

Using the Scottish Longitudinal Survey to analyse social differentiation in school subject choice

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The AQMeN Education and Social Stratification research

Main aim of the Education research strand is:

- to provide a better understanding of the mechanisms through which social inequalities in education affect individuals' education and labour market outcomes

Currently six research projects (e.g. curriculum choices, HE retention, education systems and labour market pathways)

- One of them is on **school subject choices and social inequalities in higher education entry and labour market outcomes**



Research questions

- *Are subject choices in S3-S4 and in S5-S6 dependent on social origin?*
- *To what extent are social inequalities in subject choices in S5/S6 explained by subject choices in S3/S4?*
- *Are there remaining social origin differences which cannot be explained by previous subject choices and attainment?*

- SLS sample used for the study
 - passed through the school stages S3-S6 or S4-S6 in 2007-2010
 - who were present during census 2001 and for whom father and/or mother could be identified
- Education data include school census information, SQA attainment data and attendance data
 - SQA attainment data include full information on subject choices, levels and performance
- Census data provide information on pupils' family, housing and neighbourhood characteristics at age 9/10
- Total number of cases: 4944
- Data analysis in safe setting place at NRS, Edinburgh

- Pupils' social origin at age 9/10 (census information)
 - *Parental class (NS-SEC)*, 1) routine occupations, 2) semi-routine occupations, 3) lower supervisory and technical occupations, 4) small employers and own account workers, 5) intermediate occupations 6) lower managerial and professional occupations, 7) higher managerial and professional occupations, *dominance principle*
 - *Parental education*, 1) parents with no qualifications, 2) at least one parent with Standard Grades, 3) one parent with Highers, 4) both parents with Highers, 5) one parent with degree, 6) both parents with degree
 - *Housing tenure*: public/social housing vs. rented/home owner
 - *Number of siblings*
- Pupils' gender and ethnicity (school census information)

- **Subject choice in S3/S4 and S5/S6 (SQA information)**
 - English
 - Maths
 - Science (Biology, Chemistry, Physics)
 - Languages (French, German, Spanish, Italian, etc.)
 - Cultural subjects (History, Geography, Modern studies, Classical studies, Arts, etc.)
 - Other subjects (e.g. accounting, craft and design, home economics)
- **Attainment in subjects chosen (SQA information)**
 - Number of subjects
 - Level of difficulty (Access 1-3, Standard Grade, Intermediate 1 or 2, Highers, Advanced Highers)
 - Performance (“not passed”, “D/Grade 7”, “C/Grade 6”, “C/Grade 5”, “B/Grade 4”, “B/Grade 3”, “A/Grade 2” and “A/Grade 1”)

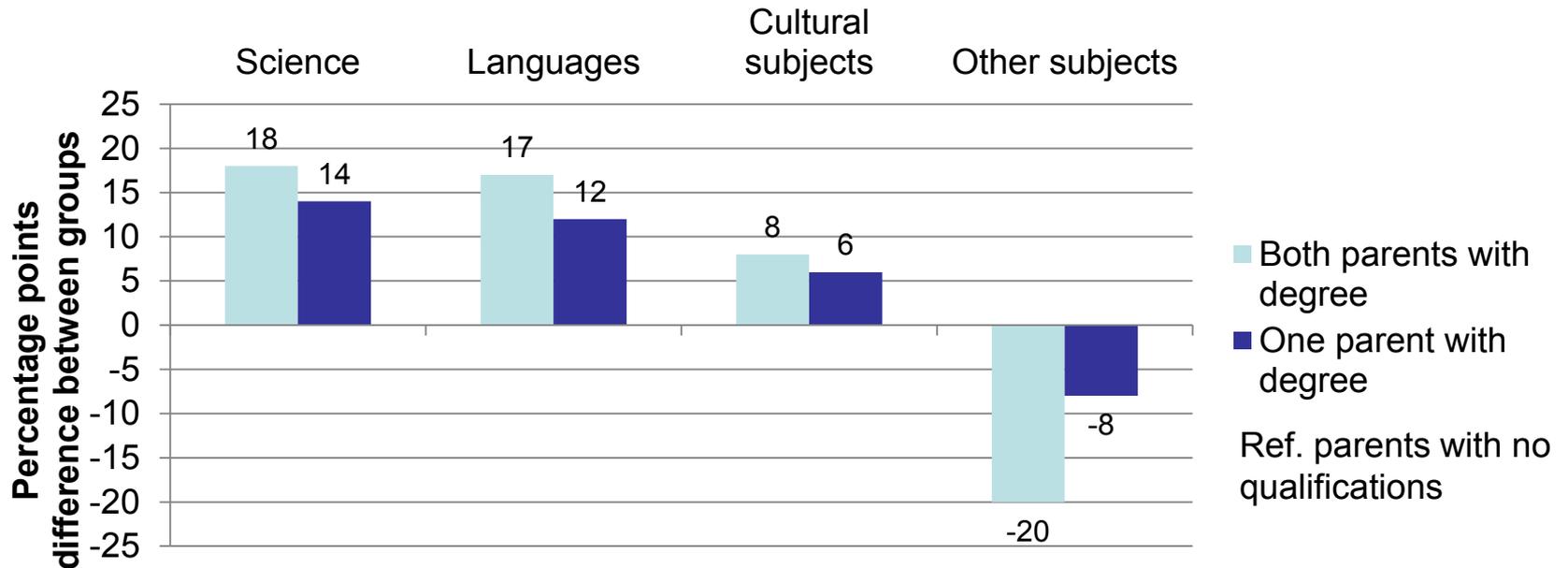
Results summary (1)

- There is a clear social divide in the probability of taking science, languages, cultural subjects (e.g. history, geography, modern studies) and more vocationally-oriented subjects in S3-S4
- The findings on subject choice in S3/S4 are mainly reproduced in S5/S6. Strong social inequalities also in the choice of English and Maths in S5/S6 (compulsory in S3/S4)

Uptake of subjects in S3/S4 by parental class and education

	Science	Language	Cultural subj.	Other subj.
<i>Class of origin (%)</i>				
Routine occupations	75	58	87	88
Intermediate occupations	90	81	96	89
Higher managerial and professional	97	88	98	76
<i>Parental education (%)</i>				
Parents with no qualifications	70	61	83	87
At least one parent with Standard Grades	83	73	92	90
One parent with Highers	91	79	96	89
Both parents with degree	98	89	99	67

Percentage point differences in the probability of choosing subjects in S3/S4 between students with both parents or one parent with a degree and students with parents with no qualifications (average marginal effects)



Source: Scottish Longitudinal Study (SLS), own calculations. Note: controlling for gender, ethnicity, no. of siblings, parental social class and housing tenure.

Uptake of subjects in S5/S6 by parental class and education

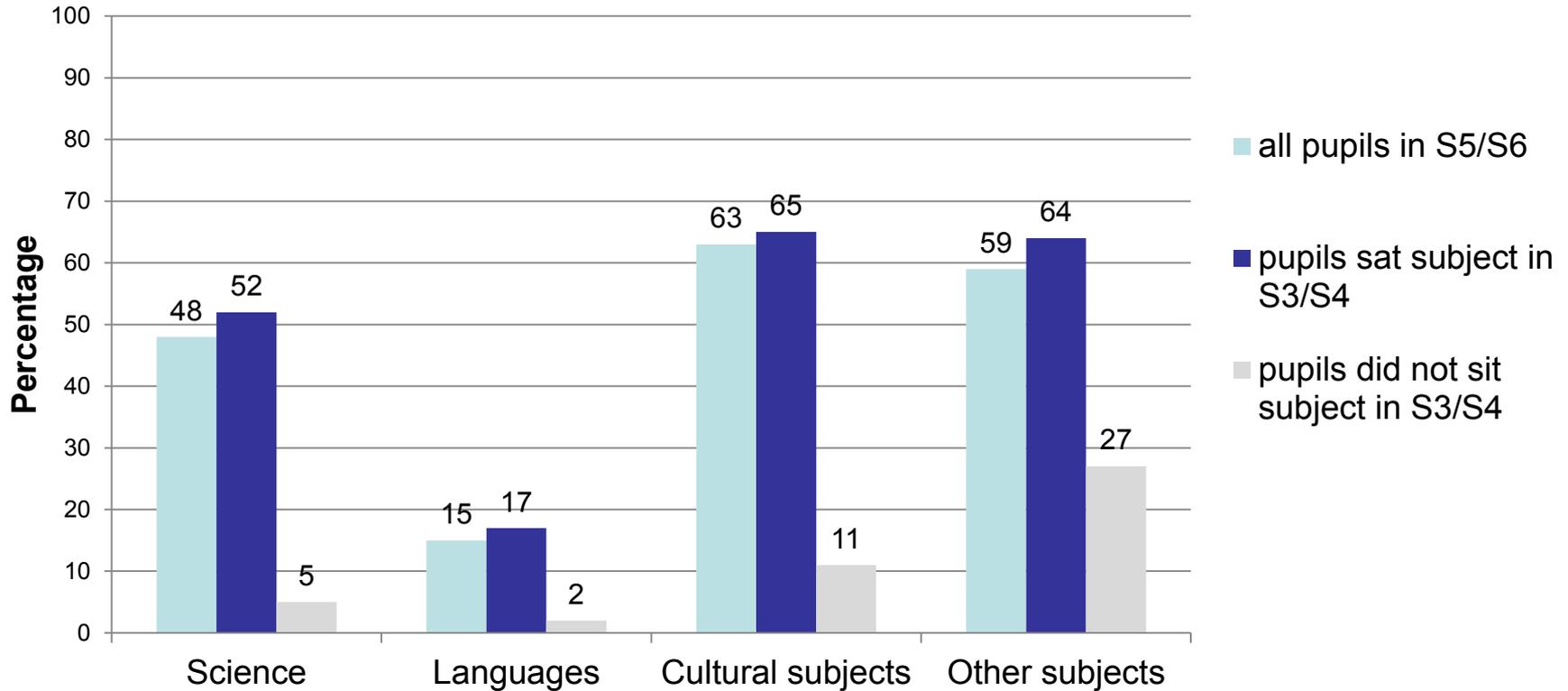
	English	Maths	Science	Language	Cultural	Other
<i>Class of origin (%)</i>						
Routine occupations	48	40	31	7	45	48
Intermediate occupations	76	64	49	16	66	64
Higher managerial and professional	87	74	66	20	74	57
<i>Parental education (%)</i>						
Parents with no qualifications	45	38	25	5	43	51
At least one parent with Standard Grades	61	50	39	9	56	61
One parent with Highers	72	63	47	14	65	62
Both parents with first degree	91	74	67	24	78	51

Results summary (2)

- Social inequalities in subject choices in S5/S6 strongly explained by subject choices in S3/S4
- With the exception of English, no significant net effects of social origin on subject choices in S5/S6 were found once controlling for previous subject choice and attainment within subjects



Subject choice in S3/S4 and subject choice in S5/S6



Source: Scottish Longitudinal Study (SLS), own calculations.

- Data from Census 2011 have been linked to our sample to study:
 - social inequalities in labour market destinations after S5-S6 (employment, types of occupations and unemployment/inactivity) and
 - the extent to which subject choices (and attainment) can explain inequalities in labour market outcomes



Disclaimer

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<http://sls.lscs.ac.uk>