ESRC Research Project on *Education and Youth Transitions in England, Wales and Scotland, 1984-2002*

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TRENDS IN THE IMPACT OF POST-COMPULSORY EDUCATIONAL QUALIFICATIONS AND EXPERIENCE ON THE OCCUPATIONAL ATTAINMENTS OF YOUNG PEOPLE IN ENGLAND AND SCOTLAND 1986-2001

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Introduction

During the two last decades of the 20th century there were fundamental changes in the patterns of young people's transitions from schooling to the labour market in Britain. Indeed, from a society where, as recently as the late 1970s, participation rates in post compulsory education were the lowest in Europe, two decades later Britain became a society where an absolute majority of young people participated in post-compulsory education. In 2000 the rate of participation was 80 per cent (Cregan, 2001).

This increase in rates of participation in post-compulsory education was especially dramatic among low attainers and those from less advantaged social backgrounds, who traditionally leave full-time education at the first legal opportunity (that is at age 16) and enter the labour market (see Croxford et al, 2006).

One of the main reasons why participation increased in such a dramatic way during a comparatively short period is that the period from 1980 to 2000 saw radical changes in the labour market with a sharp decline in demand for unskilled workers and a fundamental re-structuring of the jobs that remained.

A further factor explaining the increase in educational participation is that from the 1980s the education system displayed a degree of flexibility of response to the changing labour market and offered to low-attaining students the option of staying on in full-time education, through providing more flexible arrangements for pupils outside the academic mainstream. This was achieved through, for example, increased availability of a range of educational options, such as different tracks in school, in colleges of further education, and polytechnics (in England) that allowed for the achievement of some qualifications on exit. An additional factor that contributed to increased participation in this period was the provision to pupils of better information about choices and outcomes of education. (Raffe, 1992).

In this period, changes in the labour market structure did not seem to work in favour of unskilled young labour market entrants. Thus, those who did not have post-compulsory qualifications seemed to become more marginalized in a-typical employment, ie temporary, part-time, unqualified and low-paid jobs, in various youth training programs and in unemployment.

This evidence raises the issue of whether and to what extent staying longer in full-time education endows young people with skills, knowledge and credentials which improve their future labour market outcomes in comparison with those who leave full-time education at the end of the compulsory stage and enter the labour market at age 16-17.

This paper addresses that question. It is based on the analysis of time- series data created by the ESRC-funded "Education and Youth transitions" project on the transition of young people from school to work in Britain[1]. I consider the trends over time in the impact of staying on in post-compulsory education and obtaining post-compulsory qualifications on the labour market outcomes of 18-19 year olds in England and Scotland during the period 1980s-1990s.

Transition from school to work

The transition from education to work is a critical phase in the lives of young people, and a powerful determinant of future life chances.

The transition process after the end of compulsory education is guided by several groups of factors. The decision to stay in full-time education or to move to the labour market is first of all an individual decision of a young person, based on his/her abilities, preferences and expectations, family influence, and so on. A large body of research literature considers how such factors as gender, social class, ethnicity and level of educational attainment impact on young people's destinations and labour market outcomes (eg Shavit and MÜller, 1998).

Institutional factors also play a very important role in the transition decision. Recent studies have shown that the success of transitions, and other outcomes such as inequalities in the transition process, vary systematically according to the characteristics of national 'transition systems' (eg Müller and Gangl, 2003). A transition system comprises 'the relatively enduring features of a country's institutional and structural arrangements which shape transition processes and outcomes' (Smyth *et al.*, 2001: 19). It embraces characteristics of education and training systems (eg stratification, nature of pathways, vocational specificity), of labour markets (eg flexibility, strength of occupational or internal markets) and wider societal features such as family structures and social welfare systems (Raffe, 2008).

Therefore, to better understand the trend over-time in transition from school to work across Britain it is obviously important to take into account the particular characteristics of transition systems in Britain, and how these changed over the time in question.

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Changes over-time in the British education and training systems

Although the education systems in England, Wales and Scotland have developed separately, they share common "British" features. Many of the differences between the educational systems represent variations on common themes (Raffe, 2000). Therefore, these educational systems were undergoing similar processes of change in the second half of the 20th century, before devolution within the UK began to take effect from 1998 onwards. These common features are set out below:

Standardisation: Since the 1950s the British system of secondary education experienced a process of radical change. This change resulted in a shift from a highly decentralised education system without a standardised system of certification and qualifications to the modern comprehensive system where educational stratification is based on credentials and all young people leave school with general certificates irrespective of the type of school they attended. If labour market outcomes were shaped in the past to a large extent by the type of school attended, now employers in the UK mostly base their recruitment decisions on the type of educational certification obtained by young people (Heath and Cheng, 1998).

Vocational Training: In Britain the education systems traditionally emphasised general education. Vocational education, work based training and apprenticeships are less well developed in the UK than in most European countries. During the 1980s-1990s the UK education systems tried to respond to the changes in the UK labour market, where conditions became less favourable for unqualified first time entrants. Thus post-compulsory education became more inclusive of 'non-standard' students by offering them not only academic but also vocational qualifications. However, these qualifications were widely criticized for being too narrow, too specifically task-based, and for lacking theoretical and knowledge-based skills. Moreover they were not readily recognized by employers (Raggatt and Williams, 1999).

Work based training: The scope of apprenticeships in the UK was always smaller than in other European countries. Moreover, apprenticeship provision has declined rapidly in the UK since the early 1970s (Marsden and Ryan 1995). Since the mid-1980s there have been attempts to revitalize apprenticeship through the introduction of government subsidized work-based-training programmes, again as a response to high rates of unemployment among unqualified youth. Youth training schemes (YTS) were among the first training programmes for young people; these last for up to two years and offer rather low level vocational training (Stevens, 1999). Consequently, the reputation of YTS among young people was low. Another youth training program, which appeared in the mid 1990s, was the Modern Apprenticeship Scheme. It was based on more formalized relationships between trainees and employers, and offered higher quality training than YTS.

All these features, which were common for the changing systems for educational provision across Britain, show that although these systems became more standardized and inclusive, they still were not successful in creating a good connection between schooling and labour market outcomes for low-attaining pupils.

However, there were also differences between educational systems across Britain, in particular, differences in post-compulsory educational provision between England and Scotland. These differences were mostly responsible for historically higher figures for participation in post-compulsory education in Scotland than in England. Thus, in the mid 1980s, as measured by official statistics, participation at 16 was 10 percentage points higher in Scotland than in England. The next section discusses these differences.

Differences between England and Scotland in post-compulsory educational provision

In this paper I compare trends in transition patterns in England and Scotland. The advantage of making such comparisons is readily apparent. While the education systems and the labour market in these three countries share a similar context and are affected by global trends in a similar way, there are some institutional differences in post-compulsory education provision and vocational training between England and Scotland. These differences provide the opportunity for comparative analysis.

England (and Wales) have more diverse post-16 institutions than Scotland, with more institutional competition and greater overlap in the functions of schools and colleges. Scotland has different courses and qualifications. In general, Scottish courses are broader, more flexible and more 'modular' than in the rest of the UK, and the division between academic and vocational tracks is weaker (Raffe, 2000). Therefore, the decision to continue in full-time education is not the same in England as it is in Scotland. In Scotland the system does not provide a significant break at the end of compulsory schooling: most young people who stay on in full-time education do so in the same school that they have been attending since the age of 12. Continuing in full-time education in England may well mean going to a different school or to a college. In Scotland there is a clearer division of functions between the school and further education (FE) sectors than in England. Scottish FE colleges cater mainly for adults and their provision for 16-18 year olds is more exclusively vocational than is the case in English colleges.

The post-16 institutional system is more varied in England with greater diversity within both the school and college sectors and young people wishing to continue in full–time education have more choice both about where and what to study. In respect of the latter, the development of vocational group awards has offered young people in England and Wales the possibility of a broad-based vocational track within full-time education. The greater diversity of institutions and the greater emphasis in England on a competitive market in education has meant stronger competition between institutions to attract young people into them.

The differences in the education and training systems coupled with the diverse arrangements for curricular and vocational guidance across England and Scotland mean that the young people concerned have somewhat different opportunities and are subject to different sorts of pressures and influences in making their transitions (Raffe, 2000).

Research questions and hypothesis

This paper addresses the following research questions:

1. To what extent has the impact of post-compulsory educational experience on the labour market outcomes (in terms of occupational attainment of young people who worked full-time at age 18-19) changed over time?

   Are these trends different in England and Scotland?

   Hypothesis 1

   Due to the increasing participation in post-compulsory education across Britain we might expect that those young people who have post-compulsory education experience would have better labour market outcomes compared to those who do not have such an experience.

   Due to the more general (or comprehensive) nature of the Scottish education system and the traditionally higher participation in post-compulsory education we might expect that post-compulsory education experience will have a stronger positive impact on *labour market outcomes.*

2. To what extent has the impact of the highest level of educational qualifications on labour market attainments at age 18-19 changed over time?

   Are these trends different across England and Scotland?

   Hypothesis 2

   It might be expected that overall educational qualifications have a positive impact on the labour market attainment of 18-19 year olds, and this impact is stronger in Scotland.

   There are two possible and competing hypotheses about the time trends in the impact of the highest level of qualifications on the occupational attainments of young people.

(H1) Because over-time the British education systems developed from highly de-centralised education provision into a modern comprehensive system where educational stratification is based on highly standardized credentials it is anticipated that labour market attainment over time will become more dependent on the level of qualifications obtained.

(H2) However, it is also possible that a decline in the amount of entry-point job positions for young people and an increase in supply of those with tertiary education might create a situation where the occupational attainment of 18-19 year olds will become less differentiated by below-tertiary level of educational qualifications.

The Data

The study uses the time series dataset created by the Education and Youth Transition project referred to above. This dataset is based on the Youth Cohort Surveys (YCS) for England and for Scotland on the Young People's Survey (YPS) and the Scottish School Leavers Survey (SSLS). These are nationally representative data sets of young people who

completed compulsory schooling during the years 1984-2000. Each cohort is identified by the year of completion of compulsory education and by the British home country, ie Scotland or England. Each cohort was first surveyed in the following year (sweep 1) and then 24 months later (sweep 2) (in Scotland the cohorts 1984-1988 were surveyed 30 months after the first survey). For further details about the data see Croxford (2005) and EYT Working Paper No 5 (http://www.ces.ed.ac.uk/eyt/EYT_papers/WP05.pdf).

Variables used in the analysis

The variables which were used in the analyses are presented in the Figure 1.

Figure 1 about here

Methodology

After presenting the descriptive findings (Figures 1-5) we turn to the results of the OLS regressions. The dependent variable in the regression analysis of occupational attainment is the occupational status (The three digit standard occupational classification 1990 SOC recoded into the International Socio-Economic Index of Occupational Status). There are two regression models in the analyses. The first regression model of the occupational attainment contains main effects of variables country, cohort, gender, type of highest educational qualification and type of main activity at age 16-17 (Table 1). The second regression model additionally contains all two and three way interactions between (1) country and cohort, (2) country, cohort and type of highest educational qualification, and (3) country, cohort and type of the main activity at age 16-17. The results of the model 2 are presented in Table 2 separately for each country and cohort.

Because the process of entry into the labour market is highly selective and has been changing over-time, the Heckman selection bias was estimated (separately for every country/cohort) by means of the SPSS statistical package through a two step procedure[2] (Smites, 2003) and included as an independent variable in the regression analysis of the occupational attainment of young people who had a full-time job by age 18-19.

Results

Descriptive overview

Main activity at age 16-17: Over time and across Britain there was an increase in the proportion of young people who stayed in full-time education after the end of the compulsory stage. Simultaneously there was a corresponding decrease in the proportion of young people who worked full-time at age 16-17 (see Figure 2). The proportion of young people who were unemployed decreased, but at the same time the proportion of young people who were exposed to labour market experience through work or work-related training diminished significantly - from 45 to 15 percent and from 37 to 8 percent over time respectively for England and Scotland.

[2] On the first step of the Estimation of the Heckman selection bias as predictors of entry in the full-time employment at age 18-19 we used following variables: standardized parental social class, standardized score of compulsory attainment, standardised score of post-compulsory attainment, for a detailed description of how attainment scores were calculated see Croxford 2005.

Figure 2 about here

Main activity at age 18-19: Participation in full-time education at age 18-19 increased over time (with a slight drop in participation for the last cohorts both in England and Scotland) and at the end of the 1990s more than a half of 18-19 year olds were enrolled in full-time education (Figure 3). At the same time, there were opposite trends in the share of young people who were working full-time at age 18-19. The decrease in the amount of full-time workers was especially sharp in the late 1980s-early 1990s.

The share of those who were outside the labour market has hardly changed over time (about 5-6 per cent). Unemployment decreased over-time, while the share of those who were in work-based training increased slightly.

Figure 3 about here

Trends in the highest level of educational qualifications: Among 18-19 year olds in England there was a sharp increase in the proportion of people with post-compulsory qualifications[3] (Figure 4). The increase was particularly sharp (from 14 to 42 percent) among those who were working full-time However, in Scotland, the increase was more modest due to a significantly larger share than in England of young people who had post-compulsory educational qualifications in the late 1980s. By the end of the period under consideration the proportion of 18-19 year olds with post-compulsory qualifications was rather similar across Britain, although the figures were still higher for Scotland.

Figure 4 about here

Trends in occupational attainment: Over time across Britain among 18-19 year olds who worked full-time the proportion of those who were working in professional, managerial and associated professional occupations decreased (see Figure 5). There was an even more significant decrease in the proportion of those who were working in craft and related occupations.

Figure 5 about here

Overall, while in the late 1980s the majority of 18-19 year olds was over-concentrated in two occupational categories. ie craft and related occupations and secretarial and clerical occupations, in the late 1990s only the latter occupational category remained as the most popular destination, while the craft occupational category became a destination for the smallest proportion of young workers. Another two popular occupational categories in the late 1990s were sales occupations, and then personal and protective services.

OLS regression analyses results

The findings (Table 1) show that there was a decline over time in the level of occupational attainment of young people net of other characteristics. The predicted occupational attainments for the reference category, ie young people with basic secondary qualifications

[3] see Figure 1

who did not have an experience of full-time education or full-time job at age 16-17, were higher in England in the late 1980s. The degree of the decline over time was rather similar across Britain: on 2.3 and on 2.6 predicted occupational units respectively in England and Scotland (see Table 2 and Figure 6).

On average young people without basic secondary qualifications lose about -2.7 predicted occupational units compared with those who have this qualifications (see Table 1). The negative impact of the absence of basic secondary qualifications increased between the late 1980s and the late 1990s in England but remained quite stable in Scotland (see Table 2 and Figure 6).

Table 1 about here

Post secondary (below tertiary) educational qualifications overall have a small positive impact on occupational attainment (see Table 1) increasing then on about 1 predicted occupational unit. Over time, in Scotland in the late 1980-s and the early 1990s this type of educational qualification had a stronger positive impact on occupational status (see table 2). However, for the cohorts 1995 to 1997 in England and for the 1998 cohort in Scotland the effect of post-compulsory educational qualifications on the dependent variables is small and not statistically significant. For the last 1999 English cohort this effect becomes statistically significant again but data for the 2000s is needed to test whether there is a stable trend in the increase of the impact of this type of qualification on the occupational attainments of the 18-19 year olds.

The experience of post-compulsory education at age 16-17 has an overall positive effect on the dependent variable net of other characteristics and increases occupational attainment on two predicted units. Over time, during the late 1980s – early 1990s the effect is slightly stronger in Scotland. Differences between the countries are not statistically significant.

The experience of post-compulsory education at age 16-17 has an overall positive effect on the dependent variable net of other characteristics and occupational attainment of two predicted units.

Table 2 about here

The experience of full-time employment at age 16-17 also has overall net positive effects on the dependent variable but these effects are smaller (in a statistically significant way) than that of the full-time educational experience. The over-time trends show (Table 2 and Figure 6) that in England the positive impact of the variable slightly decreased by the late 1990s (although differences are not statistically significant) but remained rather stable in Scotland.

Figure 6 about here

Summary and conclusions

This paper addresses the issue of the impact of the post-compulsory educational experience and the level of educational qualifications on the occupational attainment of young people who were working full-time by age 18-19 in the period 1986-2000.

The findings show that over time and across Britain participation in full-time post-compulsory education increased and so did the proportion of young people who obtained a post-compulsory educational qualification. This increase is particularly noticeable among those who were leaving full-time education by age 18-19 and entering full-time employment, ie the very group of young people who traditionally would not have obtained qualifications beyond the basic secondary level. Although during the late 1980s the participation was higher in Scotland, by the late 1990s England caught up with Scotland.

These trends together with the decline in unemployment among young people and the relatively stable figures for those who stayed outside the labour market over-time show that the education system was sufficiently flexible to meet the changing contextual conditions and to absorb a growing amount of young people.

However, the findings of the study do not support expectations that the increase in participation in full-time education and improving level of educational qualifications of young people deliver better occupational outcomes for those who choose to enter full-time employment at age 18-19.

On the contrary it seems that processes of industrial restructuring and transition from traditional to new high-tech industries affecting the British labour market during the 1980s, left little opportunities for occupational success for young people without tertiary educational qualifications. Indeed, the findings show that throughout the period considered in this study among 18-19 year olds the share of those who were employed in white collar and craft occupations declined significantly while those employed in unskilled sales, services and manual occupations increased.

The results of the multilevel regression modelling show that throughout the 1990s the occupational attainment of young people decreased for all groups of young people regardless of the level of their educational qualifications.

Furthermore, according to the findings of this study, basic secondary qualifications together with the experience of either full-time education or full-time employment at age 16-17 were absolutely essential to secure better occupational standing for young people who were working full-time at age 18-19. Indeed, those young people who at age 16-17 were either unemployed, or participating in training schemes, or studying or working part-time have poorer occupational outcomes than those who one year after the end of compulsory education studied or worked full-time.

However, there is no systematic evidence full-time post-compulsory educational experience brings better occupational returns than full-time work experience at age 16-17. Indeed, both groups of young people over-time seem to have similar occupational attainments in England. In Scotland in the late 1980s-early 1990s young people with the experience of full-time post-compulsory education were doing better occupationally than those who were working full-

time at age 16-17; however in the late 90s in Scotland and in England alike both groups of young people had similar occupational outcomes.

Therefore we can conclude that experience of full-time post-compulsory education and better qualifications did not endow 18-19 years old with knowledge and credentials which improved their future labour market outcomes in comparison with those who did not obtain such experience and qualifications but had full-time experience of work instead.

In relation to the impact of post compulsory educational experiences the differences between England and Scotland do show that the comprehensive nature of the system in Scotland produced better labour market outcomes for young people with full-time post-compulsory educational experience.

However across Britain and over time, the trend was towards equalisation, rooted in global processes which affected educational systems and the labour market in a similar way.

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Figure 1: Variables

Name	*Categories*
Country	Dummy variables indicating if respondents live in England or Scotland
Cohorts	Dummy variables indicating the year when respondent was a year after the end of the compulsory education; date include 8 cohorts for England (1984, 1986, 1988, 1990, 1993, 1995 and 1997) and 7 cohorts for Scotland (1984, 1986, 1988, 1990, 1992, 1996, 1998). However not all data are reliable for all years/cohorts. For this reason some cohorts were excluded from descriptive analyses (ie 1984 cohort for England; while others were excluded from regression modelling (1984 and 1993 cohorts for England and 1992 and 1998 cohorts foe Scotland).
Destinations at age 18-19.	(1)full time education; (2)full time employment;
Activities at age 16-17 (one year after the end of compulsory education).	(1) experience of full time post compulsory education (2) labour market experience – into full time employment; (3) Else: (a) work-base training; (b) unemployment; (c) other activities.
Parental standardized social class [4] **(**based on the National Statistics Socio-Economic Classification)	(1) managerial and professional; (2) intermediate; (3) working; (4) no class.
Compulsory attainment.	Attainment score (from 1 to 7) based on the outcomes of subject based examinations at the end of the compulsory stage of education (GCSE for England and Wales and Standard Grades for Scotland) and normalized around each country/cohort sample mean. .
Highest level of educational qualifications	Level3 or Post-compulsory: A-level or Higher (Advance Highers); Level2 or Basic Secondary: GCSE (A-C) or Standard Grade (1-3) or Intermediate2; Level1 or below Secondary : GCSE (D-E) or Standard Grade (4-5) or Intermediate1; Level1: no qualifications.
Occupation at age 18-19 for those who work full time(one digit standard occupational classification).	(1) academic, professional, managerial; (2) associated professional; (3) secretarial and clerical; (4) crafts and related occupations; (5) personal services and sales; (6) plants and machine operatives; (7) other (unskilled).
ISEI : occupational attainment at age 18-19 for those who work full time	The three digit standard occupational classification 1990 SOC recoded into the International Socio-Economic Index of Occupational Status
Gender	(1) male; (2) female

[4] Due to the time series nature of the data this variable is adjust in the way that its categories reflect the changes in class structure of the society over the considered period The standardization is done through constricting a variable which categories reflecting both the proportion of a particular social class in a whole population as well a proportion of those who have higher social standings in a particular country/cohort. Thus, if for the particular country/cohort the distribution of the social class variable was

(x %[professional /managerial] +y % [intermediate] +z %[working] +t %[unspecified] =100%) then those who were from professional managerial class received value “100-x/2”; those from the intermediate class received value “100-x-y/2”; those from working class received value “100-x-y-z/2” and finally those who were in unspecified social class received value “100-x-y-z-t/2”. The values of this variable were further normalized around sample mean for each country/cohort to allow over time and across the UK comparison .

Table related to Figure 2: Main activity one year after of the end of compulsory education (at age 16-17)

National system	cohort	full time education	government training scheme	full time job	unemployed	else
England	1986	47.3	23.8	21.0	6.49	1.4
	1988	53.3	19.1	22.1	3.57	1.91
	1990	64.7	11.9	15.6	5.4	2.36
	1993	76.0	8.89	7.86	4.72	2.56
	1995	77.7	7.47	6.73	3.87	4.18
	1997	74.6	8.9	8.54	4.21	3.74
	1999	77.7	7.55	7.15	3.66	3.95
Scotland	1984	50.1	20.8	16.3	9.72	3.12
	1986	53.4	21.5	12.5	10.2	2.23
	1988	61.8	19.5	12.6	3.98	2.13
	1990	68.1	14.3	10.3	5.26	1.98
	1996	81.9	6.99	6.5	3.35	1.25
	1998	88.1	4.58	4.21	2.06	1.05

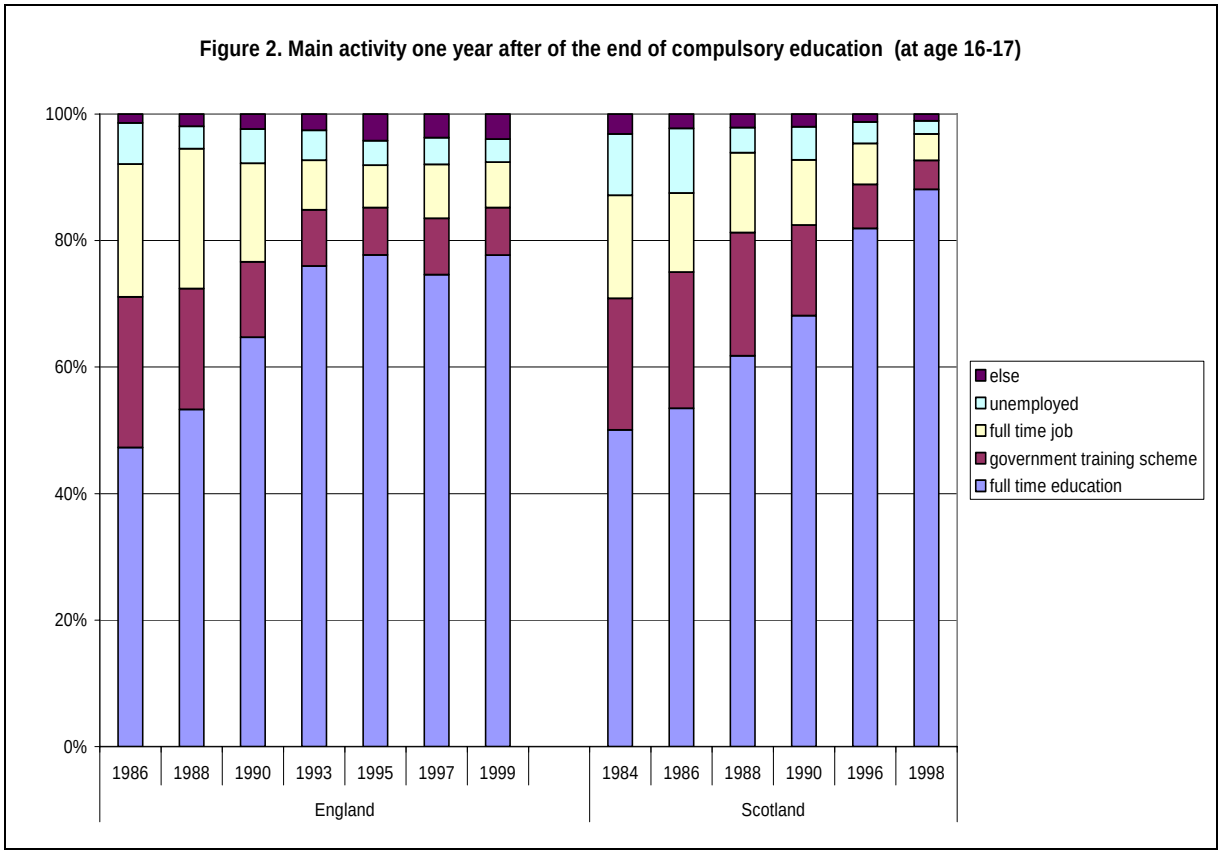

Table related to Figure 3: Main activity three years after the end of compulsory education (at age 18-19)

National system	cohort	full time education	government training scheme	full time job	unemployed	else
England	1984	22.6	3.0	59.7	12.3	2.48
	1986	24.9	2.3	60.89	6.59	5.37
	1988	30.8	2.4	51.42	8.95	6.4
	1990	44.7	3.4	33.24	11	7.7
	1993	48.0	3.5	29.75	8.59	10.2
	1995	47.5	5.3	31.51	5.75	10.0
	1997	52.3	6.5	26.26	4.56	10.3
	1999	44.5	7.1	29.44	5.73	13.3
Scotland	1984	25.8	4.8	50.94	13.3	5.2
	1986	22.3	4.9	54.36	7.49	11
	1988	30.5	5.2	50.86	7.99	5.4
	1990	40.6	7.1	36.43	9.61	6.2
	1992	51.2	4.8	31.77	8.29	3.9
	1996	51.3	0.2	35.49	6.95	6.1
	1998	49.6	10	28.75	6.03	5.7

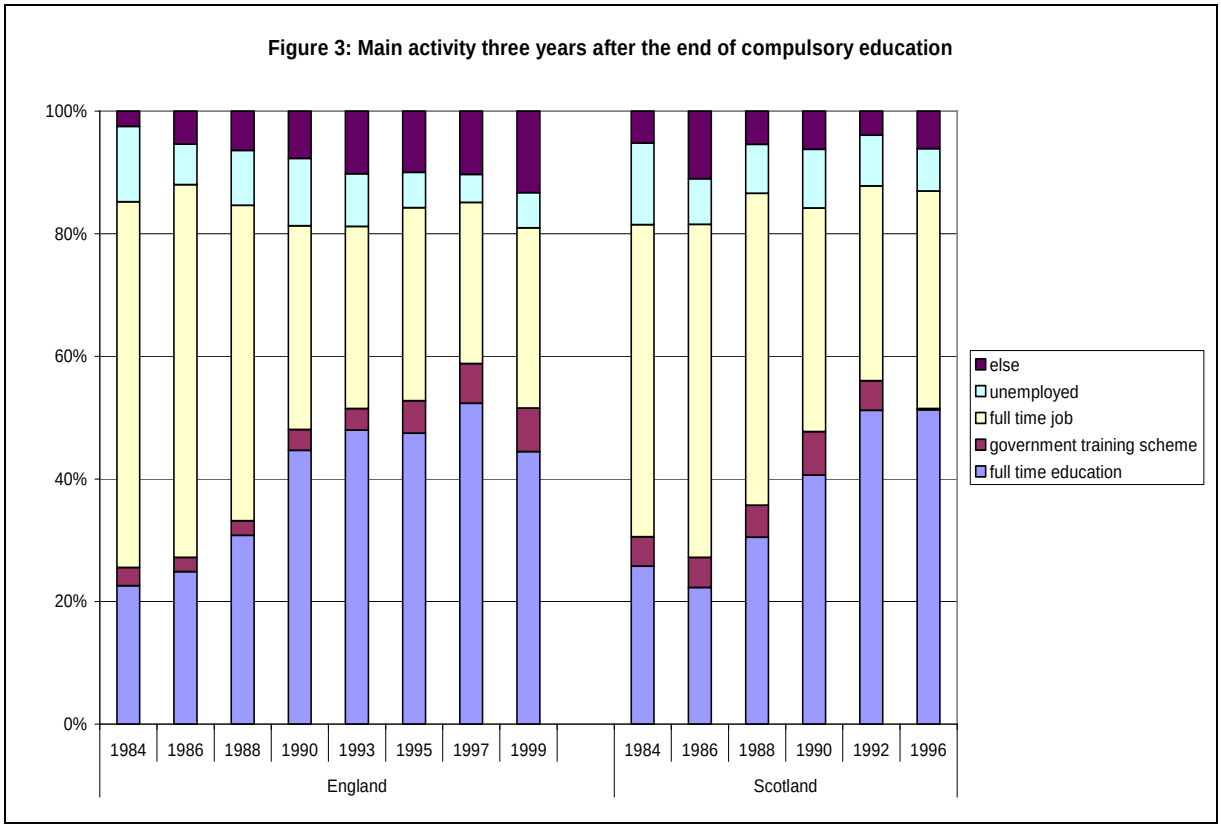

Table related to Figure 4: Level of highest educational qualifications of 18-19 according to the type of their main activity, country and cohort

National system	Main activity at age 18-19	Cohort	no qualification or unknown	level 1	level 2	level 3
England	full time education	1986	0.5	5.5	32	62
		1988	0.9	4.7	33	62
		1990	0.4	3.1	28	69
		1993	0.4	3.5	42	54
		1995	0.5	2.6	23	73
		1997	0.3	2	26	71
		1999	0.2	1.7	17	81
	full time job	1986	8.0	29	48	14
		1988	5.7	21	57	16
		1990	3.0	19	49	29
		1993	2.6	16	49	32
		1995	2.4	13	43	41
		1997	1.6	9.5	44	45
		1999	2.3	11	45	42
			no qualification	level 1	level 2	level 3
Scotland	full time education	1984	0.8	1.07	7.77	90.3
		1986	0.1	0.9	3.61	95.4
		1988	0.78	0.86	9.48	88.9
		1990	0.24	1.43	5.62	92.7
		1996	0.22	1.61	10.2	88
		1998	0.83	1.39	9.46	88.3
	full time job	1984	11.7	9.44	47.5	31.3
		1986	9.85	8.81	47.5	33.9
		1988	8.05	10.2	48.4	33.4
		1990	9.54	12.7	41.4	36.4
		1996	1.22	8.53	52	38.2
		1998	2.15	6.14	46.3	45.4

Figure 4. Level of highest educational qualifications of 18-19 according to the type of their main activity, country and cohort

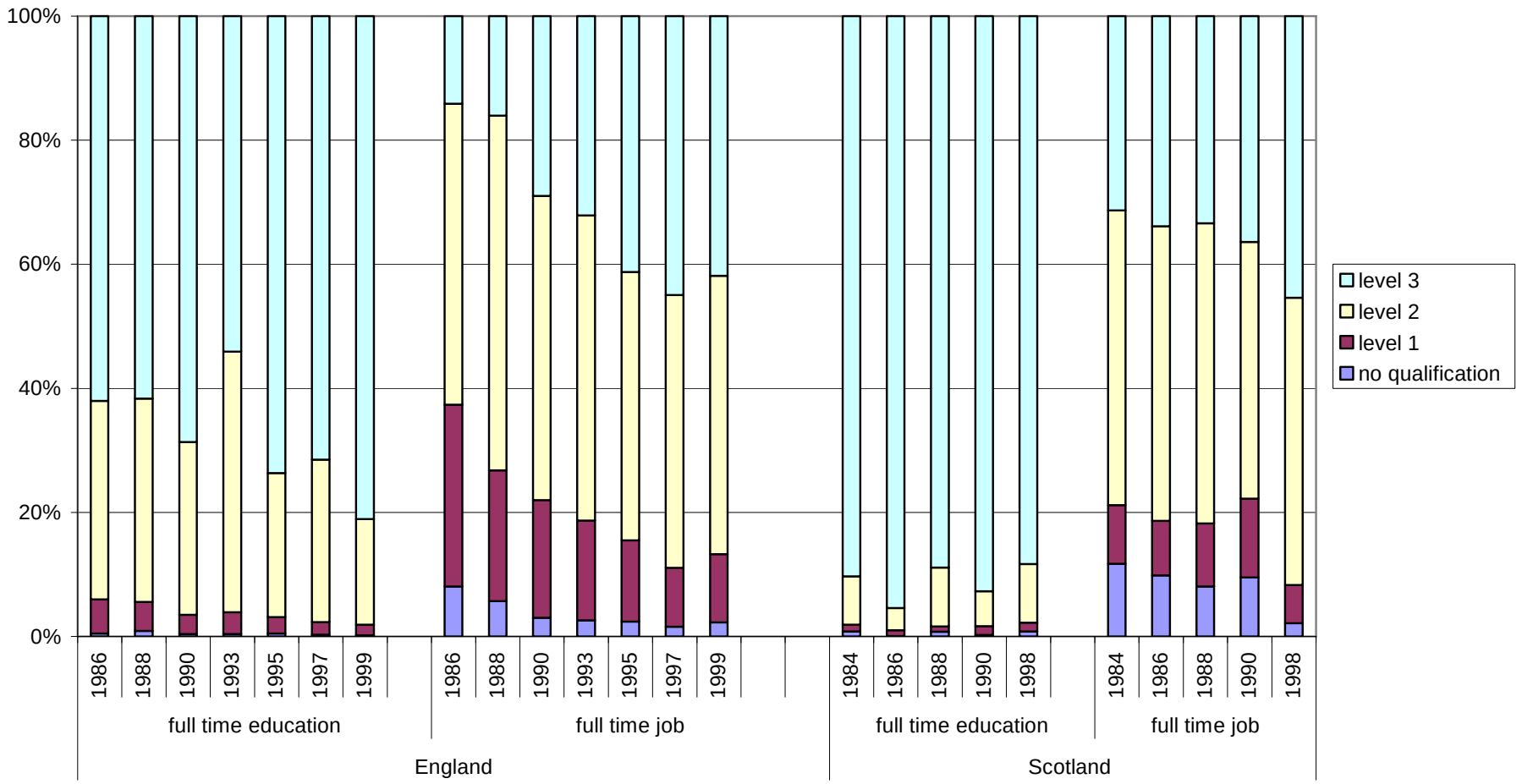

Table related to Figure 5: Occupational distributions of 18-19 year old working full time, according to country and cohort

National system		The 1990 Standard occupational classification (SOC)								
	Cohort	Managerial	Professional	Associate professional and technical	Clerical and secretarial	Craft and related	Personal and protective service	Sales	Plant and Machine	Other occupations
England	1986	4.8	1.25	7.6	38.4	19	8.25	7.64	6.45	6.67
	1988	0.06	2.57	5.32	39.4	19	15.4	7.86	6.18	4.13
	1990	1.77	0.59	4.97	35.2	15.9	17.5	8.68	5.78	9.57
	1993	4.73	0.43	3.88	32.4	14.2	14	9.84	9.23	11.3
	1995	6.91	3.38	6.68	27.9	9.82	18	11.9	6.6	8.86
	1997	7.26	2.58	6.84	28.4	7.54	14.9	16.5	3.7	12.4
	1999	1.9	1.85	3.81	35.1	6.23	16.8	20.4	5.36	8.54
Scotland	1984	2.58	0.69	7.73	32.9	25.4	10.6	7.56	5.78	6.76
	1986	3.21	0.16	9.91	35	21.2	9.86	7.39	6.64	6.64
	1988	2.99	0.32	9.42	34.4	22.6	11.3	6.56	6.37	5.98
	1990	2.19	0.27	3.28	38.4	23	14.2	5.74	6.83	5.87
	1992	1.83	1.47	4.52	28.9	24.7	10.9	8.42	8.91	10.4
	1996	1.22	0.85	6.09	30.7	18.4	14.9	8.89	7.55	11.4
	1998	1.77	0.38	2.69	34.7	4.84	17.2	21.9	7.07	9.45

Figure 5. Occupational distributions of 18-19 year old working full time, according to country and cohort

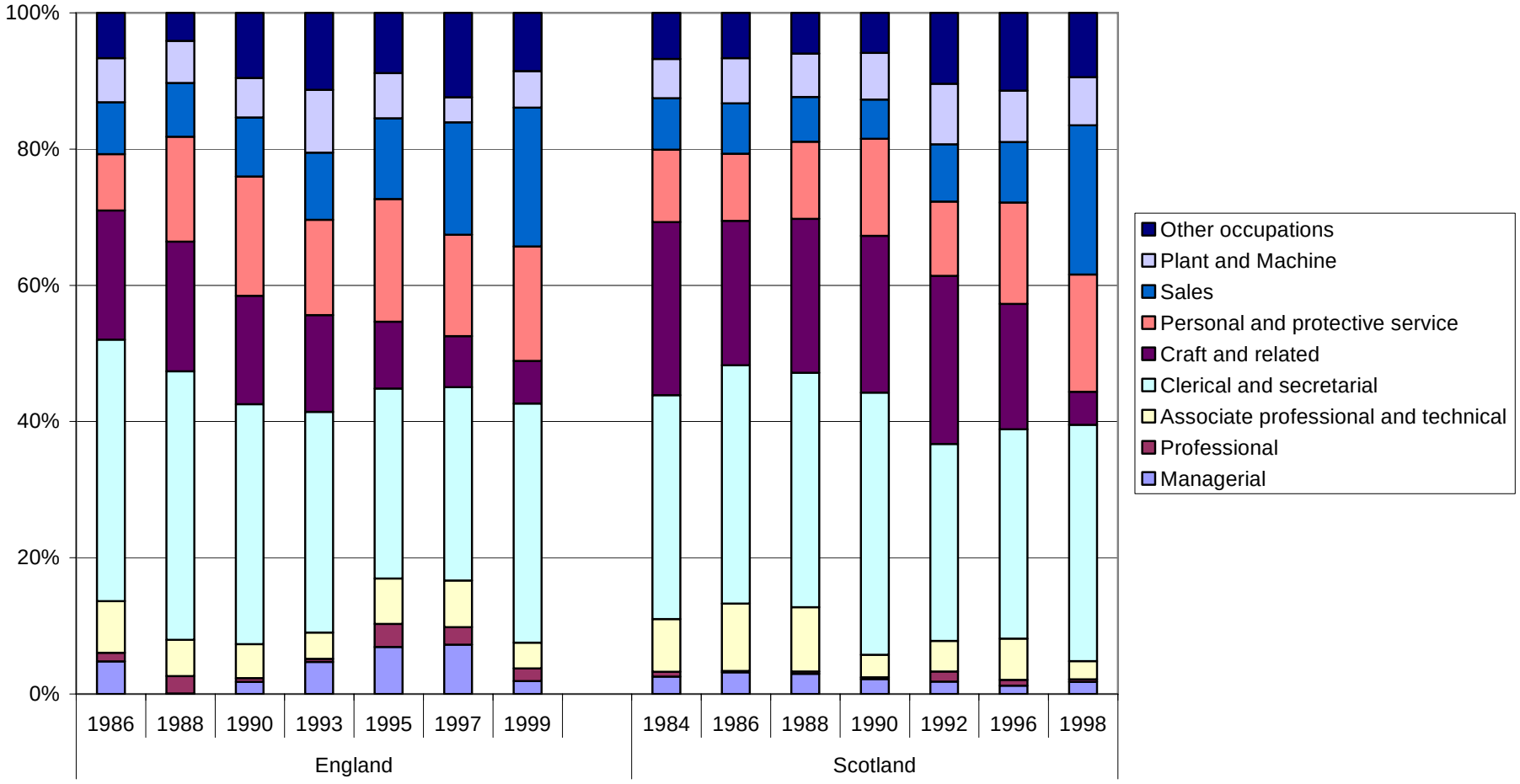

Table 1: OLS Regression. Dependent variable: Occupational attainment at age 18-19 for those who work full time according to the International Index of Occupational Status. Main effects only.

Variables	B	Std. Error
(Constant - reference category: young people with basic secondary qualifications and no full time job or full time education experience at 16-17 in England for the 1998 cohort)	35.2**	.27
Scotland (main effect refers to the 1998 cohort)	-1.4**	.17
Cohort 1984 (Scotland only)	3.4**	.31
Cohort 1986	3.5**	.21
Cohort 1988	5.2**	.22
Cohort 1990	1.3**	.24
Cohort 1995	2.5**	.25
Cohort 1997	2.4**	.32
sex	-1.8**	.13
no secondary qualifications	-2.7**	.17
post-secondary no tertiary qualifications	.8**	.20
full time education experience at 16-17	2.0**	.18
full time job experience at 16-17	1.4**	.19
lambda -selection bias of entry in full time employment at age 18-19	3.6**	.25

N=146114
R=0.09
F=200.4**
**** p>.000**

Table 2: OLS Regression. Dependent variable: Occupational attainment at age 18-19 for those who work full time according to the International Index of Occupational Status. Main effects and interactions with country and cohort variables. Results are presented separately for each country and cohort. Statistically significant effects are in bold.

	1986		1988		1990		1995		1997		1999	
England	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
(Constant - reference category: basic secondary qualifications and no full time job or full time education experience at 16-17)	**38.6**	0.39	**38.8**	0.52	**37.2**	0.65	**37.8**	0.85	**38.0**	1.38	**36.3**	0.81
sex	**-1.71**	0.29	**-2.90**	0.37	**-1.60**	0.45	-0.40	0.49	-0.30	0.68	**-1.00**	0.50
no secondary qualifications	**-2.36**	0.33	**-2.10**	0.45	**-1.70**	0.57	**-5.20**	0.75	**-4.70**	1.16	**-3.30**	0.79
post-secondary no tertiary qualifications	**1.23**	0.56	**-2.00**	0.74	**1.88**	0.61	-0.20	0.65	-0.70	0.91	**1.73**	0.68
full time education experience at 16-17	**1.89**	0.38	**2.57**	0.52	0.75	0.63	1.04	0.68	**2.18**	1.01	**1.72**	0.70
full time job experience at 16-17	**0.99**	0.37	**2.53**	0.48	**1.40**	0.61	0.61	0.85	-0.60	1.28	**1.90**	0.90
lambda -selection bias of entry in full time employment at age 18-19	**3.48**	0.66	**8.16**	0.82	**1.91**	0.72	**4.45**	0.87	**3.56**	1.38	**1.80**	0.85

	1984		1986		1988		1990		1998	
Scotland	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
(Constant - reference category: basic secondary qualifications and no full time job or full time education experience at 16-17)	**37.5**	0.51	**37.3**	0.47	**37.2**	0.56	**36.4**	0.81	**34.9**	0.78
sex	**-2.28**	0.42	**-2.30**	0.41	**-2.60**	0.45	**-2.00**	0.63	**-1.00**	0.53
no secondary qualifications	**-3.07**	0.56	**-2.70**	0.57	**-2.60**	0.63	**-2.70**	0.83	**-2.90**	0.99
post-secondary no tertiary qualifications	**2.55**	0.73	**2.60**	0.67	**1.80**	0.76	0.70	1.01	0.35	0.77
full time education experience at 16-17	**1.98**	0.62	**2.25**	0.59	**2.97**	0.65	**1.78**	0.9	**2.22**	0.75
full time job experience at 16-17	**1.38**	0.59	**1.93**	0.60	**1.66**	0.68	0.28	0.94	**1.87**	0.95
lambda -selection bias of entry in full time employment at age 18-19	**1.33**	0.9	1.11	0.83	**4.57**	0.9	**4.09**	1.02	**2.14**	0.85

N=146114

Figure 6. Over-time trends in occupational attainments of different groups of 18-19 years odl working full time