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Curriculum choices and school-to-work transitions among upper-secondary school leavers in Scotland and Ireland

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ABSTRACT

David Raffe was a highly influential figure in the field of transitions research. His work carefully delineated how national institutional policies shape transition processes and outcomes. Curriculum structure and organisation were seen as key features of these transition systems, his work tracing the relative impact of vocational and academic qualifications across countries and exploring tendencies towards, and away from, unified qualification frameworks. This paper builds upon David's work by unpacking the influence of curriculum choices in secondary education on young people's labour market destinations in Ireland and Scotland, two countries which share many similarities in their transition and post-16 education systems but differ in the degree of student subject choice at upper-secondary level. Using regression analyses of school leavers' survey data from both countries, we analysed the extent to which subjects studied and grades achieved in secondary school matter for young people's occupational opportunities. We found that subject choice matters for employment chances and access to higher status positions in Scotland but to only a limited extent in Ireland. Grades matter for employment chances in Ireland while higher grades enhance access to higher quality jobs in both countries. The conclusions offer some reflections on David's most recent work and his legacy.

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Curriculum; School-to-work transitions; School leavers; Scotland; Ireland

Introduction

David Raffe was a highly influential figure in the field of transitions research, with his work carefully delineating the way in which national institutional policy configurations shape transition processes and outcomes. His comparative work on school-to-work transition proposed important conceptual distinctions regarding the role of national transition systems in shaping young people's education and labour market outcomes. For the purposes of this paper, we draw mainly upon two of these distinctions. The first focuses on the strength of linkages between vocational education and employment and distinguishes between two ideal types of transition systems, one governed by an *education logic* and the other by an *employment logic* (Iannelli and Raffe 2007). In countries where 'education logic' prevails, such as in Scotland and Ireland, the links between vocational education and employment are weak and differentiation between school-based vocational and academic education is more blurred. On the contrary, in countries governed by 'employment logic', such as the Netherlands, there is a sharp distinction between academic and vocational education and strong links between vocational education and the labour market.

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The second important conceptual distinction is between *tracked*, *linked* and *unified post-16 education and training systems* (Raffe and Howieson 1999). The emphasis here is on the degree of separation or integration in the structure and provision of academic and vocational education: at one extreme of this distinction, there are tracked systems offering different curricula in separate academic and vocational schools (such as in Germany) while, at the other extreme, there are unified systems providing both curricular choices under the same system (such as in Sweden). As pointed out by Raffe and Howieson, the Scottish post-compulsory system has moved towards a unified system in the last two decades but, compared to other European countries where a similar process has occurred, it has maintained its distinctiveness in relation to the lack of a standardised certification system (i.e. the lack of a common matriculation certificate) and to the high degree of flexibility in students' subject choice in the final years of secondary school.

Our study advances upon the existing literature on school-to-work transitions, and builds upon David Raffe's conceptual insights, by focusing on the role of specific subject choices in young people's post-school destinations within more general education systems, a topic hitherto largely unexplored. We compare Ireland and Scotland, two countries where secondary education takes place in (broadly) comprehensive schools, secondary school curricula are predominantly offered within a unified system and an 'education logic' of transition from education to the labour market prevails. Despite these commonalities, however, the Irish school system has a more standardised examination system: upper-secondary students are required to study three compulsory subjects (English, Maths and Irish) and there is less variation in the number of subjects typically taken in the final school examination (six to eight subjects) than in Scotland (on average five subjects). These country differences in curriculum and school examination lead us to expect that subjects taken at school will be a more important influence on post-school destinations in Scotland - since in the employers' eyes they will act as a differentiating factor among school leavers - than in Ireland while exam grades will be more important in Ireland.

The impact of school grades and subjects on post-school employment outcomes

Educational outcomes may serve as an important signal of 'ability' or 'productivity' to employers (Spence 1973; Thurow 1976). Thus, 'better' qualifications put certain young people ahead in the 'queue' for jobs, especially higher quality jobs. But what counts as a 'better' qualification in general education systems?

A number of studies have shown the way in which exam grades influence post-school pathways but largely focus on education/training participation rather than labour market outcomes (see e.g. Payne 2001). In the UK, young people with poorer exam grades are significantly more likely to be not in employment, education or training (Payne 2000). In the Irish context, Breen, Hannan, and O'Leary (1995) found a significant effect of grade point average in the final school exam on employment chances and pay levels one year after leaving school. Later research by Smyth (2008) suggests that the signalling quality of grades varies by economic context, at least in Ireland, with employers making greater use of exam grades in a recessionary period where a large pool of young people were seeking a limited supply of jobs than in the later economic boom.

An assessment of the potential signalling role of general educational qualifications raises important questions about whether the content of such qualifications matter. Some studies have considered the impact of subject choice at school level on post-school outcomes. Students who have taken two or more Technological¹ subjects have been found to be over-represented among young people entering apprenticeships or skilled manual work in Ireland (Hannan, McCabe, and McCoy 1998; Hannan and Ó Riain 1993). In England, Dolton and Vignoles (2002a) have found that those who had taken A-level mathematics earn more at the age of 33, all else being equal and even controlling for overall exam grades (for similar findings in Israel, see Kimhi and Horovitz 2015); no such effect was apparent for take-up of other A-level subjects. Elsewhere, these authors (2002b) found no differences in earnings according to curriculum breadth or the extent of specialisation in scientific subjects at upper-secondary level. A further development of this work by Johnes (2005) indicated that the combinations of subject taken at A-levels mattered more than the individual subjects in determining later earnings. More recently,

Iannelli (2013) found that having studied certain academic subjects (such as Languages, English, Maths and Science) rather than other subjects increased individuals' chances of entering professional and managerial occupations and avoiding unskilled jobs (a difference that persisted to age 42) and this explained between a third and a quarter of the occupational advantage associated with coming from a middle-class family.

A review of existing research suggests there has been relatively little analysis of the impact of both grades and specific subjects on post-school employment outcomes, particularly from a comparative perspective. This paper seeks to address this gap by analysing young people's access to employment as well as their quality of employment in terms of occupational status and social class.² We will address the following questions:

- (1) *Do subject choices matter for employment chances and the quality of that employment?*
- (2) *Is there between-country variation in the relative influence of grades and types of subjects on young people's occupational opportunities according to the extent of standardization of their secondary school curricula?*

Data and methodology

For our empirical analysis we use the Scottish and Irish school-leavers surveys covering the period between 1987 and 2005. Pooling data from a number of years provides a larger sample, especially for less commonly chosen subjects, and also facilitates the analysis of whether the influence of subjects and/or grades changes over time.

The Scottish School-Leavers Survey is a nationally representative survey of young people aged 16–17 across the school system (excluding special schools). The Scottish data were mostly derived from the youth cohort time series for England, Wales and Scotland, 1984–2002 (UK Data Archive, SN: 5765), constructed within the project 'Education and youth transitions in England, Wales and Scotland 1984–2002 (EYT)' (Croxford, Iannelli, and Shapira 2007). Since the last school leaver cohort was not included in this time series, data from the 2005 survey were additionally included and harmonised with the other cohorts following similar data construction protocols to those used for the EYT data.

The Irish School-Leavers Survey was a regular nationally representative survey of young people who left secondary school in the previous academic year. The survey collected detailed information on the educational and labour market experiences of young people in the period since leaving school as well as collecting retrospective information on their school experiences and grades achieved. The survey was conducted from 1980 to 2007. The core information collected by the survey remained comparable over time but detailed information on examination performance was collected only from 1984 onwards. In both countries, the sample analysed includes students who left upper-secondary education and did not continue in education or training. There are three sets of outcomes considered in the analysis:

- (1) Labour market situation, one year after leaving school, distinguishing between those in employment and non-employment (unemployed or inactive, excluding those in full-time education or training).
- (2) Occupational status, one year after leaving school measured using the International Socio-Economic Index of Occupational Status (Ganzeboom and Treiman 1996).
- (3) Social class, one year after leaving school, measured using the European Socio-Economic Classification (ESeC) (Rose and Harrison 2010). Because of the concentration of school leavers in a relatively small number of social class categories, we here distinguish between those in 'service', 'intermediate' and 'working-class' classes. Moreover, for the modelling we further group these categories and distinguish between (1) service and intermediate classes and (2) working class.

The independent variables include cohort, gender and social class of origin. Social class of origin is measured by the ESeC as for respondents' social class of destination. Parents' class is operationalized according to the 'dominance principle': the highest class position among parents determines one's class of origin (Erikson 1984).

To identify curriculum choices in upper-secondary education, we distinguish 13 different subjects³: English, Irish, Maths, Languages, Biology, Chemistry, Physics, Geography, History, Business, Technology, Cultural Studies (Arts and Social sciences), and 'Others' (including various vocational subjects). The subjects are coded as dummies indicating whether pupils have studied them or not. In order to have a standard measure of exam grades across the two systems, the Universities & Colleges Admissions Service (UCAS) tariff score, which takes pupils' grades and level of studies in upper-secondary education into account, was used (Croxford, Iannelli, and Shapira 2007, 67). Recently, UCAS introduced tariff tables for the Irish Leaving Certificate that we use to construct the subject-specific performance measure for Irish students.⁴

The analyses also control for school characteristics. For Scotland, we differentiate between state schools and independent schools (fee-paying schools). For Ireland, we differentiate between voluntary secondary schools, vocational schools and comprehensive schools.⁵

Our analyses were carried out separately for the two countries. We used binomial logistic regression models⁶ to analyse the chances of being unemployed or inactive versus employed. Subsequently, we selected those school-leavers whose main destination was employment to study the type of occupation entered. We used linear regression models to examine the status of their occupation and binomial logistic regression models to study entry into service/intermediate class versus working-class jobs. This approach is particularly useful for analysing the occupational destinations of young people since the use of the ISEI may conceal important differences in terms of social class (Jacob, Klein, and Iannelli 2015). We consider two models for each country. The first model (model 1) analyses the association between subjects and each of the outcome variables, controlling for differences by cohort, gender, social class of origin and school characteristics. The second model (model 2) includes school attainment and assesses the relevance of subjects and grades for school-leavers' labour market destinations. The comparison between the first and second models will allow us to identify the extent to which the effect of subject types can be attributed to grades.

Some descriptive statistics

As mentioned above, in Scotland there are no compulsory subjects in upper-secondary education, resulting in considerable variation among students in the number, types and levels of subjects taken in the final examinations (called *Highers*). Differently from Ireland where English, Irish and Maths are compulsory subjects, in Scotland 14–20 per cent of students did not take English and an even larger percentage of students did not take Maths (39–52%) (Table 1). Other notable differences emerge between the two countries in the proportion of young people taking Languages: more than three-quarters in Ireland studied at least one foreign language while less than one quarter studied one language in Scotland. Other popular subjects in Ireland were Biology, Geography and Business while in Scotland these included Cultural Studies (Arts and Social Studies). In both countries the proportion of students who studied Chemistry or Physics has been decreasing over time.

Irish upper-secondary students took, on average, more subjects than Scottish students (7 vs. 5) and this is reflected in the higher average attainment score of the Irish students. In both countries students' overall average attainment has increased over time (from 171 to 230 in Scotland and from 420 to 493 in Ireland) but variation around this mean has also increased.

Similar trends across the two countries, even though more pronounced in Scotland, were found in students' destinations after leaving school (Table 1). On the one hand, the proportions of school leavers continuing studying increased over time and the proportions entering employment directly after school thus declined. On the other hand, the quality of the job positions attained by school leavers who entered the labour market deteriorated in terms of both occupational status and class. This is likely

Table 1. Characteristics of school-leavers by country and cohort (percentages).

	Scotland			Ireland		
	1987–1989	1991–1993	2001–2005	1987–1989	1991–1993	2001–2005
<i>Subject studied (1 or more)</i>						
English	80	86	84	99	99	98
Languages	23	21	24	66	70	76
Maths	57	51	62	99	99	99
Biology	23	32	32	45	44	43
Chemistry	38	33	28	19	13	11
Physics	33	30	28	23	21	14
Geography	25	27	22	37	40	54
History	25	24	21	33	29	22
Business	25	23	31	46	54	47
Technology	11	9	13	18	18	24
Cultural studies	38	46	54	34	28	32
Other studies	17	11	41	37	40	48
Total attainment point score (mean and SD)	171 (141)	195 (145)	230 (156)	420 (197)	448 (202)	493 (214)
<i>Activity status</i>						
In employment	47	36	27	33	21	30
In education/training	47	60	69	55	65	62
Unemployed/inactive/other	6	5	5	13	14	8
<i>Occupational status</i>						
ISEI (mean and SD)	41.3 (9.5)	42.1 (9.7)	38.4 (10.4)	39.1 (11.3)	35.5 (10.3)	37.2 (9.9)
<i>Social classes of destination</i>						
ESeC 1-2: service	20	14	3	12	10	3
ESeC3-6: intermed	47	36	18	29	13	17
ESeC7-9: working	33	49	79	59	77	80
Total no. of cases (unweighted) ^a	4296	3806	6322	2899	3100	2758

Source: Scottish and Irish School Leavers Surveys, weighted.

^aThere are a few cases in which information on school attainment and subjects was missing in all cohorts: in Scotland 74 cases in cohort 1987–1989; 43 cases in 1991–1993 and 217 cases in cohort 2001–2005; in Ireland 64 cases in cohort 1987–1989; 55 cases in 1991–1993 and 428 cases in cohort 2001–2005.

to reflect the increasing competition for top- and intermediate-level occupations which followed the expansion of higher education in the two countries in the 1980s and 1990s.

It is noteworthy that in the first two cohorts the rate of unemployment/inactivity among young people was more than twice as high in Ireland as in Scotland, reflecting the difficult economic conditions experienced in Ireland at the end of the 1980s and the beginning of the 1990s.

Results

Unemployment

Table 2 presents a series of logistic regression models on the chances of being unemployed or inactive as opposed to being employed. We present only the coefficients for subjects and grades but the models control for cohort, gender, social class of origin and school types (full tables are presented in the Supplementary Material). Grades were standardised in the two samples to achieve comparability. In Scotland, the grades gained at the end of upper-secondary education are not significantly associated with employment chances. However, the subjects taken are found to make a significant difference (Table 2, model 1). Young people who have studied Maths or Business are significantly less likely to be unemployed (by 3% and 4% respectively). Those who took Physics, Cultural or Other Studies were more likely to be unemployed, but this is partly explained by the lower grades of young people who took these subjects (model 2). There is some volatility over time in the effect of certain subjects (see Supplementary Material), though the advantages of taking Maths and Business are apparent across cohorts. In contrast, in Ireland, higher grades significantly reduce the chances of being unemployed.

Table 2. Logistic regression models of being unemployed or inactive as opposed to employed – Average Marginal Effects.

	Scotland		Ireland	
	Model 1	Model 2	Model 1	Model 2
Total attainment point score (standardised)		0.012		-0.070***
<i>Subject studied</i>				
English	-0.002	-0.005	-	-
Mathematics	-0.028**	-0.032**	-	-
Languages	-0.011	-0.016	-0.026	0.005
Biology	0.014	0.011	0.005	0.022
Chemistry	0.003	-0.002	-0.103***	-0.080*
Physics	0.036*	0.031 [±]	0.032	0.063*
Geography	-0.021 [±]	-0.024*	0.023	0.022
History	0.004	-0.000	0.030	0.030
Business	-0.037***	-0.041***	0.005	0.007
Technology	-0.017	-0.020	0.016	0.018
Cultural studies	0.020*	0.015	0.015	0.014
Other studies	0.024*	0.021	0.037 [±]	0.042 [±]

Note: Models control for gender, parental social class, school type and cohort.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; [±] < 0.10 .

On closer investigation, this is not the case for the most recent cohort where unemployment rates were relatively low (see Smyth 2008). There is relatively little effect of subjects on unemployment chances in Ireland, though having taken Chemistry is associated with lower unemployment while Physics and Other Studies are associated with higher unemployment. These effects are quite volatile over time, indicating little firm evidence that subject choice matters in securing employment in Ireland.

Occupational status and social class

In Scotland having studied English, Maths and Business significantly increases the chances of having a higher occupational status while having studied Geography and Languages (only when controlling for attainment) reduces the same chances (Table 3, models 1 and 2). In Ireland having studied Languages, Physics and Business increases the chances of entering higher status occupational positions while having studied technological and other vocational subjects reduces these chances (model 1). However, taking into account attainment substantially reduces the effect of having taken Languages, Physics and Business (the effect of the first two subjects is no longer significant) and increases the negative effect of Technological Subjects and Other Studies (model 2). This result suggests that in Ireland a large part of the effect of certain subjects can be attributed to grades.⁷ In addition, the effect of grades is stronger in Ireland than in Scotland (with a coefficient equal to 2.33 status points in Ireland versus 1.15 in Scotland).

The analysis of social class of destination (service/intermediate classes versus working class) provides us with a more nuanced picture of what matters most to enter different classes within the occupational hierarchy (Table 4). In line with the previous results, we found that in Scotland having achieved highly at school (model 2) and having studied English, Maths and Business significantly increases the chances of entering service/intermediate occupations (model 1). Instead having studied Technology depresses these chances.

In Ireland, grades are predictive of entry to the service/intermediate classes, though the effect is no longer significant for the most recent cohort. Having studied Languages and Business is associated with higher chances of entering a service/intermediate class position (Table 4, model 1). However, the positive effect of these subjects is not significant when attainment is controlled for (model 2). In model 2, having studied Technological Subjects continues to be associated with lower chances of gaining a service/intermediate class position. Overall, in Ireland subject choice has little systematic influence on the social class entered, in contrast to Scotland, as the effects of certain subjects vary over time. Grades have a somewhat stronger effect on social class in Ireland than in Scotland, at least in the earliest cohorts.

Table 3. Linear regression analysis of occupational status (ISEI).

	Scotland		Ireland	
	Model 1	Model 2	Model 1	Model 2
Total attainment point score (standardised)		1.15*** (0.30)		2.33*** (0.31)
<i>Subject studied</i>				
English	1.70*** (0.38)	1.38*** (0.39)	–	–
Mathematics	1.34*** (0.34)	1.00** (0.35)	–	–
Languages	–0.62 (0.42)	–1.06* (0.44)	1.80** (0.57)	0.40 (0.63)
Biology	–0.21 (0.38)	–0.46 (0.38)	–0.21 (0.54)	–0.91 (0.58)
Chemistry	0.75 (0.42)	0.30 (0.44)	0.36 (0.83)	–1.53 (0.88)
Physics	0.29 (0.47)	–0.12 (0.48)	1.53* (0.76)	0.57 (0.82)
Geography	–0.89* (0.38)	–1.22** (0.39)	0.36 (0.52)	0.13 (0.55)
History	–0.003 (0.39)	–0.38 (0.40)	–0.04 (0.57)	–0.12 (0.61)
Business	1.38*** (0.35)	1.01** (0.36)	2.16*** (0.53)	1.60** (0.57)
Technology	–0.15 (0.50)	–0.49 (0.50)	–2.46** (0.81)	–2.77*** (0.87)
Cultural studies	–0.17 (0.32)	–0.61 (0.34)	0.58 (0.55)	0.08 (0.58)
Other studies	0.06 (0.38)	–0.13 (0.38)	–1.31* (0.58)	–1.56* (0.61)
Adjusted R ²	0.04	0.04	0.08	0.11

Note: Models control for gender, parental social class, school type and cohort.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 4. Logistic regression models of being in the service or intermediate class as opposed to the working class (only those whose main status is employment) – Average Marginal Effects.

	Scotland		Ireland	
	Model 1	Model 2	Model 1	Model 2
Total attainment point score		0.070**		0.113***
<i>Subject studied</i>				
English	0.087***	0.069***	–	–
Mathematics	0.068***	0.047**	–	–
Languages	–0.013	–0.039 [±]	0.118*	0.050 [±]
Biology	–0.022	–0.038*	0.025	–0.013
Chemistry	0.027	–0.001	0.066 [±]	–0.025
Physics	–0.028	–0.052*	0.030	–0.025
Geography	–0.028	–0.048**	0.008	–0.010
History	0.008	–0.015	0.019	0.004
Business	0.102***	0.080***	0.056*	0.027
Technology	–0.079**	–0.100***	–0.107**	–0.105**
Cultural studies	–0.005	–0.032*	–0.019	–0.038
Other studies	0.024	0.012	–0.010	–0.019

Note: Models control for gender, parental social class, school type and cohort.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; [±] < 0.10 .

Conclusions

David Raffe's work has emphasised the importance of curriculum structure in shaping transition process and outcomes. This paper builds upon his contribution by unpacking the influence of subject choice

within an otherwise general educational system on labour market outcomes among young people. There has to date been little systematic evaluation of the impact of the *content* of general qualifications on labour market destinations from a comparative perspective. This paper attempts to address this gap by analysing the relative impact of exam grades and subject choice on employment chances and job quality among upper-secondary school leavers in Ireland and Scotland over the period 1987 to 2005. These countries represent interesting case studies as they share a unified approach to the teaching of vocational and academic subjects at school and a prevalence of the 'education logic' in school-to-work transitions but differ in the extent of standardisation of curriculum content and school qualifications.

We hypothesised that the greater variation in subject take-up in Scotland will lead employers to use subjects as a filter for access to (better quality) employment while in Ireland grades will assume a more important role than subjects. In keeping with our hypothesis, having taken Maths or Business subjects is associated with improved employment chances in Scotland. In contrast, there is little systematic influence of subject take-up on access to employment in Ireland. Higher grades enhance employment opportunities in Ireland but not in Scotland. On closer investigation, the latter pattern reflects the broader labour market context as well as the structure of the upper-secondary system; for the most recent cohort, where overall unemployment levels had fallen dramatically, grades no longer influence employment access for Irish school leavers. Thus, Irish employers appear to use grades as a sorting mechanism when there are likely to be many applicants for job positions.

Higher grades are associated with higher quality employment, whether measured in terms of occupational status or social class, in both Ireland and Scotland. In both cases, the effect of grades is weaker for the most recent cohort, reflecting the extent to which higher status/class occupations are no longer open to school leavers by the end of the period, most likely because of increased competition for white-collar jobs from the growing number of higher education graduates. As for employment chances, subject choice plays a stronger role in Scotland than in Ireland, with young people who have taken English, Maths and Business obtaining higher status jobs.

In keeping with David Raffe's work (see e.g. Raffe, Howieson, and Tinklin 2007), the analyses clearly point to the role of curriculum in shaping access to employment and the quality of that employment in Scotland. Curriculum choices are not 'neutral'. They are gendered and socially patterned and this means that they often end up reproducing inequalities in the labour market. The recent curriculum reform in Scotland (*Curriculum for Excellence*) has developed a more individualised approach to learning including a stronger emphasis on flexibility in curriculum provision and organisation.

As David Raffe points out (2015) in his final work, this may lead to a more stratified school system in which schools attended by middle-class students will focus more on academic subjects (in preparation for university entrance) and schools in more deprived areas will focus more on vocational subjects (often considered more 'suitable' for socially disadvantaged students). Recently, lower secondary reform in Ireland is beginning to increase the flexibility to tailor curriculum at school level which may ultimately have similar effects to those in Scotland. To counteract these regressive tendencies, Raffe (2015) explores the idea of introducing a *Baccalaureat*-style qualification in Scotland characterised by curriculum breadth and a set of specified experiences and attainment for all. Of course, David Raffe was well aware of the potential limitations of such reforms and the persistence of institutional structures and social inequalities. Indeed, one of his legacies lies in his lucid and insightful analysis of national institutional policies and transition systems, and the way they reflect the importance of a country's own history.

Notes

1. Technological subjects refer to subjects with a practical skills component combined with elements of design, including, for example, Materials Technology (Wood) and Metalwork.
2. These provide complementary measures of job quality, with occupational status providing a more differentiated perspective while social class is used to assess the extent to which young people access professional/managerial and other white-collar as opposed to working-class jobs. While previous research shows a good deal of mobility

between first and later jobs, there is nonetheless a significant relationship between the two and the social class of first job has been found to be highly correlated with parental social class (see e.g. Shavit and Müller 1998).

3. For Scotland, information on subject choice for 1987–1993 was added to the EYT time series data. For the last three cohorts (1999, 2001 and 2005), administrative SQA (Scottish Qualification Authority) data on subject choice and performance were linked to the SLS data. We are grateful to Linda Croxford for providing us with these data and for her crucial support in the construction of data on subject choice over time. In Ireland, information on subject choice was collected through the survey but the last wave used State Examinations Commission records with the permission of respondents.
4. <http://wwwucas.com/how-it-all-works/explore-your-options/entry-requirements/tariff-tables/IrishCert>.
5. These school types reflect historical differences in governance and funding, but all of the schools operate within a common curriculum and examination structure.
6. Logistic regression models estimate the probability of an event occurring (in this case, being unemployed/inactive v. employed), given a set of explanatory factors. The coefficient estimated for each factor in the model indicates whether there is an association between the factor and the outcome analysed and whether the association is positive (i.e. that factor is associated with a greater risk of unemployment) or negative (i.e. that factor is associated with lower unemployment chances).
7. We tested whether the significant effects associated with certain subjects and with grades were consistent over time. In Scotland, the effects of grades is stronger for the earlier cohorts while the effect of having studied languages is negative for the most recent cohort. In Ireland, the only significant cohort differences are in relation to grades and business, with a more positive effect of grades in the oldest cohort and a strong significant positive effect of having studied business for the middle cohort.

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