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School subject choices in adolescence affect political party support

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ABSTRACT

The educational cleavage is restructuring electoral competition in many democracies, yet there has been insufficient attention on how variation in educational content affects this. In order to address this, this article combines English administrative school records with a unique representative panel of adolescents to estimate the within-individual effect of studying different subjects at school on political party preference. This analysis finds that studying arts and humanities subjects leads to greater support for socially liberal parties, whilst studying business and economics increases support for economically right-wing parties. Students who study technical subjects become more likely to support socially conservative and economically right-wing parties. These relationships between particular subjects and party support also persist into adulthood. As such, this article provides new evidence on the importance of subjects taken in secondary school for political socialisation, during the impressionable years of adolescence.

KEYWORDS Education; Gal-tan; cultural cleavage; subjects; field of education

Education is now a dominant factor structuring electoral competition across European democracies (Ford and Jennings 2020; Marks *et al.* 2020). Scholars generally attribute this to the increased importance of the ‘cultural’ dimension of politics following post-war educational expansion and the advent of globalisation, whereby issues like immigration, European integration, the environment, and cultural change versus tradition and authority became more important voters (Bornschieer 2010; Kitschelt 1994; Kriesi *et al.* 2008). These new demands are met through changes to existing parties and the emergence of new challenger parties, ranging from green/alternative/libertarian parties on one side, and traditional/

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authoritarian/nationalist parties on the other side of the emerging cleavage ('GAL-TAN', see Hooghe *et al.* 2002), with this axis largely supplanting the traditional economic left-right dimension in the eyes of voters (Dassonneville *et al.* 2024). This finding is supported by an important wave of recent empirical work identifying a causal link between *more* education and – broadly speaking – more liberal and progressive political views (Apfeld *et al.* 2024; Campbell and Horowitz 2016; Cavaille and Marshall 2019; Marshall 2016).

But why education has this effect is still subject to ongoing inquiry. While causally-identified studies address the problem of selection, many scholars alight upon theories of socialisation to explain the residual effect that education plays in political development (Mendelberg *et al.* 2017; Stubager 2008; Surridge 2016). Existing evidence posits the family as the primary setting of political socialisation (Sears and Brown 2023), whereby parents directly shape the development of their children's political worldview. This initial development then has the potential to be contested and restructured during the 'impressionable years' of adolescence and early adulthood, as part of growing independence from one's family (Neundorf and Smets 2017).¹ In this way, education is considered to play an important role in this secondary stage of political socialisation.

Just as families vary in their direction and degree of political socialisation (Neundorf *et al.* 2016), so too could different educational experiences. Recent studies in this vein demonstrate the value of disaggregating between different subjects or fields of study. Hooghe *et al.* show that the field of education of a person's highest qualification strongly predicts voting for GAL and TAN parties, arguing that it is the subjects' 'human-centeredness' that makes the difference (Hooghe *et al.* 2025). Almstedt Valldor (2024) similarly finds that more time spent in sociocultural education between the ages of 16 and 18 renders people more socially progressive, and therefore less likely to support parties of the radical right. Meanwhile, Scott uses British cohort study data to show that arts, humanities and social science subjects are more liberalising than other degrees (Scott 2025). These contributions show that subject differences can predict political views and vote choice. But while differences in post-compulsory education are without doubt important, we contend that there has been too little emphasis to date on school subjects and educational pathways during secondary schooling, despite this schooling taking place at precisely the time that young people are developing their political perspectives.

This article addresses these issues and analyses the effect of secondary school subjects on vote choice. We are able to accurately observe the exact subjects studied for compulsory and high stakes secondary school exams in English administrative data, for the youngest cohorts of English voters. This data is linked to a probability household panel survey, which

records information on political preferences (including for a longitudinal panel of young people) and other voter characteristics. We use this information to estimate the extent to which studying a given subject changes an individual's party preference during this crucial period for political socialisation, and to what extent these relationships persist into adulthood. We find that particular school subjects predict political party preference: those who study creative arts and humanities in secondary school (Drama, Music, Art, and History in particular) are more inclined to vote for the Greens and Liberal Democrats, and much less likely to support the radical right. However, we also find that studying Economics and Business predicts vote intention for the economically right-wing Conservative Party.

This article contributes to the literature in three main ways. Firstly, by leveraging a unique panel study of adolescents combined with administrative data on their educational qualifications, we provide the first account of how differences in exposure to particular subjects (and therefore curriculum content) *during* compulsory schooling can differentially affect the development of political party preferences during adolescence, and also show that these differences largely persist into adulthood. This represents a valuable addition to emerging literature on the political effects of education but also to the political socialisation literature more generally. This focus on variation in the nature of the education that adolescents experience also moves beyond studies that estimates the effects of 'more education', and instead provides support and additional nuance to the research advanced by Almstedt Valldor (2024), Hooghe *et al.* (2025) and Scott (2025). Finally, we focus on secondary schooling, rather than university education, taking seriously the idea that different educational experiences shape the political vies of the whole population, and not just those who attend tertiary education.²

The article proceeds in the following way. First, we explain how schooling has been linked to vote choice in previous research, contextualising the contribution of this study. Second, we discuss our research design, justify our case selection and introduce our panel and administrative data in more detail. Next, we present our main results and interpretation. Finally, we discuss our conclusions and their implications for future work.

Literature review

Researchers across many contexts agree that more education, often university education, is associated with more support for parties with green/alternative/libertarian characteristics (Marks *et al.* 2020). Increasingly, studies investigating these relationships use research designs that plausibly account for selection and argue that more education causes this support

to rise. For instance, leveraging changes in school leaving ages across five Western European democracies (including Great Britain), Cavaillé and Marshall (2019) find that an additional year of schooling significantly reduces support for far-right anti-immigration political parties, as well as anti-immigration attitudes.³ Apfeld *et al.* (2024) use a regression discontinuity design based on the threshold for university admittance in Romania to estimate the effect of higher education on two dimensions of party competition. They find no differences between those who did and did not attend university in terms of economic left-right party support but do find a significant difference on the GAL-TAN axis, with graduates preferring more socially liberal parties.

The relationship between education and support for parties on the economic left-right dimension is more complex. A pair of studies by Marshall (2016, 2019) leverage changes in school leaving ages in Britain and across US states to estimate that more schooling inclines British voters towards the Conservatives and American voters away from the Democrats, and so generally in a more right-wing direction. This is attributed to higher income from more education, leading to more economically right-wing attitudes (e.g. opposing redistribution). Yet there is growing evidence from across established democracies that those with higher levels of education are more likely to support parties of the left (Gethin *et al.* 2021). Scholars who consider this question in detail find that this is in part explained by the growth of new left-liberal parties, who primarily compete on second dimension issues, while traditional social democratic parties still appeal to those with lower qualifications (Abou-Chadi and Hix 2021). Indeed, Kitschelt and Rehm (2023) have described a process whereby the rise of the cultural dimension has cross-pressured traditional core voters of the right (high-education and high-income) and left (low-education and low-income), whereby their economic and social interests are in conflict when it comes to vote choice.

This dynamic is certainly at play in the English party system, where the parties with more green/alternative/libertarian characteristics are also the more pro-redistribution ones. This may be why support among graduates for the centre right Conservatives is lower from 2015 onwards, when this party emphasised more the socially conservative and anti-immigration elements of its electoral platform (Sobolewska and Ford 2020). Yet Attewell (2022) suggests that this cross-pressure may be less strong than previously thought, arguing that, due to their relative status security, degree-holders are more likely than non-graduates to perceive welfare recipients as ‘deserving’, which in turn inclines them towards GAL parties on the redistributive dimension too.

A recent development in the literature is investigating the significance of the curriculum content rather than simply the quantity of education. Hooghe *et al.* (2025) look at the effect of gaining a degree on GAL-TAN

party support, concluding based on analysis of Dutch and German panel data that higher education has a causal positive effect on support for socially liberal parties (such as Green parties), but importantly that this effect is moderated by the relative proportion of communicative and cultural versus technical content of the subject studied. This builds on the earlier insight from Stubager (2008) that field of education effects points towards a socialisation mechanism, beyond any downstream ('allocation') effects on class or income. Other studies that decompose education's effects by discipline also find an association between studying arts, humanities and social science subjects and increased social liberalism in the Netherlands (Werfhorst and de Graaf 2004), Denmark (Stubager 2008), Sweden (Almstedt Valldor 2024) and Great Britain (SurrIDGE 2016), this latter also finding a relationship between studying business and more economically right-wing views. Using US panel data, Bročić and Miles (2021) find that those who gain degrees become more morally relativistic and progressive (i.e. believe that there isn't one moral truth and that societies should update their moral code over time), but that there are no significant differences between subject groupings.⁴ Yet a more recent study using two-way fixed effects estimation on 1970 British Cohort Study data (Scott 2025) reinforces the prior findings of subject effects, with arts, humanities and social science students becoming significantly more socially liberal than graduates in other subjects, even when adjusting for institutional and contextual effects. In general, these studies find that the effect on economic values can be partly explained by differences in income and occupation in later life, while the socially liberalising effect of university is instead generally attributed more to socialisation (Dey 1996), that is, the influence of peers, faculty and other aspects of university culture (although some also argue for a socialisation effect in terms of redistribution attitudes (Mendelberg *et al.* 2017)). These factors might also vary by subject: studying the liberal arts may lead to greater comfort with uncertainty, given, for example, the importance of interpretation in history (Counsell 2017), while the evidence suggests that social conservatism is strongly associated with a preference for cognitive closure and a dislike of ambiguity (Jost *et al.* 2003). However, most of these studies look only at the effect of subjects within the context of university education, leaving a significant gap in knowledge about the effects of earlier specialisation and subjects in secondary education.⁵

Studies routinely use policy changes in secondary schooling as a source of exogenous variation in the amount of education gained, but those examining variation in the *nature* of the schooling are sparser. Some look at variation in school type or social context. For example, Gingrich (2019) analyses British cohort study data to conclude that attending a school with a more affluent intake (adjusting for the student's own characteristics)

leads to more right-wing economic attitudes and a greater likelihood of voting Conservative in later life. She also finds that those attending private, fee-paying schools are more likely to support the Conservatives, a finding which is supported by a separate study by Wiggins *et al.* (2023) which utilises the richness of the cohort study data to account for observable confounding relating to family background. An alternative approach undertaken by Lee (2023) looks at the effect of mandatory changes in curriculum content (specifically, a textbook reform), finding that those more exposed to a more exclusive form of national identity as a result develop more restrictive attitudes to immigration.

Another variation in type of secondary education is the difference between academic and vocational tracks, which further suggests important variations beyond the secondary/tertiary education level. For example, Lancee and Sarrasin (2015) track a cohort of Swiss students between the ages of 13 and 30 and find no significant within-person difference in immigration attitudes between academic and vocational tracks. A similar study using longitudinal data in the Netherlands (Witschge *et al.* 2019) also finds no difference between vocational and academic routes in levels of ethnic tolerance. However, they do find that those with a more academic education have higher levels of social trust and political interest. Another longitudinal study carried out in the English context reinforces this (Janmaat 2018), showing that those with vocational qualifications were less supportive of liberal democratic principles, such as individual liberty and the rule of law. Yet as this review of the literature makes plain, to date there has been no longitudinal study of the effects of subjects studied *during* compulsory secondary schooling.

This is the gap that we seek to address in this study, by combining high-quality English household panel data with administrative data on qualifications gained at the ages of 16 and 18. Our expectations based on the prior literature are as follows. We expect that having studied arts, humanities, and social sciences subjects in secondary school will predict support for more socially liberal parties (as measured by the GAL-TAN scale), compared to other subjects. We further expect that taking Business Studies or Economics makes a person more likely to support economically right-wing parties, i.e. the Conservative Party in this context. Finally, we also expect those who study Technology subjects to become more likely to support socially conservative parties, given the relationship previously found between taking technical subjects and support for the radical right (Almstedt Valldor 2024).

Research design

Our research question is whether the subjects someone studies in secondary school affect their political party preferences. To answer this question,

we first use panel data to study how party support evolves before and after young people start to study different subjects more intensively in secondary school. We then test whether any relationships between vote intention and different subjects persist into adulthood.

Case selection and features

Accounts of the effect of education on party competition often neglect England due to the high barrier to entry for new parties in its majoritarian electoral system. This has meant that, on the face of it, the two-party system has been remarkably resilient when compared with European neighbours (Webb 2002), with electoral competition anchored in the economic cleavage. We challenge this interpretation: the 2016 EU referendum solidified already-growing voter divisions on immigration (Sobolewska and Ford 2020) and lead to significant fragmentation in the party system (Fieldhouse *et al.* 2020). The result has been a surge of support for smaller parties such as the Green Party and the radical right Reform UK, with the Conservatives and Labour taking their lowest combined share of the national vote ever in the 2024 General Election (Prosser 2025).

England is a particularly valuable case study in seeking to understand the effects of school-age education on later life political preferences. This is in part because students in English schools specialise relatively early compared to other OECD countries, making subject choices for their GCSE studies at the age of 14 and studying no core curriculum of subjects post-16 (Stronati 2023), making England a most likely case for observing these effects. On average students are entered into around eight subjects at GCSE (Department for Education 2024a), and these include choices from the humanities, modern foreign languages, physical education and design and technology subjects, which are pursued alongside compulsory subjects such as English, Science and Maths. While these subjects are compulsory, pupils are generally given a free choice of other subjects at GCSE (entry is not selective), and in the time period under study schools were required to provide access to subjects in each of the areas of humanities (History and Geography), arts, modern foreign languages and design and technology (Jin *et al.* 2013). These subjects are then assessed in high-stakes, standardised, externally-marked exams when the pupil is aged 16. Following this, around half of each cohort (49.2% in 2023, Department for Education 2024b) goes on to further academic study, where they specialise further in choosing approximately three A-level subjects (Department for Education 2024c), with these being assessed in much the same way. There are no compulsory subjects at A-level, but entry for a given subject is generally only permitted to those who achieve a passing grade in the subject (or a cognate one) at GCSE.

While there is greater variation in the subjects offered by different schools and other providers at A-level, the most popular subjects (which also form the basis of the analysis to come) were available at almost all providers in the time period under study (Scott *et al.* 2024).

This provides a valuable test case of our theory in three ways. First, the earlier specialisation and greater choice in subjects when compared with peer countries allows us to explore subject effects at an earlier stage of political development than has previously been attempted, with most prior studies of the effects of subjects generally focusing on post-compulsory secondary or tertiary education. In addition, as this specialisation takes place during compulsory education, we can explore the relationships between subjects studied and political preferences within the whole population, rather than only for a subset of the most academic. Finally, the high quality nature of the assessment data made available by the Department for Education in England, combined with the household panel survey, provides a unique opportunity to assess the influence of subject without the risk of recall bias.

Data

This article analyses English data from *Understanding Society*, the UK household longitudinal study (UKHLS) (University of Essex and Institute for Social and Economic Research 2022), that incorporates the longer-running British Household Panel Survey. This data is ideal for this study for two main reasons. Firstly, vote intention is measured over a long time period and across the lifecourse, including in a specialised questionnaire for 10–15-year olds. This allows us to observe the political preferences of young people *during* their secondary education, rather than at some point afterwards. Secondly, some survey respondents permitted their data to be linked with administrative data from the National Pupil Database, a register database of all pupils in state schools in England (Department for Education University of Essex and Institute for Social and Economic Research 2020). It contains attainment data as children progress through school, as well as rich information on pupil background. In this article, we make use of assessment data collected at age 16 (GCSE exam results), and at age 18 (A-level exam results). We also make use of detailed contextual information as control variables. These include the student's eligibility for Free School Meals in their GCSE year (a common measure of individual deprivation), postcode-level deprivation of the student's home address in their GCSE year using the Income Deprivation Affecting Children Index (IDACI), and their exam marks (from 0 to 100) in standardised tests at age 11 (at the end of primary education) in Maths and English.

Table 1. Panel datasets descriptive statistics.

	Youth panel: GCSE analysis	Youth panel: A-Level analysis	Adult sample: GCSE analysis	Adult sample: A-Level analysis
Total person-year observations	3,195	8,328	24,573	15,439
Number of unique individuals	1,609	3,439	5,522	3,682
Mean number of years observed	2.0	2.4	4.5	4.2

The cohort covered by this administrative data is young; the average age at which we observe adult vote intention is 24. Not all parents or young people consented to data linkage, and not all participants who consented could be successfully linked.⁶ In addition, we exclude those who have no qualifications or lower qualifications than GCSE level (fewer than 2%). [Table 1](#) presents the descriptive statistics for the four analytical samples used in the analysis, once the data linkage has been completed and these samples are finalised. Note that there are four samples given the two stages of the analysis (youth panel and adult sample) and two sets of qualifications under study. Vote intention is only measured every other year in the youth questionnaire for UKHLS, reducing the number of available observations.

There are some important ways in which our data is not fully representative. In addition to normal patterns of non-response and attrition in panel studies (Cabrera-Álvarez *et al.* 2023), our sample over-represents women and ethnic minorities (the latter due to the booster samples in the study design). [Tables A1 and A2 in Online Appendix A of the Supplementary Material](#) provide further descriptive statistics of the panel and adult samples, respectively.

Independent variables

Our independent variables are subjects studied at school for GCSE and A-level. For theoretical and deductive reasons, we group some subjects together. At GCSE, we combine French, German and Spanish together into a Foreign Language GCSE, and we combine all design and technology subjects (e.g. Electronics, Resistant Materials) into one Technology Subject indicator. A-level groupings are given in [Table 2](#). These are mostly based on theoretical considerations about the similarities between different subjects. The decision to group Physics and Maths together, and Chemistry and Biology together was informed by a principal components analysis (reported in [Online Appendix B](#)). Chemistry and Biology is a common combination of subjects for those wishing to study medical sciences later, whilst Physics and Maths are seen as complementary subjects.

Table 2. A-Level subject groupings.

Subject grouping	A-Levels included
Psychology/Sociology	Psychological Science, Social Psychology, Sociology,
Physics and Maths	Physics, Mathematics, Further Mathematics
Chemistry and Biology	Biology, Human Biology, Chemistry
Economics and Business	Business, Business and Economics, Economics, Accounting
Creative Arts	Art and Design, Photography, 3D Art, Critical Studies, Fine Art, History of Art, Drama, Performing Arts, Film and Television Media, Film, Music, Music Technology
English	English, English Language, English Literature
Foreign Languages	French, German, Spanish
Religious Studies/Philosophy	Logic and Philosophy, Religious Education

In defining treatment timing for the youth panel analysis, we consider that young people are likely to be influenced by a particular subject in the years that they are studying it more intensively.⁷ As such, we derive subject indicators using the academic year in which a student took the qualification (GCSE or A-levels).⁸ Both sets of qualifications are normally studied for two academic years prior to final examinations. Therefore, we consider observations that occur at least two academic years beforehand to be untreated observations, which we code as 0, and those that occur during study, i.e. within the two academic years prior to final exams or immediately afterwards, as treated observations, which we code as 1. We end each panel soon after studying for this qualification has finished so as to avoid capturing the influence of downstream effects (whether further study or other influences) in our estimates. For GCSEs, the pre-treatment observations occur when students are aged 10–13 and the treated observations when the panel members are aged 14–15, while for A-levels the pre-treatment observations take place when students are aged 10–16, and the treated observations when they are aged 16–19.

Table A3 in Online Appendix A provides information about the frequencies and characteristics of those taking these subjects. GCSE subjects are each taken by more students than A-level subjects, as would be expected. Some subjects are taken by students with higher prior academic attainment – such as Foreign Languages and Music at GCSE, and Physics/Maths, Chemistry/Biology and Foreign Languages at A-level – whilst other subjects are taken by students with lower prior attainment – Art, Drama and Technology at GCSE, and Creative Arts, English and Psychology/Sociology at A-level. The gender distribution is quite uneven across subjects too, with women making up 67% of those who took a GCSE in Art but only 45% of those who took PE, 39% of those who took an A-level in Physics/Maths and 77% of those taking Psychology/Sociology. Knowing this helps in interpreting our findings, as well as emphasising the importance of adjusting for these factors in the analysis.

Dependent variables

Our dependent variable of interest is party support, which we conceptualise in two ways. Firstly, to enable us to understand how subject choice at school affects overall party preferences, we take as our dependent variables the score of the party someone intends to vote for on the two main scales in the Chapel Hill Expert Survey, namely the GAL-TAN and the economic left-right score of the party (Jolly *et al.* 2022). These two scales measure where experts believe this party falls on the two main ideological dimensions of contemporary party competition.⁹ We use this to examine the relationship between school subjects and vote choice in the way that will be most comparable over time and across contexts, and most in line with the existing literature on this topic (Hooghe *et al.* 2025). We then supplement this analysis with a more detailed study of vote intention for individual parties (or reporting no party preference) in the youth panel, because not all respondents report a vote intention either side of the treatment cut-off.

Vote intention is measured in two distinct ways in the UKHLS. For the youth questionnaire of 10–15 year olds, respondents are asked ‘If you could vote for a political party, which one would you vote for?’ In the adult questionnaire (age 16 and above), vote intention is measured in a multi-step process, where respondents are first asked if they are a supporter of, or closer to a particular party, and if so which one. If not, respondents are then asked which party they would vote for ‘if there were a general election tomorrow’. We combine these three measures of party preference into a variable capturing vote intention.¹⁰ This latter is an imperfect measure of vote intention, as it implies that partisans would never vote for another party. However, we believe that this is a preferable measure for our study, as we are interested in the association between a sincere vote preference (rather than instrumental voting) and educational attainment. Frequencies of the dependent variables for both the youth panel and pooled adult samples are presented in [Online Appendix A \(Tables A4 and A5\)](#).

Modelling strategy

In this study, we seek to estimate how studying different subjects in secondary school influences party preferences. To do so, we take two approaches, utilising the strengths of the longitudinal and administrative data. Firstly, we carry out a novel longitudinal study of political socialisation by analysing an unbalanced panel of the development of vote intention during adolescence (ages 10–19). We use linear random effect within-between (REWB) models, to estimate the within-individual change in the outcome variable while accounting for the effects of time and any differences between individuals prior to the point of treatment

(Bell *et al.* 2019).¹¹ Similarly to the traditional two-way fixed effects estimator used for difference-in-differences analysis with panel data (Imai and Kim 2021), the REWB within-individual estimator addresses the potential bias attributable to time-invariant confounding by including fixed effects for both individuals and survey waves in the panel. However, the model additionally provides an estimate of the average difference between the treated and untreated at the point of treatment, as represented by the between-individual estimate, which is particularly helpful for our study, as it demonstrates to what extent prior political preferences are driving individual subject choice.

In a second set of analyses, we investigate whether the subjects studied in secondary school have a longer-lasting association with vote choice in adulthood. In these models, we have no within-person variation in exposure to school subjects, so instead we adjust for a wide range of observed confounders as well as including an individual-level random effect to account for multiple observations of the same individual.

Our approach to control variables is to try to account for observed factors such as family background and prior educational attainment that occur *prior* to the qualification in question (GCSEs or A-levels) and may confound the relationship between party preference and school subjects. The administrative data collected from schools allow us to objectively measure a variety of important cofounders at a granular level. We control for the measures of deprivation available in the administrative data, namely the student's UK-postcode deprivation level (Income Deprivation Affecting Children Index) and individual Free School Meal eligibility in the relevant year. We also adjust for students' attainment in standardised tests in Maths and English when they are eleven years old, the number of subjects they take at the qualification level (i.e. the number of GCSEs for GCSE qualifications, and number of A-levels for A-level qualifications), and average GCSE grade in the analysis of A-levels. Finally, we further control for: sex (male/female); ethnicity (white British/ethnic minority); age, survey-wave, and (where the dependent variable comes from the CHES) the round of the Chapel Hill Expert Survey. Note that to aid comparability we also include these control variables in the panel estimation: as they are all time-invariant they do not affect the within-individual estimates, but in addressing pre-treatment confounding they may reduce the size of the between-individual estimates.

As there is no exogenous source of variation in the subjects that young people study in this analysis, we do not make strong causal claims. However, the within-between models identify the relative change in political preferences within an individual during the precise time period of intensive exposure to specific subjects, compared with an otherwise similar student who did not take the subject, while accounting for the effects

of time, prior characteristics and differences in political preferences at the point of selection. As such, we argue that this analysis provides the strongest estimate to date of the influence of school subject choice in political socialisation.

Results

Within-between models of adolescent political socialisation

We start by looking at the GAL-TAN and left-right scores from the Chapel Hill Expert Survey (CHES). As described above, GAL-TAN scores capture a party's position on the cultural dimension of political competition. A higher GAL-TAN score means expressing support for a more socially authoritarian party, e.g. a radical right party (like UKIP) rather than a socially liberal party, such as the Green Party. A higher score on the economic left-right dimension means choosing a party that favours less redistribution and more liberalised markets. All models are linear regression models and include the control variables discussed above (full results are presented in [Online Appendix D](#)). Recall that our expectations based on the prior literature are that studying arts, humanities and social science subjects will make an individual more likely to support socially liberal parties, studying Business Studies or Economics will increase support for economically right-wing parties and studying Technology subjects will increase support for socially conservative parties.

[Figure 1](#) presents the within and between-individual effects of different GCSE subjects on these scales. The first set of coefficients on the left – the between-person coefficients – tell us about the average differences between people who take each of the different subjects at the point of selection. There are relatively few differences between subjects before students begin their GCSE-studies; young people who choose to study at least one Technology subject are more likely than their peers to intend to vote for a more socially authoritarian party (according to the GAL-TAN scale), and also for a more economically right-wing party. In addition, those who will Art GCSE are initially more likely to support a party that is left-wing economically. However, more differences are apparent if we look at the within-person variation (on the right), our measure of how subjects change political preferences. Here we see that those who study History GCSE become more likely to intend to vote for a more socially-liberal and economically left-wing party when they study the subject, as do those who study Art GCSE. Meanwhile, studying a Technology subject leads to greater support for socially authoritarian and economically right-wing parties, while Business Studies encourages greater support for an economically right-wing party.

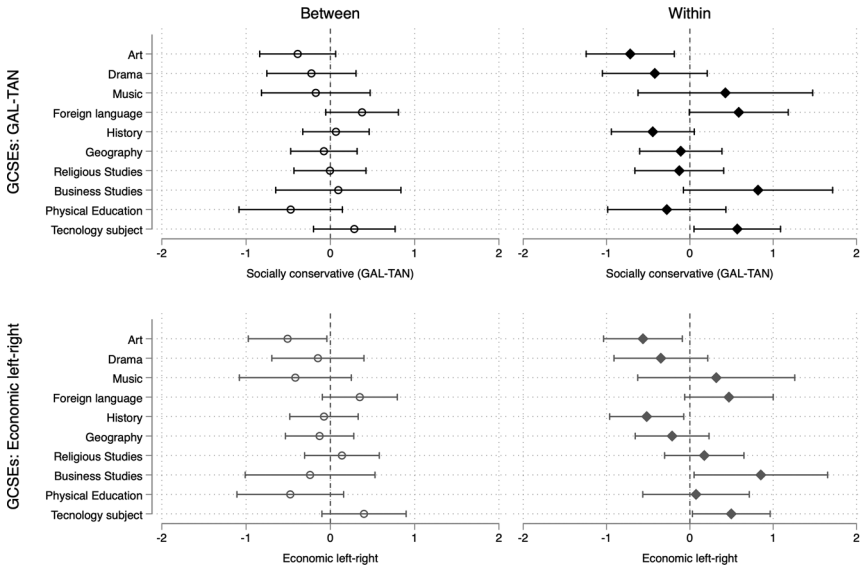


Figure 1. GCSE Subjects and vote intention in adolescence; linear regression coefficients from random effect within-between models, controlling for prior factors.

This provides compelling evidence of the influence of school subjects on the development of young people's political preferences. We now repeat the same models for A-level subjects, reported in [Figure 2](#). Looking first at the between-person coefficients, we now see much greater evidence of differences between people that choose to take A-levels than at GCSE. This is to be expected given the previous GCSE subject effects findings: in part these between-individual differences may reflect the political socialisation due to GCSE subject study (as well as other influences as students grow older), which in turn may affect A-level subject choice. Young people who choose to study Economics/Business Studies or History at A-level are from the outset more inclined to vote for parties who are economically right-wing and socially conservative, whilst those studying English are more inclined to vote for more economically left-wing and socially liberal parties. Within-person change at A-level on these dimensions is more limited: with the only significant difference being those studying a Creative Arts A-level subject become more likely to support socially- or economically right-wing parties (although this might be explained in part by their relatively liberal and left-wing preferences on entry).

Overall, these results provide a clear picture of the role of school subject choice in developing young people's political preferences; there are some pre-existing ideological differences between people who study different subjects (especially post-16 at A-levels), but these ideological

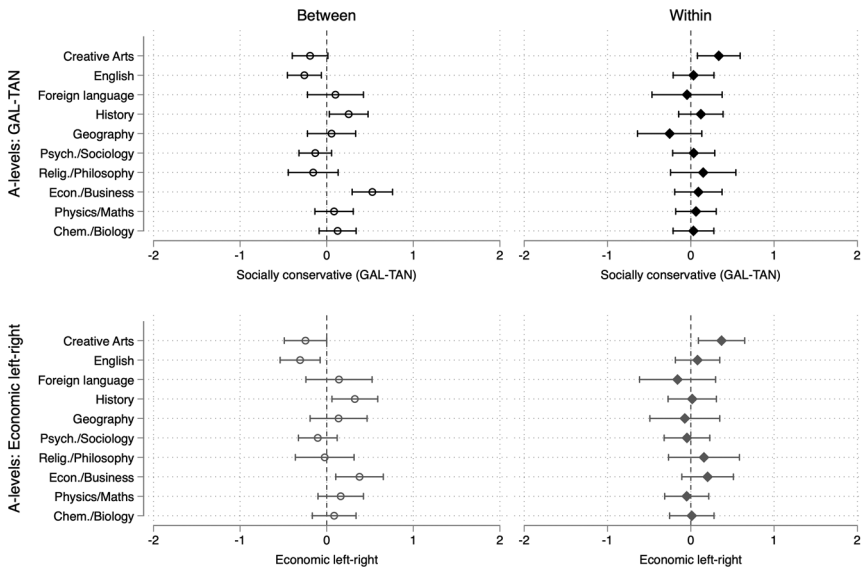


Figure 2. A-Level subjects and vote intention in adolescence; linear regression coefficients from random effect within-between models, controlling for prior factors.

differences widen as students actually engage with the subject. However, as we only observe these outcomes for young people who express a vote intention as adolescents, this picture is incomplete: 54% of potential person-year observations in the GCSE panel, and 25% of those in the A-level panel, report no vote intention (perhaps unsurprisingly as the youngest respondents are aged 10). We therefore also consider vote intention for the two biggest parties across this time period, Conservative and Labour, where those who report no vote intention are included by coding them as 0 (i.e. ‘not Conservatives’ or ‘not Labour’, respectively).

Figure 3 looks at the relationship between different GCSE subjects and vote intention. As we saw when looking at the CHES scores above, there are relatively few differences between individuals before they start studying their GCSEs on these dependent variables. Those who go on to study History and Business Studies are more likely to support Labour, and those who go on to study Technology subjects are less likely to support Labour. Looking at the within-person coefficients however, we see more evidence of subject influences on political preferences during the years of GCSE study. Those who study History and Drama become less likely to support the Conservative Party, whilst those who study Business Studies become more likely to support the Conservatives (despite their initial pro-Labour inclination). Meanwhile, those who study a Technology subject become even less likely to intend to vote Labour than they were beforehand.

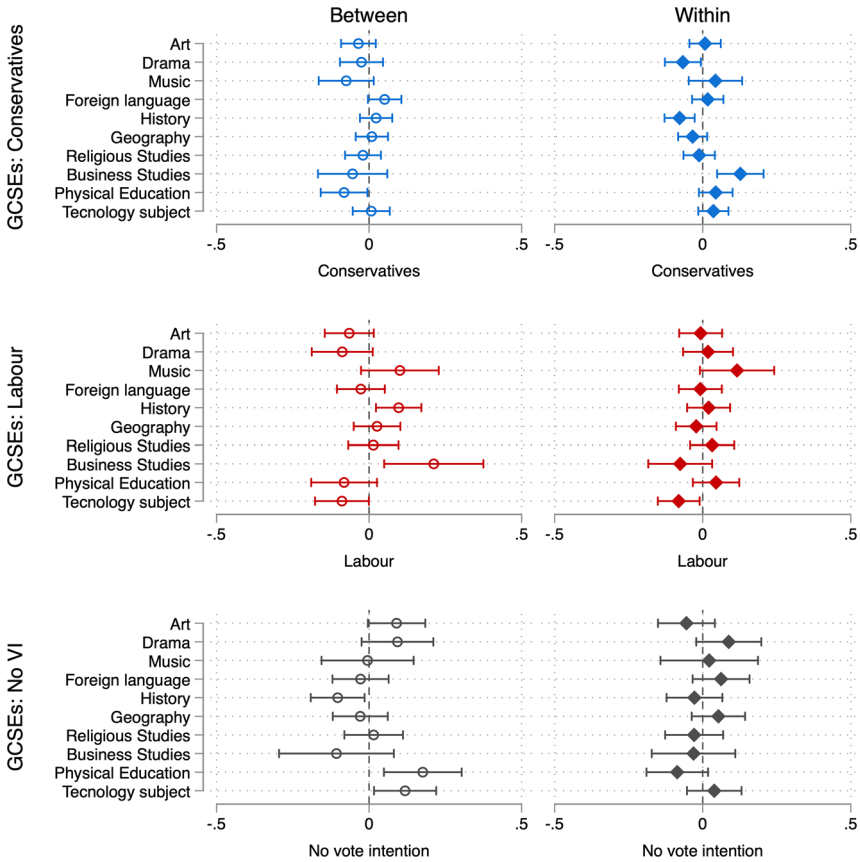


Figure 3. GCSE Subjects and specific party support in adolescence; linear regression coefficients from random effect within-between models, controlling for prior factors.

Looking at the same set of results for A-level subjects in [Figure 4](#), we find some regularities in the between-person predictors of support for both parties. Those who go on to study A-levels in History or Economics/Business studies start off more likely to support the Conservatives, whilst those who choose English are less likely to support the Conservatives at the outset, and more likely to support Labour. Those who go on to study Physics/Maths are less likely to have a Labour vote intention. During the course of A-level study however, there are fewer clear within-person subject effects, aside from the tendency for those who study Creative Arts to become more supportive of the Conservatives, and those studying Economics/Business Studies becoming less likely to intend to vote for the Labour Party.

In addition to these main findings, we also carry out a series of robustness checks, reported in [Online Appendix D](#). Many of these are motivated

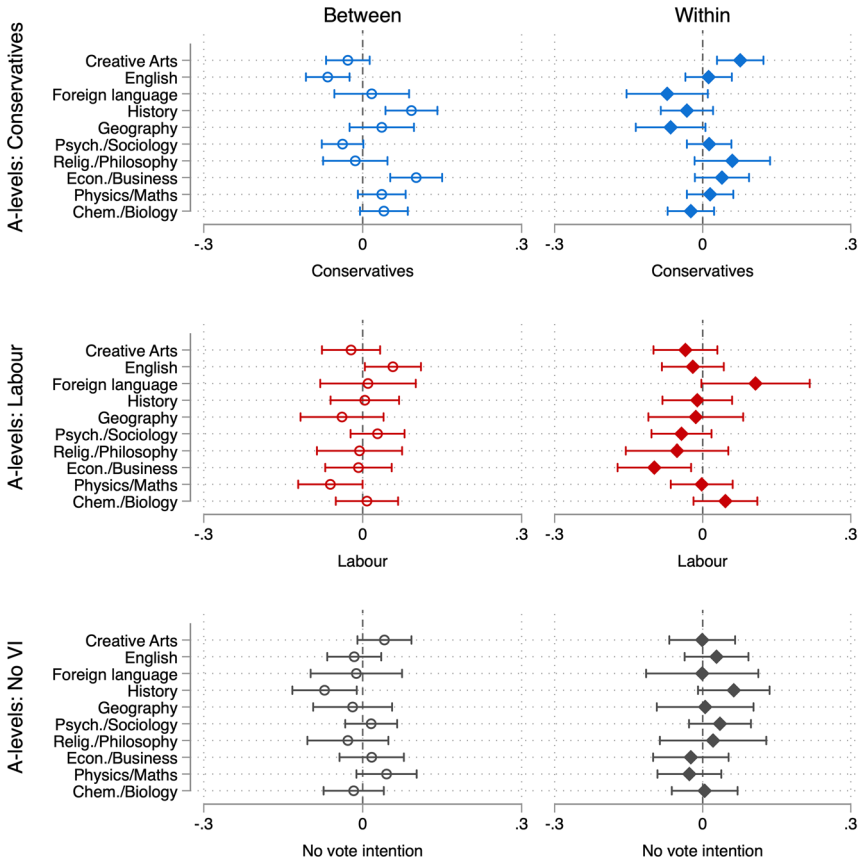


Figure 4. A-Level subjects and specific party support in adolescence; linear regression coefficients from random effect within-between models, controlling for prior factors.

by the fact that not all of our youth panel consistently report a vote intention, which poses a problem for our models, because it might be argued that expressing a vote intention that was always the most likely choice but hadn't yet emerged is a different kind of transition from changing vote intention from one party to another. We account for this in three ways. Firstly, we report for each model the same analysis but either including all observations where a respondent does not have a vote intention (for the CHES outcomes) or excluding them (for the specific party outcomes). These do not tend to affect the direction or significance of our results, although there are some differences in magnitude. Secondly, we report a specification with a dummy variable for whether the current observation has a vote intention or not. We find that our results are robust across these different specifications. Thirdly, we explicitly model the outcome of reporting no vote intention to see how this correlates with

different subjects. These models are also reported in [Figures 3](#) and [4](#). Those who go on to study PE and Technology GCSEs have a higher likelihood of not reporting a vote intention in the between-coefficients, whilst those who go onto study History are more likely to express a vote intention. At A-level, the only significant subject difference is the between-person coefficient for those who study History, who again are more likely to express a vote intention. There are no significant patterns in the within-person coefficients for these models.¹²

Do school subjects predict vote intention in adulthood?

The panel data models presented above provide strong evidence that political socialisation is affected by subject choice at secondary school. However, vote intention is not fixed at age 18; can the subjects someone studied in secondary school predict their vote choice in adulthood, once they have completed their education? The final set of analyses in this article investigate this question.

In order to do so, we use data from adult respondents in UKHLS and BHPS, again linked to the same National Pupil Database data. We present analogous models to the ones discussed above, where the dependent variable is (i) the GAL-TAN or economic left-right score for the party someone intends to vote for in the Chapel Hill Expert Survey, or (ii) vote intention, albeit this time cross-sectionally (full results are presented in [Online Appendix E](#)). [Figures 5](#) and [6](#) present the results of linear mixed effect regression models of the GAL-TAN and economic left-right scores of the party a respondent intends to vote for and the subjects they studied in school, adjusting for the same background and attainment confounding variables described above. In these models we see similar patterns to those observed looking at the youth panel data; creative art subjects like Music, Drama, Art, or English are associated with intending to vote for more socially liberal parties, whilst those who studied Business Studies or Economics as well as Physical Education are more likely to support parties on the economic right of the spectrum.

[Figures 5](#) and [6](#) also present the results for vote intention, with the same control variables. One advantage here is that we are able to consider a greater range of parties due to the increased sample size, including the Green Party, the Liberal Democrats, and a combined radical right party category.¹³ At GCSE level, those who study Geography and Physical Education are more likely to support the Conservatives, while those who take History are more likely to support the Lib Dems. The picture for creative arts is similar again, as those who take Art, Music or Drama are more likely to support the Greens, while those who study Drama GCSE are also more supportive of the Lib Dems, and those who take Music are

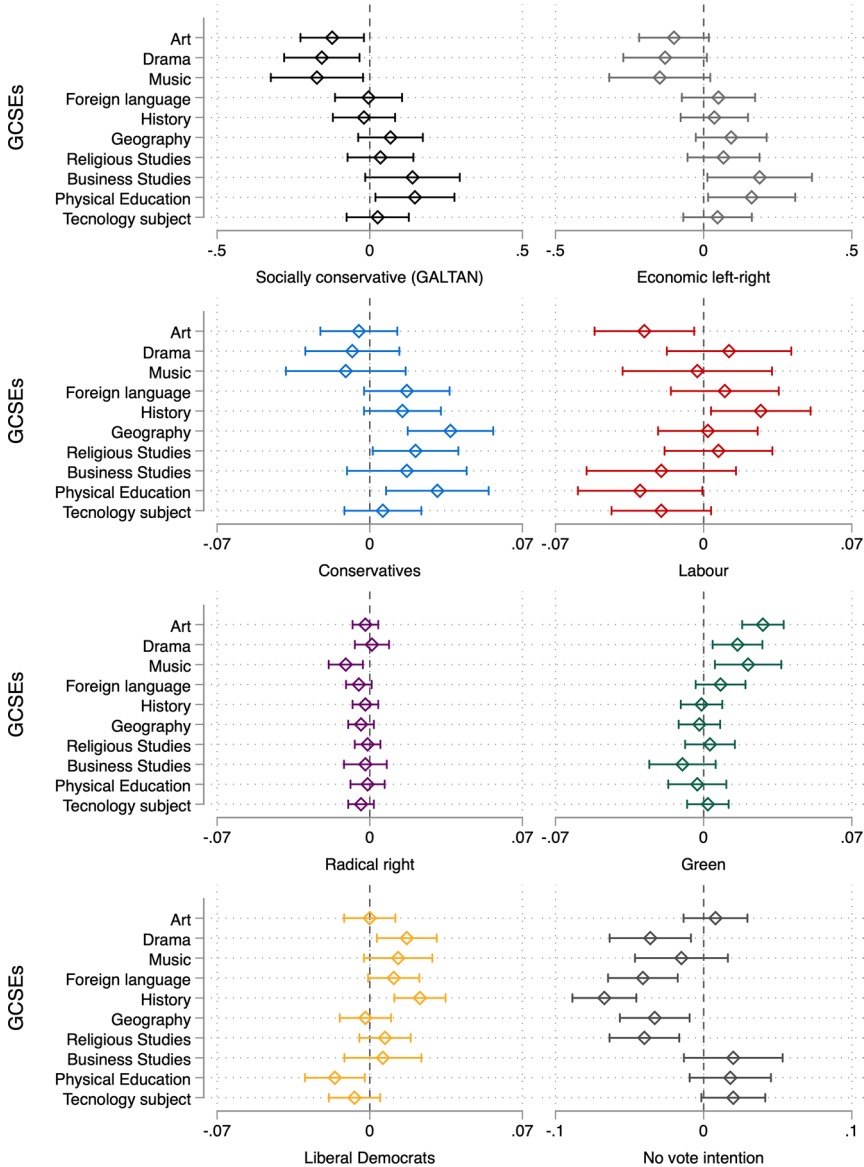


Figure 5. GCSE Subjects and vote intention in adulthood; linear regression coefficients from mixed models, controlling for prior factors.

less likely to support the radical right. Perhaps as a result, studying Art is again negatively associated with support for the Labour party. Finally, studying the humanities is associated with naming any party when prompted: students of History, Geography, Foreign Languages and Religious Studies are more likely to express a vote intention. Similar patterns obtain at A-level: Creative Arts students are still more likely to

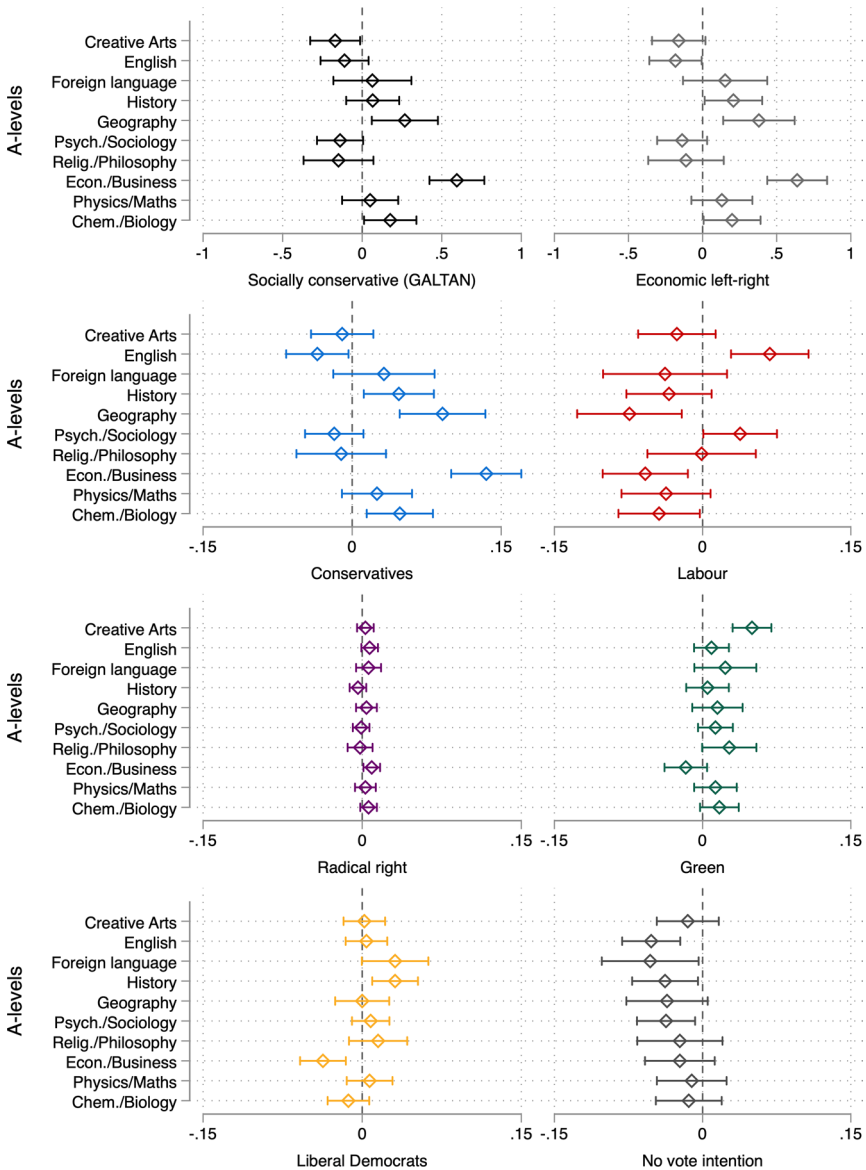


Figure 6. A-Level subjects and vote intention in adulthood; linear regression coefficients from mixed models, controlling for prior factors.

support the Greens, while those with an A-level in Geography are significantly in favour of the Conservatives and against Labour. This pattern of support for the Conservatives and opposition to the Labour party is repeated for Chemistry/Biology and Economics/Business Studies, while the opposite is seen for English A-level. Those with A-levels in Economics/Business Studies are also more likely to support the radical right and less

supportive of the Lib Dems, while History also inclines voters towards the Lib Dems. And again, similarly to GCSEs, those who took the humanities or social sciences at A-level are also more likely to express a vote intention: English, History, Psychology/Sociology and Foreign Languages are positively associated with naming a party when asked.

How important is what someone studied, compared to their actual level of education? In [Online Appendix F](#) we provide comparable models of the correspondence between respondents' final highest educational qualification and vote choice, using the same model set up and control variables as for other models of vote choice in adulthood. These results show that some subject-specific differences in adulthood are indeed large even when compared to different levels of education. For instance, people with a degree are 2.4 percentage points less likely to support the radical right compared to those with only school-leaving qualifications (albeit from a very low baseline in this cohort), 3.2 percentage points more likely to vote Green, and 2.4 percentage points more likely to vote Conservative. The sizes of these attainment effects are comparable to some of the subject-level differences in adulthood vote intention; taking a GCSE in either Art or Music (both 2.8 points) corresponds to the same magnitude difference in Green Party vote intention as having a university degree. Similarly, adults who took an A-level in Economics/Business Studies are 13.5 points more likely to support the Conservatives than those who did not, and 5.8 points less likely to support Labour; this is five times as large as the difference in support for the Conservatives between those with only school-leaving qualifications and those with a university degree.¹⁴

As with the youth panel analysis, we also carry out robustness checks and supplementary analysis for the adult sample, detailed in [Online Appendix F](#). In a first alternative specification, we control for additional factors which may be downstream of school subject choice, such as highest level of education (including whether they go on to get a degree), household income decile, and occupational class, to investigate if these explain these relationships. We find that their inclusion does not strongly alter our results. Secondly, we alternatively add variables intending to proxy parental ideology to our models – mother's vote intention when the respondent was 16, educational level, and employment status – in case this confounds the relationship between subject choice and party preference. Again, we do not see big differences from our main specification.

Conclusions

In this study, we set out to estimate the effect of subjects studied during compulsory secondary schooling on political socialisation, looking at how the study of specific subjects influences party preference along the

economic left-right and socially liberal-conservative dimensions. Our intention was to address two gaps in the literature on the political effects of education: firstly, how the influence of school-age education varies when broken down by subject; and secondly, how these differences play out *during* compulsory schooling, enabling a whole-cohort approach (unlike extant studies looking at subject effects, which focus primarily on university education).

By modelling change within a panel of young people in England, we provide the first estimates of the effect of subject choices during compulsory schooling on political party preferences. Importantly, by separating out the selection (between-individual) and within-individual effects we can more precisely estimate how much of the differences observed exist before the study of a subject commences, and how much occurs as a result of studying it. Focusing on the latter as the most substantively significant, we find that, in line with our expectations, those who study arts and humanities subjects (specifically History and Art GCSE) become more likely to vote for a socially liberal party. Our expectations are also confirmed as regards Business Studies GCSE, which leads to increased support for an economically right-wing party, and Technology subjects which increases support for socially authoritarian parties. Interestingly, students of History and Art GCSEs also become more likely to support an economically left-wing party, while those taking Technology GCSE do the same for economically right-wing parties. This perhaps explained by the parties underpinning the CHES scales: when we look at party support directly, we find that those studying History and Drama become less likely to support the Conservative Party, while those who study a Technology subject become even less likely to intend to vote Labour than they were beforehand.

It is notable that there are many more within-individual changes as a result of studying a subject at GCSE than at A-level. Indeed, the only within-person changes that we detect at A-level are the tendency for those who study Economics/Business Studies to become less likely to vote for the Labour Party, and the surprising finding that those who take Creative Arts A-levels become more supportive of the Conservatives (although this may be a form of regression to the mean, as they start off more left-wing on average). This lack of apparent influence could be due to earlier socialisation (whether family or the observed GCSE subject effects) informing A-level subject choice, or perhaps to the selective nature of A-levels, whereby only around half the population pursue them. In any case, we believe this partly vindicates our research strategy of estimating these effects at the earliest available point in the educational journey, where students are first given the opportunity to specialise (GCSEs), as well as tracking change during the period of compulsory education, which

provides us with a meaningful comparison group for the whole population. Our results suggest that studies focusing solely on field of study in post-secondary education are potentially missing an important stage of political development, and accord with recent work in the British context that shows humanities and social science undergraduate students to be already noticeably more socially liberal on arrival to university (Simon *et al.* 2025).

It is also reassuring for our theory – that school is important for political socialisation – that the analysis of later life party support by school subjects broadly corresponds with the findings of the youth panel, suggesting that the patterns observed earlier remain stable into early adulthood. Creative subjects like Music, Drama, Art, or English are associated with intending to vote for more socially liberal parties in adulthood, whilst those who studied Business Studies or Economics are more likely to support parties on the economic right. We can also add detail here, thanks to the enhanced sample, and show that the creative arts are particularly associated with support for the most socially liberal parties (Greens and Liberal Democrats). Also of note to the broader literature on the role of schools in civic education is that studying the humanities (History, Geography, Foreign Languages and Religious Studies) is associated with expressing a vote intention. We show that these patterns are robust to adjusting for additional factors, which may be downstream of school subject choice, such as income and occupation, as well as controls for parental ideology.

As such, we believe this study addresses an important gap in an area of growing significance in political behaviour. We find that subject choice in secondary school influences the development of political party preferences in young people, and that this persists into adulthood. Studying arts and humanities subjects in school inclines a voter towards more socially liberal parties, while studying business and economics subjects renders a voter more favourable towards economically right-wing parties. While we do not have the necessary exogenous variation to make strong causal claims, we do leverage a high quality panel survey of adolescents combined with administrative data to track changes in party preference as they occur during a young person's schooling. In this way, we contribute to a burgeoning literature (Almstedt Valldor 2024; Hooghe *et al.* 2025; Scott 2025), which decomposes the effect of education by disciplinary field to better understand the mechanisms through which education is reshaping political competition in established democracies. We also go beyond this literature by looking at these effects during compulsory schooling (i.e. GCSEs), necessary as, despite higher education expansion in recent decades, still only around half of English school-leavers attend university, and graduates are still in the minority across the world (Barro

and Lee 2013). This reinforces our main contribution, which is to emphasise the importance of understanding the diversity of education in evaluating its political effects, and not to treat it as a monolith.

Notes

1. Note that this understanding of the development of political attitudes and their role in political behaviour is in contrast to another that is more focused on voters as self-interested rational agents, such as in the economic voting literature (Lewis-Beck and Nadeau 2011).
2. Even in a high participation society like the UK, only 35.8% of 18-year-olds were enrolled in university in 2023 (Bolton 2024); potential voters without a degree are a majority even in this youngest cohort.
3. Although, conversely, Finseraas *et al.* (2018) find no effect of increased years of schooling on immigration attitudes in Norway.
4. Other evidence from the US, albeit cross-sectional, instead finds a relationship between science education and political liberalism (Ma-Kellams *et al.* 2014).
5. Paterson (2009) is a notable exception in exploring the association between subjects studied at school and adult political attitudes (in the British context), but does so cross-sectionally, as the outcome is not observed prior to choosing subjects at secondary school.
6. Further information is available in the Understanding Society Linked Administrative Datasets (National Pupil Database), England: User Guide, available at https://www.understandingsociety.ac.uk/wp-content/uploads/documentation/user-guides/7642_national_pupil_database_user_guide_linked_data_education.pdf (last accessed 23rd September 2024).
7. For these cohorts, GCSEs and A-levels were studied intensively for two academic years before the final exams are taken, and assessed coursework could be completed in either of these two years.
8. Where more than one academic year is recorded, we take the first academic year, because later academic years are likely to be retakes of exams taken previously.
9. The GAL-TAN score measures where a party falls on the cultural dimension of politics, with parties that are more socially liberal in their outlook like the Green Party or the Liberal Democrats getting a lower score than parties with more traditional or authoritarian preferences, for instance the Brexit Party. The economic left-right score measures where experts believe this party falls on the traditional economic dimension of political competition, for example, how big should the state be and how liberalised should markets be.
10. In [Online Appendix C](#) we validate that the use of two survey instruments does not introduce bias into our analyses.
11. We use linear probability models throughout, as doing so enables the inclusion of multiple fixed effects and comparability across the panel and cross-sectional estimates (Gomila 2021).
12. A further robustness test that we carry out for the A-level results is to further restrict the window of observations to no more than 3 academic years prior to the start of A-level study (i.e. age 13–14) and no observations after the last academic year of A-level study (i.e. maximum age 18). The

results of these models are reported in the [Online Appendices](#). They do not differ substantively from the models already discussed.

13. As the parties in the traditional/authoritarian/nationalist part of the England party system changed over time, we create a radical right vote intention indicator, which combines vote intentions for UKIP, the British National Party, and the Brexit Party. Although these parties are distinct in their histories and political successes, they are all characterised as traditional, authoritarian, and nationalist.
14. We assess this further in [Online Appendix F](#).

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References

- Abou-Chadi, Tarik, and Simon Hix (2021). 'Brahmin Left Versus Merchant Right? Education, Class, Multiparty Competition, and Redistribution in Western Europe', *The British Journal of Sociology*, 72:1, 79–92.
- Almstedt Valldor, Amanda (2024). 'Field of Study, Political Attitudes, and Support for the Radical Right in Sweden and Europe', *Social Science Research*, 124, 103091.
- Apfeld, Brendan, Emanuel Coman, John Gerring, and Stephen Jessee (2024). 'The Impact of University Attendance on Partisanship', *Political Science Research and Methods*, 12:1, 45–58.
- Attewell, David (2022). 'Redistribution Attitudes and Vote Choice across the Educational Divide', *European Journal of Political Research*, 61:4, 1080–101.
- Barro, Robert J., and Jong Wha Lee (2013). 'A New Data Set of Educational Attainment in the World, 1950', *Journal of Development Economics*, 104:2010, 184–98.
- Bell, Andrew, Malcolm Fairbrother, and Kelvyn Jones (2019). 'Fixed and Random Effects Models: making an Informed Choice', *Quality & Quantity*, 53:2, 1051–74.
- Bolton, Paul (2024). *Higher Education Student Numbers*. House of Commons Library, available at <https://researchbriefings.files.parliament.uk/documents/CBP-7857/CBP-7857.pdf> (accessed 20 September 2024).
- Bornschieer, Simon (2010). 'The New Cultural Divide and the Two-Dimensional Political Space in Western Europe', *West European Politics*, 33:3, 419–44.
- Bročić, Miloš, and Andrew Miles (2021). 'College and the "Culture War": Assessing Higher Education's Influence on Moral Attitudes', *American Sociological Review*, 86:5, 856–95.
- Cabrera-Álvarez, Pablo, Nicole James, and Peter Lynn (2023). *Panel Attrition in the General Population Sample and the Immigrant and Ethnic Minority Boost of Understanding Society*. Understanding Society Working Paper Series, Institute for Social and Economic Research, University of Essex, available at <https://beta.ukdataservice.ac.uk/datacatalogue/doi?id=6614#15>. (accessed 29 September 2024).

- Campbell, Colin, and Jonathan Horowitz (2016). 'Does College Influence Sociopolitical Attitudes?' *Sociology of Education*, 89:1, 40–58.
- Cavaille, Charlotte, and John Marshall (2019). 'Education and Anti-Immigration Attitudes: Evidence from Compulsory Schooling Reforms across Western Europe', *American Political Science Review*, 113:1, 254–63.
- Counsell, Christine (2017). 'History', in A. Standish and A. Sehgal (eds.), *What Should Schools Teach?* London: UCL Press.
- Dassonneville, Ruth, Liesbet Hooghe, and Gary Marks (2024). 'Transformation of the Political Space: A Citizens' Perspective', *European Journal of Political Research*, 63:1, 45–65.
- Department for Education (2024a). *Infographics for GCSE Results, 2024* (accessible). GOV.UK, available at <https://www.gov.uk/government/publications/infographic-gcse-results-2024/infographics-for-gcse-results-2024-accessible> (accessed 26 September 2024).
- Department for Education (2024b). *A Level and Other 16 to 18 Results, Academic Year 2022/23*, available at <https://explore-education-statistics.service.gov.uk/find-statistics/a-level-and-other-16-to-18-results/2022-23#dataBlock-936ac622-48fe-4d14-9cac-2573cd2b0c5f-tables> (accessed 26 September 2024).
- Department for Education (2024c). *Infographics for A Level Results, 2024* (Accessible). GOV.UK, available at <https://www.gov.uk/government/publications/infographic-a-level-results-2024/infographics-for-a-level-results-2024-accessible> (accessed 26 September 2024).
- Department for Education, University of Essex, and Institute for Social and Economic Research (2020). *Understanding Society: Linked Education Administrative Datasets (National Pupil Database), England, 1995–2018: Secure Access* [Data Collection]. 3rd Edition. UK Data Service. SN: 7642. <https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=7642>
- Dey, Eric L. (1996). 'Undergraduate Political Attitudes: An Examination of Peer, Faculty, and Social Influences', *Research in Higher Education*, 37:5, 535–54.
- Fieldhouse, Edward, et al. (2020). *Electoral Shocks: The Volatile Voter in a Turbulent World*. Oxford: Oxford University Press.
- Finseraas, Henning, Øyvind Søråas Skorge, and Marte Strøm (2018). 'Does Education Affect Immigration Attitudes? Evidence from an Education Reform', *Electoral Studies*, 55, 131–5.
- Ford, Robert, and Will Jennings (2020). 'The Changing Cleavage Politics of Western Europe', *Annual Review of Political Science*, 23:1, 295–314.
- Gethin, Amory, Clara Martínez-Toledano, and Thomas Piketty (2021). 'Brahmin Left Versus Merchant Right: Changing Political Cleavages in 21 Western Democracies, 1948–2020', *The Quarterly Journal of Economics*, 137:1, 1–48.
- Gingrich, Jane (2019). 'Schools and Attitudes Toward Economic Equality', *Policy Studies Journal: The Journal of the Policy Studies Organization*, 47:2, 324–52.
- Gomila, Robin (2021). 'Logistic or Linear? Estimating Causal Effects of Experimental Treatments on Binary Outcomes Using Regression Analysis', *Journal of Experimental Psychology. General*, 150:4, 700–9.
- Hooghe, Liesbet, Gary Marks, and Jonne Kamphorst (2025). 'Field of Education and Political Behavior: Predicting GAL/TAN Voting', *American Political Science Review*, 119:2, 794–811.
- Hooghe, Liesbet, Gary Marks, and Carole J. Wilson (2002). 'Does Left/Right Structure Party Positions on European Integration?', *Comparative Political Studies*, 35:8, 965–89.

- Imai, Kosuke, and In Song Kim (2021). 'On the Use of Two-Way Fixed Effects Regression Models for Causal Inference with Panel Data', *Political Analysis*, 29:3, 405–15.
- Janmaat, Jan Germen (2018). 'Educational Influences on Young People's Support for Fundamental British Values', *British Educational Research Journal*, 44:2, 251–73.
- Jin, Wenchao, Alastair Muriel, and Luke Sibieta (2013). *Subject and Course Choices at Ages 14 and 16 Amongst Young People in England: Insights from Behavioural Economics*. Department for Education, available at <https://assets.publishing.service.gov.uk/media/5a7af357ed915d71db8b3a93/DFE-RR160.pdf> (accessed 17 June 2024).
- Jolly, Seth, et al. (2022). 'Chapel Hill Expert Survey Trend File, 1999–2019', *Electoral Studies*, 75, 102420.
- Jost, John T., Jack Glaser, Arie W. Kruglanski, and Frank J. Sulloway (2003). 'Political Conservatism as Motivated Social Cognition', *Psychological Bulletin*, 129:3, 339–75.
- Kitschelt, Herbert (1994). *The Transformation of European Social Democracy*. Cambridge: Cambridge University Press.
- Kitschelt, Herbert P., and Philipp Rehm (2023). 'Polarity Reversal: The Socioeconomic Reconfiguration of Partisan Support in Knowledge Societies', *Politics & Society*, 51:4, 520–66.
- Kriesi, Hanspeter, et al. (2008). *West European Politics in the Age of Globalization*. Cambridge: Cambridge University Press.
- Lancee, Bram, and Oriane Sarrasin (2015). 'Educated Preferences or Selection Effects? A Longitudinal Analysis of the Impact of Educational Attainment on Attitudes Towards Immigrants', *European Sociological Review*, 31:4, 490–501.
- Lee, Boyoon (2023). 'Educational Content, Exclusive National Identity, and Anti-Immigrant Attitudes', *The Journal of Politics*, 85:4, 1182–97.
- Lewis-Beck, Michael Steven, and Richard Nadeau (2011). 'Economic Voting Theory: Testing New Dimensions', *Electoral Studies*, 30:2, 288–94.
- Ma-Kellams, Christine, Aida Rocci Ruiz, Jacqueline Lee, and Andrea Madu (2014). 'Not All Education is Equally Liberal: The Effects of Science Education on Political Attitudes', *Journal of Social and Political Psychology*, 2:1, 143–63.
- Marks, Gary, David Attewell, Jan Rovny, and Liesbet Hooghe (2020). 'The Changing Political Landscape in Europe', in Maurizio Cotta and Pierangelo Isernia (eds.), *The EU through Multiple Crises: Representation and Cohesion Dilemmas for a "Sui Generis" Polity*. Abingdon: Routledge, 20–44.
- Marshall, John (2016). 'Education and Voting Conservative: Evidence from a Major Schooling Reform in Great Britain', *The Journal of Politics*, 78:2, 382–95.
- Marshall, John (2019). 'The Anti-Democrat Diploma: How High School Education Decreases Support for the Democratic Party', *American Journal of Political Science*, 63:1, 67–83.
- Mendelberg, Tali, Katherine T. McCabe, and Adam Thal (2017). 'College Socialization and the Economic Views of Affluent Americans', *American Journal of Political Science*, 61:3, 606–23.
- Neundorf, Anja, Richard G. Niemi, and Kaat Smets (2016). 'The Compensation Effect of Civic Education on Political Engagement: How Civics Classes Make Up for Missing Parental Socialization', *Political Behavior*, 38:4, 921–49.
- Neundorf, Anja, and Kaat Smets, Oxford Handbooks Editorial Board (2017). 'Political Socialization and the Making of Citizens', in *Oxford Handbook Topics*

- in *Politics*. Oxford: Oxford University Press. <https://academic.oup.com/edited-volume/41327/chapter/352327025>.
- Paterson, Lindsay (2009). 'Civic Values and the Subject Matter of Educational Courses', *Oxford Review of Education*, 35:1, 81–98.
- Prosser, Christopher (2025). 'Fragmentation Revisited: The UK General Election of 2024', *West European Politics*, 48:6, 1501–13.
- Scott, Michael, Jenna Julius, Sarah Tang, and Megan Lucas (2024). *Subject Choice Trends in Post-16 Education in England*. British Academy, available at <https://www.thebritishacademy.ac.uk/publications/subject-choice-trends-post-16-education-england/> (accessed 27 September 2024).
- Scott, Ralph (2025). 'Why Are Graduates More Socially Liberal? Estimating the Effect of Higher Education on Political Values Through Variation in University Experience', *Political Studies*, 73:2, 885–903.
- Sears, David O., and Christia Brown (2023). 'Childhood and Adult Political Development', in Leonie Huddy, David O. Sears, Jack S. Levy, and Jennifer Jerit (eds.), *The Oxford Handbook of Political Psychology*. Oxford: Oxford University Press, 65–108.
- Simon, Elizabeth, Daniel Devine, and Jamie Furlong (2025). 'What Drives the Link between University Study and Attitudinal Change?', *Electoral Studies*, 95, 102930.
- Sobolewska, Maria, and Robert Ford (2020). *Brexitland: Identity, Diversity and the Reshaping of British Politics*. Cambridge: Cambridge University Press.
- Stronati, Camilla (2023). *The Design of Upper Secondary Education Across OECD Countries: Managing Choice, Coherence and Specialisation*. OECD Education Working Papers https://www.oecd-ilibrary.org/education/the-design-of-upper-secondary-education-across-oecd-countries_158101f0-en (accessed 27 September 2024).
- Stubager, Rune (2008). 'Education Effects on Authoritarian–Libertarian Values: A Question of Socialization', *The British Journal of Sociology*, 59:2, 327–50.
- SurrIDGE, Paula (2016). 'Education and Liberalism: Pursuing the Link', *Oxford Review of Education*, 42:2, 146–64.
- University of Essex, and Institute for Social and Economic Research (2022). *Understanding Society: Waves 1–12, 2009–2021 and Harmonised BHPS: Waves 1–18, 1991–2009* [Data Collection]. 17th Edition. UK Data Service SN: 6614. <https://beta.ukdataservice.ac.uk/datacatalogue/studies/study?id=6614>
- Webb, Paul (2002). 'Conclusion: Political Parties and Democratic Control in Advanced Industrial Societies', in Paul Webb, David Farrell, and Ian Holliday (eds.), *Political Parties in Advanced Industrial Democracies*. Oxford: Oxford University Press, 438–60.
- Werfhorst, Herman G. Van de, and Nan Dirk de Graaf (2004). 'The Sources of Political Orientations in Post-Industrial Society: social Class and Education Revisited', *The British Journal of Sociology*, 55:2, 211–35.
- Wiggins, Richard D., Samantha Parsons, Francis Green, George B. Ploubidis, and Alice Sullivan (2023). 'Are Right-Wing Attitudes and Voting Associated with Having Attended Private School? An Investigation Using the 1970 British Cohort Study', *Sociology*, 57:6, 1280–301.
- Witschge, Jacqueline, Jesper Rözer, and Herman G. Werfhorst (2019). 'Type of Education and Civic and Political Attitudes', *British Educational Research Journal*, 45:2, 298–319.