Higher Education and Intergenerational Socio-Economic Mobility

Plan of the talk

1. The HE Age Participation Index: why is it important?

2. Evidence on inter-generational socio-economic mobility
    - International Comparisons
    - The role of education
    - Over time

3. Evidence on the HE API over time and by gender and background

4. Evidence concerning Widening Participation

5. Evidence on HE and the labour market

6. Reflections

1. The HE Age Participation Index: why is it important?

- Growth
  - Y = f {M, K, T, L}
  - oValue-added less attached to raw materials
  - oAccess to K and T now global
  - oL (HK) now relatively more important
    - ➢ SBTC, Endogenous Growth
    - ➢ [but 'over-education'?]

- External Social Benefits
  - oR&D
  - oCultural Transmission

- Intergenerational socio-economic mobility
  - oLiberator or Suppressor: Does HE enhance or inhibit mobility?

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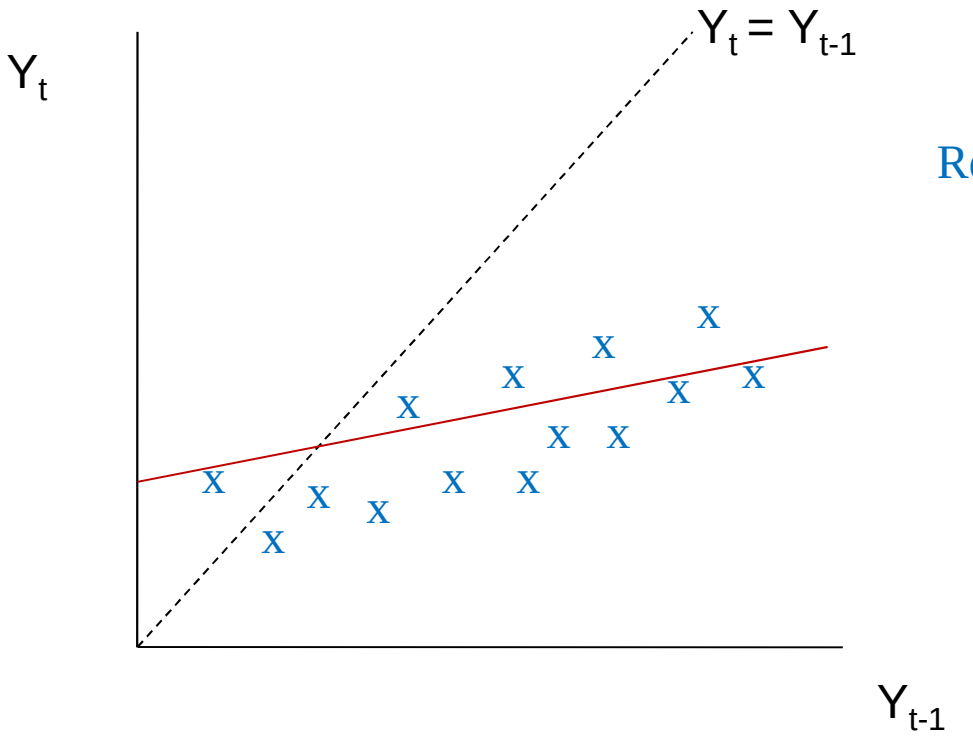
Evidence on inter-generational mobility



Regression line

Table 2 Pairwise comparisons for selected parameters – regression and correlation coefficients

A. Men

Elasticity β

	Estimate	Fi	No	Sw	UK	US
De	0.071 [0.064,0.079]	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
Fi	0.173 [0.135,0.211]	.	$>_{ol}$ (21.9)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
No	0.155 [0.137,0.174]	.	.	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
Sw	0.258 [0.234,0.281]	.	.	.	$<_{ol}$ (8.4)	$<$ (0.0)
UK	0.306 [0.242,0.370]	.	.	.	.	$<$ (0.0)
US	0.517 [0.444,0.590]	.	.	.	.	.

Correlation $\beta\sigma_P/\sigma_O$

	Estimate	Fi	No	Sw	UK	US
De	0.089 [0.079,0.099]	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
Fi	0.157 [0.128,0.186]	.	$>_{ol}$ (12.7)	$>_{ol}$ (15.9)	$<_{ol}$ (5.9)	$<$ (0.0)
No	0.138 [0.123,0.152]	.	.	$<_{ol}$ (38.7)	$<$ (0.4)	$<$ (0.0)
Sw	0.141 [0.129,0.152]	.	.	.	$<$ (0.4)	$<$ (0.0)
UK	0.198 [0.156,0.240]	.	.	.	.	$<$ (0.0)
US	0.357 [0.306,0.409]	.	.	.	.	.

B. Women

Elasticity β

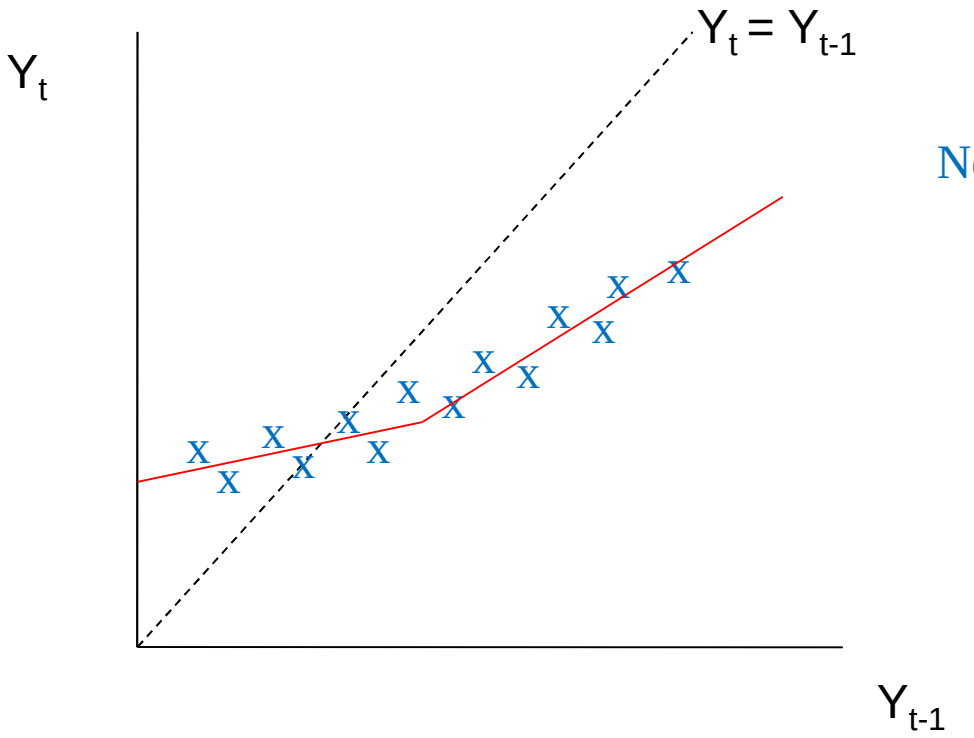
	Estimate	Fi	No	Sw	UK	US
De	0.034 [0.027,0.041]	$<$ (1.1)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
Fi	0.080 [0.042,0.118]	.	$<_{ol}$ (7.4)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
No	0.114 [0.090,0.137]	.	.	$<$ (0.0)	$<$ (0.0)	$<$ (0.1)
Sw	0.191 [0.166,0.216]	.	.	.	$<$ (1.0)	$<_{ol}$ (4.4)
UK	0.331 [0.223,0.440]	.	.	.	.	$>_{ol}$ (27.1)
US	0.283 [0.181,0.385]	.	.	.	.	.

Correlation $\beta\sigma_P/\sigma_O$

	Estimate	Fi	No	Sw	UK	US
De	0.045 [0.036,0.054]	$<_{ol}$ (3.9)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)	$<$ (0.0)
Fi	0.074 [0.045,0.103]	.	$<_{ol}$ (28.0)	$<_{ol}$ (3.6)	$<_{ol}$ (0.6)	$<$ (0.4)
No	0.084 [0.070,0.099]	.	.	$<_{ol}$ (3.6)	$<$ (0.9)	$<$ (0.5)
Sw	0.102 [0.090,0.113]	.	.	.	$<_{ol}$ (4.3)	$<_{ol}$ (2.2)
UK	0.141 [0.099,0.183]	.	.	.	.	$<_{ol}$ (30.3)
US	0.160 [0.105,0.215]	.	.	.	.	.

Note: See sections 2 and 3 for definitions of the data. These results include only non-zero observations of both offspring and father. Regressions are in log form. The numbers in brackets below the point estimates show the bias corrected 95 percent bootstrap confidence interval. The entries after the 1st column show the direction of the difference between the estimate for the country in the row and the column, i.e., $\hat{\theta}_{\text{row}} - \hat{\theta}_{\text{column}}$, where $<,>$ denote a negative and a positive difference, respectively. The *ol* in $<_{ol}, >_{ol}$ denotes cases where the confidence intervals for $\hat{\theta}_{\text{row}}$ and $\hat{\theta}_{\text{column}}$ overlap. The number in parentheses is the probability, in percentage terms, of the *opposite* order of what has in fact been observed. If $\hat{\theta}_{\text{row}} > \hat{\theta}_{\text{column}}$, this is the probability, in light of the estimated sampling distribution, that $\hat{\theta}_{\text{row}} < \hat{\theta}_{\text{column}}$.

Evidence on inter-generational mobility . . . Digging deeper



Non-linearities?

Digging deeper – Transition Matrices

	Son				
Father	oq1	oq2	oq3	oq4	oq5
fq1	0.303	0.235	0.165	0.174	0.122
fq2	0.241	0.227	0.182	0.193	0.157
fq3	0.188	0.195	0.227	0.206	0.184
fq4	0.161	0.175	0.229	0.195	0.240
fq5	0.107	0.168	0.197	0.231	0.297

An Intergenerational Income Mobility Transition Matrix: Father/Son; UK

Source: Naylor *et al.*, using NCDS 1958 birth cohort data.

Digging deeper – Transition Matrices

	Son				
Father	oq1	oq2	oq3	oq4	oq5
fq1	0.303				0.122
fq2					
fq3					
fq4					
fq5	0.107				0.297

An Intergenerational Income Mobility Transition Matrix: Father/Son; **UK**

Digging deeper – Transition Matrices

Less persistence at bottom in Norway than UK

	Son				
Father	oq1	oq2	oq3	oq4	oq5
fq1	↓ 0.282				0.119
fq2					
fq3					
fq4					
fq5	↑ 0.146				0.354

An Intergenerational Income Mobility Transition Matrix: Father/Son; **Norway**

More downward mobility in Norway than UK

But High persistence at top

Digging deeper – Transition Matrices

Very little upward mobility in the US

Very high persistence at bottom

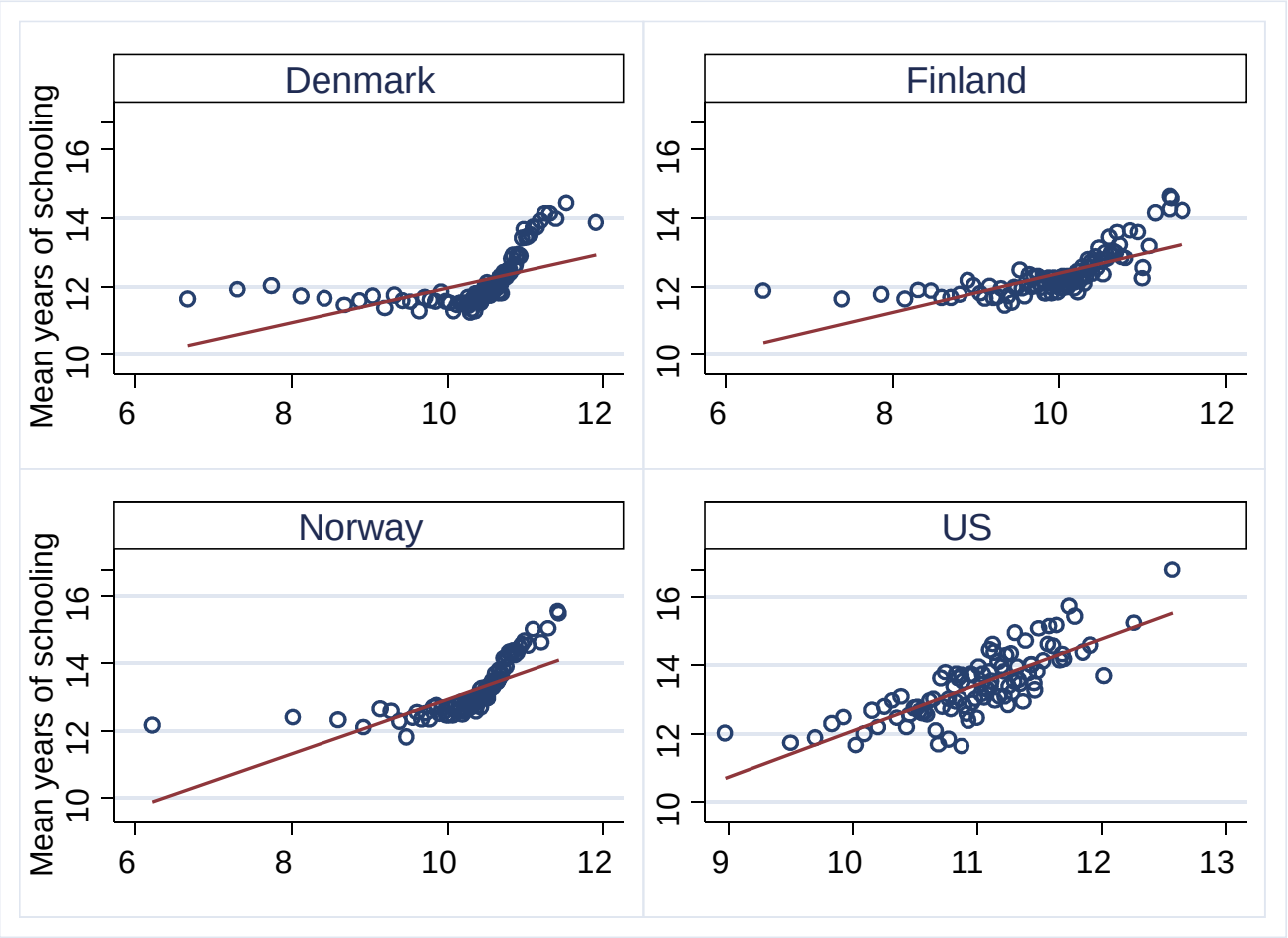
	Son				
Father	oq1	oq2	oq3	oq4	oq5
fq1	0.422				0.079
fq2					
fq3					
fq4					
fq5	0.095				0.360

An Intergenerational Income Mobility Transition Matrix: Father/Son; **US**

Very little downward mobility in the US

Why might we observe less persistence in the Nordic countries?

Pattern of mobility reflects educational structures



Changes over time in the UK

Note some evidence for the UK regarding changes in mobility over time following policy regime changes:

(i) Intergenerational Mobility of 1958 birth cohort greater than that of their parents

(comprehensive education, HE expansion)

(ii) Intergenerational Mobility of 1970 birth cohort less than that of the 1958 birth cohort (*Blanden and Machin*)

(HE expansion coupled with switch from grants to loans)

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Evidence on the HE API over time and by gender and background

	HE API (%)	
1900	1	(Stock = 25,000)
1938	2	
1960	6	
1970	14	
1990	14	
1995	32	
2010	40	

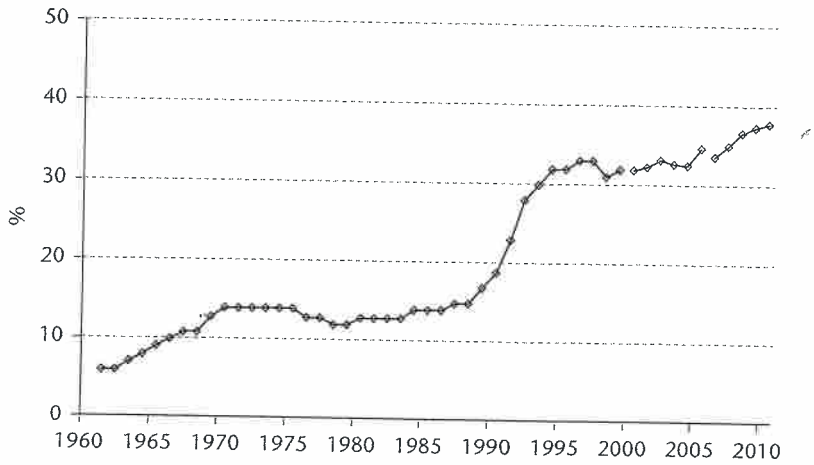

Figure 1.1. Young people entering higher education (%), 1961–2010

Notes: 1961–99: number of persons living in the UK aged under 21 years who are initial entrants to full-time and sandwich undergraduate courses of higher education in Britain as a percentage of the averaged 18 to 19-year-old British population. 2000–10: higher education participation rate (HEIPR) for 17–20-year-olds resident in England (figures for 2000–5 estimated by adjusting the HEPIR for 17–29-year-olds by the average ratio for 2006–10 of the rate for 17–20-year-olds to the rate for 17–29-year-olds).

Sources: 1961–99: Elias, P. and Purcell, K. (2004), *The Earnings of Graduates in Their Early Careers*, Warwick Institute for Employment Research, Figure 1; 2000–10: Department for Business, Education and Skills (2014), *Participation Rates in Higher Education: Academic Years 2006/2007–2012/2013 (Provisional)*, 24 August, Tables 1, A and B.

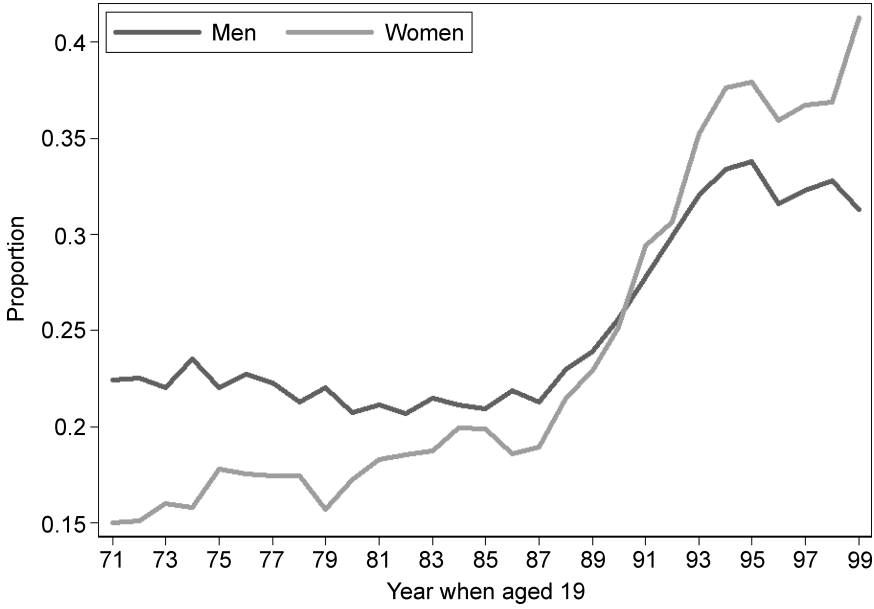

Fig. 1. Proportion of birth cohorts who record having a first degree
Source: UK quarterly Labour Force Survey, 1994–2006, authors' calculations. First degree is defined as an undergraduate bachelor degree. Birth cohort is defined here as the year at which the individual reached the age of 19.

olds who have a degree in the whole LFS data, broken down by birth cohort. It is clear that there is a large rise in this proportion for men, from 21% for cohorts who were of college-going age (19) up to 1987 (i.e., birth cohorts up to 1968) to 32% by the time the 1974 birth cohort reaches 19 in 1993 (approximately a 50% rise in the proportion of the flow). There is an even larger rise for women, from 18% to 36% (a 100% rise in the proportion). These are huge increases over a period of just six years. The LFS data show that the expansion clearly starts in 1987 and ends in 1993 and this matches the trends in the official statistics, which are based on the population of college entrants, very well.[6]

[6] See DfES (2007). The Age Participation Index (API), the percentage of each cohort currently undertaking higher education, was replaced in 2000 by the Higher Education Initial Participation Rate (HEIPR), for England, which counts the proportion of young people (17–30) who have had at least six months' HE experience. The series are not consistent with each other but it seems likely that their trends will be quite similar. The main difference from our Figure 1 arises because our data use a sample of employed individuals—since graduates are more likely to be employed than non-graduates this leads our participation estimates to be larger. The position was broadly stable over the 1970s and 1980s but increased quickly from about 15% for men and 12% for women in 1988, to 30% for men and women in 1994,

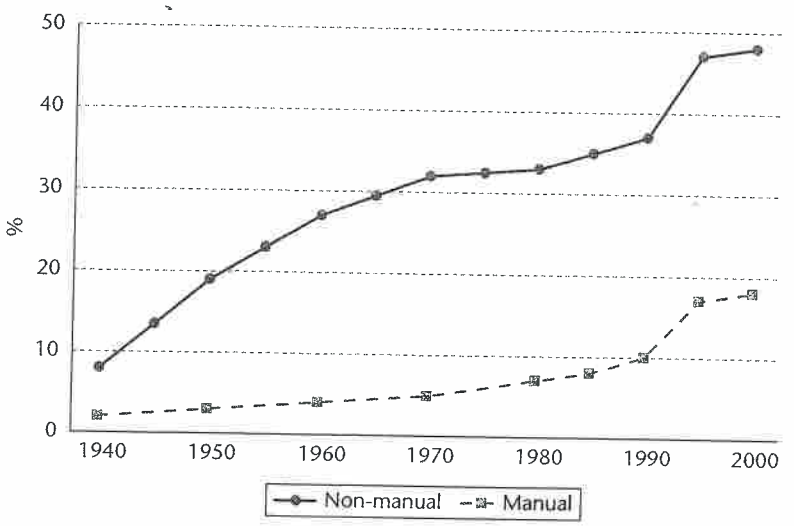

Figure 1.5. Young people entering higher education (%), by social class, 1940–2000

Note: The definition of the entry rate is the same as for the period 1961–99 in Figure 1.1.

Source: Gorard, S. (2008), 'Who is missing from higher education?' *Cambridge Journal of Education*, 38(3): 421–37, Table 8.

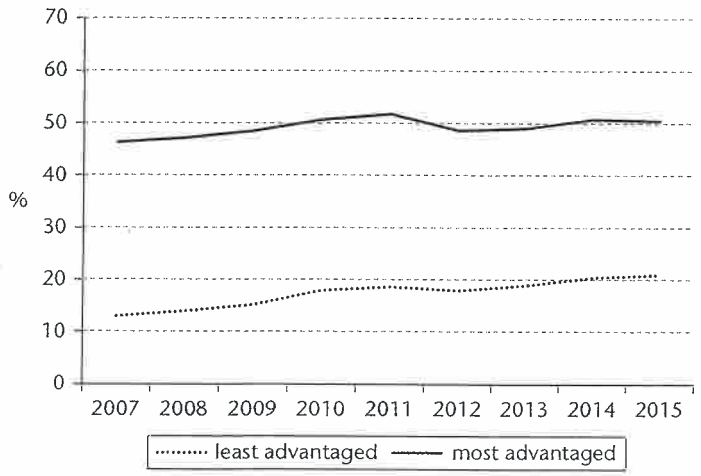

Figure 4.5. 18-year-olds in England applying to university (%), least advantaged areas and most advantaged areas, 2007–15

Note: See the text for further explanation of least and most advantaged.

Source: UCAS (2015), *UK application rates by country, region, constituency, sex, age and background (January deadline, 2015 cycle)*, Figures 15 and 16.

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honours degree, third class honours degree, other qualification,[5] failure to obtain a degree level qualification. Table 2 reports the main results separately for the 42,212 female students and the 52,273 male students. The table shows the estimated coefficients on the key variables of interest. It also shows for

TABLE 2
Estimated coefficients and marginal effects from the ordered probit regression

	FEMALES			*MALES*		
Variables	*Coeff*	*ME 'Good Degree'*	*ME Fail*	*Coeff*	*ME 'Good Degree'*	*ME Fail*
	Degree subject					
Medical related	−0.004	−0.2	0.1	0.041	1.6	−0.8
Biological science	0.174***	6.8	−2.3	0.118***	4.7	−2.2
Agriculture	−0.184***	−7.3	3.1	−0.072	−2.8	1.5
Physical science	0.008	0.3	−0.1	0.011	0.4	−0.2
Math science	−0.205***	−8.2	3.5	−0.171***	−6.6	3.8
Computing	−0.125**	−5.0	2.0	−0.072**	−2.8	1.5
Engineering	−0.058	−2.3	0.9	0.006	0.3	−0.1
Technology	0.041	1.6	−0.6	−0.050	−2.0	1.0
Architecture	−0.306***	−12.1	5.6	0.025	1.0	−0.5
Law + Politics	−0.069***	−2.7	1.1	0.029	1.2	−0.6
Business Admin.	−0.021	−0.8	0.3	−0.026	−1.0	0.5
Communications	0.011	0.4	−0.2	−0.026	−1.0	0.5
Lit + Classics	0.059**	2.3	−0.8	0.098***	3.9	−1.9
Modern Euro Lang	−0.245***	−9.8	4.3	−0.083**	−3.2	1.7
Other Languages	−0.314***	−12.5	5.8	−0.102*	−4.0	2.2
Humanities	0.054**	2.1	−0.8	0.152***	6.0	−2.8
Creative	0.028	1.1	−0.4	0.195***	7.7	−3.5
Education	−0.192***	−7.6	3.2	−0.108*	−4.2	2.3
Other subjects	−0.272***	−10.8	4.8	−0.305***	−11.6	7.3
	Personal characteristics					
Overseas fee	−0.252***	−11.0	5.0	0.036	0.9	−0.4
Home accom.	0.091***	3.6	−1.3	0.083***	3.3	−1.6
Part-time	−0.473***	−18.5	9.7	−0.333***	−12.6	7.9
Age 24–27	0.117***	4.7	−1.8	0.059***	2.3	−1.2
Age 28–33	0.268***	10.5	−3.7	0.177***	7.0	−3.3
Age 34+	0.447***	17.2	−5.5	0.077**	3.0	−1.5
Married	0.082***	3.2	−1.2	0.220***	8.7	−3.9

continued overleaf

[5]The lower second class degree includes a small number of 'Undivided' second class honours degrees. The other qualification consists of: unclassified honours degree, pass degree, aegrotat

TABLE 2
(continued)

	FEMALES			*MALES*		
Variables	*Coeff*	*ME 'Good Degree'*	*ME Fail*	*Coeff*	*ME 'Good Degree'*	*ME Fail*
SC I	0.045***	1.7	−0.5	0.047***	1.9	−0.7
SC IIINM	−0.083***	−3.2	1.0	−0.035**	−1.4	0.6
SC IIIM	−0.434***	−17.1	6.7	−0.308***	−12.2	6.0
SC IV	−0.449***	−17.7	7.0	−0.321***	−12.6	6.3
SC V	−0.695***	−27.1	12.8	−0.407***	−15.9	8.4
Unemployed	−0.926***	−35.2	19.5	−0.855***	−30.7	22.0
	Academic background					
A-level Pts	0.109***	9.3	−3.9	0.118***	10.4	−5.5
Chemistry	0.113***	4.5	−1.7	0.044***	1.7	−0.9
English	0.020	0.8	−0.3	0.029*	1.1	−0.6
Math	0.134***	5.3	−2.0	0.091***	3.6	−1.8
Physics	0.045**	1.8	−0.7	−0.062***	−2.4	1.3
Independent sch	−0.215***	−8.6	3.6	−0.218***	−8.5	4.6

*** significant at the 1% level, ** significant at 5% level, * significant at 10% level.

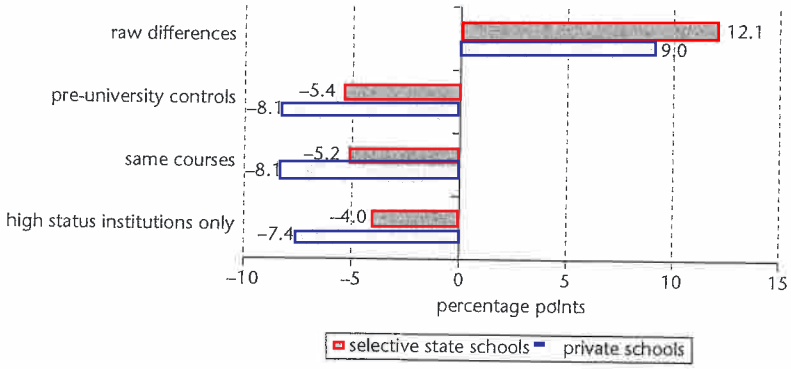

Figure 7.5. Differences (percentage points) in likelihood of graduating with first or 2:1 between students who previously attended a selective state or private school at age 16 (relative to those attending non-selective state schools), controlling for different characteristics

Note: see the notes to Figure 7.1 for details of the sample and the definitions of socio-economic status and degree class, and the notes to Figure 7.2 for the characteristics controlled for in each set of bars. Individuals are classified according to the school in which they sat their GCSEs (at the end of compulsory schooling at age 16). A selective school is one that formally admits pupils on the basis of academic achievement.

Source: authors' calculations based on administrative data linking all pupils attending schools in England to all students attending universities in the UK.

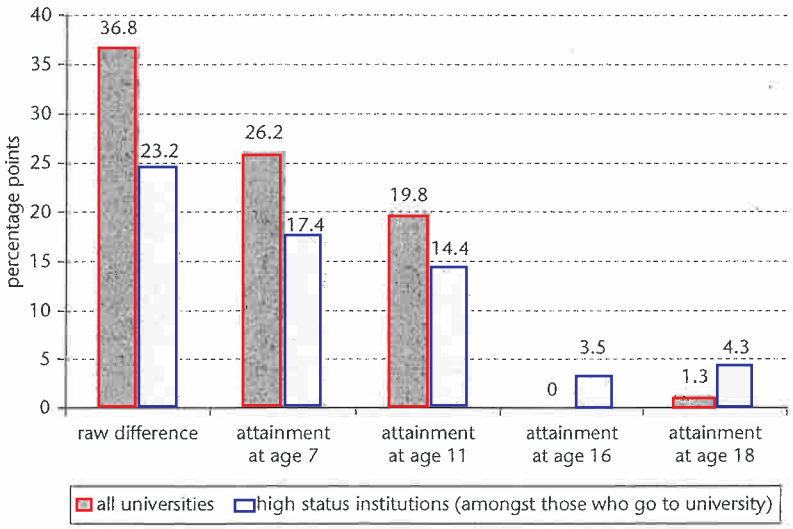

Figure 6.1. Differences in the % of state school students in the top and bottom fifths of the distribution of socio-economic status who go to university, controlling for different measures of attainment

Note: estimates are for state school students taking their GCSEs in 2008 who go on to university at age 18 or 19. The measure of socio-economic status is as described in the text. Attainment at age 16 refers to performance in exams traditionally taken at the end of secondary schooling (leading to the award of GCSEs and equivalent vocational qualifications). Attainment at age 18 refers to performance in exams traditionally taken two years later, leading to the award of A-levels and equivalent vocational qualifications.

Source: authors' calculations based on administrative data linking all pupils attending schools in England to all students attending universities in the UK.

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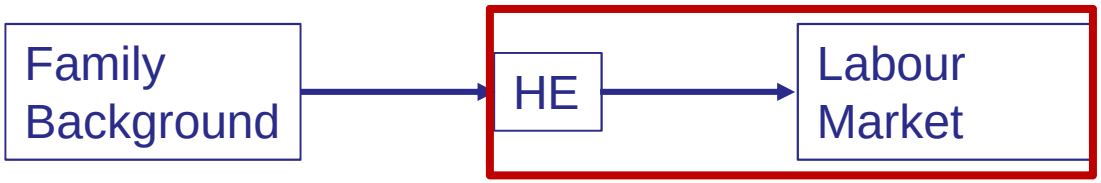
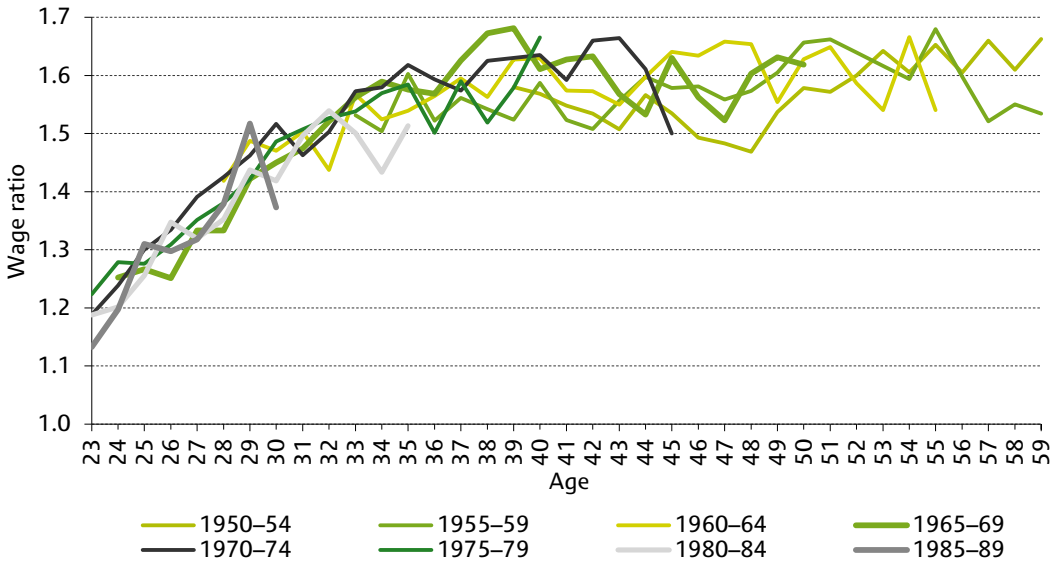


Average Graduate Returns (%)

	1958-born	1970-born
Men	**17**	**17**
Women	**37**	**17**

Walker-Zhu: **1975/77- born (post-expansion) no statistically different average graduate return rel to 1966/68 - born (pre-expansion)**

Figure 3. Ratio of graduate median hourly wage to that of school-leavers, by birth cohort



Note: The sample contains 23- to 59-year-olds. Each data point is based on two education groups, both of which have at least 50 wage observations.
Source: Authors' calculations from Labour Force Survey 1992–2015.

Understanding this historical puzzle is important if one is interested in extrapolating into the future. Given that the major expansion of graduates happened without a fall in their relative wages, should we expect this to occur again with a new expansion? Our answer would be no.

3. The explanations

The working paper mentioned above examines differences in graduate proportions and wage ratios by subgroups. For example, the proportion of graduates among immigrants is higher than that among natives and the share of immigrants in the UK workforce has increased considerably over time, but whether or not we include immigrants in the data does not change the story qualitatively. Among the natives, the graduate proportion increased significantly across cohorts while the wage ratio was constant. The same basic patterns are observed if we exclude postgraduates or the public sector or look at each gender separately. In other words, none of those observed characteristics of individuals can explain the puzzle.

It is possible that some unobserved characteristics of graduates (such as innate ability) are also changing. The large and rapid expansion of higher education may draw students from lower down the ability distribution. The quality of education provided may also deteriorate given the fall in

Table 2
Occupational earnings equation for both male and female students

	Males	*Females*
	Coeff	*Coeff*
	Academic qualifications	
Degree class		
First	0.037***	0.022*
Lower second	−0.058***	−0.053***
Third	−0.098***	−0.072***
Other	−0.057	−0.200***
A-level information		
A-level score	0.001	0.001**
Chemistry	0.006	−0.011
English	0.011	−0.007
Maths	0.023***	0.028***
Physics	0.012	0.022**
	Personal characteristics	
Age	0.013***	0.004
Married	−0.030	0.020
Social class		
SCI	0.003	0.008
SCIIINM	−0.019**	0.012
SCIIIM	−0.019**	−0.003
SCIV	−0.010	−0.021*
SCV	−0.014	−0.034
Unemployed	0.000	−0.028
	Degree Course	
Medical related	0.118***	0.051**
Biological science	−0.017	−0.124***
Agriculture + related	−0.056	−0.192***
Physical science	0.010	−0.125***
Mathematical science	0.085***	−0.025
Computing	0.162***	0.168***
Engineering	0.049*	−0.071***
Technology	0.070*	−0.082**
Architecture + building	−0.007	−0.118***
Economics	0.123***	−0.004
Social studies	−0.011	−0.124***
Law	0.283***	0.229***
Politics	0.013	−0.091***

(continued)

TABLE 2
Continued

	Males	*Females*
	Coeff	*Coeff*
	Academic qualifications	
Business Administration	0.118***	−0.026
Literature + Classics	−0.019	−0.118***
Modern Euro Languages	0.035	−0.091***
Other Languages	0.007	−0.079***
Humanities	−0.016	−0.124***
Creative Arts	0.042	−0.046**
Other subjects	0.054*	−0.085***
	University characteristics	
Total expenditure	0.016***	0.023***
Academic expenditure	−0.006	−0.024**
Staff wages	−0.002	0.003*
Staff-Student Ratio	−0.014***	−0.005
Pr(Males)	0.001***	0.000
Pr(Independent)	0.001***	0.002***
Pr(Good)	0.001**	0.002***
Pr(Professors)	−0.005***	−0.006***
Pr(Senior Lecturers)	−0.001	−0.003***
Pr(Age < 35)	−0.001***	−0.003***
	School type	
Independent school	0.031***	0.034***
Further Education college	−0.001	−0.005
Other school	−0.018**	0.015*
R-squared	0.138	0.142
n	13966	13395

***significant at the 1 per cent level, **significant at the 5 per cent level and * significant at the 10 per cent level.

earnings 5.6 (5.2) per cent below those of an otherwise equivalent graduate with an upper second, while a third class degree yields earnings which are 9.4 (7.0) per cent less than those associated with an upper second, *ceteris paribus*. Graduates' occupational earnings are clearly very sensitive to the class of degree awarded: there is a substantial span around average earnings for both men and women between the earnings

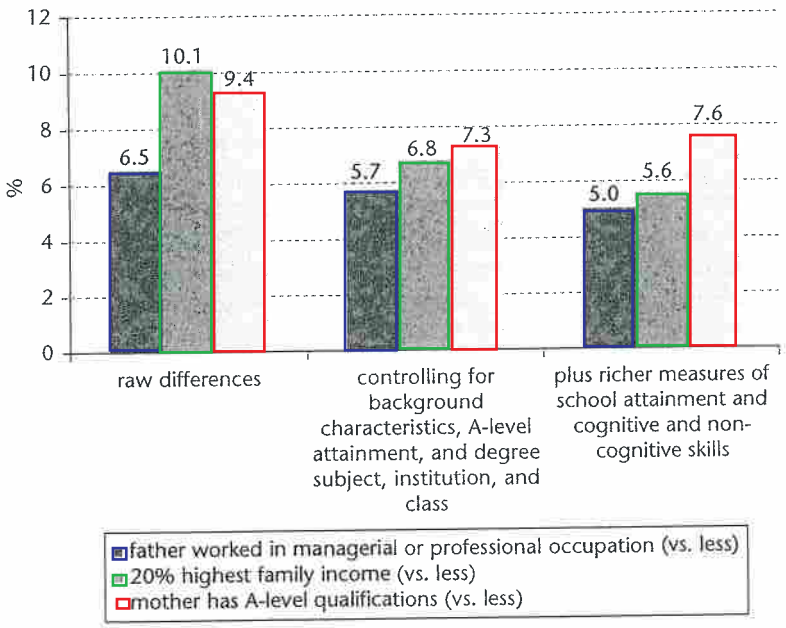


Figure 8.2. Differences (%) in annual pre-tax earnings at age 42 between graduates from different socio-economic backgrounds

Notes: analysis based on a survey of individuals born in a particular week of April 1970 who were in work at age 42 (in 2012). Bars show the % difference in pre-tax annual earnings between individuals from different socio-economic backgrounds.

Source: Crawford, C. and van der Erve, L. (2015), 'Does higher education level the playing field? Socio-economic differences in graduate earnings', *Education Sciences*, 5: 380–412.

over the period of time from graduation to age late 30s (the most recent observations being in 2008 for BCS70 and in 2012 for the LFS data).

2.1 Evidence from BCS70

Based on the sample of respondents to the age 30 and age 38 follow-up surveys and following Blundell *et al*. (2000, 2005), we select individuals who have obtained at least A-level qualifications, i.e. those individuals who could enrol in HE, and analyse the wage return to HE qualifications with respect to those individuals who did not complete any form of HE.[5] Table 1 presents OLS estimates of log-wage premia associated with both (i) a good degree class relative to a lower degree class and (ii) a lower degree class relative to A-levels.[6] The dependent variable is the natural logarithm of gross hourly wages. We present results for males and females combined as we cannot reject the hypothesis that the premia – both for a good degree over a lower degree and for a lower degree over no degree – are the same for male and female graduates. Table 1 shows estimates both with and without the inclusion of controls for ability and family background. Each of the specifications includes controls for other personal characteristics of the individual, which comprise: ethnicity, marital status and number of children.

Table 1: Estimated log wage premia (BCS70)

	(1)	(2)	(3)	(4)
Wages observed in year:	2000	2000	2008	2008
Wages observed at age:	30	30	38	38
Good degree class premium	0.078	0.073	0.080	0.069
relative to lower degree class	(0.007)	(0.012)	(0.040)	(0.074)
Lower degree class premium	0.119	0.106	0.262	0.223
relative to 2+ A-levels	(0.000)	(0.000)	(0.000)	(0.000)
Ability and background controls	*No*	*Yes*	*No*	*Yes*
Other controls	*Yes*	*Yes*	*Yes*	*Yes*
No. of Obs	3046	3046	1856	1856
R^2	0.081	0.103	0.141	0.170

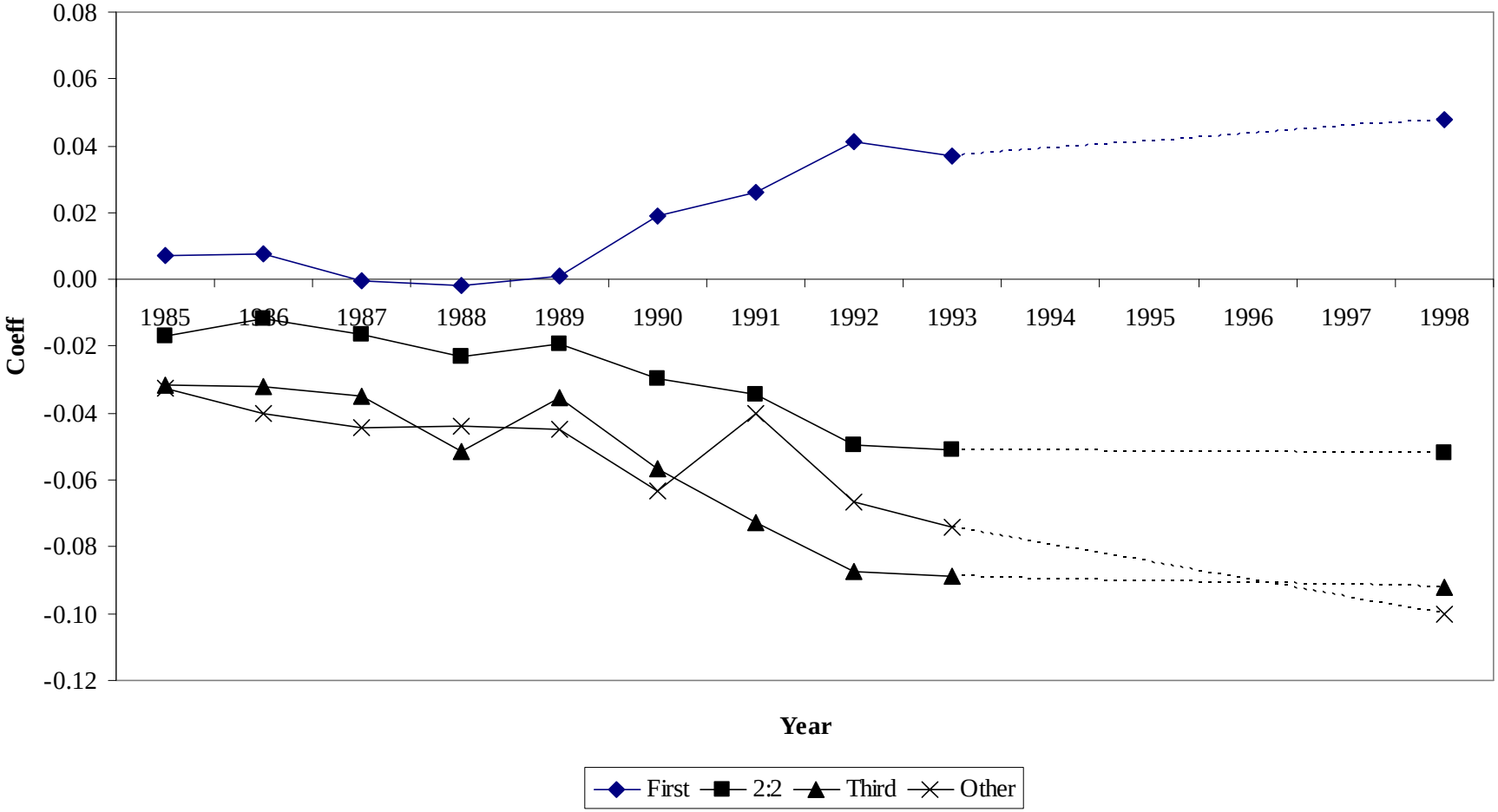
Notes: p-values in parentheses. Ability controls include: BAS (verbal), BAS (numerical). Background controls include: parental income, parental social class, mother's interest in education, father's interest in education, mother's education, father's education. Other controls include: region (aged 10), gender, marital status and number of children, ethnicity.

Column (2) of Table 1 reports an estimated log-wage premium for a good degree over a lower degree of 7.3% at age 30. This is slightly lower than the estimate of 7.8% shown in column (1), obtained when controls for ability and family background are excluded. The estimated return for a lower class of degree over A-levels is 10.6% – or 11.9% if ability and background controls are omitted. Hence, our estimates indicate that the wage premium for a good relative to a lower degree is approximately 70% of that for a lower degree relative to A-level qualifications only and that the average estimated graduate wage premium at age 30 is approximately 15%. We note that the good degree class premium changes very little from age 30 to age 38 – falling slightly from 7.3% to 6.9% when

[5] Dearden (1999), also using NCDS, finds that conventional OLS estimates are very similar to IV-based estimates.
[6] NCDS data for the 1958 birth cohort, used by Blundell *et al*. (2000, 2005), did not include information on degree class awarded.

Returns by degree class (all UK university students)

Figure 5a: Coefficients on degree class variables over time (constant earnings) - Males



Jo Johnson, then Minister of State for Universities and Science, speaking about BIS's Green Paper 'Fulfilling our Potential: Teaching Excellence, Social Mobility and Student Choice', stated that,

"We want to encourage a (grade point average) system which provides greater information to employers about where attainment really lies. It needs to sit alongside, rather than replace, the honours degree classification… But there is a very big band, the 2.1 band. It disguises very considerable differences in attainment. You can be at the top of the band and then be 50 percentage points below and still be getting a 2.1. And students who worked hard should be able to ***signal to employers*** *that's what they've achieved."*

(Cited on BBC News website 06/11/2015.)

1. The HE Age Participation Index: why is it important?

2. **Evidence on inter-generational socio-economic mobility**
    - **International Comparisons**
    - **The role of education**
    - **Over time**

3. Evidence on the HE API over time and by gender and background

4. Evidence concerning Widening Participation

5. Evidence on HE and the labour market

6. **Reflections**

Reflections

1. Data: matching NPD-UCAS-HESA-HMRC
2. HE: substantial private and public returns
3. WP:
    - Pool of talent
    - Early years, EMA, maintenance grants
    - Loans: not up-front, income-contingent repayment

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