Educational tracking and sorting in England

Education system, reforms, trends and empirical evidence for the 1970 Birth Cohort Study (BCS70)

Queralt Capsada-Munsech, Vikki Boliver

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Educational tracking and sorting in England

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Abstract

This report provides an overview and brief literature review of the English education system and the relevant educational reforms in relation to educational tracking and sorting. We employ the term 'tracking' when referring to formal educational differentiation, while 'sorting' refers to informal educational differentiation. The main objective is to provide a descriptive empirical analysis that identifies the long-term consequences of educational tracking and sorting on educational and occupational attainment. We also explore to what extent educational tracking/sorting characteristics mediate the relationship between social class of origin and destination. We use the 1970 British Cohort Study (BCS70) to provide empirical evidence for a mature cohort, mainly focusing on the role of school type and attaining a degree from a prestigious university as the main forms of educational tracking and sorting.

Keywords: educational tracking; educational sorting; England; school type; university prestige.

Acknowledgments

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1. Structure of the English education system, key educational reforms and educational tracking and sorting in England

Structure of the English education system

Formal schooling in England begins at age 4/5 when children enter the 'reception year' of primary school, and continues for a further 6 years until pupils are aged 10/11. Primary school pupils follow a nationally standardised curriculum and take Standard Assessment Tests (SATS) in Mathematics and Reading at age 6/7 (Key Stage 1, KS1) and again in Mathematics, Reading and Writing at age 10/11 (KS2).

Secondary schooling begins at age 11/12 and continues for 5 years until age 15/16, at which point the vast majority of pupils sit national examinations leading to qualifications known as GCSEs (General Certificate of Secondary Education, KS4). Students typically gain GCSE qualifications in 8 to 10 subjects drawn from a range of compulsory and optional components of a national curriculum. Since 1972 and until recently, the sitting of GCSE examinations at age 15/16 marked the end of compulsory schooling. Since 2015, however, young people have been required to continue in full- or part-time education at upper secondary level, or in some form of training, until age 17/18 unless they are in full-time employment.

For those who continue in upper secondary education until age 17/18, some pursue academic qualifications known as A-levels (Advanced-levels, KS5) - usually specialising in 3 curriculum subjects - while others pursue vocational qualifications such as National Vocational Qualifications (NVQs) or Business and Technology Education Council (BTECs) - usually in a single subject - and yet others pursue a combination of the two (for example, 1 A-level and a BTEC qualification). Not all secondary schools provide upper secondary education, and so some young people will need to move to another school or to a college of further education (FE) in order to continue their education through to age 18. While most schools and colleges providing upper secondary qualifications have on offer academic upper secondary courses, not all of them offer vocationally oriented ones. Further Education colleges, rather than schools, arethe main providers of vocational programs at upper secondary level, although these also offer academic ones. Progression to the academic route in upper secondary education tends to be restricted to higher achievers in GCSE and equivalent qualifications, whereas vocational study programmes at upper secondary level are more accessible to low achievers at GCSE.

On completing upper secondary education it is possible to progress to higher education - typically at age 18/19 - although some students take a 'gap year' and postpone entry to higher education for 12 months or so, and others enrol some years later as mature students. Many higher education entrants embark on three-year full-time bachelor degree programmes delivered by universities, although some study part-time and others pursue shorter sub-degree programmes such as a Higher National Diploma (HND), which may be delivered at a college rather than a university. Traditionally, A-level qualifications have been required for entry to bachelor degree programmes and remain the 'gold standard' for admission to these

programmes at the most academically selective universities, although the expansion of the UK higher education system has meant that vocational qualifications are also widely recognised as qualifying students for admission to higher education. The diversifying forms of continuation to upper secondary and higher education have taken more relevance in the past three decades.

Key educational reforms

One key reform of the education system in England during the second half of the twentieth century was the shift initiated in the 1960s from a selective to a comprehensive secondary school system. Prior to this, the 1944 Education Act had established free universal secondary schooling in England on selective lines, with an intelligence test known as "the 11+" determining access to grammar schools for those judged to be of high academic ability, and more vocationally oriented secondary modern schools for the rest. In 1965 the Labour government called for an end to selection at age 11 and its replacement by a comprehensive system of schools providing a rounded education to mixed student bodies with respect to both academic 'ability' and social background (Kerckhoff et al., 1996). Since the late 1960s, the number of comprehensive schools - and the share of pupils taught in these schools - dramatically increased. However, a small but significant minority of local areas retained a system of selection by 'ability' at age 11 into grammar schools for the highest performing pupils. In addition, fee-paying private schools have continued to educate a significant minority of young people throughout this period.

With regards to tertiary education, the 1992 Further and Higher Education Act formally dismantled the binary divide between universities and polytechnics, creating a unitary system of higher education for the UK. The granting of full university status to polytechnics in 1992 effectively doubled the number of universities and university students overnight (Halsey, 2000). Even if the divide was formally dismantled, informal differences between the so called 'Old' (pre-1992) and 'New' (post-1992) universities have remained, and have been reinforced by the publication of league tables and the formation of the Russell Group of self-proclaimed 'leading' and research-intensive UK universities (Boliver, 2015).

Another relevant reform affecting higher education in England is the introduction of tuition fees in 1998, their initial increase in 2006 to £3,000, and the subsequent rise in 2012 up to £9,000 a year, as well as the changes in the students finance system. While previous to 2012 graduate students would on average incur a student loan debt of £26,000, this rose to £44,000 afterwards (Vigurs, Jones and Harris, 2016). However, it is also worth pointing out that the repayment threshold also increased, meaning that graduates earning lower salaries would be less likely to pay back their debts.

Educational tracking and sorting in England

The most salient form of formal educational tracking at the **primary education level** relates to the distinction between state-maintained schools - used by the vast majority of families - and private fee-paying schools - used by a small but significant minority; while the most obvious form of informal educational sorting at primary level relates to the use of ability grouping within schools. There is further quasi-formal tracking in the form of ability grouping, either in

streams or sets both in primary and secondary schools. 'Streaming' refers to the practice of placing students in different groups based on their ability for all lessons, while 'setting' refers to grouping pupils by ability only for certain subjects (usually Maths and Literacy in primary school, and Maths, Science and English in secondary school). Some schools further segregate through setting by subject-specific attainment within general ability streams, while some schools group students in mixed-attainment groups (Taylor and Sloan, 2016). Using the 1958 National Child Development Study (NCDS) data, research suggests that in the 1970s, when cohort members were in secondary school, **ability streams** were prevalent in 23.7% of private schools, 16.6% of grammar schools, 42.8% of secondary modern schools and 40.6% of comprehensive schools (Jones, Rice and Dias, 2012). With the reform of comprehensive schooling, and the encouragement of schools to employ setting, the prevalence of streaming had declined to less than 3% in the 1990s (Lee and Croll, 1995; Hallam *et al.*, 2003). However, recent findings using the Millennium Cohort Study (MCS) data indicate that for cohort members born in 2000, by age 7 16.8% of the pupils in England and 19.5% of the pupils in Wales were streamed, 64.3% of whom were also set for Literacy, and 69.5% for Maths (Parsons and Hallam, 2011; Campbell, 2013; Hallam and Parsons, 2013a). Thus, it seems that this grouping practice might be on the rise. Empirical research also shows that in addition to ability and cognitive performance, physical aspects of the classroom, class size and student-related factors such as gender, social relationships between pupils and behaviour also influence the grouping of students (Davies, Hallam and Ireson, 2003), and that in the lower streams pupils who are summer born, from lower socioeconomic status (SES) backgrounds and from minority ethnic groups are overrepresented (Hallam and Parsons, 2013b; Parsons and Hallam, 2014).

The practice of **setting** also remains controversial, as empirical research provides inconclusive results. A research studying students taking KS3 (aged 12-14) in comprehensive schools in London shows that mixed-ability groupings was advantageous for low attaining pupils, with relatively little disadvantage to higher attaining pupils (Venkatakrishnan and Wiliam, 2003). Similar results arise from setting students at KS4 (aged 14-16) on GCSE scores, as mixed-ability grouping also showed to be beneficial, especially among low attainers (Wiliam and Bartholomew, 2004) . However, other studies provide inconclusive results across schools regarding the performance of students in mixed-ability groups in KS2 (aged 7-11) (Kutnick, Macintyre and Berdondini, 2005; Kutnick *et al.*, 2006), while further research supports that grouping students in similar ability sets results in higher GCSE scores, especially for those in higher sets (Ireson, Hallam and Hurley, 2005).

At secondary education level, the most salient form of formal tracking relates, as with primary education, to the distinction between different school types, namely secondary modern schools (i.e. state-maintained non-selective, vocational oriented), grammar schools (i.e. state-maintained, ability selective, academic oriented) and private school (i.e. non-state maintained, fee-paying). About 7% of school-aged children in the UK attend private fee-paying schools, and this figure has been largely constant for decades (Graddy and Stevens, 2005; Green *et al.*, 2012). When breaking it down by age, in 2017 about 6% of 11 year olds attended private schools, while this rate was more than double among 16 year olds, and around 16% for those aged 17 (Independent Schools Council (ISC), 2017), suggesting that some students might move

to private schools as they approach the moment to take relevant exams to access university (i.e. GCSE and A-levels). Even though half of the private fee-paying schools use academic selection, the main barrier to accessing private schools is high tuition fees. Fees range from £15,000 (day school) to £33,000 (boarding school) per year on average, and the overall average fee level of £17,000 in 2017 is significantly higher than the £9,600 average fee in 2008 (Independent Schools Council (ISC), 2017). Unsurprisingly, children from higher socioeconomic status and family income backgrounds are overrepresented in these schools (Green *et al.*, 2012; Parsons *et al.*, 2017). Using NCDS data for England and Wales, only 4.8% of private school students had a father who left school at age 15 or earlier, while this figure was much higher at 25% for grammar school students and over 40% for comprehensive and secondary modern schools pupils (Sullivan and Heath, 2002). Similarly, using the 1970 British Cohort Study (BCS70) data, 52% of privately educated cohort members had at least one graduate parent, compared to 31% of grammar school pupils, 14% of comprehensive school pupils, and 8% of secondary modern ones (Sullivan *et al.*, 2014).

Within the state-maintained component of the secondary school system, several different types of school also co-exist. The 'comprehensivization' movement initiated in the late 1960s sought to establish a system of schools providing a rounded education to mixed student bodies with respect to both academic 'ability' and social background. In practice, however, a small but significant minority of local areas retained a system of selection by 'ability' at age 11 (known as "the 11+" exam) to access grammar schools, deemed most appropriate for those judged more academically able and secondary modern schools for the rest. As could be expected, secondary modern schools had larger numbers of socially and educationally disadvantaged pupils in comparison to grammar schools, in addition to being comparatively underfunded (Levacic and Marsh, 2007). Grammar school students are predicted to perform well at the national examinations at age 16 (GCSE) and tend to continue into academic tracks leading to higher education. However, the differences between students in grammar schools and their peers in other state-maintained schools go beyond the ability differences that are measured by the 11-plus exam. Grammar schools admit relatively few disadvantaged pupils as measured by eligibility for Free School Meals (FSM, a widely used poverty measure) (Jesson, 2000, 2013). In addition, the few grammar school students who are FSM-eligible, have been so for fewer years than FSM students attending non-grammar schools, indicating that chronically poor students are especialy likely to attend non-grammar schools (Gorard and Siddiqui, 2018). The substantive under representation of poorer and special needs children in grammar schools does not solely reflect ability differences, as only 32% of high ability FSM children attend grammar schools, compared to 60% of non-FSM pupils (Atkinson, Gregg and Mcconnell, 2006). Not only the poor, but also the 'just managing' families are not being catered for by the current grammar school system (Cullinane, 2016). However, the proportion of pupils from certain ethnic minority background (mainly Asian and Chinese) going to grammar schools is higher than in other schools (Cribb *et al.*, 2013; Gorard and Siddiqui, 2018), even when controlling for SES (Cullinane, 2016). Additionally, girls have higher chances of admission into grammar schools than boys, even when controlling for prior achievements (Atkinson, Gregg and Mcconnell, 2006).

Gorard and Siddiqui (2018) claim that *"Every grammar school creates a much larger number of schools around it that cannot be comprehensive in intake, of necessity, because they are denied a supply of so many of the most high-attaining children"* (p. 13). Although most areas no longer have grammar schools, many comprehensive schools do not serve socioeconomically diverse student bodies due to the high degree of **residential segregation** along socioeconomic lines in the UK (Taylor, 2002), coupled with the fact that state-maintained secondary schools typically restrict admission to those living within a certain radius of the school (known as the "school catchment area") (Fitz, Gorard and Taylor, 2003; Gorard, 2009). The socioeconomic segregation of nominally comprehensive schools is an important source of informal sorting, which is correlated with and reciprocally related to the official quality assessment of schools as either 'Outstanding', 'Good', 'Requiring improvement' or 'Inadequate' by the government Office for Standards in Education (Ofsted). Comprehensive schools which act as their own admissions authorities are more likely to feature in the top 200, accounting for 31% of state secondary schools, but 70% of the top 200. On average, 5.8% of pupils in these schools are free school meal recipients, compared to 13.7% in their postcode sectors. The 61 local authority controlled schools in the top 200 are generally found in affluent areas, with FSM rates of 5.9%, well below the national average (Sutton Trust, 2006).

At **upper secondary level**, formal tracking exists in relation to whether pupils follow an academically oriented curriculum leading to A-level qualifications or a more vocationally oriented curriculum leading to qualifications such as NVQs (National Vocational Qualifications) or BTECs (Business and Technology Education Council). According to a report by the Department for Education (Jin, Muriel and Sibieta, 2011), over a third of students leave education after 16, while amongst those who stay in education, A-levels remain by far the most popular option, and a substantial minority of students combine their A-levels with more vocational course types, or take exclusively vocational courses. While the largest share stay in upper secondary schools, some students move to college or other further education institutions.

Among those studying for A-level qualifications currently, there is a growing emphasis on the study of specific subjects deemed to facilitate access to the most academically selective degree programmes and the most prestigious universities. Gaining A-levels in some of these 'facilitating subjects' – namely, English, History, Geography, Modern Foreign Languages, Biology, Chemistry, Maths, and Physics – is increasingly serving as an informal sorting mechanism. Recent empirical evidence using Next Steps (former LSYPE) and National Pupils Database (NPD) data suggests that private school students are more likely than their peers in state-maintained schools to study 'prestigious academic subjects' (Sullivan, Zimdars and Heath, 2010), and only 37% of those studying A-levels selected 'facilitating subjects' according to the Russell Group guidelines (Moulton *et al.*, 2018). Students taking the EBacc-eligible curriculum are more likely to take two or more facilitating subjects, while those that followed an applied curriculum have lower chances to do so, even when taking into account previous academic performance. Students coming from grammar schools are also more prone to select two or more facilitating subjects, compared to students who attended a comprehensive school (Moulton *et al.*, 2018). While on average 26.8% of students take EBacc subjects and 47.2% applied ones, these proportions greatly vary by social class and ethnicity: participation

in EBacc rises to 39.8% for those coming from a managerial class and down to 16.3% for those whose parents are in routine occupations. While Indian students (30.5%), White students (27.2%) and Pakistani students (27%) are more likely to select EBacc subjects, the proportion decreases to as little as 15.2% for Black Caribbean students, 16.8% for Bangladeshi students and 18.8% for Black African students.

Finally, at **higher education level**, the distinction between traditional bachelor degree qualifications, other sub-degree and often more vocationally oriented higher education qualifications is a key form of formal tracking. The dramatic higher education expansion experienced in the UK for the past decades has promoted a quantitative reduction in inequalities between social classes into higher education enrolment. However, the qualitative inequalities between social classes in the odds of enrolment in most prestigious programmes and institutions remain substantially unchanged (Boliver, 2011). The transition rate to university is higher among those with better grades at A-levels; however, students from ethnic minority groups are more likely to progress to higher education than their ethnic majority peers with the same academic performance (Jackson, Jonsson and Rudolphi, 2012).

More informally, the prestige of the university attended has become a pronounced type of informal sorting at higher education level. Key distinctions have long been drawn between 'Old' and 'New' universities (those granted university status pre- and post-1992, respectively), and more recently within the category of 'Old' universities between universities which are or are not members of the research-intensive Russell Group, although the empirical basis for differentiating between Russell Group and other Old universities has been contested (Boliver, 2015). Recent empirical research also questions the fairness of admission into these 'prestigious' UK universities, since applicants from state schools have been found to be less likely than comparably qualified private school applicants to receive offers of admission from Russell Group universities (Boliver, 2013), as have ethnic minority applicants compared to equally qualified White applicants (Boliver, 2016). Similarly, although good grades at A-level are a requirement to access university, the likelihood of accessing one of the more elite universities, such as the University of Oxford, varies by social class, gender and ethnicity (Zimdars, Sullivan and Heath, 2009). The Oxford acceptance rate for applicants with both professional class parents is 43.6%, dropping to 33.9% for students from managerial class backgrounds. About 40% of male applicants gained a place compared to 34.1% of female ones, and 38.8% of White applicants gained access, compared to 22.4% of Asian origin. Differences across groups hold even when controlling for academic performance, and are more relevant for accessing arts rather than science subjects.

Table 1 summarises the different forms of formal tracking and informal sorting identified in the English education system, while Figure 1 illustrates the time line of the English education system and the main forms of educational tracking and sorting discussed. While there is extensive research for most of these forms of formal tracking and informal sorting in England, these vary in terms of the period studied and the form of tracking/sorting in focus. The spread of educational tracking and sorting in England in several pieces of research might be partly explained by the difficulty to find accurate measures in a single database. Moreover, the limited

number of studies approaching it from a longitudinal perspective looking at the long term effects of tracking and/or sorting in England presents a clear gap to which we aim to contribute.

Table 1. Key forms of formal tracking and informal sorting in the English education system

FORMAL TRACKING	INFORMAL SORTING
Secondary school type: ● Comprehensive schools (state-funded, non-selective) ● Secondary modern schools (state-funded, not academic selective but located in areas with grammar schools) ● Grammar schools (state-funded, academically selective) ● Private schools (fee-paying) ● Other types of school (e.g. special needs) ● Sixth Form College (upper secondary only) ● Further Education institutions (upper secondary only) **Ability grouping within secondary schools:** ● Streaming (by general 'ability') ● Setting (by subject-specific 'ability')	**Secondary school composition:** ● Between-school segregation of pupils from different socioeconomic backgrounds ('catchment area') **Secondary school 'quality':** ● Ofsted rating of secondary schools as either 'Outstanding', 'Good', 'Requiring improvement' or 'Inadequate'
Upper secondary qualification type: ● Academic qualifications (e.g. A-levels) ● Vocational qualifications (e.g. BTECs, NVQs)	**Upper secondary subject choice:** ● 'Facilitating subjects' at A-level (Russell Group guidelines)
Higher education qualification type: ● Traditional bachelor's degree qualification ● Sub-degree qualification (e.g. HND)	**Higher education institution prestige:** ● Russell Group universities ● Other 'Old' universities (est. pre-1992) ● 'New' universities (est. post-1992)

Source: Authors' elaboration.

PRIMARY SCHOOL	SECONDARY SCHOOL	UPPER SECONDARY SCHOOL / COLLEGE	HIGHER EDUCATION

Primary School — Ability group
- Ability sets
- Ability streams
- Mixed ability groups

Key Stage 1 (6/7yo)

Secondary School — School type
- Private
- Selective state (Grammar)
- State non-selective (Comprehensive)
- State non-selective vocational (Secondary Modern)

Key Stage 2 (10/11yo)

Secondary School — Ability group
- High
- Medium
- Low

Key Stage 3 (13/14yo)

Upper Secondary School / College — Qualification type
- Academic
- Vocational

GCSE Key Stage 4 (15/16yo)

Upper Secondary School / College — Subject choice
- Facilitating subjects
- Other subjects

A-levels Key Stage 5 (17/18yo)

Higher Education — Prestige of (sub)degree
- Elite degree (RG & some 'Old')
- Degree other 'Old' universities
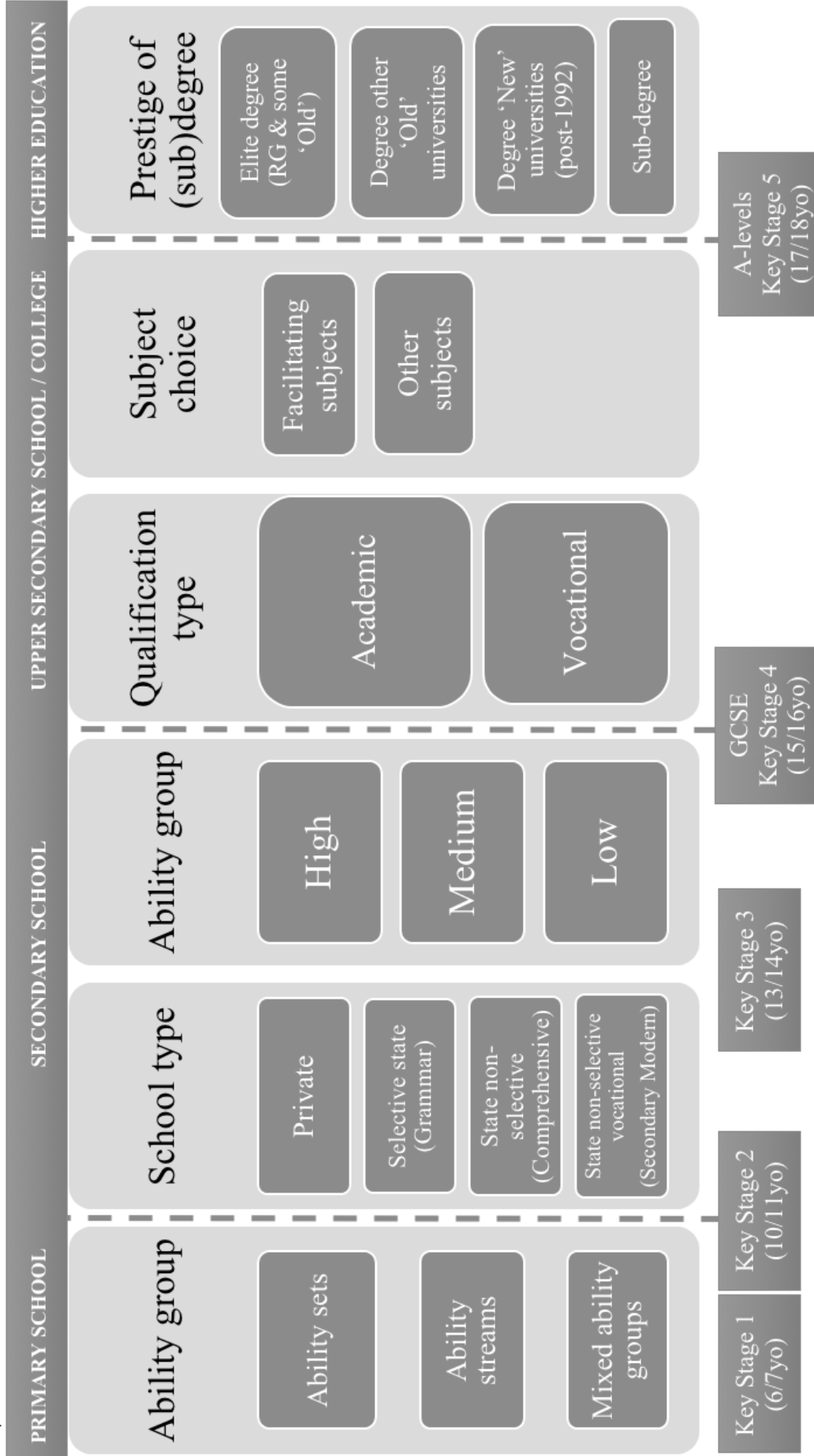- Degree 'New' universities (post-1992)
- Sub-degree

Figure 1: Educational tracking and sorting in the English educational system
Source: Authors' elaboration.

2. Patterns of educational attainment

In this section we focus on one major form of formal tracking, namely type of secondary school attended at age 16 (i.e. at the end of lower secondary education). We consider the relationship between the type of school attended at age 16 with the highest qualification attained by age 26 - or later, if information is missing at age 26. We use the 1970 British Cohort Study (BCS70) (University of London, Institute of Education, 2016) data, which follows over time a representative sample of people born in the UK in the same week in 1970. At the moment of writing this report, a total of 9 sweeps were available for researchers (1970, birth; 1975, 5yo; 1980, 10yo; 1986, 16yo; 1996, 26yo; 2000, 30y; 2004; 34yo; 2008, 38yo; 2012, 42yo). We only retain those born in England for our analyses, as in this report we only focus on the English education system. It is also worth mentioning at this point that the 1996 survey (cohort members aged 16) was heavily affected by a teachers strike, reducing the head teachers' and pupils' questionnaire response rate. The following sweep took place 10 years later, when cohort members were aged 26, making it difficult to follow specific transitions to upper secondary and tertiary education. The 2012 sweep (aged 42) introduced some retrospective questions to cover some gaps, such as completing information on the type of school and providing new information on the university attended. Following previous research (Sullivan et al., 2014), we combine school data from different sources (i.e. School Census, Head teachers' questionnaire at age 16, and a retrospective question at age 42) to mitigate the data collection limitations.

Among the sample of 10,580 individuals born in England in 1970, 80.3% attended a comprehensive school, 7.8% a secondary modern school, 4.4% an academically selective grammar school, 6.4% a private fee-paying school (see Figure 2), and 1.2% (not displayed in figure) attended other types of schools (e.g. special needs schools). We construct a variable differentiating by educational level vertically (i.e. no qualification, GCSE, upper secondary, sub-degree, bachelor degree) and horizontally (i.e. upper secondary academic vs vocational; bachelor degree 'Old' vs 'New' university). The proportion of individuals not achieving any formal qualification is the highest among secondary modern schools pupils (16.2%), followed by comprehensive (10.6%), grammar (4.4%) and private (3.9%) school attendees. Similarly, the proportion of people attaining at most the GCSE school leaving qualification is the highest in secondary modern schools (51.2%), followed by comprehensive (47.8%), grammar (24.5%) and private (14.8%) school attendees.

Among those whose highest qualification is at upper secondary level, vocationally oriented qualifications are more common than academic ones among secondary modern school attendees (6.5% vocational vs 4.1% academic) and comprehensive schools (6.3% vocational vs 4.7% academic), whereas the opposite is true for grammar school (3.0% vocational vs 13.2% academic) and private school (1.8% vocational vs 7.6% academic) attendees. Conversely, those educated in grammar and private schools by far display a larger share of cohort members who attained a bachelor degree qualification and, more importantly, from a prestigious university. While 37.6% of private school attendees gained a bachelor degree from an 'Old' university (pre-1992), this figure reduces to 21.6% for grammar school attendees, to 7.8% for comprehensive school attendees and to 3.9% for secondary modern ones.
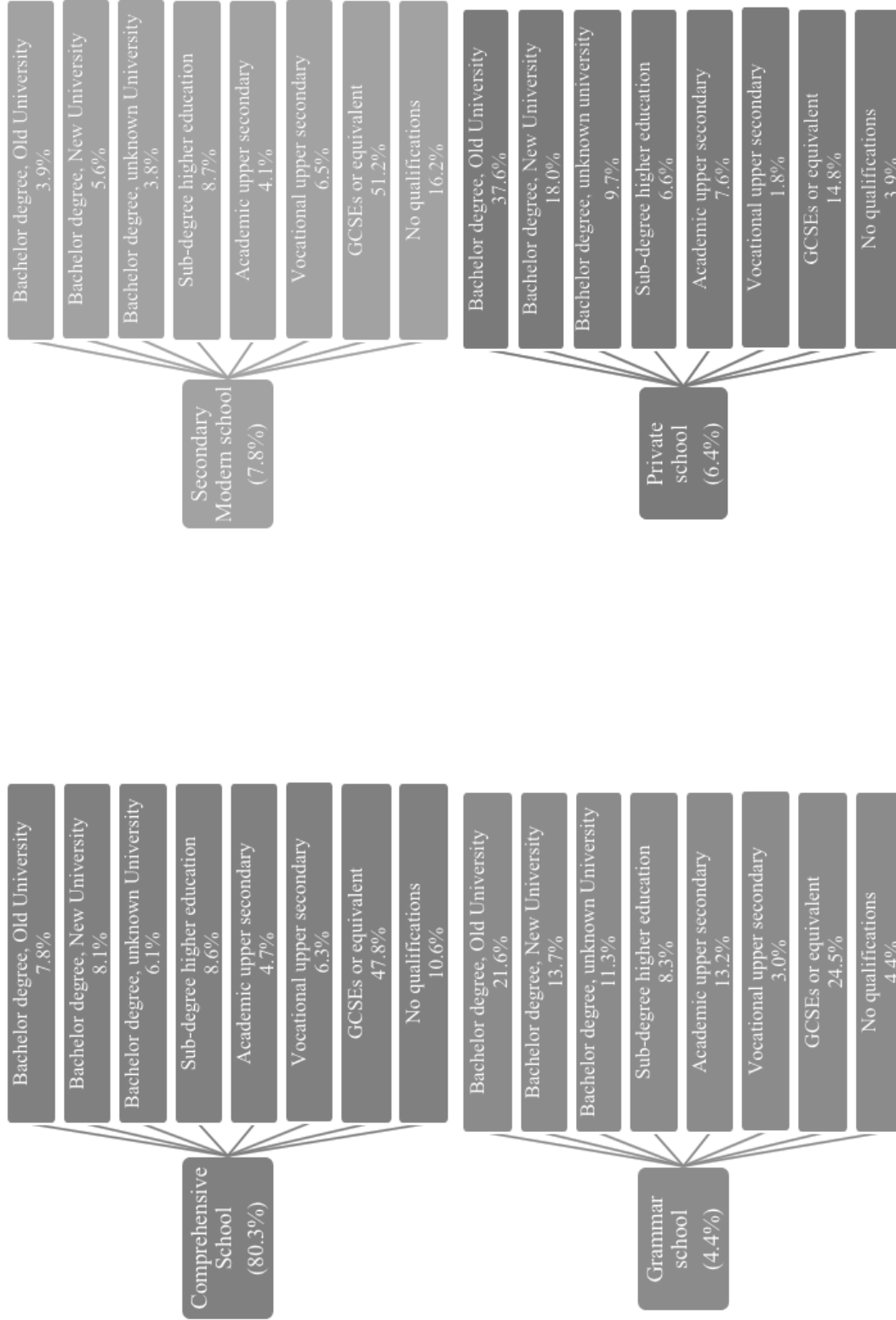
Figure 2: Highest qualification attained by age 26 by school type, BCS70
Note: The breakdown for the 1.20% of other type of schools (e.g. special needs) not displayed in figure due to small numbers.

Comprehensive School (80.3%)
- Bachelor degree, Old University — 7.8%
- Bachelor degree, New University — 8.1%
- Bachelor degree, unknown University — 6.1%
- Sub-degree higher education — 8.6%
- Academic upper secondary — 4.7%
- Vocational upper secondary — 6.3%
- GCSEs or equivalent — 47.8%
- No qualifications — 10.6%

Grammar school (4.4%)
- Bachelor degree, Old University — 21.6%
- Bachelor degree, New University — 13.7%
- Bachelor degree, unknown University — 11.3%
- Sub-degree higher education — 8.3%
- Academic upper secondary — 13.2%
- Vocational upper secondary — 3.0%
- GCSEs or equivalent — 24.5%
- No qualifications — 4.4%

Secondary Modern school (7.8%)
- Bachelor degree, Old University — 3.9%
- Bachelor degree, New University — 5.6%
- Bachelor degree, unknown University — 3.8%
- Sub-degree higher education — 8.7%
- Academic upper secondary — 4.1%
- Vocational upper secondary — 6.5%
- GCSEs or equivalent — 51.2%
- No qualifications — 16.2%

Private school (6.4%)
- Bachelor degree, Old University — 37.6%
- Bachelor degree, New University — 18.0%
- Bachelor degree, unknown university — 9.7%
- Sub-degree higher education — 6.6%
- Academic upper secondary — 7.6%
- Vocational upper secondary — 1.8%
- GCSEs or equivalent — 14.8%
- No qualifications — 3.9%

3. Social Origin and Educational Tracking (OE)

This section summarises the association between the social origin of those born in 1970 and educational tracking and sorting. The forms of educational tracking and sorting we focus on are: 1) type of secondary school attended, and 2) achievement of a degree or not and, if so, from either a 'New' (post-1992) or 'Old' (pre-1992) university. Due to data limitations[3], we cannot focus on more refined forms of track placement in the transition from lower to upper secondary education, and later on to tertiary education. However, school type and the attainment of a (prestigious) degree are relevant forms of educational tracking and sorting in England and we can explore their long term influence on social class of destination.

As it is common practice in the sociological literature, we use parental educational attainment - when the cohort member was aged 5 - (father's, mother's if father's missing data) and occupation - when the cohort member was aged 16 - to measure parental social origin. For parental educational level we rely on the 1975 wave asking for parental highest qualification attained (only year this question was asked). We use information on parental occupation from wave 1986 initially, backfilled with information from previous survey waves when information is missing. We also tried to include a category for unemployed fathers, but not enough cases were displayed as unemployed when taking parental social class information for the four waves under consideration (1986, 1980, 1975 and 1970). Due to the year the data collection took place, information for father's occupation is classified using the former Registrar- General's social class (RGSC) classification based on occupation.[4] Unfortunately, it is not possible to convert it to the most commonly used Erikson-Goldthorpe-Portocarero (Erikson, Goldthorpe and Portocarero, 1979) social class measure or the UK National Statistics Socio-Economic Classification (NS-SEC), which can differentiate employer, self-employed and employees. Previous research using the same database has already reported this limitation and used the same variable to approach parental occupation (Sullivan et al., 2014, p. 749).

Starting with the association between social origin and type of school attended, Figures 3 and 4 display a clear association between them. Although most individuals attended a comprehensive school, the significant minorities attending other types of school are clearly overrepresented among some specific groups by parental educational attainment and occupation. The proportion of those who attended a private or a grammar school is considerably larger among those whose parents hold a tertiary education qualification (Figure 3) or have a professional or managerial/technical occupation (Figure 4), whereas secondary modern school attendees are overrepresented among those whose parents have compulsory lower secondary

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3 Note that BCS70 is a general life course survey covering all life dimensions and that does not specifically focus on education.

4 Registrar-General's Social Classes (RGSC)/Social Class based on Occupation: I Professional occupations; II Managerial and technical occupations; IIIN Skilled non-manual occupations; IIIM Skilled manual occupations; IV Partly-skilled occupations; V Unskilled occupations. See an approximate correspondence with NS-SEC at http://www.marketsegmentation.co.uk/downloads/Socio-economic%20Classification%20-%20United%20Kingdom.pdf

education or no qualifications (Figure 3), and were employed in skilled manual, partly skilled or unskilled occupations (Figure 4).

The type of school attended at age 16 is also clearly associated with the age of leaving full-time education (Figure 5). While those that attended a secondary modern or a comprehensive school mostly leave full time education at 16 (i.e. lower secondary education, after compulsory education), cohort members that attended a private or a grammar school leave full time education after 21 or after 16 to a larger extent than their peers in other types of schools. In addition to this, the type of school attended also correlates with the type of qualification attained. Figure 6 shows that most individuals achieved an academic qualification by age 26, but this is practically the norm among those that attended grammar or private schools, while those that went to comprehensive or secondary moderns display a sizeable proportion of individuals with vocational qualifications and, to a lesser extent, with no qualifications at all.

Similarly, parental education and occupation backgrounds also clearly correlate with the highest qualification achieved at age 26 by individuals in the cohort study. Those whose parents have no qualifications or lower secondary education at most, display the largest shares of no qualifications attained and GCSE or equivalent (Figure 7), while the proportion of those who attain degrees - both from New and Old universities - are larger among those whose parents attained tertiary education qualifications. Likewise, the proportion of those who hold a university degree is larger among those whose parents were employed in professional or managerial/technical occupations, whereas this percentage decreases as we move down the occupation hierarchy (Figure 8).

Differences by social origin and the attainment of a degree across types of schools are even more clearly illustrated in Figures 9 (parental education) and 10 (parental occupation). Across all types of schools the share of those getting a degree – and especially a degree from an Old university - increases as we move upper in the educational or occupational scale. However, when comparing the same educational or occupational group across school types, the figures clearly show that the share of cohort members achieving a degree is larger among those who attended a private or a grammar school, and most of them get it from a prestigious Old university.
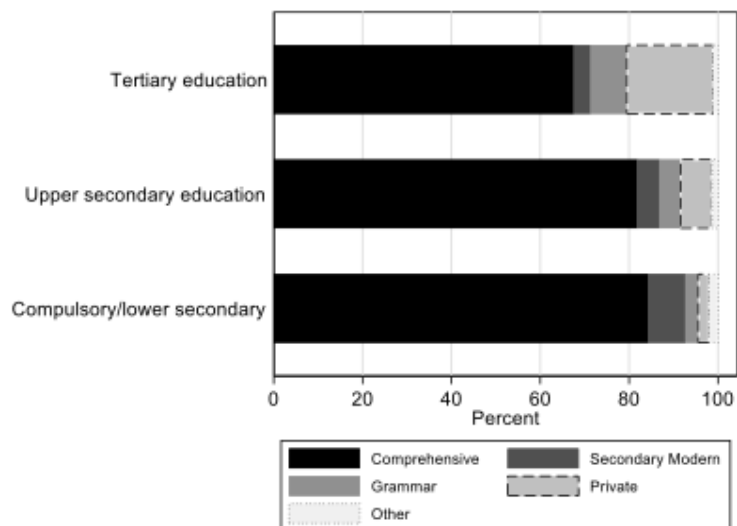
Figure 3: Distribution of school type by parental education (when individual aged 5), BCS70
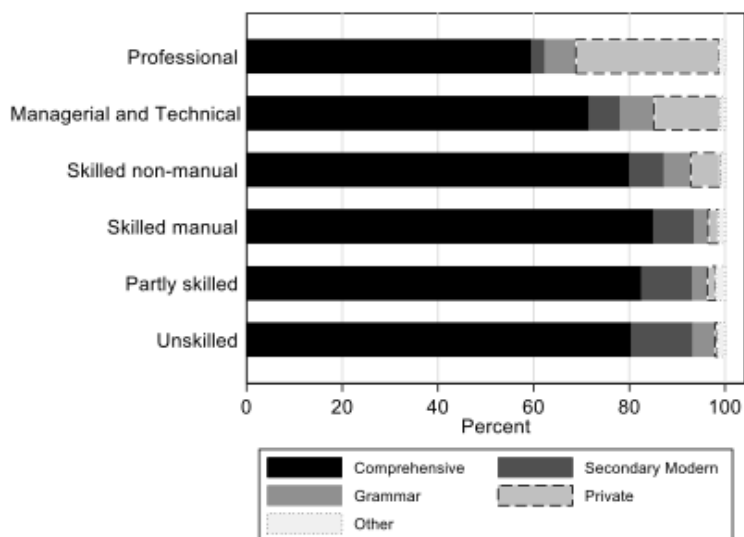
Figure 4: Distribution of school type by parental social class (when individual aged 16), BCS70
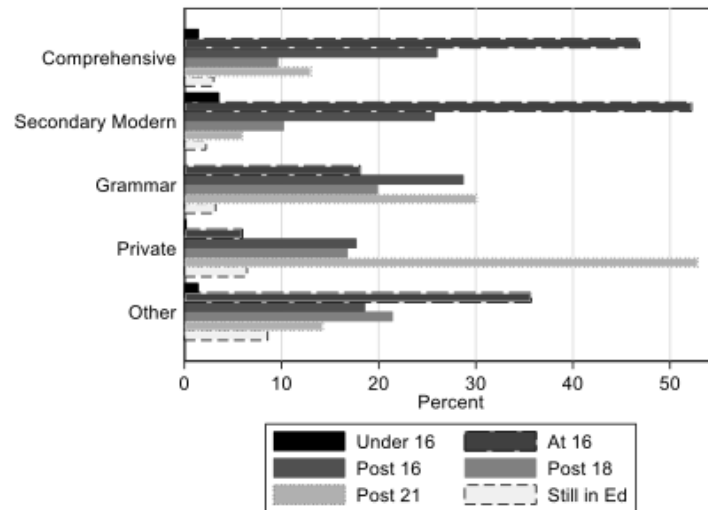
Figure 5: Leaving age of full time education by type of school attended at age 16, BCS70
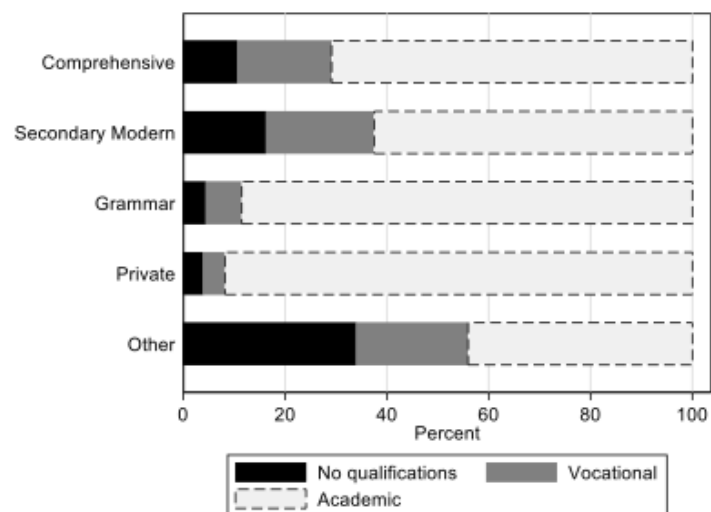
Figure 6: Distribution of qualification attained (at age 26) in general tracks by type of school attended at age 16, BCS70

Figure 7: Distribution of highest qualification attained (age 26) by parental education (when individual aged 5), BCS70

Figure 8: Distribution of highest qualification attained (age 26) by parental social class (when individual aged 16), BCS70

Figure 9: Distribution of type of degree attainment by school type and parental education (when individual aged 5), BCS70

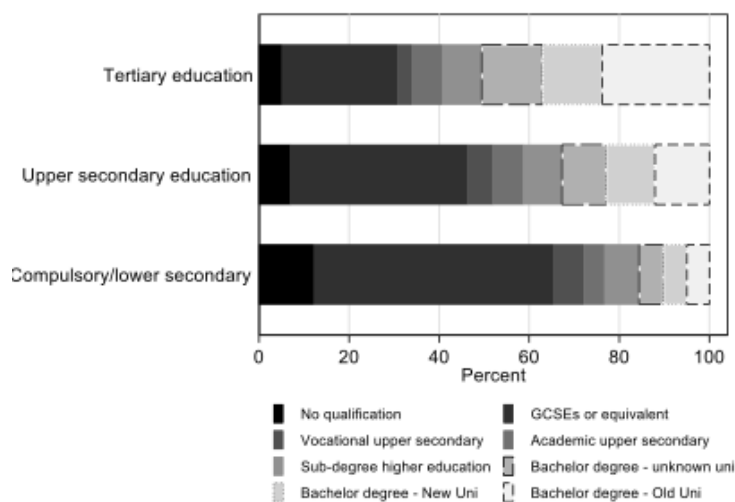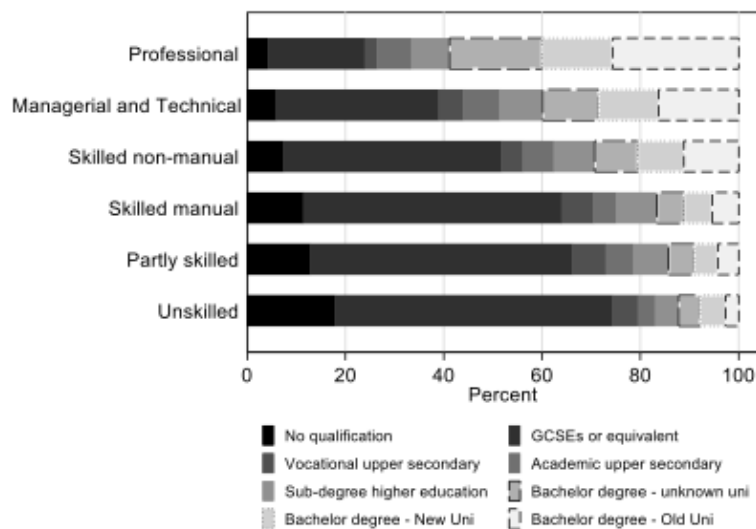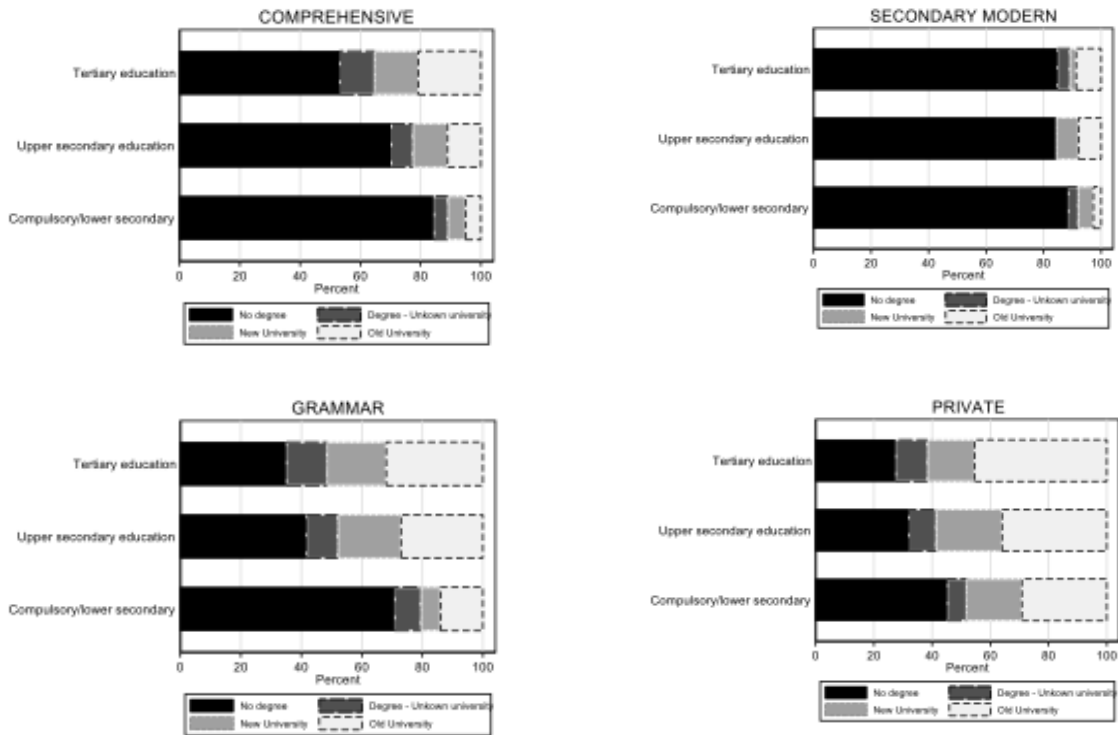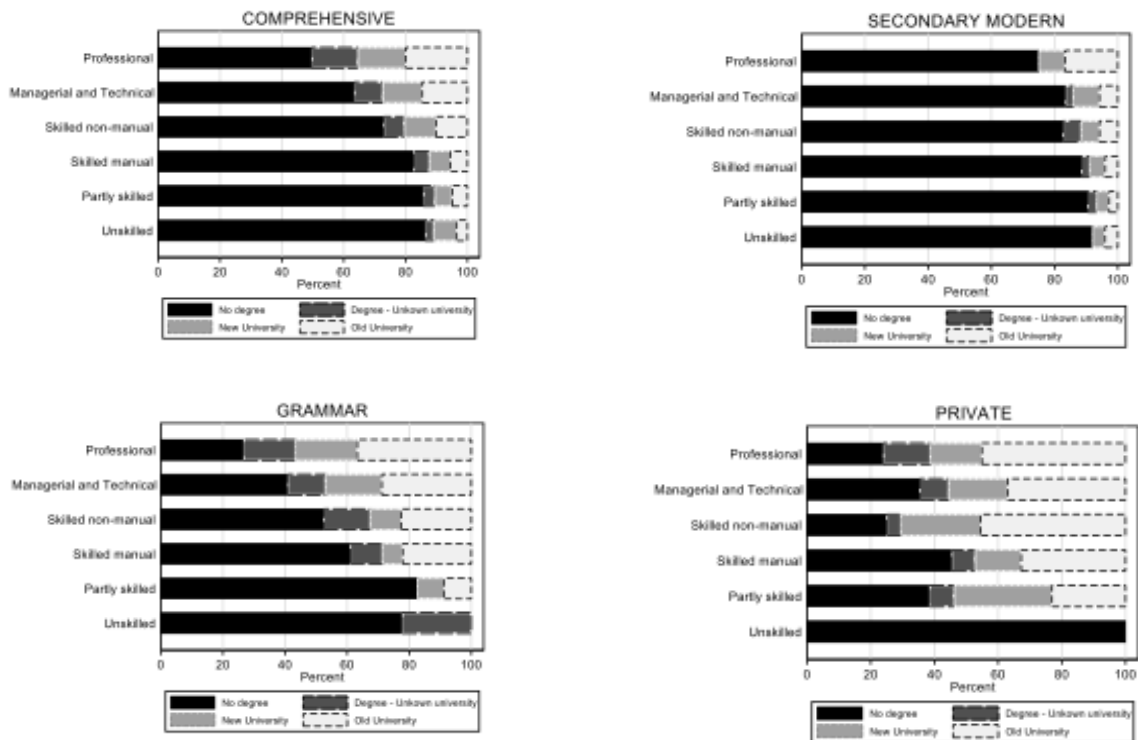**Figure 10:** Distribution of type of degree attainment by school type and parental social class (when individual aged 16), BCS70

We conduct simple logit regression models regressing the parental education and parental occupation variables separately in order to further explore the raw association between social origin and educational tracking/sorting. The first model includes the type of school attended, the second the type of qualification attained (no qualifications, vocational, academic) and the third includes attaining a (prestigious) degree or not. Table 2 (parental education) and 3 (parental occupation) are in line with the distribution of the descriptive statistics presented in the figures discussed above.

Table 2 presents the association between parental education (when the individual was aged 5) and the type of school attended (at age 16), the type of highest qualification attained at age 26 (academic vs vocational) and the type of degree (if any) attained at age 26 in average marginal effects from multinomial logit models. Results show that, compared to those whose parents have tertiary education, the likelihood of attending a comprehensive school is larger for those whose parents have at most upper secondary education, or compulsory/lower secondary education, or even no qualifications at all. Results suggest a similar trend when considering the likelihood to attend a secondary modern school, although results are not always statistically significant and the effect size is smaller. However, the opposite is true when considering the likelihood of attending a grammar or a private school. Compared to those whose parents have tertiary education qualifications, the rest are less likely to attend a grammar or a private school, the effect size being larger for the latter. Similarly, those whose parents do not have tertiary education are less likely to get an academic qualification and are, conversely, more likely to end up with no qualifications or with vocational qualifications at most. In a like manner, the likelihood of not getting a degree increases for those whose parents highest qualification is below tertiary education, compared to those with tertiary education. Conversely, the likelihood to get a degree is reduced for those whose parents do not have a tertiary degree, compared to those who do, being the effect sizes larger when considering the likelihood of attainment of a prestigious degree from an Old university.

Table 3 displays results in the same line when including parental occupation (when the individual was aged 16) instead of parental education. Compared to those who have parents employed in professional occupations, the rest are more likely to have attended a comprehensive or a secondary modern school, and are less likely to attend a grammar or a private school. The likelihood of getting an academic qualification is also reduced as we move down the occupational scale. Similarly, the likelihood of not getting a degree is also larger for the rest of categories, compared to those from a professional background. On the contrary, compared to those whose parents had a professional occupation the rest are less likely to get a degree, the differences being larger when considering a degree from an Old university.

Table 2. Association between parental education (when individual aged 5) with the type of school attended (at age 16, retrospective information asked at age 42), the type of qualification attained (at age 26, retrospective information asked at age 42) and the type of degree attained (at age 26, retrospective information asked at age 42). Average marginal effects from multinomial logit model, BCS70

	School type				Type of qualification			Prestigious Degree			
	Comprehensive	Secondary modern	Grammar	Private	No quals	Vocational	Academic	No degree	Degree-unknown uni	Degree - New	Degree - Old
Parental education *RC: Tertiary education*											
Upper secondary	0.143***	0.011	-0.033***	-0.123***	0.019**	0.061***	-0.080***	0.179***	-0.037*	-0.024	-0.117***
	(0.018)	(0.009)	(0.010)	(0.014)	(0.010)	(0.013)	(0.016)	(0.020)	(0.013)	(0.013)	(0.015)
Compulsory / lower secondary	0.167***	0.046***	-0.052***	-0.170***	0.071***	0.128***	-0.200***	0.350***	-0.081***	-0.080***	-0.188***
	(0.014)	(0.006)	(0.008)	(0.011)	(0.007)	(0.009)	(0.011)	(0.015)	(0.010)	(0.010)	(0.012)
N	8,321				8,844			8,844			
Pseudo R^2	0.0460				0.0192			0.0557			

Table 3. Association between parental social class (when individual aged 16) with the type of school attended (at age 16, retrospective information asked at age 42), the type of qualification attained (at age 26, retrospective information asked at age 42) and the type of degree attained (at age 26, retrospective information asked at age 42). Average marginal effects from multinomial logit model, BCS70

	School type				Type of qualification			Prestigious Degree			
	Comprehensive	Secondary modern	Grammar	Private	No qualifications	Vocational	Academic	No degree	Degree-unknown uni	Degree - New	Degree - Old
Parental social class *RC: Professional Managerial and Technical*											
	0.120***	0.037***	0.007	-0.162***	0.017	0.053***	-0.70***	0.190***	-0.074***	-0.021	-0.094***
	(0.024)	(0.009)	(0.013)	(0.022)	(0.010)	(0.0130)	(0.016)	(0.024)	(0.019)	(0.017)	(0.021)
Skilled non-manual	0.210***	0.043***	-0.010	-0.238***	0.031**	0.072***	-0.103***	0.296***	-0.101***	-0.049**	-0.146***
	(0.027)	(0.012)	(0.014)	(0.022)	(0.013)	(0.016)	(0.020)	(0.027)	(0.020)	(0.019)	(0.022)
Skilled manual	0.254***	0.058***	-0.035**	-0.279***	0.072***	0.140***	-0.213***	0.422***	-0.133***	-0.086***	-0.203***
	(0.023)	(0.009)	(0.012)	(0.021)	(0.011)	(0.013)	(0.016)	(0.023)	(0.018)	(0.016)	(0.020)
Partly skilled	0.230***	0.078***	-0.033*	-0.282***	0.087***	0.176***	-0.262***	0.445***	-0.135***	-0.096***	-0.215***
	(0.026)	(0.014)	(0.013)	(0.021)	(0.014)	(0.018)	(0.021)	(0.025)	(0.019)	(0.017)	(0.020)
Unskilled	0.208***	0.101***	-0.018	-0.295***	0.136***	0.170***	-0.310***	0.466***	-0.144***	-0.092***	-0.231***
	(0.036)	(0.025)	(0.019)	(0.021)	(0.027)	(0.030)	(0.035)	(0.031)	(0.022)	(0.021)	(0.022)
N	6,745				7,466			7,466			
Pseudo R^2	0.0593				0.0267			0.0542			

4. Educational tracking and long-term outcomes (ED)

In this section, we explore the relationship between educational tracking and sorting in relation to educational and occupational attainment outcomes. Using BCS70 data, we perform a set of simple OLS regressions with robust standard errors including as outcome variables: 1) attaining an academic qualification (at age 26); 2) attaining a university degree; 3) attaining a degree from an 'Old' university (prestigious degree); 4) occupational class at age 34 (7 categories, results reduced to 3/4 categories); and 5) occupational class at age 42 (7 categories, results reduced to 3/4 categories). The only predictor variables included are the ones referring to educational tracking/sorting identified earlier as the most relevant ones: type of secondary school attended and, in the case of the occupational outcome variable, having obtained a bachelor degree and, if so, whether from an 'Old' or 'New' university. Table 4 below displays the distribution of the outcome variables for the sample included in the analyses.

Starting with the association between educational variables, Table 5 displays the results of the raw association between the type of school attended and attaining a (prestigious) degree. Results from the OLS models show that, those who attended a private or a grammar school are more likely to attain an academic qualification, compared to those that attended a comprehensive school, while the opposite is true for those that attended a secondary modern. In line with these results, compared to those that attended a comprehensive school, the chances of achieving a degree are lower for those who attended a secondary modern, but larger for those who went to grammar and private schools. Same pattern applies when predicting the likelihood of getting a degree from a more prestigious, Old university. Similar results apply when only including in the models those eligible to go to university (i.e. holders of A-levels or equivalent qualifications).

Table 6 presents the raw association between the school type and attaining a (prestigious) degree with the occupation the cohort member is employed in at ages 34 and 42 (7 categories, presented in 4), using the UK National Statistics Socio-Economic Classification (NS-SEC)[5], which approaches the EGP classification. In order to make results as comparable as possible with the rest of participating countries in the LIFETRACK project, we present results as outcomes of being in the 1) I - Higher Managerial and Professional Class; 2) I+II - Managerial and Professional Class (Service Class); 3) Manual Class (V+VI+VII, Lower supervisory and technical occupations, Semi-routine occupations;, and Routine occupations); and 4) Unskilled Class (VII – Routine occupations).

Therefore, we perform a series of OLS models with a total of 8 outcome variables, four for occupational attainment at age 34 and four at age 42. In all cases the outcome variable has two

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5 NS-SEC: I - Higher Managerial and Professional; II - Lower Managerial and Professional; III – Intermediate occupations; IV – Small employers and own account workers; V – Lower supervisory and technical occupations; VI – Semi-routine occupations; VII – Routine occupations.

categories, being 1 the category of interest, and 0 the rest of categories. We introduce the educational tracking/sorting variables in three models: model 1 includes type of school attended; model 2 adds a binary variable of having or not having attained a university degree; and model 3 removes the previous and adds a categorical variable with the categories no degree, degree from unknown university, degree from New university and degree from Old university.

Results for this raw multivariate analyses show that the school attended and having a (prestigious) degree influences the chances of being employed in higher level occupations both at 34 and 42 years old. However, in all cases the variance explained by the models is quite small. Compared to those that attended a comprehensive school, grammar and private school attendees have a higher chance of being employed in the (high) service class at age 34. These results hold even when introducing in the model the fact of having a (prestigious) degree.

The type of school attended still remains as a relevant predictor of the likelihood of being employed in the manual class at age 34, showing that those who attended private and grammar schools are less likely to be employed in the manual class at age 34, compared to comprehensive school attendees. Similarly, having a (prestigious) degree reduces the chances to be employed in the manual class at age 34. Results are similar when only considering the unskilled class, although it is worth pointing out that the variance explained by this model is the lowest compared to the rest of outcome categories, probably due to the small size of this category.

Results for the occupational attainment variables at age 42 are all in the same line as for the ones discussed above for 34 years old. Nevertheless, in all cases both the coefficients and the variance explained of the model are lower, suggesting that even if the type of school and the fact of having a (prestigious) degree are still influential in individuals' occupation at age 42 these are less relevant than a few years earlier.

Table 4. Distribution of outcome variables, BCS70

	All individuals	All eligible for HE, i.e. holders of at least A-levels or equivalent
Type of qualification		
No qualifications	10.75	
Vocational	17.45	
Academic	71.8	
Higher degree		
No degree	75.01	29.45
Degree	24.99	70.55
Prestigious higher degree		
No bachelor degree	75.01	29.45
Bachelor degree - university unknown*	6.39	18.03
Bachelor degree – 'New' university	8.71	24.6
Bachelor degree – 'Old' university	9.89	27.92
Social Class at 34 (NS-SEC)7-categories		
Higher Managerial and Professional	17.89	
Lower Managerial and Professional	31.58	
Intermediate occupations	12.45	
Small employers and own account workers	9.45	
Lower supervisory and technical occupations	10.57	
Semi-routine occupations	11.17	
Routine occupations	6.88	
Social Class at 34 (NS-SEC) 3-categories		
Service Class	49.47	
Manual Class	28.62	
Unskilled Class	6.88	
Social Class at 42 (NS-SEC)7-categories		
Higher Managerial and Professional	16.47	
Lower Managerial and Professional	32.78	
Intermediate occupations	10.79	
Small employers and own account workers	12.97	
Lower supervisory and technical occupations	8.4	
Semi-routine occupations	12.38	
Routine occupations	6.2	
Social Class at 42 (NS-SEC) 3-categories		
Service Class	49.25	
Manual Class	26.98	
Unskilled Class	6.2	

Table 5. Association between school type and (prestigious) degree attainment at age 26. OLS models, BCS70

	Model 1	
	Coefficients	**S.E.**
Outcome: Academic qualification		
RC: Comprehensive school		
Secondary Modern school	-0.084***	(0.0182)
Grammar school	0.176***	(0.0166)
Private school	0.209***	(0.0122)
Other school	-0.268***	(0.0397)
Constant	0.708***	(0.0051)
N	9,766	
R^2	0.028	
Outcome: Bachelor degree (all individuals)		
RC: Comprehensive school		
Secondary Modern school	-0.088***	(0.0131)
Grammar school	0.246***	(0.0251)
Private school	0.433***	(0.0197)
Other school	-0.050*	(0.0302)
Constant	0.220***	(0.0047)
N	9,766	
R^2	0.075	
Outcome: Bachelor degree (all eligible for HE, i.e. holders of at least A-levels or equivalent)		
RC: Comprehensive school		
Secondary Modern school	-0.109***	(0.0380)
Grammar school	0.163***	(0.0264)
Private school	0.230***	(0.0170)
Other school	0.080	(0.0728)
Constant	0.670***	(0.0093)
N	3,460	
R^2	0.039	
Outcome: Bachelor degree, 'Old' university (all individuals)		
RC: Comprehensive school		
Secondary Modern school	-0.190***	(0.0258)
Grammar school	0.578***	(0.0622)
Private school	1.129***	(0.0534)
Other school	-0.123*	(0.0660)
Constant	0.456***	(0.0106)
N	9,766	
R^2	0.090	
Outcome: Bachelor degree, 'Old' university (all eligible for HE, i.e. holders of at least A-levels or equivalent)		
RC: Comprehensive school		
Secondary Modern school	-0.263***	(0.0883)
Grammar school	0.461***	(0.0771)
Private school	0.793***	(0.0531)
Other school	0.083	(0.1920)
Constant	1.390***	(0.0231)
N	3,460	
R^2	0.061	

Robust standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 6. Association between educational tracking/sorting (school type and (prestigious) degree attainment at age 26) and social class outcomes at ages 34 and 42. OLS models, BCS70

	Model 1 (Type of school)		Model 2 (Type of school + degree)		Model 3 (Type of school + prestigious degree)	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Outcome: Service class I at age 34						
RC: Comprehensive school						
Secondary Modern school	-0.058***	(0.0152)	-0.035**	(0.0140)	-0.034**	(0.0140)
Grammar school	0.140***	(0.0284)	0.063**	(0.0279)	0.058**	(0.0278)
Private school	0.210***	(0.0239)	0.090***	(0.0239)	0.080***	(0.0241)
Other school	0.014	(0.0465)	0.022	(0.0428)	0.021	(0.0423)
Bachelor degree			0.281***	(0.0130)		
RC: No degree						
Bachelor degree - university unknown					0.236***	(0.0240)
Bachelor degree from New university					0.270***	(0.0202)
Bachelor degree from Old university					0.319***	(0.0198)
Constant	0.162***	(0.0053)	0.0926***	(0.0048)	0.093***	(0.0048)
N	6,159		6,159		6,159	
R^2	0.027		0.127		0.130	
Outcome: Service class I+II at age 34						
RC: Comprehensive school						
Secondary Modern school	-0.064***	(0.0240)	-0.027	(0.0215)	-0.027	(0.0215)
Grammar school	0.221***	(0.0290)	0.098***	(0.0281)	0.096***	(0.0282)
Private school	0.324***	(0.0208)	0.134***	(0.0209)	0.128***	(0.0213)
Other school	-0.130**	(0.0578)	-0.118**	(0.0519)	-0.118**	(0.0517)
Bachelor degree			0.447***	(0.0122)		
RC: No degree						
Bachelor degree - university unknown					0.413***	(0.0216)
Bachelor degree from New university					0.447***	(0.0172)
Bachelor degree from Old university					0.469***	(0.0159)
Constant	0.469***	(0.0071)	0.357***	(0.0076)	0.358***	(0.0076)
N	6,159		6,159		6,159	
R^2	0.037		0.188		0.188	
Outcome: Manual class (V+VI+VII) at age 34						
RC: Comprehensive school						
Secondary Modern school	0.063***	(0.0234)	0.038*	(0.0224)	0.038*	(0.0224)
Grammar school	-0.182***	(0.0209)	-0.100***	(0.0209)	-0.100***	(0.0210)
Private school	-0.232***	(0.0141)	-0.104***	(0.0144)	-0.103***	(0.0147)
Other school	0.137**	(0.0606)	0.129**	(0.0585)	0.126**	(0.0584)
Bachelor degree			-0.301***	(0.0095)		
RC: No degree						
Bachelor degree - university unknown					-0.272***	(0.0162)
Bachelor degree from New university					-0.319***	(0.0111)
Bachelor degree from Old university					-0.302***	(0.0114)
Constant	0.304***	(0.0066)	0.379***	(0.0077)	0.379***	(0.0077)
N	6,159		6,159		6,159	
R^2	0.026		0.110		0.110	
Outcome: Unskilled class (VII) at age 34						
RC: Comprehensive school						
Secondary Modern school	-0.001	(0.0128)	-0.008	(0.0127)	-0.008	(0.0127)
Grammar school	-0.042***	(0.0115)	-0.019*	(0.0114)	-0.019*	(0.0115)
Private school	-0.068***	(0.0055)	-0.033***	(0.0052)	-0.033***	(0.0053)
Other school	0.058	(0.0413)	0.055	(0.0406)	0.055	(0.0407)
Bachelor degree			-0.082***	(0.0047)		
RC: No degree						
Bachelor degree - university unknown					-0.082***	(0.0065)
Bachelor degree from New university					-0.085***	(0.0052)
Bachelor degree from Old university					-0.080***	(0.0052)
Constant	0.075***	(0.0038)	0.095***	(0.0047)	0.095***	(0.0047)
N	6,159		6,159		6,159	
R^2	0.006		0.026		0.026	

Table 6. Continued

	Model 1 (Type of school)		Model 2 (Type of school + degree)		Model 3 (Type of school + prestigious degree)	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Outcome: Service class I at age 42						
RC: Comprehensive school						
Secondary Modern school	-0.0559***	(0.0123)	-0.0333***	(0.012)	-0.0325***	(0.012)
Grammar school	0.123***	(0.0243)	0.0641***	(0.0233)	0.0608***	(0.0231)
Private school	0.223***	(0.0216)	0.117***	(0.0216)	0.104***	(0.0217)
Other school	0.00899	(0.0421)	-0.00321	(0.0393)	-0.00184	(0.0392)
Bachelor degree			0.244***	(0.0115)		
RC: No degree						
Bachelor degree - university unknown					0.176***	(0.0222)
Bachelor degree from New university					0.233***	(0.0174)
Bachelor degree from Old university					0.290***	(0.0173)
Constant	0.149***	(0.00452)	0.0904***	(0.0042)	0.0908***	(0.00419)
N	7,801		7,801		7,801	
R²	0.029		0.109		0.112	
Outcome: Service class I+II at age 42						
RC: Comprehensive school						
Secondary Modern school	-0.065***	(0.0203)	-0.025	(0.0191)	-0.025	(0.0109)
Grammar school	0.204***	(0.0260)	0.102***	(0.0250)	0.100***	(0.0250)
Private school	0.309***	(0.0193)	0.123***	(0.0195)	0.114***	(0.0197)
Other school	-0.114**	(0.0553)	-0.135***	(0.0483)	-0.132***	(0.0484)
Bachelor degree			0.427***	(0.0111)		
RC: No degree						
Bachelor degree - university unknown					0.346***	(0.0227)
Bachelor degree from New university					0.444***	(0.0151)
Bachelor degree from Old university					0.452***	(0.0143)
Constant	0.469***	(0.0063)	0.367***	(0.0068)	0.367***	(0.0068)
N	7,801		7,801		7,801	
R²	0.033		0.166		0.168	
Outcome: Manual class (V+VI+VIII) at age 42						
RC: Comprehensive school						
Secondary Modern school	0.042**	(0.0194)	0.016	(0.0189)	0.016	(0.0189)
Grammar school	-0.166***	(0.0185)	-0.099***	(0.0180)	-0.100***	(0.0180)
Private school	-0.214***	(0.0127)	-0.094***	(0.0131)	-0.095***	(0.0133)
Other school	0.108*	(0.0564)	0.122**	(0.0524)	0.121**	(0.0525)
Bachelor degree			-0.276***	(0.0084)		
RC: No degree						
Bachelor degree - university unknown					-0.263***	(0.0147)
Bachelor degree from New university					-0.292***	(0.0098)
Bachelor degree from Old university					-0.269***	(0.0106)
Constant	0.287***	(0.0058)	0.353***	(0.0067)	0.353***	(0.0067)
N	7,801		7,801		7,801	
R²	0.022		0.093		0.093	
Outcome: Unskilled class (VII) at age 42						
RC: Comprehensive school						
Secondary Modern school	-0.004	(0.0101)	-0.011	(0.0101)	-0.011	(0.0101)
Grammar school	-0.047***	(0.0082)	-0.030***	(0.0082)	-0.030***	(0.0082)
Private school	-0.060***	(0.0050)	-0.029***	(0.0049)	-0.028***	(0.0050)
Other school	0.090**	(0.0420)	0.094**	(0.0411)	0.094**	(0.0411)
Bachelor degree			-0.072***	(0.0041)		
RC: No degree						
Bachelor degree - university unknown					-0.072***	(0.0060)
Bachelor degree from New university					-0.072***	(0.0048)
Bachelor degree from Old university					-0.073***	(0.0042)
Constant	0.068***	(0.0032)	0.085***	(0.0039)	0.085***	(0.0039)
N	7,801		7,801		7,801	
R²	0.007		0.023		0.023	

Robust standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

5.   Decomposition of long-term social inequalities (OED)

In this section, we present a simple decomposition analysis that aims at illustrating to what extent the different forms of educational tracking and sorting earlier identified mediate the association between social origin, educational attainment and labour market outcomes. We also employ OLS regressions with robust standard errors with the same educational and occupational outcome variables as in the previous sections, but we first introduce parental education/social class and then educational tracking/sorting variables in the models. We then report the decreasing influence of social origin on destination (in percentage points) mediated by educational tracking variables. In both cases four models have been produced: Model 1 reports the unadjusted coefficient estimates of parental education/social class on individuals' occupational class at the ages of 34 and 42; Model 2 includes the type of school attended; Model 3 introduces the fact of having a bachelor degree; and Model 4 having a bachelor degree from a prestigious 'Old' university.

Table 7 below summarises the decomposition analyses when taking as the main social origin variable parental education. If we first focus on the educational outcome of getting a university degree, results suggest that - compared to those who have parents with tertiary education - having parents whose highest qualifications are below tertiary education reduce the likelihood of gaining a degree. The smallest difference corresponds to those whose parents have an upper secondary education (-0.184), while these are greater for those whose parents have lower secondary education at most (-0.355). However, if we introduce into the model the type of school attended the influence of parental education decreases by 24% for those whose parents have upper secondary education, and by 19% for those with parents with no more than a lower secondary education. Similar results apply when focusing on the outcome variable of getting a prestigious university degree, although the coefficients and the reduction in the influence of parental education is larger. Compared to those whose parents have a tertiary degree, those whose parents attained upper secondary education are less likely to get a prestigious degree (-0.450), and the effect of having parents with a tertiary degree is reduced by 27% when controlling for the type of school attended. Those whose parents have at most lower secondary education (-0.846) are even less likely to get a prestigious degree, and parental education influence reduces by 22% when introducing type of school into the equation.

Table 8 displays similar results when including parental social class as an origin variable, instead of parental education. Although results follow the same trend, it is worth pointing out that both the coefficients and the reduction in percentage explained by the social origin variable are larger. However, the percentage of variance explained of the models (R^2) is fairly similar in both cases.

Moving now to the first occupational outcome (i.e. being employed in the service class at age 34), Table 7 shows that compared to those whose parents have tertiary education qualifications, having parents with upper secondary education decreases the chances of being employed in the service class (I+II) at age 34 (-0.118), as does having parents with at most lower secondary education (-0.307). However, the influence of parental education reduces

when the type of school is introduced in the model, and slightly more when controlling for the attainment of a prestigious degree. For instance, the influence of having parents with upper secondary education reduces by 26% when controlling for the type of school attended (by 15% for those with parents with lower secondary education at most), by 67% when controlling for the fact of having a degree (52% for those with parents with lower secondary education at most) and by 68% when controlling for having a prestigious degree (52% for those with parents with lower secondary education at most).

Results for the other corresponding variables of being employed in the service, manual and unskilled classes at age 42 are in line with previously reported results, although the percentage reduction is generally smaller. This might suggest that the influence of educational tracking/sorting is less influential in predicting occupational class at age 42 and in mediating the effect of social origin later on in life. The same trend applies when replicating the results using parental occupation instead of parental education (see Table 8), although differences are not always statistically significant, as it also happens in some cases for parental education models.

Table 7. Percentage explained of inequality by track placement in school type and (prestigious) degree. OLS models regressing highest qualification attained (by age 26) and occupational outcomes at ages 34 and 42 on parental education (when individual aged 5), BCS70

	Model 1 (Unadjusted)	Model 2 (Type of school)	Model 3 (Type of school + Degree)	Model 4 (Type of school + Prestigious degree)
Outcome: University degree				
RC: Tertiary education				
Upper secondary	-0.184***	24%		
Compulsory/lower secondary	-0.355***	19%		
N	7,717	7,717		
R²	0.094	0.132		
Outcome: Prestigious university degree				
RC: Tertiary education				
Upper secondary	-0.450***	27%		
Compulsory/lower secondary	-0.846***	22%		
N	7,717	7,717		
R²	0.097	0.145		
Outcome: Service class I at age 34				
RC: Tertiary education				
Upper secondary	-0.119***	19%	44%	46%
Compulsory/lower secondary	-0.220***	16%	48%	49%
N	4,987	4,987	4,987	4,987
R²	0.047	0.061	0.141	0.143
Outcome: Service class I+II at age 34				
RC: Tertiary education				
Upper secondary	-0.118***	26%	67%	68%
Compulsory/lower secondary	-0.307***	15%	52%	52%
N	4,987	4,987	4,987	4,987
R²	0.058	0.074	0.197	0.198
Outcome: Manual class (V+VI+VIII) at age 34				
RC: Tertiary education				
Upper secondary	0.104***	23%	55%	54%
Compulsory/lower secondary	0.240***	15%	47%	47%
N	4,987	4,987	4,987	4,987
R²	0.041	0.055	0.121	0.122
Outcome: Unskilled class (VII) at age 34				
RC: Tertiary education				
Upper secondary	0.0273***	24%	56%	55%
Compulsory/lower secondary	0.0654***	14%	45%	45%
N	4,987	4,987	4,987	4,987
R²	0.01	0.013	0.028	0.028

Note: cells in green show statistically significant results at *** p<0.01, while yellow ones show non-statistically significant at p>0.1.

Table 7. Continued

	Model 1 (Unadjusted)	Model 2 (Type of school)	Model 3 (Type of school + Degree)	Model 4 (Type of school + Prestigious degree)
Outcome: Service class I at age 42				
RC: Tertiary education				
Upper secondary	-0.138***	18%	40%	42%
Compulsory/lower secondary	-0.198***	19%	50%	52%
N	6,173	6,173	6,173	6,173
R²	0.037	0.053	0.114	0.117
Outcome: Service class I+II at age 42				
RC: Tertiary education				
Upper secondary	-0.118***	27%	75%	75%
Compulsory/lower secondary	-0.277***	17%	58%	59%
N	6,173	6,173	6,173	6,173
R²	0.045	0.06	0.171	0.173
Outcome: Manual class (V+VI+VIII) at age 42				
RC: Tertiary education				
Upper secondary	0.0929***	26%	64%	63%
Compulsory/lower secondary	0.208***	17%	51%	51%
N	6,173	6,173	6,173	6,173
R²	0.031	0.042	0.098	0.098
Outcome: Unskilled class (VII) at age 42				
RC: Tertiary education				
Upper secondary	0.0162*	45%	105%	104%
Compulsory/lower secondary	0.0475***	21%	62%	62%
N	6,173	6,173	6,173	6,173
R²	0.006	0.01	0.024	0.024

Note: cells in green show statistically significant results at *** p<0.01, while yellow ones show non-statistically significant at p>0.1.

Table 8. Percentage explained of inequality by track placement in school type and (prestigious) degree. OLS models regressing highest qualification attained (by age 26) and occupational outcomes at ages 34 and 42 on parental social class (when individual aged 16), BCS70

	Model 1 (Unadjusted)	Model 2 (Type of school)	Model 3 (Type of school + Degree)	Model 4 (Type of school + Prestigious degree)
Outcome: University degree				
RC: Professional				
Managerial and Technical	-0.184***	29%		
Skilled non-manual	-0.285***	28%		
Skilled manual	-0.409***	25%		
Partly skilled	-0.444***	32%		
Unskilled	-0.461***	23%		
N	6,410	6,410		
R^2	0.089	0.133		
Outcome: Prestigious university degree				
RC: Professional				
Managerial and Technical	-0.414***	35%		
Skilled non-manual	-0.650***	34%		
Skilled manual	-0.943***	29%		
Partly skilled	-1.010***	28%		
Unskilled	-1.060***	27%		
N	6,410	6,410		
R^2	0.085	0.140		
Outcome: Service class I at age 34				
RC: Professional				
Managerial and Technical	-0.104***	18%	46%	48%
Skilled non-manual	-0.174***	19%	47%	48%
Skilled manual	-0.252***	16%	45%	46%
Partly skilled	-0.276***	15%	45%	46%
Unskilled	-0.247***	17%	53%	54%
N	4,166	4,166	4,166	4,166
R^2	0.045	0.058	0.136	0.137
Outcome: Service class I+II at age 34				
RC: Professional				
Managerial and Technical	-0.113***	26%	67%	67%
Skilled non-manual	-0.179***	28%	72%	72%
Skilled manual	-0.346***	19%	52%	52%
Partly skilled	-0.367***	18%	53%	53%
Unskilled	-0.367***	19%	56%	56%
N	4,166	4,166	4,166	4,166
R^2	0.064	0.085	0.208	0.209
Outcome: Manual class (V+VI+VIII) at age 34				
RC: Professional				
Managerial and Technical	0.045**	41%	92%	96%
Skilled non-manual	0.106***	32%	79%	78%
Skilled manual	0.233***	19%	51%	50%
Partly skilled	0.246***	18%	52%	51%
Unskilled	0.241***	18%	55%	54%
N	4,166	4,166	4,166	4,166
R^2	0.047	0.061	0.129	0.130

Note: cells in green show statistically significant results at *** p<0.01, while yellow ones show non-statistically significant at p>0.1.

Table 8. Continued

	Model 1 (Unadjusted)	Model 2 (Type of school)	Model 3 (Type of school + Degree)	Model 4 (Type of school + Prestigious degree)
Outcome: Unskilled class (VII) at age 34				
RC: Professional				
Managerial and Technical	0.024***	20%	57%	54%
Skilled non-manual	0.045***	19%	52%	51%
Skilled manual	0.082***	14%	40%	39%
Partly skilled	0.085***	14%	42%	41%
Unskilled	0.074***	15%	49%	48%
N	4,166	4,166	4,166	4,166
R^2	0.015	0.018	0.036	0.036
Outcome: Service class I at age 42				
RC: Professional				
Managerial and Technical	-0.121***	21%	40%	41%
Skilled non-manual	-0.196***	20%	39%	40%
Skilled manual	-0.253***	19%	43%	44%
Partly skilled	-0.263***	18%	44%	44%
Unskilled	-0.282***	18%	43%	43%
N	5,272	5,272	5,272	5,272
R^2	0.044	0.059	0.119	0.121
Outcome: Service class I+II at age 42				
RC: Professional				
Managerial and Technical	-0.103***	37%	80%	79%
Skilled non-manual	-0.175***	32%	73%	73%
Skilled manual	-0.315***	22%	57%	57%
Partly skilled	-0.342***	22%	58%	58%
Unskilled	-0.344***	22%	58%	58%
N	5,272	5,272	5,272	5,272
R^2	0.054	0.073	0.188	0.189
Outcome: Manual class (V+VI+VIII) at age 42				
RC: Professional				
Managerial and Technical	0.056***	41%	89%	87%
Skilled non-manual	0.139***	25%	57%	56%
Skilled manual	0.227***	19%	49%	49%
Partly skilled	0.261***	17%	46%	46%
Unskilled	0.197***	22%	62%	61%
N	5,272	5,272	5,272	5,272
R^2	0.042	0.053	0.111	0.111
Outcome: Unskilled class (VII) at age 42				
RC: Professional				
Managerial and Technical	0.022***	22%	55%	54%
Skilled non-manual	0.029***	27%	67%	66%
Skilled manual	0.077***	13%	37%	36%
Partly skilled	0.086***	12%	35%	35%
Unskilled	0.047**	19%	64%	63%
N	5,272	5,272	5,272	5,272
R^2	0.016	0.018	0.032	0.032

Note: cells in green show statistically significant results at *** $p<0.01$, while yellow ones show non-statistically significant at $p>0.1$.

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