher, 2012) and because vocational education as a rule only offers practical courses (Rubery & Grimshaw, 2003).

Our earlier research into the effect of pathways had its limitations, however. While Janmaat et al (2014) were not able to control for political engagement prior to enrolment in a particular pathway, which affected their ability to address selection effects, Hoskins and Janmaat's (2016) study was based on a small sample with very high levels of attrition. The proposed research uses a more robust data source, the British Household Panel Study / Understanding Society (BHPS/US), which includes repeated measures of political engagement from age 10 onwards, to examine this relationship (see Chapter 2 for further details on these datasets). With relevant data from this early age onwards we can test how strong the effect of post-16 pathways is relative to that of earlier educational conditions on the development of political engagement during adolescence (i.e. RQ2). Moreover, as the BHPS/US tracks individuals over their whole life, we can explore to what degree the effect of post-16 educational pathways persists into mid adulthood, which, to our knowledge, has not been examined before. Another advantage of the data source is that it can be linked with the National Pupil Database (NPD) data and school data from the government's "Find and

compare schools in England" website, which greatly enhances the possibilities to connect educational conditions to attitudinal and behavioural outcomes.

As we use existing datasets, we are always limited by the concepts addressed in these datasets. Regarding political engagement as our outcome of interest, BHPS/US has good items tapping the *motivational* dimensions of political engagement which have been asked almost every year over a period of nearly three decades. These are political interest, intention to vote and supporting a political party. We will therefore rely on these items to represent political engagement, knowing full well that this measurement of political engagement ignores political participation as such. However, political interest and voting intentions are strongly correlated with many other indicators of political engagement, including ones representing behavioural outcomes such as reported and validated voting (Finkel 2002; Prior 2010; Achen and Blais 2010), and we can therefore presume them to be good predictors of actual participation.

We expect the findings of this project to contribute to the debate among policy makers and practitioners on the desirability of the branching out of the education system into different pathways, on the accessibility of more prestigious pathways for disadvantaged groups, and on the curriculum on offer in the various post-16 pathways. Green and Pensiero (2017: 83) have dubbed the present systems of upper secondary education in England and Wales, Northern Ireland and Scotland a "mixed system including many different school- and employment-based programs of variable length and quality but with dominant academic tracks". If we find such a system to enhance the social gaps in political engagement and to produce effects that stretch deep into adulthood, we will make recommendations that would make further education in the UK become more similar to that of the Nordics and the United States, if adopted. The system in these countries can be characterised as "a predominantly comprehensive, school-based system with academic and vocational provision within the same institution" (*ibid.,* 82), and with a core of general courses offered in both academic and vocational pathways.

It is important to note that the current report also presents research not planned in the original proposal. This research uses the Citizenship Education Longitudinal Study (CELS), a data source not mentioned in the proposal, to examine the impact of school and community conditions on the development of political engagement during early adolescence, as part of

answering RQ2. The next section explains why we have opted to use this dataset. The other unplanned research presented in this report concerns **an investigation into the development of *gender* inequality in political interest and the factors explaining this development (RQ4**). We explored this additional research question because of the findings for RQ1, where we found that social disparities in political engagement only grew during *early* adolescence. From age 16 onwards they remained stable. This result meant that we already knew that post-16 educational pathways would be unlikely to influence the post-16 development of social disparities in political engagement, and we indeed found these pathways not to significantly enhance or mitigate these social disparities. In view of the growing social gap in political engagement during early adolescence we decided to focus our attention on educational conditions in *lower secondary* that might explain the growing social gap (as part of the original RQ2). With regards to the post-16 development of political engagement, we *did* find a growing *gender* gap, with political interest rising faster among men between the ages of 16 and 30 than among women. Hence, we decided to devote additional analyses to the conditions that might explain this growing gender gap. As we will show further below, these additional analyses have given us much greater insight into how, i.e. through which mechanisms, the gap in political engagement emerges during late adolescence and early adulthood and thus into the reasons why men and women drift apart in their political interest after age 16. This report thus also provides an account of how we responded to findings not anticipated by theory. In the concluding chapter we offer some reflections on why these unexpected findings have occurred.

As the four research questions have implications for the data sources, variables and methods of analysis to be used and for the findings to be presented, we will organise the subsequent sections of this report by research question.

2. Methodology

2.1. Data sources

As noted above, we drew on the BHPS/US as the main data source to investigate the three research questions. This nationally representative longitudinal study is the largest of its kind within the UK and represents the flagship investment of ESRC. BHPS started with 5500 households (or 9912 persons) in England, Wales and Scotland in 1991 and has tracked this group to the present. 2000 households from Northern Ireland were added to this group in 2001, making BHPS a UK-wide panel study. This group has been incorporated in US from 2009. US added another 32,000 new households in that year from all over the UK, so that the total sample comprised 40,000 households (more than 100,000 people) in Wave 1 of US. The latest available data is that of Wave 9 (2017-19). BHPS/US interviewed all household members aged 16 and older annually, including new members attaining age 16, as well as newly formed households once members of the original ones start their own. Importantly, from 1994 it also includes a youth survey of 11 to 15 year olds with an N of approximately 750 in the BHPS. The Youth Survey was continued in US with an extended sample of around 4000 respondents and included also 10 year olds. Youth taking part in the Youth Survey are integrated in the Main Survey when they turn 16.

(RQ1) How do social disparities in political engagement evolve over the life course?

RQ1: We made a number of modifications to this data source to prepare an analytical sample appropriate for investigating RQ1. First, to create a sufficiently large sample, we pooled the data of 11 year olds interviewed in the first 10 waves of the BHPS Youth Survey (1994 to 2003, with respondents born between 1983 and 1992), resulting in an analytical sample of 1664 respondents. We call this sample the *BHPS Youth Sample.* All the data of later waves, including those of US, have been merged with this sample. The youngest group in this sample, the 11 year olds in 2003, will have turned 25 in 2017, while the oldest group, the 11 year olds in

1994, will have become 34 in that year. This means that we have complete data from all the 10 batches of 11 year olds between ages 11 and 25 in the BHPS Youth Sample. After age 25 the sample includes progressively less batches until at age 34 only the ones born in 1983 are still included in the sample. We then reorganised the data and the individual variables by age to facilitate the trend analyses. For instance, the variable "interest in politics at age 11" includes data on the political interest of all 11 year olds, i.e. of those who were 11 in 1994, 1995, 1996, etc., up until 2003. This variable thus combines data collected in 10 different years. We further included data on the SES and political engagement of the respondent's parents from the 1998 and 2003 waves of the Main Survey in the analytical sample, using the household identification number as the linking variable.

(RQ2) How strong is the influence of post-16 educational pathways on these disparities compared to that of earlier educational experiences and other conditions during adolescence?

RQ2: We decided to split the analyses planned for this question up into those focusing on the 11-15 year olds and those focusing on the 16-20 year olds.[2] The reason is that post-16 educational pathways can only theoretically be expected to influence the development of political engagement after age 16. Moreover, the impact of *earlier* educational (and other) influences on the post-16 development of political engagement will be absorbed by the initial level of political engagement at age 16. Focusing on the 16 to 20 age range thus allowed us to assess the effect of post-16 pathways on the post 16 *change* in political engagement while taking earlier influences into account. We used the BHPS Youth Sample for the analyses of the 16 to 20 year olds.

We conducted analyses specifically for the 11-15 year olds in order to assess the influence of earlier educational and other conditions on the age 11 to 15 development of political engagement. We prepared two specific analytic samples for these analyses. The first

[2] We restrict ourselves to the 16-20 year olds rather than the more encompassing 16-25 age range in order to retain as many observations as possible. Focussing on the 16-20 age group also allows us to get a clearer picture of the precise effect of upper secondary pathways on political engagement (i.e. A levels and vocational level 3 routes).

sample was drawn from the US Youth Survey, Waves 3, 5, 7 and 9. To create it, we selected and pooled the data of 10 and 11 year olds in 2011 (Wave 3) and of 10 and 11 year olds in 2013 (Wave 5) in order to secure a sufficiently large sample size. We tracked this group every two years until ages 14 and 15 (Wave 7 for the oldest batch; Wave 9 – the latest wave available – for the youngest batch). The group consists of 2355 respondents participating in each of three rounds (ages 10 and 11 = Round 1; ages 12 and 13 = Round 2; ages 14 and 15 = Round 3). We call this sample the *US Youth Sample.* We relied on this sample rather than the *BHPS Youth Sample* because of its larger number of observations and because it allowed us to test the influence of relevant family socialization conditions, such as discussing books with one's parents and going to museums and art galleries with one's parents, which are absent from the BHPS Youth Survey.

The second sample is based on the Citizenship Education Longitudinal Study (CELS). The use of this data source was not planned in the original proposal, but we decided to turn to it as it allowed us to test the influence of a number of relevant *school* and *community* factors on the age 11 to 16 development of political engagement. Originally, we planned to use the US Youth Sample supplemented with data from the National Pupil Database (NPD) and the school census (drawn from the "Find and Compare Schools" government website) to investigate these factors, but the sample was reduced to less than 300 respondents when we merged the NPD and School Census data into the US Youth Sample. CELS was originally commissioned by the Department for Children Schools and Families (DCSF) to assess the effects of citizenship education, which was introduced as a compulsory curriculum component in 2001. It includes data from a cohort of youngsters in England who were aged 11 and 12 (Year 7; first year of secondary school) when they were surveyed the first time in 2002–2003. This group was resurveyed every two years until 2010-11 (ages 19 and 20) and again in 2014 (age 23) (the last wave). The data for the first three waves (2002-03; 2004-05 and 2006-07) were collected from a nationally representative sample of 75 state-maintained schools in England (Benton et al., 2008). Within the sampled schools all the students of a school year were selected (i.e. all the students in a certain grade; a year/grade can include one or several classes). We used the data from these first three waves, covering an age range

of 11 to 16 and comprising 6113 respondents who took part in all three waves. We call this the *CELS Sample.*

(RQ3) Do these pathways have lasting effects on political engagement deep into adulthood?

RQ3: As the third RQ aims to assess whether post-16 educational pathways have effects on political engagement that last further into adulthood, we decided not to rely on the BHPS Youth Sample (which only goes up to age 25) but to create a sample that would allow us to track the development of political engagement up to age 30. To make this sample sufficiently large we pooled the data of 16 year olds from the first 15 waves of the BHPS Main Survey (1991 to 2005, with respondents born between 1975 and 1989). We merged the data from later waves of the BHPS/US Main Survey into this sample in order to have repeated annual measurements of political engagement between ages 16 and 30. We further added information on parental education and parental political engagement (based on parents' reports) from the BHPS/US Main Survey to this sample. The resulting sample includes data of 1440 respondents. We call it the *BHPS 16-30 sample.*

(RQ4) What factors can explain the development of *gender* inequality in political interest

RQ4. We also relied on the BHPS 16-30 sample to investigate the factors explaining the growing gender gap in political interest, adding data on parental gender role attitudes and adult roles drawn from the BHPS/US Main Survey.

2.2. Measures of the outcomes of interest and their predictors

In this section we explain the items selected from the data sources mentioned above to represent the predictors and outcomes of interest. We structure the discussion of these measures by research question. In order to avoid repetition, we only discuss *new* measures under RQs 2, 3 and 4, i.e. not the outcomes, predictors and control variables already discussed under RQ1.

(RQ1) How do social disparities in political engagement evolve over the life course?

RQ1: We draw on two items from the BHPS/US Youth Survey to measure *political interest* and *intention to vote* as outcomes reflecting the motivational dimension of political engagement. These items are continued in all waves of the Main Survey (except BHPS Waves 7-10 regarding political interest). *Political interest* is directly asked with the question "how interested would you say you are in politics?" which has four response categories (1 = not at all; 2 = not very interested; 3 = fairly interested; 4 = very interested). *Intention to vote* is tapped indirectly by an item asking people which party they would vote for when given the possibility. Although this item asks in the first instance about party preference, the response categories also include the options 'none' and 'don't know' aside from a list of parties, which we considered to indicate relative disengagement. Hence, we recoded the variable as 1 = voting for a particular party and 0 = none / don't know. Of course, the 'none' and 'don't know' options could also reflect genuine involvement with politics in combination with dissatisfaction or indecision, but we found respondents choosing these options to have significantly lower levels of political interest (at ages 13 and 18) and to express a significantly lower likelihood to vote (at age 18) than the ones choosing one of the parties. We should further note that there are minor differences between the Youth and the Main Survey in the wording of the items and the response categories. Because of these differences in item wording, we run the analyses separately for the Youth and Main Survey data and indicate the split between them in the figures further below.

We relied exclusively on *parental education* as indicator of social background rather than the more encompassing parental SES. Education not only comes first in the causal chain between education, occupation and income (as the other two components of SES) (Lahtinen

et al 2019), it has also been argued to be the most important dimension of social background influencing political engagement (Verba et al 2005; Gidengil et al 2016). Our own preliminary analyses confirmed this by showing that parental education has a stronger impact on our two outcomes of political engagement than a synthetic measure of parental SES combining all three components. Following Verba et al (2005) we averaged mother's and father's education level by household to create a parental education variable. Mother's and father's education are given in the database as ISCED levels: 1=primary; 2=incomplete lower secondary; 3=lower secondary & level 2 vocational; 4=upper secondary and level 3 vocational; 5=higher vocational; 6=bachelor degree; 7=masters and PhD degree. Parental education thus ranges between 1 and 7 with higher values denoting higher levels of education.

If one understands social background in a broader sense as also encompassing the cultural capital and political outlook of the family (and therefore more as "family" background), it is worth also examining parents' own political engagement as a driver of that of their children. Indeed, previous research has established a close parent-child correspondence on a range of political engagement indicators (Beck and Jennings 1982; Verba et al 2005; Jennings et al 2009; Gidengil et al 2016), suggesting a high degree of intergenerational reproduction in political involvement. We created two variables to capture *parental political engagement*. The first one, *parental political interest,* is based on the earlier mentioned item from the Main Survey on political interest. The second, *parental party support*, relies on a question in the Main Survey about supporting a particular political party. The responses to this question ('yes', 'no' and 'don't know') were recoded as 0 = 'no or don't know' and 1 = 'yes', with the value 0 considered to indicate disengagement (as with intention to vote - see above). This means that parental party support has the values 0 (neither parent supports a party), 0.5 (one parent does and one does not) and 1 (both parents support a party).

In the models further below, we will include several controls relating to other family characteristics. These concern *household type* [0 = living with a single parent; 1 = living with both parents], *household size* [in number of persons] and *tenure* [0 = owner; 1 = renting from council; 2 = renting from a landlord], drawn from the BHPS/US household survey. We also control for *year of birth* to take possible cohort effects into account [0 = 1983-1986; 1 = 1987-1989; 2 = 1990-1992] and *gender* [0 = boy; 1 = girl]. Appendix A presents the basic descriptive statistics for all the variables.

(RQ2) How strong is the influence of post-16 educational pathways on these disparities compared to that of earlier educational experiences and other conditions during adolescence?

RQ2. In addition to political interest, we investigated *support for a political party* as one of the political engagement outcomes when focusing on the 16 to 20 age group. We opted for this outcome rather than *intention to vote* as the latter does not have good data for 16 and 17 year olds, who are not yet eligible to vote at these ages. This complicates an assessment of the effect of post-16 tracking on this outcome. *Support for a political party* was measured with the same item and in the same way as *parental party support* (see above). When examining the 11-15 group, we only focused on political interest as this is the only political engagement outcome that has been asked about in both CELS and the US Youth Survey, as the data sources that we used to examine this group. In CELS we tapped political interest with the question "How much do you agree or disagree with each of the following statements about politics?" "I am very interested in politics" [response categories: 1=strongly disagree; 2=disagree 3=neither agree nor disagree; 4=agree; 5=strongly agree]. This item was asked in every CELS wave.

We understand *post-16 educational pathways*, as our key predictor, in a broad sense as not just referring to those who stay in education after age 16 but also to those who have left education. In this sense the variable can be read in a more encompassing sense as "post 16 pathway". We operationalise it as highest qualification – in terms of both level and type - achieved at ages 20 and 25 and measure it with the Casmin classification of qualifications

(Brauns, Scherer & Steinmann 2003), which corresponds closely to the qualifications framework of the UK government (UK Government 2022). This classification differentiates qualifications both vertically, i.e. between levels of education (primary, lower secondary, upper secondary, tertiary) and horizontally, i.e. between types of education (academic and vocational). The variable has the following categories: (1) primary education, (2) lower secondary education, (3) vocational upper secondary, (4) academic upper secondary, (5) vocational tertiary and (6) academic tertiary. It may safely be assumed that many of those who have primary or lower secondary education as highest qualification achieved at age 20 and 25 are in work at these ages. Table 1 below shows how the Casmin categories correspond to the levels of the UK qualifications framework. It also illustrates these categories with example qualifications.

Table 1. The Casmin classification of highest qualification achieved

Casmin qualification	Level of the UK qualifications framework [3]	Example qualifications
Primary education	Level 1	GCSE grades D, E, F, G; Level 1 certificate
Lower secondary education	Level 2	GCSE 5 grades A-C; Level 2 certificate or diploma
Vocational upper secondary	Level 3	Level 3 Btech, NVQ, diploma or certificate
Academic upper secondary	Level 3	A-levels; Highers
Vocational tertiary	Levels 4 and 5	Levels 4 and 5 diploma, certificate and NVQ; Foundation degree
Academic tertiary / degree	Levels 6 and 7	BA and BSc; MA and MSc

[3] Source: https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels

Measuring educational pathways with the qualifications achieved with them has the advantage of knowing that young people must have experienced these pathways at least for the full duration of the course. This way of measuring does hide particular trajectories that young people may have taken to achieve a certain qualification, however. For instance, it is possible that some with a BA degree as highest qualification at age 25 have completed a vocational level 3 qualification earlier in life, or have interrupted their educational careers for several years. We will come back to this issue in the reporting of the results on the lasting influence of post-16 pathways on political engagement. This issue is less likely to play a role when measuring post-16 pathway with highest qualification achieved at age 20 since young people will not have had enough time yet to complete degrees on top of upper secondary qualifications at that age.

In CELS we relied on respondents' reports about their mother's and father's highest level of education [response categories: 1=left full-time education at 16; 2=left after college; 3=studied at university] to tap *parental education*. As before, we combined mother's and father's education level by household to create this variable. In order to minimize the number of missing values, we used data from one parent to represent the household in case of single parent households or missing data on the other parent. In the case of the US Youth Survey, we changed the values of the variable *parental education* taken from the BHPS/US Main Survey (which represented the household average of mother's and father's highest level of education) in order to make it equivalent to the parental education variable from CELS. Its values now range between 1 (both parents completed lower secondary) and 3 (both parents completed university).

When examining the growing social gap in political interest between ages 10/11 and 15/16, we identified a number of factors that can possibly explain this growing inequality. These factors relate to the home, the school and the wider community. We considered discussions in the home and educational aspirations as relevant factors related to the home environment, drawing on literature suggesting that middle class parents are able to foster their children's political engagement through discussing social and political issues with them and evoking a desire to learn in them (Niemi and Junn 1988; Torney-Purta et al. 2001; Dumais 2005; McFarland and Thomas 2006; Kim and Lim 2018; Calarco 2018). The latter of these is measured with the US Youth Survey item "would you like to go on to do further full-time

education at a college or university after you finish school?"[0=no; 1=yes]. Discussions in the home is captured with the US Youth Survey item "we discuss books at home" [0=no; 1=yes]. We further included a control for ethnic identity [0=other; 1=white British].

We created three variables in CELS to tap relevant school mediating factors: *school social composition (SSC), open climate of classroom discussion (open climate)* and *participation in school-based political activities (PSBPA).* Previous studies have highlighted the importance of these factors in stimulating political engagement, with children taking part in classroom discussions, participating in school-based political activities and attending schools with a privileged intake reporting higher levels of political engagement (Verba et al 1995; Torney-Purta 2002; Campbell 2008; Barrrett 2012; Ichilov, 2002; van de Werfhorst, 2007; Jacobsen et al 2012). Our own previous research, moreover, showed that middle class children enjoy these civic learning opportunities and conditions to a much greater extent than children from disadvantaged backgrounds (Hoskins et al 2017; Hoskins and Janmaat 2019). It is thus likely that these factors represent the channels through which social inequalities in political engagement are emerging. SSC represents the school average of the respondents' scores on parental education from Wave 3 (i.e. from Year 11 when respondents are 15-16). *Open climate* was measured with a scale consisting of six items from Wave 3 tapping students' perceptions of freedom of expression in classroom discussion and teachers' facilitation of this (see Appendix B for the wording of these items). The scale showed a sound level of internal coherence (Cronbach's alpha = 0.811) and represents the saved output of a factor analysis (i.e. the factor scores). Another composite variable was created to gauge *PSBPA*. This variable represents the sum of the responses to four items from Wave 3 asking students whether they have participated in debates, a student council, elections for the school, or in mock elections in the last year. It has a minimum of 0 (not participated in any clubs or events) and a maximum of 4 (participated in all clubs and events).

We identified *participation in out-of-school civic activities (POSCA), parents taking their children to cultural activities,* and *friendship groups* as community activities. Similar to the factors relating to the home and school environment, these factors are both influenced by parents and are influencing, in turn, young people's political engagement (McFarland and Thomas 2006; Greene et al 2014; Dostie-Goulet 2009; Wanders 2020), making them good candidates for the mechanisms of the influence of social background on political engagement.

POSCA is the sum of six CELS Wave 3 items asking students whether, in the last year, they have taken part in environmental groups, human rights organisations, debating clubs and religious groups, and whether they have helped in the local community or have raised money for a good cause or charity [0=not taken part in any of these clubs <<<>>> 6=taken part in all of them]. Parents taking their children to cultural activities is measured using the US Youth Survey question "My parents/other adults take me to museums or art galleries" [1=never; 2=rarely; 3=sometimes; 4=often]. Friendship groups is tapped with the US Youth Survey Wave 3 item "my friends are interested in politics" [1=strongly disagree; 2=disagree 3=neither agree nor disagree; 4=agree; 5=strongly agree].

(RQ3) Do these pathways have lasting effects on political engagement deep into adulthood?

RQ3. We investigated this question using *post-16 educational pathway* as predictor and *political interest* and *support for a political party* as outcomes of interest. The measurement of these variables has been explained under RQ1 (for the outcomes of interest) and RQ2 (for the predictor).

(RQ4) What factors can explain the development of *gender* inequality in political interest

RQ4. We explored RQ4 by investigating whether factors relating to family socialization, education and the assumption of adult roles can explain the growing gender gap in political interest. We dichotomised the outcome *political interest* by collapsing the responses 'not at all interested' and 'not very interested' into 0='not interested' and the responses 'fairly interested' and 'very interested' into 1='interested'. We did this to facilitate the graphical display of the relationships of interest, as exemplified by Figures 6, 7 and 8 below. We used *parental education* and *parental gender role attitudes* as variables to represent family socialization. We expect these factors to not only shape the political interest of girls and boys

during early childhood but also later in adolescence and early adulthood because parents partly determine the *social environments* of their children, which in turn influence their political engagement (Jennings and Niemi 1974; Cicognani et al 2011). Thus, parents with traditional views on gender roles may introduce their daughters to social circles (such as peer groups or religious organisations) in which political engagement is discouraged. Educated parents may behave differently towards their sons and daughters, giving their sons greater encouragement to assume active roles in various circles and thus fostering their wider engagement (Fox and Lawless 2014). The measurement of *parental education* has been explained under RQ1. We measured *parental gender role attitudes* with a series of statements that parents were asked to express their level of agreement with on a 5 point Likert scale: (1) woman and family are happier if the mother works (2) husband and wife should both contribute to the family income, (3) having a job makes women independent, (4) children need a father as much as a mother. We averaged the responses of both parents when the person was 17 in the main model (Cronbach's Alpha = 0.76).

We used *post 16 educational pathway* to represent respondent's own education (for its measurement, see RQ2). There is evidence that boys make more use of the rich civic learning opportunities offered in the academic pathway (i.e. A levels) than girls by dominating classroom discussions and taking on active roles (Alwin et al 1991; Brown and Gilligan 1992; Sadker and Sadker 1994). This leads us to expect that the political interest of boys in the academic pathway grows faster than that of girls. Alternatively, vocational education may offer differential civic learning opportunities for boys and girls, a possibility that is enhanced by the many different kinds of vocational pathways and the fact that some are highly gender segregated (Equal Opportunities Commission 1999; Ledman et al 2020). In such segregated environments particular gendered cultures and identities may emerge (Frykholm & Nitzler, 1993; Colley et al 2003), including perceptions of femininity that exclude political interest.

Regarding the assumption of adult roles, we identified two variables that might influence the differential development of political interest of men and women, *type of household* and *occupation*. As to the former, becoming a parent tends to shift women's priorities in favour of family care at the expenses of other interests, including politics (Verba et al 1997). Regarding occupation, previous research found that more prestigious jobs increase mobilization, skills and pressure (Strate et al. 1989), which in turn enhance political

interest. It can thus be hypothesized that as women lag behind men in occupational status, their political interest also falls behind. We used an item in the Main Survey with the categories 'single', 'couple', 'couple with children', 'single with children' and 'other types' to measure *type of household*. *Occupational status* was captured in the Main Survey with the eight-category version of the National Statistics Socio-Economic Classification (NS-SEC) system for jobs. We recoded the variable into a four-category variable distinguishing between 'service class', 'intermediate class', 'routine class' occupations' and 'student'. Service class individuals are large employers, higher managers and professionals; 'intermediate class' individuals are small employers, own account workers or in lower managerial, administrative and professional job; and routine class individuals are in routine and semi-routine sales, service, technical, agricultural and clerical occupations.

2.3. Methods of analysis

(RQ1) How do social disparities in political engagement evolve over the life course?

RQ1: We will first present trends in aggregate political interest and voting intentions by level of parental education and parental political engagement to assess how social gaps in political engagement evolve during adolescence and early adulthood until age 25. Next, we apply Latent Growth Curve Analysis (LGCA) using Mplus software in order to assess the relation between family background and the development of political engagement more rigorously. LGCA permits the modelling of the initial *level* and subsequent *change* in some outcome for each individual by estimating a random intercept and slope, which are generated as latent variables. These variables allow researchers to compare the inter-individual variation in the change (i.e. slope) to that of the initial level (i.e. intercept) and thus get a sense of the malleability of this outcome. Subsequently, it can relate explanatory variables to the intercept and the slope, enabling an assessment of the extent to which the inter-individual variance in the initial level and in the subsequent change in the outcome can be explained by predictor variables (Bollen and Curran 2006). In an approach similar to Neundorf et al (2013) we will

use it to assess the effects of parental education and parental political engagement on both the age 11 *level* of political engagement and the post-11 *change* in this engagement. A positive effect of, say, parental education on the post-11 change in engagement means that engagement has risen faster (or declined less steeply) among young people from privileged backgrounds than among those from disadvantaged backgrounds, indicating divergence and thus growing social inequalities in political engagement.

(RQ2) How strong is the influence of post-16 educational pathways on these disparities compared to that of earlier educational experiences and other conditions during adolescence?

RQ2. To recapitulate, this research question asks whether post-16 educational tracks can explain the development of social disparities in political engagement during adolescence and how its influence compares to that of earlier educational and other conditions. In order to explore this question, we conceptualise the post-16 tracks and the earlier conditions as *mechanisms* of the influence of parental education on political engagement, in other words as intermediate conditions between parental education and political engagement. As explained before, post-16 tracks and the conditions relating to the home, school and community environments are both *shaped by* parental education and are, in turn*, influencing* political engagement. For instance, parental education influences track enrolment, with relatively many children from educated families pursuing A levels; in turn post-16 tracking influences political engagement, with children doing A levels developing higher levels of political engagement than those enrolled in vocational tracks (Hoskins and Janmaat 2016). Our conceptualisation of the relevant conditions as mechanisms / intermediate conditions means that our analytic strategy occurs in two stages. We first assess whether parental education is indeed related to the different educational and other conditions as suggested before. We will do this with a difference of means test to check how parental education is related to post-16 track for the 16 to 20 year olds and with correlations to assess how parental education is related to the home, school and community factors pertaining to the 10-15 age group. If parental education proves unrelated to these factors, these factors cannot function as mechanisms of parental influence.

Step two is a stepwise analysis of the effect of parental education on political interest to assess the mechanisms driving this effect. The logic here is to explore how the coefficient of parental education changes with the consecutive inclusion of post-16 track (for the older age group) and the mechanisms representing the home, school and community factors (for the younger age group) in the model. If the strength of the coefficient is reduced substantially after the inclusion of one or more of these mechanisms, we infer that the effect of parental education runs mainly or for an important part through these mechanisms (cf. Verba et al 2005, Semyonov et al 2006 and Stubager 2008, who use a similar strategy).

We will perform this stepwise analysis on both the initial *level* of political interest (age 16 for the older age group and age 10 for the younger one) and the subsequent *change* in this outcome during adolescence (between ages 16 and 20 for the older age group and between ages 10 and 15 for the younger one), using LGCA (see above under RQ1). This helps us to establish *at which point* during childhood parental education leaves its mark and through which mechanisms it does so. For instance, a link between parental education and the initial level at age 10 suggests an influence already in early childhood; a link between parental education and the subsequent change between ages 10 and 15 (and not with the initial level) suggests that parental education only starts to influence political interest in adolescence. If this link then disappears when a particular factor is introduced in the model – say an open classroom climate – we can then conclude that this factor explains the growing effect of parental education on political interest, i.e. the growing social gap in political interest. Or, in more statistical terms, that the influence of parental education runs through this mechanism.

(RQ3) Do these pathways have lasting effects on political engagement deep into adulthood?

RQ3. We also use LGCA to assess how post-16 educational tracks are related to both the initial level of political interest and support for a political party at age 16 and the subsequent change in these outcomes between ages 16 and 30.

(RQ4) What factors can explain the development of *gender* inequality in political interest

RQ4. We apply growth curve modelling as well to examine the factors that can explain the growing gender gap in political interest, but this time our modelling strategy is slightly different. As explained above, the dataset consists of sequential observations of political interest over time (level 1) nested within individuals (level 2). Our analysis is interested in the individual variability in the growth of political interest over time. We use growth curve modelling to model the between-individual variability as a random effect. $Political\ interest_{ti}$ is the time of measurement occasion t for individual i's political interest.

$$Political\ interest_{ti} = \alpha_{0i} + \alpha_{1i} age_{ti} + covariates_{ti} + year_t + u_{0i} + u_{1i} age_{ti} + e_{ti}$$

The covariates concern both time-varying and time-invarying circumstances for individuals and time-invarying circumstances for families. u_{0i} and u_{1i} are the random effects, i.e the random-intercept term at the individual level and the random effect at the age level (Steele 2008). e_{ti} are the residuals at the measurement occasion level.

We perform growth analysis by adding to the stylized model presented above a two-way interaction between age and gender to show how the evolution of political interest varies across genders and a three-way interaction between gender, each of the variables capturing the three mechanisms of political interest formation (family socialisation, education, adult roles) and age to show how family socialisation, education and adult roles account for the diverging growth of political interest for men and women. Thus, unlike before we use two- and three-way interactions to model the effect of predictors on the post 16 change in political interest.

This particular way of modelling change, in combination with using political interest as a dichotomous variable, allows us to show graphically to what extent the growing gender gap can be accounted for by the mechanisms relating to family socialization, education and adult roles. More particularly, we can visualise how the gender gap evolves both *before* and *after* the inclusion of the mechanisms in the model. If differences between men and women are no longer significant after the inclusion (of one) of these mechanisms, we can say that the effect of gender runs through these mechanisms, i.e. that these mechanisms play a crucial role in explaining the growing gender gap after age 16.

3. Findings: how do social and gender disparities in political engagement evolve and how are they influenced by education?

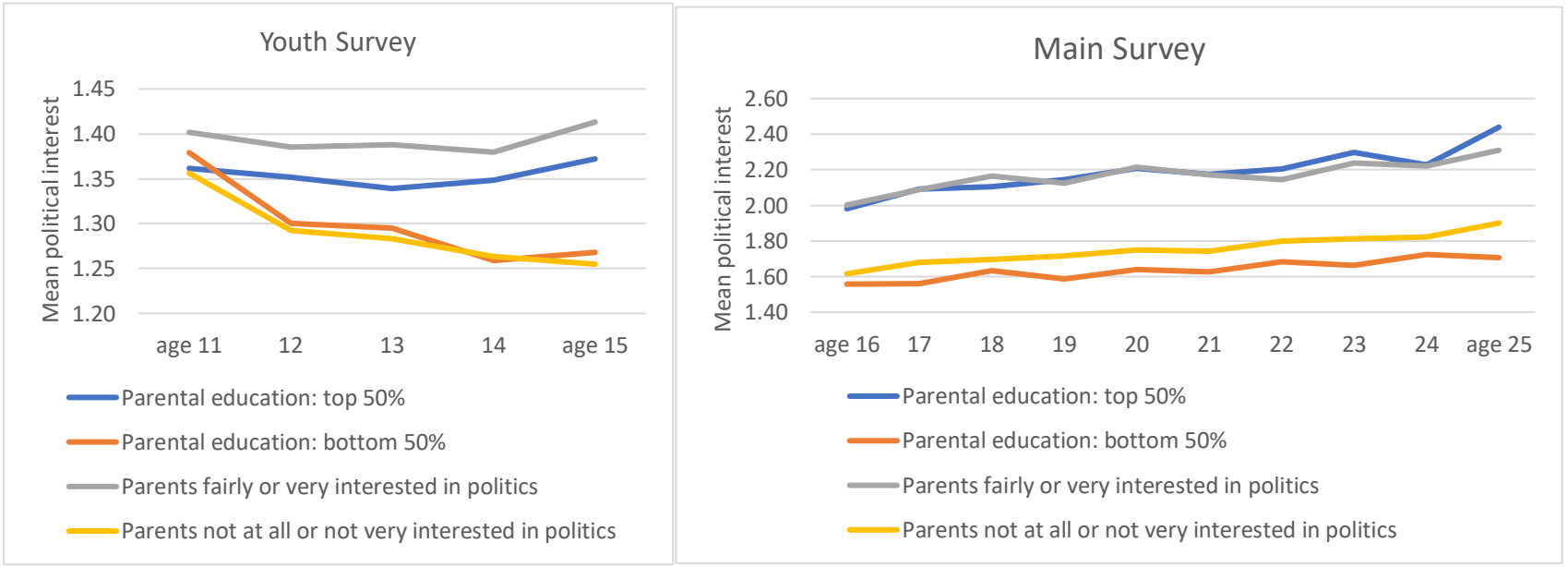
3.1. (RQ1) The development of social disparities in political engagement during adolescence and early adulthood

Figure 1 below shows the development of political interest between ages 11 and 25 by parental education (in quantiles) and parental political interest (by the most and the least interested groups). The lines in the figure represent the average political interest for these groups. We see that children from the two parental education groups hardly differ in their interest in politics at age 11, with the ones from less educated families even showing a slightly higher level of interest. The mean scores of the two groups are closer to 1 (not interested) than to 2 (fairly interested) indicating broad disinterest. However, differences soon emerge and by age 15 there is a clear relation with social background: the political interest of children from the 50% most educated parents has hardly changed while that of the 50% least educated has declined. By age 16, which marks the start of the Main Survey, there is a pronounced difference between the two groups in the mean level of political interest with the former showing a higher level. At this age political interest is also at its lowest level for both groups across the 16 to 25 age range. From age 16 political interest rises steadily for both quantiles. Although hardly perceptible, the political interest of the top quantile rises at a slightly higher rate. Consequently, at age 25 the gap between the two groups is slightly larger than at age 16. Levels of political interest stay quite low, even among those from the most educated families: only at age 25 does their political interest reach the mid-point of the scale (i.e. 2.5 on a scale from 1 to 4). The political interest of people from less educated families falls well short of this point.

We can see strikingly similar trends when we replace parental education with parental political interest. The only difference is that parental political interest already matters for children's political interest at age 11 as those whose parents are fairly or very interested show higher levels of interest than those from more disengaged families. All the other trends are

the same: widening differences until age 15; lowest point for both groups at age 16; steady increase thereafter until the mid-twenties. Although we may add that young people from the most and the least politically interested families do not show the slight divergence in political interest noticeable among the parental education groups for the 16 to 25 age range.

Figure 1. The development of political interest among young people in Great Britain by parental characteristics



NB: The response categories of the Youth Survey item on political interest are 1=not interested; 2=fairly interested; 3=very interested. Those of the Main Survey are 1=not at all; 2= not very interested; 3=fairly interested; 4=very interested

Sources: British Household Panel Study and Understanding Society

Figure 2 below shows trends in the percentage of respondents stating their intention to vote for a particular party (1=yes; 0=none/don't know) by parental education (in quantiles) and parental support for a particular party (broken down by 'neither parent does so' and 'one or both parents do so'). The trends in voting intentions by parental education are different from those in political interest in three respects. First, we see a uniform *rise* in voting intentions among the 11–15-year-olds rather than the differentiated change observed for political interest. Second, from age 16 the trend lines are more fluctuating than for political interest. For ages 16 and 17 this may be due to missing values as many chose the "can't vote" option at these ages. Third, the divergence between the two quantiles seems to be more pronounced than for political interest although the fluctuations somewhat obscure this pattern. Nonetheless there are also similarities. As could be observed for political interest, there is hardly a difference between children from the most and the least educated families in their voting intentions at age 11, but this difference becomes wider during early adolescence. Second, young people from the most educated families are almost always showing higher levels of voting intentions than those from the least educated ones.

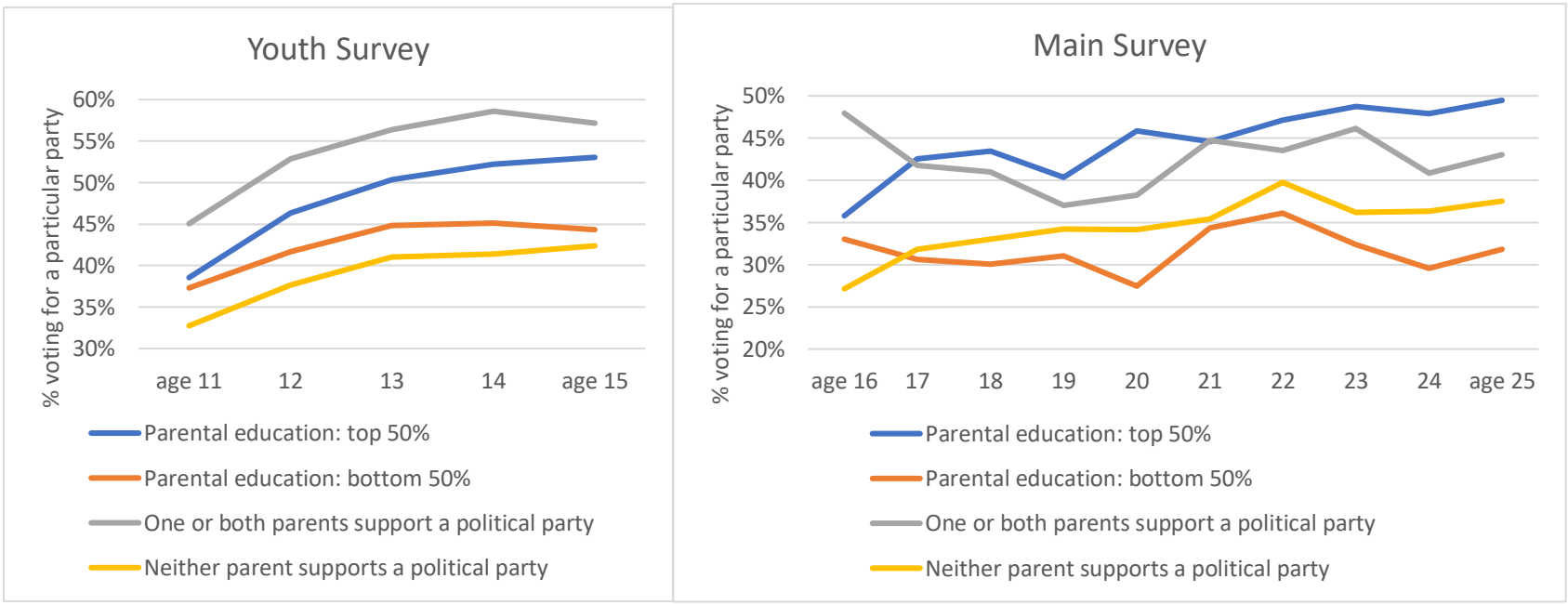
In contrast, there is already a pronounced gap between children of politically engaged and those of disengaged parents at age 11 in their voting intentions (much more so than was the case for political interest) and this gap increases only slightly afterwards. Another difference from political interest is that the gap in voting intentions between young people from engaged and those from disengaged families seems to become smaller amongst the older age group, although this observation is somewhat disturbed by the volatile pattern. Nonetheless, we can see very clearly that by age 25 the gap in voting intentions between young people of different parental education groups is much larger than that between young people of different parental engagement groups. This contrasts markedly with the earlier (11-16) ages when the differences between the parental engagement groups are larger than those between the parental education groups. Finally, as with political interest, overall levels of voting intentions remain quite low, hovering roughly between 25 and 60 percent, which indicates continuing disengagement with mainstream party politics throughout adolescence and early adulthood.

The non-existent social gaps at age 11 in combination with the pronounced widening of them among the 11-15 age group indicate that the effect of parental education is weak at

age 11 but rapidly becomes stronger for both forms of political engagement during early adolescence. The pronounced difference at age 16 (at age 18 for intention to vote) and the slight divergence from age 16 to age 25 (from age 18 to age 25 for intention to vote) further suggests that this effect is well established in mid adolescence and might become even more salient thereafter. In contrast, the trend lines by parental political interest and parental support for a political party suggest that there is already a strong parent-child correspondence on political engagement at age 11 and one that may become slightly stronger for political interest and weaker for the intention to vote for a particular party.

Obviously, the trend lines of Figures 1 and 2 may hide considerable variation around the mean, and therefore we run LGCA models using the parental characteristics as predictors to explore whether the suggested effects by the trend lines are robust and significant.

Figure 2. The development of voting intentions among young people in Great Britain by parental characteristics



Sources: British Household Panel Study and Understanding Society

Table 2 below presents the results of the LGCA model for political interest. To begin with the 11-15 age group, we see that both parental education and parental political interest show a significant positive relation to the 11-15 change in political interest. This means that the political interest of young people with educated and engaged parents has risen faster (or declined less) than that of young people from less educated and disengaged families. In other words, young people of different social backgrounds and from families with different levels of engagement have drifted further apart in their levels of political interest, which confirms the growing influence of family background during early adolescence (as already provisionally shown by Figure 1). We further see that neither parental education nor parental political interest is significantly related to initial levels of political interest at age 11 (although the positive effect of parental political interest is bordering on significance), which suggests that parental influences are weak in the years prior to adolescence.

The pattern is completely different for the older age group. Here we see that the two indicators of family background show very strong positive links to the initial level of political interest at age 16 but no significant links to the subsequent change in political interest between ages 16 and 25. In other words, by the time young people are in their mid to late teens the impact of family background is well established (with young people from well educated and engaged families showing much higher levels of political interest) and subsequently remains fairly stable during early adulthood.

Turning now to voting intentions, we see that parental education also has a positive effect on the 11-15 change in voting intentions (albeit at the lowest level of significance) and no effect on its initial level at age 11 (see Table 3 further down). In contrast, parental party support, as the second indicator of parental political engagement, shows a strong positive link to the initial level of voting intentions and no relation to the subsequent changes in voting intentions. Thus, unlike parental political interest, it does seem to influence political engagement in early childhood. The pattern of effects for the older age group corresponds more closely to that of political interest. Thus we also see significant positive effects of the two family background predictors on initial levels of voting intentions at age 18 and no effects on the subsequent change from 18 to 25 (we started the older age group at age 18 due to the many missing values at ages 16 and 17 – see footnote 3 above). The effect of parental party support on the initial level is fairly weak though, and three levels of significance lower than

its effect on the age 11 level of voting intentions. This suggests a declining influence of parental party support during adolescence.

Importantly, the patterns on both outcomes indicate that the period before mid adolescence is crucial for the manifestation of family influences. For political interest this is clearly restricted to early adolescence while it may well also include early childhood for voting intentions. After mid-adolescence the impact of family background appears to be largely set – at least until age 25. Thus, if one is interested in identifying the causal tracks through which parental education and parental political engagement *increasingly shape* the political engagement of offspring, the most promising life stage to focus on is early adolescence.

Among the control variables, gender is one of the stronger predictors, with boys developing higher levels of political interest during early adolescence and showing higher levels of voting intentions at age 18. Renting from a council is associated with lower levels of political interest and voting intentions in mid adolescence. People born at the end of the 1980s have a higher level of political interest at ages 11 and 16 than other birth cohorts but their voting intentions decline more rapidly between ages 11 and 15.

Table 2. The impact of parental characteristics on the initial level and subsequent change of political interest

Dependent variable: political interest								
	Model 1				Model 2			
	Effect on level at age 11		Effect on change between ages 11-15		Effect on level at age 16		Effect on change between ages 16-25	
	b	se	b	se	b	se	b	se
Parental education	-.00	.01	.015*	.006	.14***	.02	.005	.004
Parental political interest	.03	.02	.020*	.010	.24***	.03	-.001	.004
HH type	.04	.04	-.01	.02	.01	.06	-.01	.01
HH size	.01	.02	-.00	.01	.00	.00	.00	.00
Tenure								
Owner (ref cat)								
Council rent	.02	.04	-.00	.02	-.13*	.06	.00	.01
Private rent	-.02	.07	.02	.03	.11	.11	-.00	.01
Year of birth								
83-86 (ref cat)								
87-89	.09*	.04	-.02	.02	.11*	.06	-.00	.01
90-92	.06	.04	-.01	.02	.05	.06	-.00	.01
Gender	-.00	.03	-.02~	.01	-.22***	.04	-.01	.01
Variance intercept	1.3***	.01			.38***	.02		
Variance slope			.02*	.01			.00	.00
R square	.018~	.011	.059**	.022	.241***	.027	.034~	.018
RMSEA	0.030				0.030			
Log-likelihood	-4487.8				-6690.1			
N	1355				1175			

~ P < 0.1; * P < 0.05; ** P < 0.01; *** P < 0.001

Sources: British Household Panel Study and Understanding Society

Table 3. The impact of parental characteristics on the initial level and subsequent change of voting intentions

Dependent variable: intention to vote								
	Model 1				Model 2			
	Effect on level at age 11		Effect on change between ages 11-15		Effect on level at age 18		Effect on change between ages 18-25	
	b	se	b	se	b	se	b	se
Parental SES	.00	.01	.011~	.006	.025*	.012	.002	.003
Parental party support	.18***	.03	.015	.021	.079~	.045	.008	.011
HH type	-.00	.04	.02	.02	-.08~	.04	.01	.01
HH size	.01	.01	-.00	.01	-.01	.02	.00	.00
Tenure								
Owner (ref cat)								
Council rent	.01	.04	-.01	.02	-.10*	.04	.00	.01
Private rent	.01	.06	.01	.04	.06	.08	-.00	.01
Year of birth								
83-86 (ref cat)								
87-89	.05	.03	-.05*	.02	-.02	.04	.01	.02
90-92	-.03	.03	-.01	.02	.03	.04	.01	.01
Gender	-.11***	.03	.01	.02	-.08*	.03	.01	.01
Variance intercept	.08***	.01			.10***	.01		
Variance slope			.02*	.01			.00	.00
R square	.107***	.028	.056*	.028	.074**	.025	.061~	.037
RMSEA	.015				.003			
Log-likelihood	-4137.1				-2034.8			
N	1595				940			

~ P < 0.1; * P < 0.05; ** P < 0.01; *** P < 0.001

Sources: British Household Panel Study and Understanding Society

3.2. (RQ2) How strong is the influence of post-16 educational pathway on social disparities in political engagement compared to that of earlier educational experiences and other conditions during adolescence?

As explained in the methodology section, we conceptualise post-16 educational pathways and other educational and non-educational conditions as mechanisms of the influence of parental education (as our indicator of social background) on political engagement. This means that we follow a two-step approach in assessing whether parental education exerts its effect through these mechanisms. We first assess whether parental education is related to these mechanisms and then explore whether these mechanisms can "explain away" the effect of parental education on political engagement. If parental education is indeed strongly related to the mechanisms and the mechanisms can fully account for the effect of parental education, we can conclude that the change in the social gap in political engagement can be explained by these mechanisms.

3.2.1. The link between parental education and the conditions relating to post 16 pathways, the home, the school and the wider community

The correlations in Table 4 below show that parental education is strongly related to all the conditions proposed as mechanisms of the influence of parental education. These relations are all positive and in the expected direction: i.e. the more educated one's parents, the higher one's qualification at age 20 (as our measure of educational pathway), the more socially privileged the intake of the school one has attended, the more open the climate of classroom discussions, the more discussions of books in the home, the more interested one's friends are in politics, etc. Thus, all these conditions can potentially represent the mechanisms of the influence of parental education. As qualification combines both level and type of education (and therefore cannot just be treated as a continuous variable), we examine in greater detail how parental education is related to each of the qualifications at age 20 (see Figure 3 below). The means and confidence intervals of Figure 3 show that young people with academic upper secondary (i.e. A levels) as their highest qualification have parents with significantly higher

levels of education than those with primary education or lower secondary education as their highest qualification obtained at age 20. Interestingly those with an upper secondary vocational qualification are not distinguishing themselves significantly from either those with A levels or those with lower secondary qualifications in terms of the education levels of their parents (as shown by the overlapping confidence intervals), but this may be due to the low number of observations in this category (just 59). As it is likely that those with primary or lower secondary qualifications as their highest level of education have left education after age 16, the main difference in terms of parental education levels seems to be between those who stayed on in education after age 16 and those who left school after this age.

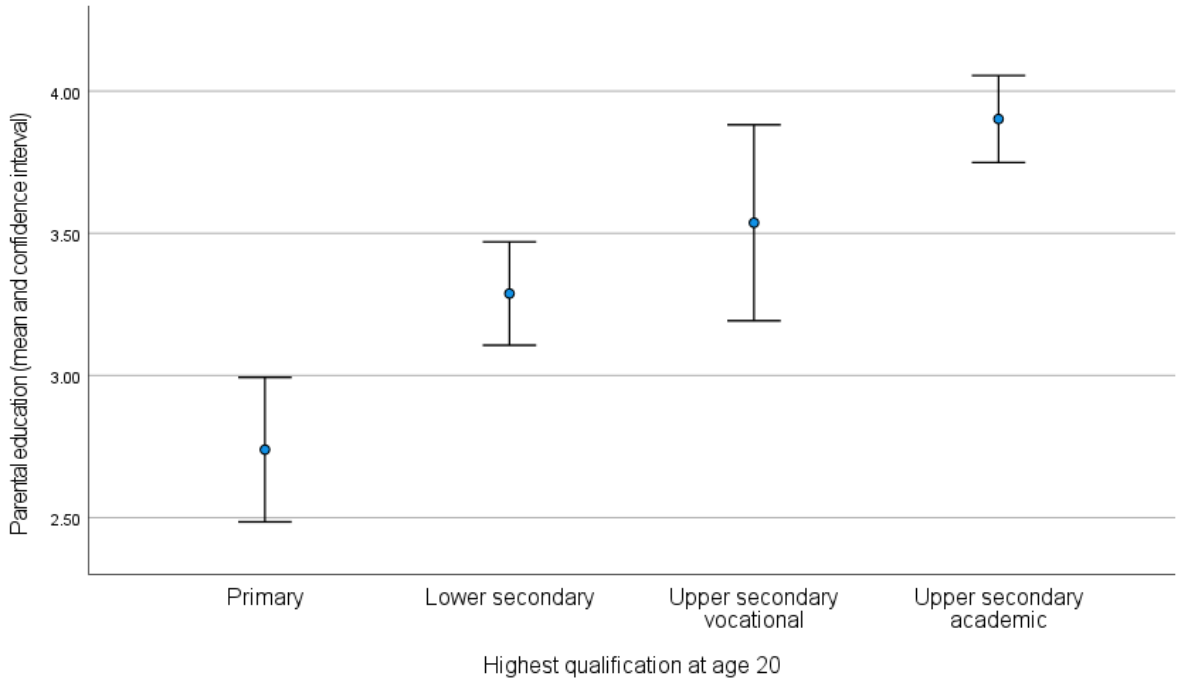
Table 4. Correlations of parental education with the mechanisms driving the influence of parental education on political engagement

Parental education and the mechanisms of its influence						
CELS		School SES	In-school political activities	Open classroom climate	Friends not interested in politics	Civic and political activities outside school
Parental education	Pearson Correlation	.298**	.105**	.055**	-.075**	.090**
	N	4664	4664	4533	4475	4664
Youth Survey US		My parents take me to museums or art galleries	Discuss books at home	Expect to go to university		
Parental education	Pearson Correlation	.205**	.149**	.114**		
	N	2203	2210	2223		
Youth Survey BHPS		Highest qualification at age 20				
Parental education	Pearson Correlation	.31***				
	N	621				

~ P < 0.1; * P < 0.05; ** P < 0.01; *** P < 0.001

Sources: Citizenship Education Longitudinal Study, British Household Panel Study and Understanding Society

Figure 3. Parental education by highest qualification achieved at age 20



Source: British Household Panel Study

3.2.2. Mechanisms explaining the effect of parental education on political engagement

3.2.2.1. The 16-20 age group

As explained in the methodology section, we provide separate analyses for the 16-20 and the 10-15 age groups. We start with the former to assess whether post-16 educational tracks can explain the influence of parental education. Since the analyses for RQ1 already taught us that social disparities in political engagement are stable for the post 16 group (as demonstrated by the non-significant relation between parental education and the post 16 *change* in political interest and voting intentions), we know from the onset that post-16 tracks do not play a role in enhancing or mitigating these disparities. This does not mean, however, that they cannot

have an independent effect on political engagement. Indeed, our analyses show that those with primary education or lower secondary education as their highest qualification at age 20 have a significantly lower growth in political interest between ages 16 and 20 than those with an upper secondary academic qualification (i.e. the reference category) at age 20 (see the coefficients -.078* and -.050* in Table 5 below). Interestingly, those with an upper secondary vocational qualification are not significantly different from the reference category in their growth rate (see the coefficient -.035). The difference is thus between those who completed a qualification in upper secondary and those who did not.). As many of those with primary and lower secondary as highest qualification at age 20 may well be in work already, the main dividing line in terms of growth rates seems to be between those who have left the education system after 16 and those who have stayed on. At the same time, adding the pathway variables to the model does not meaningfully change the effect of parental education on the 16-20 change in political interest (see the coefficients of parental education in Models 1 and 2), confirming that post-16 pathways do not increase or decrease social inequality in political engagement. In terms of the control variables, it is interesting to note that those in rented council homes show a significantly lower increase in political interest than those in privately owned homes and that girls show a significantly lower increase than boys. We return to the latter further below.

As to the initial level of political interest at age 16, we see that those with primary education or lower secondary education as highest qualification already have a significantly lower level of political interest at age 16 than those with upper secondary academic qualifications. As the groups with the lower qualifications also have a lower growth rate between ages 16 and 20, we can thus conclude that young people with different qualifications at age 20 *have drifted further apart* in their political interest during late adolescence. A similar conclusion can be drawn for gender – in terms of boys and girls diverging – because we see that girls also combine a lower initial level of political interest with a lower growth rate. We further see that children with educated and politically interested parents show a much higher level of political interest at age 16 than those with less educated and disengaged parents, confirming the findings for RQ1. Adding the pathways variables to the model does not change these relationships.

Table 5. The relation of post-16 pathway to the age 16 level and 16-20 change in political interest

Dependent variable: political interest								
	Effect on level at age 16				Effect on change between ages 16-20			
	Model 1 (without post 16 pathway)		Model 2 (with post 16 pathway)		Model 1 (without post 16 pathway)		Model 2 (with post 16 pathway)	
	b	se	b	se	b	se	b	se
Parental education	.14***	.02	.13***	.03	.00	.01	-.00	.01
Parental political interest	.27***	.04	.27***	.05	-.01	.01	-.01	.02
HH type	.04	.08	.08	.10	-.04	.03	-.04	.03
HH size	-.02	.03	-.02	.04	.00	.01	-.00	.01
Tenure								
Owner (ref cat)								
Council rent	-.08	.08	.11	.10	-.054*	.026	-.08*	.030
Private rent	.05	.15	.05	.18	-.063	.049	-.036	.054
Year of birth								
87-92 (ref cat)								
83-86	-.08	.06	-.08	.07	-.02	.02	-.01	.02
Gender (0-m;1-f)	-.16**	.06	-.20**	.07	-.055**	.019	-.052*	.021
Post 16 pathway (Highest qualification at age 20)*								
primary			-.30**	.11			-.078*	.034
lower secondary			-.18*	.08			-.050*	.024
upper secondary vocational			-.15	.13			-.035	.040
upper secondary academic (ref cat)								
Variance intercept	.36***	.03	.37***	.04				
Variance slope					.016***	.003	.017***	.003
R square	.25***	.04	.26***	.04	.089*	.041	.136**	.053
RMSEA	0.018		0.024		0.018		0.024	
Log-likelihood	-2862.04		-2312.94		-2862.04		-2312.94	
N	726		530		726		530	

~ P < 0.1; * P < 0.05; ** P < 0.01; *** P < 0.001

* This includes people who have left education

Sources: British Household Panel Study and Understanding Society

Table 6 below shows the results for supporting a political party (see RQ2 under Section 2.2 for why we focus on this outcome rather than voting intentions). Contrary to political interest, post-16 educational pathways do not show significant relationships with either the initial level or the subsequent change in political party support. In other words, those with primary education, lower secondary education or upper secondary vocational education as their highest qualification at age 20 are neither showing a significantly lower level of political party support at age 16 nor a significantly lower growth in this outcome between ages 16 and 20 than those with A levels as their highest qualification at age 20. As with political interest, we see that parental education and parental political engagement are strongly related to the initial level of political party support at age 16 but not to the subsequent change in this outcome between ages 16 and 20. Also similar to political interest, adding the post-16 pathways variables to the model does not change these relationships (see Model 2). Girls have lower levels of support at age 16 but are not significantly different from boys in the post-16 growth of political party support.

Table 6. The relation of post-16 pathway to the age 16 level and 16-20 change in support for a political party

Dependent variable: supporting a political party								
	Effect on level at age 16				Effect on change between ages 16-20			
	Model 1 (without post 16 pathway)		Model 2 (with post 16 pathway)		Model 1 (without post 16 pathway)		Model 2 (with post 16 pathway)	
	b	se	b	se	b	se	b	se
Parental education	.03***	.01	.03*	.01	.00	.00	.00	.00
Parental support for a political party	.13***	.03	.14***	.03	-.01	.01	-.00	.01
HH type	-.01	.03	-.01	.03	.01	.01	.00	.01
HH size	.01	.01	.01	.01	-.00	.00	-.00	.00
Tenure								
Owner (ref cat)								
Council rent	.00	.03	.02	.03	-.01	.01	-.02	.01
Private rent	.01	.04	.06	.06	.00	.02	.02	.02
Year of birth								
87-92 (ref cat)								
83-86	-.01	.02	.00	.02	.00	.01	.00	.01
Gender (0-m;1-f)	-.04*	.02	-.045	.024	.00	.01	.00	.01
Post 16 pathway (Highest qualification at age 20)*								
primary			-.06	.04			.00	.01
lower secondary			-.01	.03			-.01	.01
upper secondary vocational			-.08	.05			-.01	.02
Upper secondary academic (ref cat)								
Variance intercept	.03***	.00	.04***	.01				
Variance slope					.004***	.001	.003***	.001
R square	.13***	.03	.12**	.04	.02	.02	.05	.03
RMSEA	.023		.006		.023		.006	
Log-likelihood	-749.82		-613.68		-749.82		-613.68	
N	915		609		915		609	

~ P < 0.1; * P < 0.05; ** P < 0.01; *** P < 0.001

* This includes people who have left education

Sources: British Household Panel Study and Understanding Society

3.2.2.2. The 11-15 age group

Let us now turn to the 11-15 age group. As noted before, we found social disparities in political engagement to widen significantly during this life stage and we therefore have good reason to explore the factors that might account for this divergence in greater detail. Earlier we identified several factors relating to the home, school and wider community environment as possible mechanisms that could explain the impact of parental education (as indicator of social background) on the change in political engagement. In other words, they can be seen as mediating variables between parental education and political engagement. We included these factors in a stepwise fashion in the models shown by Table 7 below to see if the coefficient of parental education diminishes with the progressive inclusion of these variables. If it does, we can say that parental education exerts its effect through these mechanisms and that these mechanisms can thus explain the growing social inequality in political engagement during early adolescence. We focus on political interest as this is the only component of political engagement that CELS and the US Youth Survey have in common. Since CELS has good coverage of school and wider community factors and the US Youth Survey has so for those relating to the home and family, we split the analyses up by data source.

When we look at the CELS data, we see that the school factors (school SES, open classroom climate and in-school political activities) and the community ones (friends' political interest and out of school political activities) are indeed successful in diminishing the effect of parental education on the change in political interest during early adolescence. Moving from the model with only parental education and the control variables to the model with all factors included, the coefficient of parental education drops from .070 at the highest level of significance to .027 at the lowest level of significance. Thus, the school and community factors can account for more than half of the effect of parental education and thus for the rising social inequality in political interest between ages 11 and 15. We see that the school factors are slightly more successful than the community factors in doing so as the coefficient of parental education falls more when the former are included in the model (compare Model 2 to Model 3). All school and community factors show a strong positive relation to the change in political interest, except political activities outside school which is not related to this change. In other words, political interest rises faster in schools with a more privileged intake. It also does so for those who take part in school political activities, who perceive the climate of discussions

in class to be open and who have politically interested friends. School SES and friends' political interest are the most powerful predictors.

We further see that friends' political interest and political activities outside school show a strong positive relation with the initial level of political interest at age 11. In other words, those with politically interested friends and those who take part in political activities outside school are already more politically interested at age 11. School SES, however, shows a negative link with the initial level. The consecutive inclusion of these variables does not diminish the effect of parental education on the initial level of political interest since this effect was not significant from the start (see Model 1). The CELS data thus shows the exact same effect of parental education on the initial level of and the subsequent change in political interest as that shown by the youth survey of BHPS, the data source used for RQ1. This contributes to the robustness of the key finding relating to this RQ, which was that there are no social differences in political interest at the beginning of adolescence but that these differences emerge immediately thereafter.

Looking at the models based on US Youth Survey data, we see that the inclusion of the three factors relating to the family/home environment also diminishes the effect of parental education, although not to the same extent as the inclusion of school and community factors does: the coefficient of parental education falls from .056 at the .001 level of significance to .038 at the .01 level of significance (compare Models 1 and 2). In their combination, the analyses on the CELS and YSUS data suggest that the effect of parental education could well have been "explained away" entirely if the US Youth Survey had had appropriate measures for school and community factors (or if CELS had had good measures for family/home influences). Among the family/home factors, parents taking their children to museums and art galleries has the strongest positive influence on the change in political interest, with educational aspirations showing an almost equally strong positive effect. In other words, the more parents involve their children in these cultural activities and the higher their children's educational aspirations, the steeper the rise in political interest between ages 11 and 15. Discussing books at home is not related to the change in political interest.

Discussing books at home does, however, show a strong positive relation to the initial level of political interest at age 11, suggesting that this activity has an impact very early in life

but not in adolescence. Vice versa, parents taking their children to museums and art galleries does not show a link with the initial level.

Table 7. The determinants of political interest: Results from Mplus analyses

CELS																
	Initial level at ages 11 and 12								Change between ages 11/12 and 15/16							
	Model 1: only controls		Model 2: with school mediators		Model 3: with outside school mediators		Model 4: with all mediators		Model 1: only controls		Model 2: with school mediators		Model 3: with outside school mediators		Model 4: With all mediators	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Parental education	-.01	.02	.01	.02	-.03	.02	-.00	.02	.07***	.02	.034*	.015	.056***	.016	.027~	.015
Gender (0=m; 1=f)	.11***	.02	.11***	.02	.10***	.03	.10***	.02	-.12***	.02	-.12***	.02	-.13***	.02	-.13***	.02
White British (0=no; 1=yes)	-.18***	.05	-.20***	.05	-.16**	.05	-.18***	.05	-.04	.03	-.00	.03	-.02	.03	.01	.03
School SES			-.17***	.04			-.18***	.03			.17***	.03			.16***	.03
In-school political activities			.03	.02			-.00	.02			.07***	.02			.06***	.02
Open classroom climate			.00	.01			-.01	.02			.04**	.01			.03*	.01
Friends not interested in politics					-.09***	.02	-.10***	.02					-.11***	.01	-.11***	.01
Outside school political activities					.07***	.02	.08***	.02					.018	.013	-.01	.01
R2 (in %)	2.3		3.9		6.7		8.5		6.1		14.7		18.9		25.1	
N	4584		4457		4407		4304		4584		4457		4407		4304	

~ P < 0.1; * P < 0.05; ** P < 0.01; *** P < 0.001

Youth Survey Understanding Society								
	Initial level at ages 10 and 11				Change between ages 10-11 and 14/15			
	Model 1: only controls		Model 2: with home mediators		Model 1: only controls		Model 2: with home mediators	
Parental education	.04*	.02	.03	.02	.056***	.013	.038**	.013
Gender (0=m; 1=f)	.07**	.02	.08**	.02	-.03	.02	-.02	.02
White British (0=no; 1=yes)	-.15***	.03	-.13***	.03	.03	.02	.04	.02
Discuss books at home			.04**	.01			.01	.01
My parents take me to museums or art galleries			.02	.02			.04**	.01
Expect to go to university			.07~	.04			.10**	.03
R2 (in %)	8.6		12.3		4.8		9.7	
N	2092		2068		2092		2068	

Sources: Citizenship Education Longitudinal Study and Understanding Society

3.3. (RQ3) The lasting effect of post-16 educational pathway on political engagement

In the analyses for RQ2 we found that people with upper secondary academic qualifications (e.g. A levels) as their highest qualification at age 20 do not differ significantly from those with upper secondary vocational qualifications in the development of political interest between ages 16 and 20 but do show a stronger growth in their political interest between ages 16 and 20 than people with lower secondary and primary education as highest qualification at age 20. Post-16 educational pathway thus matters for the development of political engagement

during late adolescence. Does it also matter later in life? In other words, do post-16 educational pathways have an effect on political engagement that lasts into adulthood? This section explores this question by investigating whether post-16 educational pathways are related to the initial level (at age 16) and the subsequent change (ages 16-30) in political interest, intention to vote and support for a political party as our three indicators of political engagement.

We will conduct the same LGCM analyses as for the second research question but this time we will also include a variable relating to occupational status in the model in a stepwise fashion (see the tables below; Model 1 is without occupational status; Model 2 includes occupational status). This set-up does not only allow us to explore how lasting the effect of educational pathways is but also to assess whether this effect is absolute or positional. It is absolute if enrolment in the more prestigious pathways directly leads to greater engagement by enabling a greater understanding of the world of politics and better skills to navigate it. It is positional if such pathways only foster engagement through the social status (such as a prestigious job) that individuals manage to attain by completing these pathways (Nie et al 1996; Campbell 2006).[4] Social status has been argued to have a positive effect on political engagement by enhancing the *social network centrality* of individuals, giving them more opportunities to have access to policy makers and influence their decisions (*ibid.*). If educational pathways do not show a significant effect on the development of political engagement between ages 16 and 30 in a model without the occupational status variable, they have no lasting effect. If these pathways show an effect but this effect disappears once the occupational status variable is included, they exert a lasting positional effect (i.e. an effect mediated by occupation, suggesting that education influences political engagement through the social status that individuals attain with it). If they show an effect that does not diminish in strength after the inclusion of occupational status, they have a lasting absolute effect on engagement, at least partially.[5] We borrow this stepwise approach from Stubager (2008),

[4] Of course, there are other good indicators of social status such as income and tenure, but we could not use these indicators as models did not produce reliable results when we included variables capturing income and tenure.

[5] We add the word "partially" as educational attainment itself is also a widely used indicator of social status. Individuals can enhance their social network centrality on the basis of education alone, for instance by assuming active roles in local community life, although being introduced to new social circles is most likely to happen through one's work.

who pioneered this approach in his study of the effect of education on authoritarian versus libertarian attitudes.

It is relevant to explore whether the effect of educational pathways is absolute or positional because of the consequences for aggregate levels of political engagement. If the effect is positional, society as a whole will not become more engaged when more and more people complete prestigious pathways. This is because social status, as the key mechanism of a positional effect, is a relational property, meaning that the gain of one person automatically entails the loss of another. If the effect is absolute, overall levels of engagement will rise with educational expansion.

The picture that emerges from Tables 8, 9 and 10 further down, which focus on political interest, voting intentions and supporting a political party, respectively, is that post 16 educational pathways are mainly related to the age 16 *levels* of the three political engagement outcomes rather than the post 16 *change* in these outcomes. We see, for instance, that university graduates at age 25 have significantly higher initial levels in all three outcomes than people with an upper secondary academic qualification as their highest qualification at age 25 (the reference category). People with primary education or lower secondary education as highest qualification at age 25 have significantly lower initial levels of political interest and voting intentions than the reference category. In other words, teenagers who later on in their lives will be successful in achieving higher qualifications are already more politically engaged before they separate out into different pathways. This provisionally suggests that factors earlier in life mainly shape political engagement and that post-16 pathway has little to add.

However, we do see that those with upper secondary vocational qualifications at age 25 (e.g. a Btech or NVQ) have a significantly lower increase (or steeper decline) in political interest and in supporting a political party between ages 16 and 30 than the reference category (see Tables 8 and 10). As these groups did not differ significantly from the reference group in their initial levels of these outcomes at age 16, we can safely conclude that they have diverged after age 16. These results thus suggest that post-16 pathway does matter for the post 16 development of political engagement and that the main difference is not between qualifications of a different level (lower secondary, upper secondary or higher education) but of a different type (academic or vocational). This effect of pathway, moreover, seems to be

lasting until at least the late 20s / early 30s. Indeed, when we run a straightforward linear regression analysis of the Model 2 predictors on political interest at age 30, we see that those with upper secondary vocational qualifications and vocational tertiary qualifications at age 25 have significantly lower levels of political interest at age 30 than the reference category (the coefficient for upper secondary vocational is -.13** while that for vocational tertiary is -.13*).[6] Thus, while there was no difference between these groups in their initial levels of political interest at age 16, by the time they reached 30 a significant gap had opened up.

We further see that the occupational status variables show no significant links with either the initial level or the subsequent change in the political engagement outcomes. Adding these variables to the model has almost no consequences for the effects of the post 16 pathway variables. This suggests that the effect of pathway is at least partly absolute. In other words, apart from having an effect mediated through social status, pathway has a direct effect on political engagement.

The attentive reader will have noticed that the effect of post-16 educational pathway differs between the 16-20 and the 16-30 age groups. While among the former it is those with primary and lower secondary qualifications as their highest qualification at age 20 who have a lower growth rate in political interest than those with A-levels (as the reference category), among the latter it is those with vocational upper secondary qualifications as their highest qualification at age 25 who have a lower growth rate in political interest than the reference category. What can explain this difference? Possibly, this is due to people changing their highest qualification achieved between the ages of 20 and 25. For instance, among the ones with upper secondary vocational qualifications as their highest qualification at age 20 some will have continued their educational careers by studying for a tertiary vocational qualification or a BA degree. Hence, the ones with upper secondary vocational qualifications as highest qualification at age 25 are a more restricted group than the ones with such qualifications at age 20. It may well be that the ones who continued their education at age 20 differ from the ones who left education in their development of political interest.

[6] We could not find a similar significant difference between those with vocational and those with academic qualifications for supporting a political party at age 30, although the ones with vocational qualifications did show a lower level of support.

Table 8. The relation of post-16 educational pathways to the age 16 level and the 16-30 change in political interest

Dependent variable: political interest								
	Effect on level at age 16				Effect on change between ages 16-30			
	Model 1 (without occupational status)		Model 2 (with occupational status)		Model 1 (without occupational status)		Model 2 (with occupational status)	
	b	se	b	se	b	se	b	se
Post 16 pathways (Highest qualification at age 25)*								
primary	-.53***	.08	-.46***	.10	-.00	.01	-.01	.01
lower secondary	-.30***	.07	-.29***	.08	-.00	.00	-.00	.01
vocational upper secondary	-.09	.11	-.07	.12	-.02*	.01	-.02*	.01
academic upper secondary (ref)								
vocational tertiary	-.12	.09	-.09	.10	-.00	.01	-.00	.01
BA/MA degree	.40***	.07	.41***	.08	-.01	.01	-.01	.01
Gender (0-m;1-f)	-.18***	.05	-.18***	.05	-.02***	.00	-.02***	.01
Occupational status (at age 25)								
manager/ professional			.10	.07			.00	.01
intermediate			.10	.07			.00	.01
routine (ref)								
Variance intercept	.43***	.03	.45***	.03				
Variance slope					.003***	.00	.003***	.00
R square	.20***	.03	.20***	.03	.04*	.02	.04*	.02
RMSEA	0.030		0.030		0.030		0.030	
Log-likelihood	-10305.78		-8169.75		-10305.78		-8169.75	
N	1406		1117		1406		1117	

~ P ≤.1; * P ≤ .05; ** P ≤ .01; *** P ≤ .001

* This includes people who have left education

Table 9. The relation of post-16 educational pathway to the age 16 level and the 16-30 change in intention to vote

Dependent variable: voting intention								
	Effect on level at age 18				Effect on change between ages 18-30			
	Model 1 (without occupational status)		Model 2 (with occupational status)		Model 1 (without occupational status)		Model 2 (with occupational status)	
	b	se	b	se	b	se	b	se
Post 16 pathway (Highest qualification at age 25)*								
primary	-.10*	.05	-.03	.06	-.01	.01	-.01	.01
lower secondary	-.09*	.04	-.05	.05	-.00	.01	-.00	.01
vocational upper secondary	.05	.07	.06	.07	-.014~	.009	-.01	.01
academic upper secondary (ref)								
vocational tertiary	.02	.05	.04	.06	-.01	.01	-.01	.01
BA/MA degree	.12**	.05	.16**	.05	-.00	.01	-.00	.01
Gender (0-m;1-f)	-.05	.03	-.04	.03	.00	.00	-.00	.00
Occupational status (at age 25)								
manager/ professional			.05	.04			-.00	.01
intermediate			.04	.04			-.00	.01
routine (ref)								
Variance intercept	.10***	.01	.11***	.01				
Variance slope					.001***	.00	.001***	.00
R square	.07**	.02	.07**	.03	.02	.01	.01	.01
RMSEA	0.028		0.024		0.028		0.024	
Log-likelihood	-3909.70		-3024.44		-3909.70		-3024.44	
N	1238		970		1238		970	

~ P ≤.1; * P ≤ .05; ** P ≤ .01; *** P ≤ .001

* This includes people who have left education

Table 10. The relation of post-16 educational pathway to the age 16 level and the 16-30 change in supporting a political party

Dependent variable: supporting a political party								
	Effect on level at age 16				Effect on change between ages 16-30			
	Model 1 (without occupational status)		Model 2 (with occupational status)		Model 1 (without occupational status)		Model 2 (with occupational status)	
	b	se	b	se	b	se	b	se
Post 16 pathway (Highest qualification at age 25)*								
primary	-.03	.03	-.05	.04	-.00	.01	-.00	.00
lower secondary	-.02	.03	-.02	.03	-.00	.01	-.01	.00
vocational upper secondary	.00	.05	.01	.05	-.01	.01	-.010*	.005
academic upper secondary (ref)								
vocational tertiary	.00	.00	.01	.04	-.00	.00	-.00	.00
BA/MA degree	.11***	.03	.11***	.03	-.006~	.003	-.006~	.004
Gender (0-m;1-f)	-.02	.02	-.01	.02	-.00	.00	-.00	.00
Occupational status (at age 25)								
manager/ professional			.02	.03			.00	.00
intermediate			.01	.03			.00	.00
routine (ref)								
Variance intercept	.07***	.00	.06***	.01				
Variance slope					.001***	.00	.001***	.00
R square	.05**	.02	.06**	.02	.01	.01	.02	.01
RMSEA	0.041		0.041		0.041		0.041	
Log-likelihood	-4480.03		-3614.85		-4480.03		-3614.85	
N	1406		1117		1406		1117	

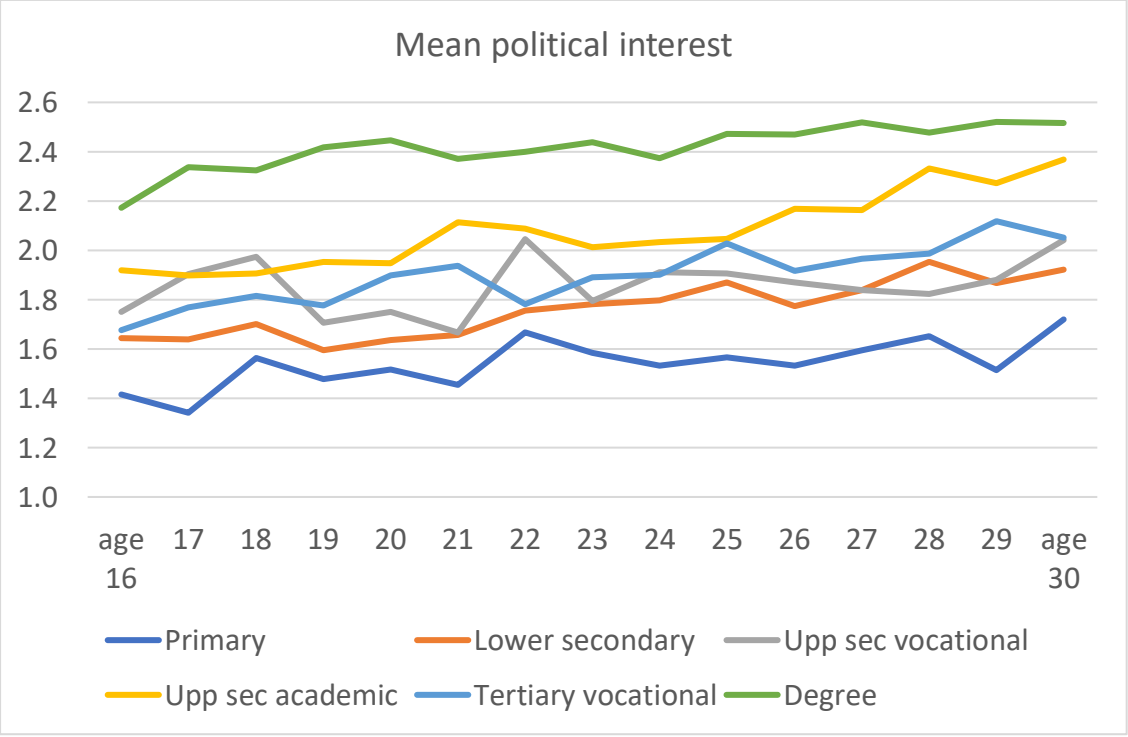
~ P ≤.1; * P ≤ .05; ** P ≤ .01; *** P ≤ .001.

* This includes people who have left education

Sources: British Household Panel Study and Understanding Society

The models in Tables 8 and 10 only allow us to establish that people with upper secondary vocational and upper secondary academic qualifications have come to diverge in their political interest and political party support after age 16 but not the *direction* of this divergence, i.e. downward or upward (we do not comment on Table 9 because there is no divergence for voting intentions). Figures 4 and 5 below allow us to scrutinise these diverging trends in detail. Regarding political interest (Figure 4) we see a slight upward trend for all educational tracks between ages 16 and 30. Young people who will achieve a degree at age 25 are already much more politically interested than all other groups at age 16. From age 25 people with upper secondary academic qualifications (e.g. A levels) move towards the ones with degrees until, at age 30, the two groups only show a small difference in their political interest. At the same time the difference between the A levels group and the ones with vocational qualifications grows larger between ages 25 and 30. Thus, in the late 20s a gap opens up between people with academic and vocational qualifications, irrespective of the level of these qualifications.

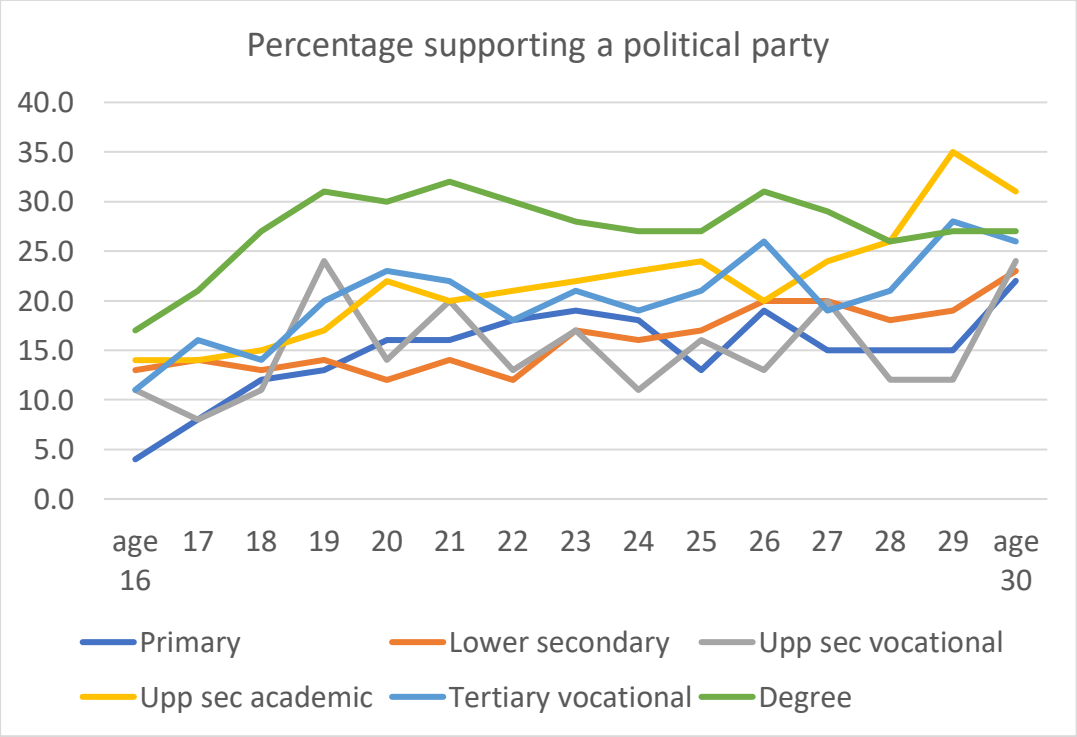
Figure 4. The development of political interest between ages 16 and 30 by highest qualification attained at age 25



Sources: British Household Panel Study and Understanding Society

Broadly similar trends can be seen for supporting a political party (see Figure 5, which shows the percentage of people supporting a political party by highest qualification achieved at age 25). We see a modest upward trend for all education groups starting from a very low initial level (the levels at age 16 range between 4 and 17 %). The trend is less linear than for political interest, though, as levels of support rise during late adolescence for all groups and then seem to stabilize up to the late 20s. Until the mid-20s the people with degrees at age 25 distinguish themselves from all other education groups by showing much higher levels of support. After age 26 the university graduates show a small decline in political party support, however, while the ones with an upper secondary academic or a tertiary vocational qualification see their levels rise (for the former to such an extent that they overtake the university graduates in political party support). As with political interest, people with academic qualifications show the highest levels of support by the end of the time series but the difference with people with other qualifications is quite small. More generally, these patterns show that political party support is still quite volatile during early adulthood for the different education groups.

Figure 5. The development of political party support between ages 16 and 30 by highest qualification attained at age 25



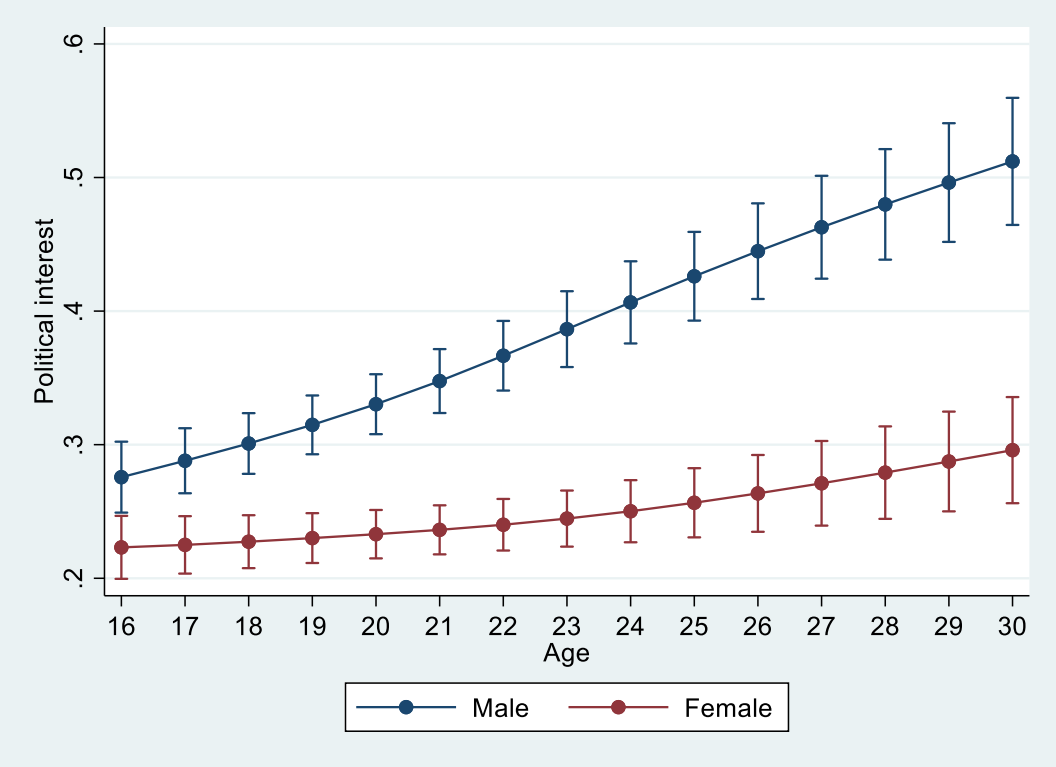
Sources: British Household Panel Study and Understanding Society

3.4. (RQ4) The factors explaining the widening gender gap in political interest

The sharply growing gender gap in political interest (as shown by the highly significant impact of gender on the 16-30 change in political interest in Table 8) led us to conduct additional analyses to explore the reasons behind this growing gap. As explained in the introduction, these analyses were not foreseen in the original proposal. In the previous section we explained that we transformed the political interest variable into a binary one with two values: 0 = not at all and not very interested; 1 = quite and very interested. We also explained how we measured a number of possible factors that could explain the growing gap. These factors concern family socialization, post 16 educational pathway, and adult roles relating to work and family life. We examine the impact of these factors with a growth model that includes three-way interactions between age, gender and each of the concerned factors (see previous section).

Figure 6 below, which presents the predicted probability of being quite or very interested in politics, shows in detail how the gender gap evolves between ages 16 and 30. We can see that men and women do not differ much in their political interest at age 16: although men still have a significantly higher probability than women (as shown by the non-overlapping confidence intervals), both groups have a less than 30% chance of being quite or very interested. However, after age 16 the growth in political interest is much higher for men than for women, so that by age 30 men have a 52% chance of saying they are quite or very interested while women only have a 29% chance of saying so.

Figure 6. The development of political interest among men and women between ages 16 and 30 (predicted probability of being quite or very interested based on Model 1 of Table 10)



Sources: British Household Panel Study and Understanding Society

Figure 6 is based on the unconditional model in Table 11 (i.e. Model 1) (see further down). As this model shows odds ratios, values between 0 and 1 represent a negative effect while values of more than 1 denote a positive one. The interaction effect of age with being female is negative and highly significant. When examining the factors relating to family socialization (i.e. parental education, parental gender attitudes), post-16 educational pathway (i.e. highest education achieved at age 25), and adult roles (i.e. occupational status and household type), we only found post-16 educational pathway to show a significant relation with the post 16 development of political interest. [7] Hence we show the model with only this factor included (i.e. Model 2 in Table 11). This model performed well both in terms of model fit (as indicated

[7] The model with all the predictors included showed a slightly better model fit but it was based on less than half of the number of observations of Model 2 due to the many missing values on the adult roles variables (see the number of observations in Appendix C).

Table 11. The determinants of political interest (growth model) (shortened version)

Dependent variable: political interest				
	Model 1		Model 2	
	Odds ratio	SE	Odds ratio	SE
Female	0.53***	0.10	0.25***	0.09
age	1.17***	0.03	1.10*	0.05
Female * age	0.88***	0.02	0.98	0.06
Post 16 educational pathway (highest qualification at age 25)*				
Level 1 and below			0.03***	0.01
Level 2			0.11***	0.04
Level 3 (vocational)			0.46	0.27
Level 3 (academic) (ref)				
Higher education (vocational)			0.28*	0.17
Higher education (general)			0.77	0.39
Two way interactions				
Level 1 and below * Female			5.03*	3.47
Level 2 * Female			3.51*	1.72
Level 3 (vocational) * Female			5.02*	4.10
Level 3 (academic) * Female (ref)				
Higher education (vocational) * Female			4.21~	3.41
Higher education (general) * Female			1.16	0.78
Level 1 and below * age			1.05	0.07
Level 2 * age			1.12*	0.06
Level 3 (vocational) * age			1.02	0.10
Level 3 (academic) * age (ref cat)				
Higher education (vocational) * age			1.02	0.08
Higher education (general) * age			1.09	0.07
Three-way interactions				
Level 1 and below * Female * age			0.86	0.09
Level 2 * Female * age			0.81**	0.07
Level 3 (vocational) * Female * age			0.77*	0.10
Level 3 (academic) * Female * age (ref)				
HE (vocational) * Female * age			0.90	0.09
HE (general) * Female * age			0.93	0.08
Constant	0.11	0.03	0.49	0.17
Variance (age)	0.04***	0.01	0.05***	0.01
Variance (constant)	9.74***	0.85	8.33***	0.73
Covariance (age, constant)	-0.14**	0.04	-0.17***	0.04
Observations (i.e. time points)	12159		12159	
ROC area	0.62		0.70	
	Other control variables: year of interview			

~ P ≤.1; * P ≤ .05; ** P ≤ .01; *** P ≤ .001.

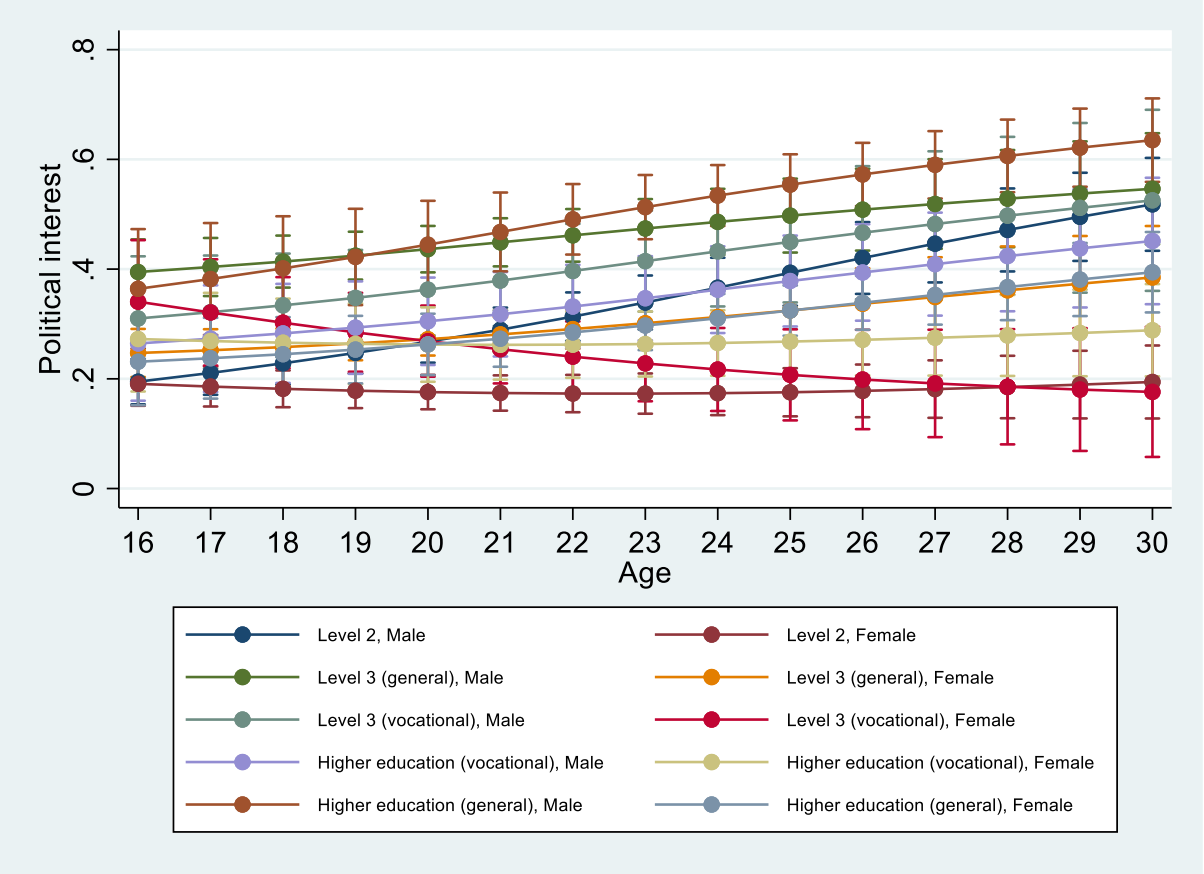
* This includes people who have left education

Sources: British Household Panel Study and Understanding Society

by the ROC area) and number of observations. For all the other models, including the model with all the predictors included, we refer to Appendix C. The three-way interaction effects in Model 2 show that women with level 2 qualifications and level 3 vocational qualifications at age 25 have a significantly lower growth in the probability of being politically interested than men with a level 3 academic qualification (the reference category).

These diverging trajectories are well captured by Figure 7 below, which shows the predicted probabilities of being quite or very interested in politics generated by Model 2. We see that men's trajectories all move upwards, irrespective of qualification obtained, albeit with different paces. Women show quite mixed pathways. While those with level 3 academic qualifications (i.e. A levels) have the same growth rate as men, those with level 2 qualifications and HE vocational degrees show stable trajectories, and those with level 3 vocational qualifications even show a decline in political interest. The diverging trajectories within the group of women are quite pronounced: whilst those with level 3 vocational qualifications start with higher levels of political interest at age 16 compared to those with level 3 academic qualifications, by age 30 the former are 20 percentage points behind (a 20% chance of the former versus a 40% chance of the latter being politically interested). The lagging growth of women with level 2 and level 3 vocational qualifications suggests that specific socialization processes are occurring in these pathways that prevent women from becoming more politically engaged.

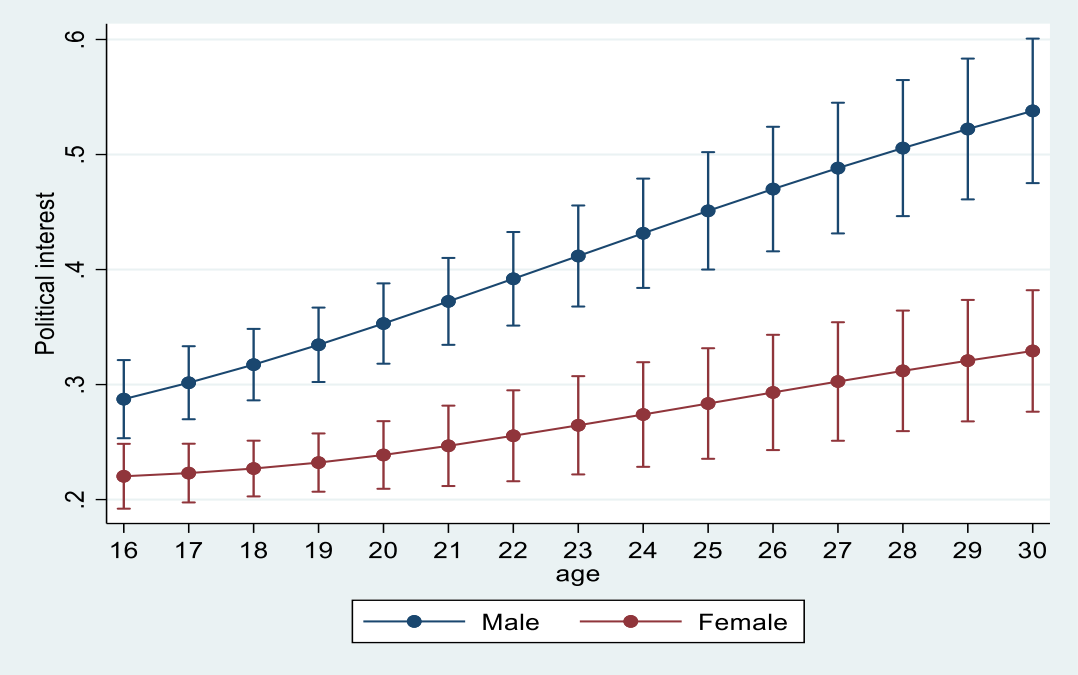
Figure 7. The development of political interest by gender and highest qualification at age 25 (based on Model 2 of Table 10)



Sources: British Household Panel Study and Understanding Society

Although post-16 educational pathway can thus shed light on the growing gender gap in political interest, it cannot "explain away" this gap, as shown by Figure 8. This figure displays the Model 2 predicted probabilities of being politically interested by gender. Compared to the trajectories shown in Figure 6, the difference between men and women has become a bit smaller and the confidence intervals a bit larger, but most of the gap between men and women remains unaccounted for.

Figure 8. The development of political interest among men and women between ages 16 and 30 (predicted probability of being quite or very interested based on Model 2 of Table 10)



Sources: British Household Panel Study and Understanding Society

4. Conclusions and implications for policy and practice

4.1 Our findings

In this report we examined the development of social inequality in political engagement over the life course of young people between ages 11 and 30. We further explored whether post 16 educational pathway and other educational and non-educational factors can explain this development. We also assessed whether post 16 educational pathway has an effect on political engagement that lasts into adulthood. Finally, we explored the gender gap in political interest and what can explain the development of this gap between ages 16 and 30. We used political interest, intention to vote and support for a political party as indicators of political engagement. Social background was measured with the highest level of education of the parents. We used the highest qualification attained at ages 20 and 25, both in terms of type (academic and vocational) and level, as measure of post 16 educational pathway.

Key finding: Between ages 11 and 15 children from different social backgrounds drift apart in political engagement

We found the social gap in political engagement to open up in early adolescence: at age 11 there is no difference between children with well-educated and less well-educated parents in political interest and voting intentions, but by the time they become 15 the former have an eight per cent higher level of political interest and express a nine per cent stronger intention to vote. After age 16 the political interest and intentions to vote rise for almost all groups but the social difference stabilises. These trends demonstrate that early adolescence is a crucial life stage for the development of the social inequality in political engagement.

As the social gap in political engagement emerges *before* 16 and does not change thereafter, post-16 educational pathway cannot play a role in explaining this gap. Our analyses indeed confirmed that the different educational pathways that young people engage in after age 16 are not related to social differences in the post 16 development of political engagement. We did not anticipate this finding. Based on the considerations mentioned in

the introduction of this report and our own previous research (e.g. Janmaat et al 2014; Hoskins and Janmaat 2016; Hoskins and Janmaat 2019), we expected post 16 pathways to magnify the social gap in political engagement in late adolescence and early adulthood.

Why has the expected effect not occurred? Possibly it has not because our indicators of political engagement all reflect the *motivational* and *affective* dimension of political engagement. According to Verba et al (2005) outcomes reflecting this dimension, such as political interest, intention to vote and identification with a political party, are all shaped by parental socialisation early in life. This would indeed explain why we found parental education and parental political engagement, as two important indicators of parental socialisation, to only influence the development of political interest and voting intentions in early adolescence and not thereafter. By contrast, the forms of political engagement that require more resources, knowledge and skills, such as organising a campaign, recruiting people for a cause, donating money to a political party and other kinds of political activism, are more dependent on educational attainment and income during adulthood and therefore remain volatile until much later in life (*ibid.*).

Key finding: People with A levels show a steeper growth in political engagement between ages 16 and 30 than those with post-16 vocational qualifications

However, our focus on the motivational dimension of political engagement does not rule out the possibility that post-16 educational pathway could have some effect on the outcomes reflecting this dimension. Indeed, we found those with an upper secondary vocational qualification (such as a Btech or NVQ) as their highest level of education at age 25 to have a significantly lower rate of growth in political interest and support for a political party between ages 16 and 30 than those with an upper secondary academic qualification (i.e. A levels) as highest level of education at age 25. Not only is this in agreement with our initial expectation and our earlier research, in which we found those with upper secondary vocational qualifications to lag behind those with A levels and degrees (i.e. Janmaat et al 2014; Hoskins and Janmaat 2016; Hoskins and Janmaat 2019), it also shows that post-16 educational pathways can have effects on political engagement that last deep into adulthood. We are not

aware of any research examining the lasting effects of educational trajectories on other dimensions of political engagement, but we would expect such effects to be much more pronounced on various expressions of political activism based on the reasoning offered above.

Key finding: The growing gender gap in political interest between ages 16 and 30 is partly explained by women with lower level and vocational qualifications showing lower growth rates in political interest

Moreover, we found that post-16 educational pathway can explain a small part of the growing *gender* gap in political interest in late adolescence and early adulthood. We showed that men not only start from a slightly higher level of political interest at age 16 but also see their political interest rise faster than women do between ages 16 and 30. When breaking these differential growth rates down by highest qualification at age 25, we found that women with lower level and upper secondary vocational qualifications had significantly lower growth rates than all other groups. Women with such vocational qualifications actually experienced a decline in political interest between ages 16 and 30.

Key finding: schools exacerbate the social gap in political interest among 10 to 15 year olds

The growing social gap in political engagement during early adolescence led us to focus on the 10 to 15 year olds in our efforts to explore factors that can explain this gap. We identified conditions relating to the home, the school and the wider community as possibly influential factors. The ones relating to the school, i.e. taking part in school political activities, an open climate of classroom discussion and school social composition, proved quite influential, explaining more than half of the growing social gap in political interest. Regarding the first two of these school conditions it appeared that children with well-educated parents had higher levels of participation in these civic learning opportunities and that participation in these opportunities, in turn, is positively related to the development of political interest between ages 10 and 15. These findings lead us to conclude that schools *amplify* social

inequality in political engagement by not offering equal access to civic learning opportunities for children from disadvantaged backgrounds.

Regarding the effect of school social composition, we found that students in schools with a more privileged intake showed a steeper rise in political interest between than students in schools with higher proportions of disadvantaged students. This indicates that social inequalities in political interest are further exacerbated by the social segregation in the school system. Previous research can shed light on this relationship. It suggests that social segregation has an indirect effect on political engagement by influencing the availability of civic learning opportunities in school. Thus, McFarlane and Starmanns (2009) found that schools with a largely disadvantaged intake were not only less likely to have a student or school council but also gave such councils fewer powers than schools with a more privileged intake. According to Ben Porath (2013) and Bischoff (2016), the former offer fewer of such civic learning opportunities because they prioritise the improvement of the academic achievement of disadvantaged youth, leading them focus on the core subjects of English and maths and to enforce strict behavioural regulations. Strict rules, however, discourage open discussions and student initiatives, which are important channels for fostering a sense of ownership, efficacy and political engagement (Ben-Porath 2013).

With respect to conditions relating to the home environment, we found that children whose parents took them to museums and art galleries showed a much steeper rise in their political interest than children whose parents did not do so. This suggests that exposing children to new environments where they can learn about history or aspects of the current society can be helpful in promoting their civic and political engagement.

A possible criticism on our findings regarding the impact of education is that the widening social gap in political engagement may be an autonomous process over which schools have little influence. In this line of thinking terms such as political interest and institutions such as political parties are part of the cultural capital of the middle classes (cf. Bourdieu and Passeron 1977). While children from middle class families will automatically embrace the world of politics as part of their upbringing, those from working class backgrounds will struggle to connect with it and will consider this world to be part of “them”. However, if this were true, the school factors that we examined should have only acted as conduits of the influence of parental education and not exerted an independent effect on

political engagement themselves. We, on the other hand, found the independent effect of these factors to be much larger than their effect as conduit, as is demonstrated by the fact that the explained variance of the 11-15 change in political interest jumped from 6.1% to 14.7% when the school factors were included in the model (see Table 7). It is the difference between these percentages that indicates the independent effect of these school factors. Moreover, we know from previous research that children from disadvantaged backgrounds benefit more from taking part in civic learning opportunities in school in terms of enhanced political engagement than children from middle class families (Campbell 2008; Neundorf et al 2016; Hoskins et al 2017). Consequently, if access to civic learning opportunities had been equal across social groups, schools might well have been able to *reduce* the social gap in political engagement.

4.2 Our recommendations for policy and practice

Based on these findings we would call on schools to ensure that children from disadvantaged backgrounds are fully taking part in activities that are effective in fostering political engagement. Strategies need to be developed to enable the election or appointment of such children in school councils, to prompt them to take on leadership roles and take the initiative in organising events and campaigns. In view of the *voluntary nature* of participation in such activities, which makes working class children opt out and thus produces an overrepresentation of children from middle class backgrounds in these activities (Hoskins and Janmaat 2019), such strategies need to focus on actively encouraging those who are less likely to take part spontaneously. For instance, when monitoring participation in open discussions in class, teachers can ensure more equal participation by calling on silent children to speak up rather than leaving it up to children to participate. When groups are created to discuss political issues and representatives are chosen to report the group discussion back to the whole class, the teacher can give turns in selecting the representatives. In other words, ensuring more equal participation requires a more active role of the teacher and a restriction of free choice.

The findings further suggest that the social segregation in the school system needs to be scaled back in order to mitigate the emerging social gap in political engagement during early adolescence. Considering the point made above, this may also help in achieving a more equal distribution of civic learning opportunities across schools. In addition or alternatively, schools with many children from disadvantaged backgrounds could be encouraged to provide more civic learning opportunities.

In view of our finding about taking children to museums and art galleries, schools might consider stepping up their extra-curricular activities, such as excursions to Westminster, museums and theatres. Such activities might be particularly effective when organised by schools whose intake mainly consists of disadvantaged children.

Finally, our research leads us to advocate more civic learning opportunities in the vocational pathways in upper secondary, particularly those that attract girls, such as courses in health, social care and beauty (Ledman et al 2021). As explained in the introduction, the system of upper secondary education in England is highly differentiated and specialised, with vocational pathways offering mainly practical, job-specific courses and training. England could learn here from France where citizenship education ('enseignement moral et civique'), history and geography, and several other general subjects are compulsory components of the curriculum in upper secondary vocational education (Janmaat and Mons, *forthcoming*). Based on our findings, we would expect that girls in vocational education would become more politically engaged and that vocational education would not have lasting negative effects on political engagement if vocational education in England included more of such civic learning opportunities.

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Appendix A. Descriptive statistics of the variables included in the analyses for RQ1.

	Minimum	Maximum	Mean	Std. Deviation
Political interest age11	1.00	4.00	1.6962	1.00700
Political interest age12	1.00	4.00	1.6358	.98158
Political interest age13	1.00	4.00	1.6220	.97008
Political interest age14	1.00	4.00	1.5882	.95414
Political interest age15	1.00	4.00	1.5970	.97774
Political interest age16	1.00	4.00	1.7731	.85961
Political interest age17	1.00	4.00	1.8201	.89800
Political interest age18	1.00	4.00	1.8713	.92009
Political interest age19	1.00	4.00	1.8656	.90958
Political interest age20	1.00	4.00	1.9328	.95640
Political interest age21	1.00	4.00	1.9314	.94100
Political interest age22	1.00	4.00	1.9596	.94562
Political interest age23	1.00	4.00	2.0088	.96402
Political interest age24	1.00	4.00	2.0121	.97012
Political interest age25	1.00	4.00	2.0771	.99270
Political interest age27	1.00	4.00	2.1074	.96171
Political interest age28	1.00	4.00	2.2311	.94909
Political interest age29	1.00	4.00	2.1095	.99396
Political interest age30	1.00	4.00	2.1716	.93813
Voting intentions age 11	.00	1.00	.3904	.48800
Voting intentions age 12	.00	1.00	.4374	.49621
Voting intentions age 13	.00	1.00	.4805	.49976
Voting intentions age 14	.00	1.00	.4794	.49972
Voting intentions age 15	.00	1.00	.4887	.50001
Voting intentions age 16	.00	1.00	.3396	.47448
Voting intentions age 17	.00	1.00	.3552	.47917
Voting intentions age 18	.00	1.00	.3384	.47346
Voting intentions age 19	.00	1.00	.3551	.47886
Voting intentions age 20	.00	1.00	.3481	.47672

Voting intentions age 21	.00	1.00	.3752	.48458
Voting intentions age 22	.00	1.00	.3939	.48909
Voting intentions age 23	.00	1.00	.3976	.48999
Voting intentions age 24	.00	1.00	.3724	.48416
Voting intentions age 25	.00	1.00	.4050	.49178
Voting intentions age 27	.00	1.00	.4106	.49314
Voting intentions age 28	.00	1.00	.4000	.49160
Voting intentions age 29	.00	1.00	.4091	.49392
Voting intentions age 30	.00	1.00	.4306	.49863
Parental education	1	7	3.43	1.42
Parental political interest	1.00	4.00	2.1081	.75232
Parental party support	0	1	.3009	.39155
Household type	.00	1.00	.7774	.41615
Household size	2.00	13.00	4.1785	1.16417
Tenure				
owning	.00	1.00	.7000	.45840
renting from council	.00	1.00	.2485	.43226
renting from private landlord	.00	1.00	.0515	.22115
Year of birth				
83-86	.00	1.00	.3435	.47498
87-89	.00	1.00	.3224	.46750
90-92	.00	1.00	.3341	.47179
gender [0=m; 1=f]	0	1	.50	.500

Appendix B. Items composing the Open Climate variable.

“We would like to know what generally happens in your lessons. In lessons...”

- Do students bring up issues in the news for discussion?

- Are students encouraged to make up their own minds about issues?

- Do students feel free to express opinions even when they are different from most of the class?

- Do teachers present several sides of an issue when explaining it?

- Do teachers respect students’ opinions and encourage them to express them?

- Do students feel free to disagree with teachers during discussions about topical issues?

Response categories: not at all; not much; sometimes; quite a bit; a lot

Appendix C. The determinants of political interest (Growth curve model; odds ratios)

	1	2	3	4	5
Female	0.53***	0.25***	0.08	0.57	0.40
age	1.17***	1.10*	0.92	1.20~	1.07
Female # age	0.88***	0.98	1.18	0.93	1.12
Parents' education			1.10*		0.94
Female # Parents' education			1.17*		1.10
Parents' education # age			1.01		1.01
Female # Parents' education # age			0.99		0.99
Parents' view on gender roles			0.73		1.38
Female # Parents' view on gender roles			0.76		0.52
Parents' view on gender roles # age			1.03		0.96
Female # Parents' view on gender roles # age			1.00		1.06
Ref.: Level 3 (general)					
Level 1 and below		0.03***	0.04***		0.06***
Level 2		0.11***	0.13***		0.09***
Level 3 (vocational)		0.46	0.46		0.06**
Higher education (vocational)		0.28*	0.29*		0.42
Higher education (general)		0.77	0.76		0.65
Studying level 2		0.71	0.72		0.57
Level 1 and below # Female		5.03*	7.64**		7.03~
Level 2 # Female		3.51*	3.89**		10.08**
Level 3 (vocational) # Female		5.02*	5.61*		12.58~
Higher education (vocational) # Female		4.21~	4.53~		5.48
Higher education (general) # Female		1.16	1.09		2.15
Studying level 2 # Female		0.90	0.90		1.91
Level 1 and below # age		1.05	1.08		1.16
Level 2 # age		1.12*	1.13*		1.25**
Level 3 (vocational) # age		1.02	1.04		1.26*
Higher education (vocational) # age		1.02	1.02		1.03
Higher education (general) # age		1.09	1.09		1.17~
Studying level 2 # age		1.29	1.29		1.35
Level 1 and below # Female # age		0.86	0.82~		0.70**

Level 2 # Female # age		0.81**	0.79**		0.70**
Level 3 (vocational) # Female # age		0.77~	0.75*		0.65*
Higher education (vocational) # Female # age		0.90	0.89		0.86
Higher education (general) # Female # age		0.93	0.94		0.85
Studying level 2 # Female # age		1.17	1.18		1.14
Ref.: Service class					
Intermediate class				1.55	2.10
Routine class				1.11	1.51
Student				2.02	2.64
Intermediate class # age				0.99	0.97
Routine class # age				1.02	1.01
Student # age				0.98	0.98
Ref.: Single					
Couple				0.84	0.90
Couple with children				0.66	0.99
Single with children				1.17	1.25
Other				0.22*	0.26~
Couple # Female				1.63	1.61
Couple with children # Female				0.50	0.38
Other # Female				1.21	1.16
Couple # age				0.97	0.97
Couple with children # age				0.91	0.92
Single with children # age				0.85~	0.89
Other # age				0.99	0.99
Couple # Female # age				0.89	0.89
Couple with children # Female # age				1.06	1.07
Other # Female # age				0.98	0.98
Constant	0.11	0.49	0.39	0.10	0.19
Variance (age)	0.04***	0.05***	0.04***	0.03***	0.03***
Variance (constant)	9.74***	8.33***	8.01***	8.26***	7.08***
Covariance (age, constant)	-0.14**	-0.17***	-0.17***	-0.11~	-0.12*
Observations	12159	12159	12159	5361	5361
ROC area	0.62	0.70	0.69	0.66	0.72
Other control variables: year of interview					