

Department for Business Innovation & Skills



### **BIS RESEARCH PAPER NUMBER 195a**

Estimation of the labour market returns to qualifications gained in English Further Education: Technical Annex

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# **1. Creation of ILR-WPLS dataset**

In the accompanying BIS Research Paper No. XX, we update the findings from Buscha and Urwin (2013), estimating separately the (i) earnings, (ii) employment probability and (iii) probability of being on active benefits, for those who achieve their highest learning aim whilst studying at an English Further Education Institution (FEI), relative to those who have the same highest learning aim, but do not achieve. This approach to estimation is made possible by the construction of a database linking administrative FE learner information, with benefit and PAYE employment histories. In this first section of the Technical Annex we describe, in more detail, construction of the ILR-WPLS dataset (also see Bibby et al., 2012) and some limitations of the data. In the main body of the report we have already mentioned two key data issues that limit our ability to identify full-time workers and those transitioning to HE. The issues discussed here are considered less problematic for estimation, but are worthy of consideration.

The first step in compiling the data for analysis is the creation of a unique identifier linking an individual's records across the constituent databases and data files. Each constituent data source has its own unique individual identifier which may not be internally unique, and which (before transfer to the project team) may incorrectly ascribe records to the same individual; and conversely not match records correctly to the same individual. We use the 3 identifiers from the ILR, National Benefits Database (CCORCID) and the HMRC person-instance-ID (PID) to construct an over-arching Person-key to link records in the data sources reliably to the same individual.

The identification of distinct ILR learners starts to take place where there is at least one other referencing identifier – here CCORCID and PID (noting that not all individuals have both of these records). We use the three identifiers in a process of 'record chaining' to show the relationships between them, accepting that we have insufficient information to indubitably decide which linkages are correct and which are not. As a consequence, we develop a set of procedures to arbitrate between competing matching possibilities according to circumstances, but without rejecting the possibility of the same individual having more than one CCORCID or PID. These procedures lead to the creation of our Person-Key, which identifies the same individual in the various data sources within our database.

This results in just over 25 million Person-Keys, which reduce to almost 22 million once individuals found only in European Social Fund (ESF) and Adult and Community Learning (ACL) ILR files are disregarded for analysis. Of this latter total, some 0.5 million Person-Keys (2.5%) are associated with more than one PID (and a few with more than one CCORCID). A majority of Person-Keys do not have a CCORCID and although this will be associated with younger FE learners not having been in receipt of benefits when first matched (and never being matched subsequently), some of the absent matches will be related to under-matching as a result of the fields used in the matching routines.

We have confidence that the majority of matches in our database are secure, but there remain undoubted questions over a small minority. For example, just over 30% of Person-Keys do not have either a CCORCID or PID between 2002 and 2012. The vast majority of these will be (predominantly younger) individuals who have an ILR learning spell, but no earnings or benefit records as yet. However, there is no way of distinguish learners under-

matched to WPLS from those who are genuinely not contained within it, and in addition we have no information which would tell us how many duplicate sets of ILR identifiers still remain amongst this group. Omission of unmatched learners from our analysis would happen anyway, as they have no earnings or employment observations. However, if a minority of this group are essentially 'missing' earnings observations, this could bring in an element of sample selection bias. However, the extent to which this impacts any estimates depends on the (unobservable) distribution of missing observations across treated and control groups. We would argue that the use of an achiever V non-achiever framework makes this less of a problem, as both our treatment and control groups select into treatment and, if anything, we would expect a higher proportion of these missing (likely lower) earners to be amongst the non-achievers. If anything their exclusion implies a downward bias in our estimates. A similar argument applies when we consider the fact that our data do not include all workers with income below the tax threshold (the fact that we do not capture returns of the self-employed is a limitation of most studies in this area of academic study).

The construction of Person-Keys within the database allows us to group overlapping and adjacent learning aims, and to do the same for periods of employment and benefit spells. This makes possible an analysis of any of the 3 activities individually and collectively between any two dates or for any specified time period. From the ILR component, we identify the highest level of study within a learner's aims (if there was more than one) undertaken within a single learning spell (of which there could be more than one), together with its characteristics (such as length of the aim and whether the aim was completed or achieved); creating almost 29 million learning spells (55% at NQF Level 2 or above) for nearly 22 million Person-Keys. From the WPLS component, we create analogous spells for benefit periods, primarily to identify continuous periods (spans) when individuals are in receipt of 'Active' benefits. Partially overlapping periods of JSA, JTA and ESA could extend a continuous Active Benefit span but, unlike learning spells, breaks of more than one day in a continuous spell are treated as a separate benefit span.

Benefit start and end dates are not measured to the day: regular scans of the databases are taken so the accuracy of these dates depends on the frequency of the scans. JSA scans, for example, are taken every 14 days. The employment spells we have created (from P45 data) should be accurate to the day – since employers should in principle know when an employee begins and finishes a period of PAYE employment. However, 34% of spells appear to have start or end dates that are missing or have been assigned an HMRC default.

The data and information available for the project are not sufficient to permit unambiguous procedures to replace missing or default data so that we can calculate the length of employment spells. The volume of default data is such that we necessarily create an extensive decision rule process to, firstly, establish the possible range of start and end dates and, secondly, develop a structure to assign specific dates within the ranges. The proportion of learners with imputed start or end dates varies over the 8 years for which we have P45 data, and between the two illustrative dates in the year we choose to interpret what our imputation processes has achieved. The rate for all but the latest three years (tax years 2010, 2011 and 2012) is generally between 3.5% and 5%, and higher in April at the start of the tax year. We observe that rates are higher in April 2008 (9.5%) and January 2009 (7%) following an HMRC reconciliation of P45 and P14 systems during 2008/9.

Clearly there are likely problems that arise from this process of imputation when considering employment spell length, but again the question is whether this is likely to differentially impact treated and control, in ways that we cannot accommodate. The omission of start or end dates in P45 returns is a result of employer behaviour, not the individual. It is quite possible that such employer behaviours are correlated with job characteristics (firm size and sector subject area for example), but it would seem reasonable to suggest that our controls for sector subject area, prior sustained employment and a number of other characteristics should counter this. If we still believe that the distribution of imputed employment spells is not spread evenly across treated and control, then our controlling for prior earnings and employment trends in the diff-in-diff framework should further accommodate this. Readers should refer to Bibby et. al. (2012) for more detail of the process of data matching and manipulation and also see the Appendix of the main report for a Table of descriptive statistics.

Finally, our categories of qualification are as follows:

- In the *Full level 2* category we include all highest aims that are equivalent to 5 GCSEs at grade A\* to C (including apprenticeship qualifications)
- In the *Full level 3* category we include all highest aims that are equivalent to two A levels (including apprenticeship qualifications)
- Level 2 and Level 3 include learners with highest aims at these levels of study, but which fall below the equivalence required to be considered 'Full'.
- Level 4+ and Below Level 2 are self-explanatory.

These '*Level of study*' categories are based on <u>all</u> aims undertaken by a learner within a spell (not just their single highest aim). For instance, an individual undertaking 5 GCSEs (and nothing else) will be categorised as '*Full Level 2*' even though the single highest aim would only be worth 20% of the Level 2 threshold. NVQs will always figure in our Full categories, as will the majority of BTECs, whereas RSA and City & Guilds qualifications could fit into either *Full* or *Other* depending on the level of commitment required of the learner.

# 2. Tables with Standard Errors

This second section of the Technical Annex sets out all Tables from the main report, with all Tables of regression results presented with Standard Errors.

				Linhaatlava	l of Achiev					
		Hignest level of Achievement								
Hignest Aim										
	Null	Below L2	Level 2	Full Level 2	Level 3	Full Level 3	Level 4+			
Below Level 2										
Level 2										
Full Level 2		Х				Z				
Level 3										
Full Level 3										
Level 4+										

#### Table 1: Example of treatment (achievers) and control (non-achievers)

Table 2: Impact of enhancements to basic regression approach: the example of employment probability and earnings premiums for FL2 achievers V non-achievers

	Column A: Old estimate (basic controls)	Column B: New estimate (basic controls)	New estimate (basic controls +IMD)	New estimate (basic controls +IMD+SSA)	New estimate (basic controls +IMD+SSA +Benefit Hist.)	Column C: New estimate (basic controls+IMD +SSA+Benefit and Employment Hist.)
Employment after 3 months	0.087	0.052	0.052	0.052	0.049	0.023
Earnings after one year	0.185	0.174	0.173	0.166	0.149	0.143

	Percentage Log Daily Earnings Premium in Tax Year after Spell End								
					3-5 year				
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average				
Below Level 2	0.021***	0.020***	0.016***	0.020***	0.019				
	(0.002)	(0.002)	(0.002)	(0.002)					
Level 2	0.004*	0.007**	0.013***	0.020***	0.013				
	(0.002)	(0.002)	(0.002)	(0.002)					
Full Level 2	0.143***	0.118***	0.114***	0.107***	0.113				
	(0.002)	(0.002)	(0.002)	(0.002)					
Level 3	-0.005*	0.005	0.038***	0.057***	0.033				
	(0.002)	(0.003)	(0.003)	(0.003)					
Full Level 3	0.063***	0.052***	0.086***	0.118***	0.085				
	(0.002)	(0.003)	(0.003)	(0.002)					
Level 4+	0.089***	0.088***	0.086***	0.077***	0.084				
	(0.003)	(0.004)	(0.004)	(0.004)					

### Table 3: Daily earnings premium of achievers relative to non-achievers

#### Table 4: Raw average daily earnings in year after the end of learning spell

Spoll		Spell Achievement						
Spell	No	Below	Level	Full	Level	Full	Level	
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+	
Below Level 2	40.56	44.18						
Level 2	44.39	37.34	42.76					
Full Level 2	33.52	27.66	29.11	39.78				
Level 3	43.37	34.88	37.45	29.53	45.33			
Full Level 3	32.76	28.52	27.81	28.53	26.16	31.43		
Level 4+	50.10	45.43	44.01	42.44	43.43	35.39	52.27	

## Table 5: Estimated employment probability premium for achievers over non-achievers

	Percentag	e Point Emplo	oyment probab	oility Premium i	n Time Period a	after Spell End
						3-5 year
Achievement	3mths	1yr	3yr	4yr	5yr	average
Below Level 2	0.0007*	0.003***	0.003***	0.003***	0.002***	0.003
	(0.0003)	(0.0003)	(0.0004)	(0.0005)	(0.0005)	
Level 2	0.006***	0.009***	0.010***	0.009***	0.009***	0.009
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Full Level 2	0.023***	0.018***	0.015***	0.017***	0.014***	0.015
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Level 3	0.011***	0.010***	0.011***	0.016***	0.015***	0.014
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Full Level 3	0.048***	0.043***	0.038***	0.043***	0.033***	0.038

Percentage Point Employment probability Premium in Time Period after Spell End								
Achievement	3mths	1vr	3.vr	Avr	5vr	3-5 year		
Achievement	5111115	1 y i	Зуг	туі	Jyi	average		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 4+	0.012***	0.011***	0.012***	0.011***	0.011***	0.011		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			

\*\*\* significant at the 0.1% level; \*\* 1% and \* 5%

### Table 6: Raw employment probabilities one year after spell end date

Spoll		Spell Achievement						
Darticipation	No	Below	Level	Full	Level	Full	Level	
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+	
Below Level 2	0.37	0.41						
Level 2	0.50	0.44	0.54					
Full Level 2	0.59	0.51	0.54	0.68				
Level 3	0.57	0.53	0.56	0.64	0.63			
Full Level 3	0.61	0.59	0.59	0.67	0.57	0.69		
Level 4+	0.71	0.72	0.75	0.78	0.74	0.77	0.76	

## Table 7: Estimated probability of Achievers being on *Active Benefits*, compared to non-achievers

	Percentage Point Probability of Achievers V Non-achievers being on Active Benefits							
						3-5 year		
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average		
Below Level 2	0.009***	0.0003	-0.003***	-0.002***	-0.003***	-0.003		
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)			
Level 2	0.005***	-0.003***	-0.005***	-0.006***	-0.006***	-0.006		
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0005)			
Full Level 2	-0.025***	-0.027***	-0.022***	-0.022***	-0.020***	-0.021		
	(0.0004)	(0.0004)	(0.0005)	(0.0006)	(0.0008)			
Level 3	-0.003***	-0.010***	-0.010***	-0.008***	-0.008***	-0.009		
	(0.0004)	(0.0004)	(0.0005)	(0.0005)	(0.0006)			
Full Level 3	-0.026***	-0.032***	-0.021***	-0.016***	-0.016***	-0.018		
	(0.0005)	(0.0005)	(0.0006)	(0.0007)	(0.0008)			
Level 4+	-0.005***	-0.010***	-0.008***	-0.008***	-0.009***	-0.008		
	(0.0007)	(0.0007)	(0.0008)	(0.0009)	(0.0009)			

\*\*\* significant at the 0.1% level; \*\* 1% and \* 5%

#### Table 8: Raw proportions on Active Benefits one year after the end of learning spell

Spall		Spell Achievement							
Spell	No	Below	Level	Full	Level	Full	Level		
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+		

Spall			Spel	l Achiever	nent		
Darticipation	No	Below	Level	Full	Level	Full	Level
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+
Below Level 2	0.07	0.05					
Level 2	0.06	0.09	0.05				
Full Level 2	0.10	0.17	0.13	0.05			
Level 3	0.04	0.08	0.06	0.12	0.03		
Full Level 3	0.06	0.08	0.08	0.11	0.07	0.03	
Level 4+	0.04	0.05	0.04	0.05	0.04	0.05	0.02

### Table 9: Daily earnings premium of female achievers relative to non-achievers

	Percer	ntage Log Daily E	arnings Premiu	m in Tax Year aft	er Spell End
					3-5 year
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average
Below Level 2	-0.0002	0.0008	-0.005	0.002	-0.001
	(0.002)	(0.003)	(0.003)	(0.003)	
Level 2	-0.004	-0.006*	0.003	0.010**	-0.004
	(0.003)	(0.003)	(0.003)	(0.003)	
Full Level 2	0.120***	0.097***	0.097***	0.087***	0.094
	(0.003)	(0.003)	(0.004)	(0.005)	
Level 3	-0.033***	-0.015***	0.025***	0.048***	0.019
	(0.003)	(0.04)	(0.004)	(0.004)	
Full Level 3	0.045***	0.040***	0.090***	0.122***	0.084
	(0.003)	(0.004)	(0.004)	(0.004)	
Level 4+	0.084***	0.079***	0.075***	0.063***	0.072
	(0.005)	(0.005)	(0.006)	(0.006)	

### Table 10: Daily earnings premium of male achievers relative to non-achievers

	Spell End				
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average
Below Level 2	0.048***	0.046***	0.046***	0.046***	0.046
	(0.003)	(0.003)	(0.003)	(0.003)	
Level 2	0.022***	0.028***	0.030***	0.038***	0.032
	(0.003)	(0.003)	(0.003)	(0.004)	
Full Level 2	0.161***	0.135***	0.129***	0.125***	0.130
	(0.002)	(0.003)	(0.004)	(0.004)	
Level 3	0.028***	0.026***	0.050***	0.063***	0.046
	(0.004)	(0.004)	(0.004)	(0.004)	
Full Level 3	0.088***	0.068***	0.080***	0.113***	0.087
	(0.004)	(0.004)	(0.005)	(0.005)	
Level 4+	0.092***	0.098***	0.100***	0.095***	0.098
	(0.005)	(0.006)	(0.006)	(0.007)	

Spoll	Spell Achievement							
Darticipation	No	Below	Level	Full	Level	Full	Level	
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+	
Below Level 2	35.60	36.33						
Level 2	38.40	33.58	36.84					
Full Level 2	27.83	24.19	25.69	30.60				
Level 3	37.69	31.82	33.97	25.36	37.87			
Full Level 3	29.49	26.75	26.20	25.85	24.54	27.26		
Level 4+	46.04	41.87	40.93	39.23	40.16	34.95	47.74	

## Table 11: Raw average daily earnings one year after the end of learning spell for women

## Table 12: Raw average daily earnings one year after the end of learning spell for men

Spoll		Spell Achievement								
Participation	No	Below	Level	Full	Level	Full	Level			
	achieve	Level 2	2	Level 2	3	Level 3	4+			
Below Level 2	46.69	53.17								
Level 2	52.53	42.86	52.21							
Full Level 2	38.85	30.39	32.70	47.21						
Level 3	50.42	39.64	42.81	32.82	54.86					
Full Level 3	37.08	31.01	29.91	31.64	28.03	37.72				
Level 4+	55.00	50.93	49.44	46.60	48.45	36.01	59.53			

### Table 13: Estimated employment probability premium for female achievers over non-achievers

	Percentage Point Employment probability Premium in Time Period after Spell End							
						3-5 year		
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average		
Below Level 2	0.001**	0.003***	0.004***	0.004***	0.003***	0.004		
	(0.0004)	(0.0005)	(0.0006)	(0.0006)	(0.0006)			
Level 2	0.007***	0.009***	0.011***	0.010***	0.010***	0.010		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Full Level 2	0.027***	0.025***	0.026***	0.026***	0.025***	0.026		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 3	0.010***	0.009***	0.012***	0.018***	0.017***	0.016		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Full Level 3	0.048***	0.046***	0.041***	0.049***	0.040***	0.043		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 4+	0.011***	0.012***	0.013***	0.011***	0.011***	0.012		
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)			

\*\*\* significant at the 0.1% level; \*\* 1% and \* 5%

Percentage Point Employment probability Premium in Time Period after Spell End								
						3-5 year		
Achievement	3mths	1yr	3yr	4yr	5yr	average		
Below Level 2	0.0003	0.003***	0.002**	0.001	0.0002	0.001		
	(0.0004)	(0.0005)	(0.0006)	(0.0007)	(0.0008)			
Level 2	0.006***	0.009***	0.008***	0.007***	0.008***	0.008		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Full Level 2	0.020***	0.011***	0.005***	0.007***	0.002*	0.005		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 3	0.013***	0.011***	0.009***	0.011***	0.010***	0.010		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Full Level 3	0.050***	0.042***	0.035***	0.036***	0.025***	0.032		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 4+	0.015***	0.011***	0.011***	0.012***	0.011***	0.011		
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)			

### Table 14: Estimated employment probability premium for male achievers over non-achievers

### Table 15: Raw employment probabilities one year after spell end date for women

Spoll	Spell Achievement							
Particination	No	Below	Level	Full	Level	Full	Level	
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+	
Below Level 2	0.38	0.40						
Level 2	0.51	0.47	0.55					
Full Level 2	0.59	0.50	0.55	0.70				
Level 3	0.56	0.55	0.57	0.65	0.62			
Full Level 3	0.62	0.59	0.61	0.68	0.59	0.71		
Level 4+	0.71	0.73	0.76	0.79	0.74	0.78	0.77	

### Table 16: Raw employment probabilities one year after spell end date for men

Spoll	Spell Achievement							
Darticipation	No	Below	Level	Full	Level	Full	Level	
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+	
Below Level 2	0.36	0.42						
Level 2	0.49	0.41	0.51					
Full Level 2	0.59	0.52	0.53	0.66				
Level 3	0.58	0.51	0.54	0.63	0.64			
Full Level 3	0.60	0.58	0.57	0.67	0.56	0.67		
Level 4+	0.70	0.72	0.75	0.78	0.74	0.76	0.75	

	er Spell End				
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average
Below Level 2	0.042***	0.053***	0.047***	0.056***	0.052
	(0.005)	(0.006)	(0.006)	(0.007)	
Level 2	0.026***	0.043***	0.049***	0.064***	0.052
	(0.006)	(0.006)	(0.006)	(0.006)	
Full Level 2	0.161***	0.126***	0.098***	0.088***	0.104
	(0.004)	(0.005)	(0.005)	(0.006)	
Level 3	-0.035***	0.010	0.071***	0.099***	0.060
	(0.006)	(0.006)	(0.007)	(0.007)	
Full Level 3	0.068***	0.083***	0.100***	0.122***	0.102
	(0.004)	(0.005)	(0.006)	(0.007)	
Level 4+	0.100***	0.113***	0.124***	0.106***	0.114
	(0.007)	(0.008)	(0.009)	(0.009)	

#### Table 17: Daily earnings premium of 19-24 year old achievers relative to non-achievers

#### Table 18: Daily earnings premium of 25+ year old achievers relative to non-achievers

Percentage Log Daily Earnings Premium in Tax Year after Spell							
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average		
Below Level 2	0.017***	0.017***	0.012***	0.014***	0.014		
	(0.002)	(0.002)	(0.002)	(0.002)			
Level 2	0.005*	0.005*	0.008***	0.011***	0.008		
	(0.002)	(0.002)	(0.002)	(0.003)			
Full Level 2	0.107***	0.085***	0.083***	0.076***	0.081		
	(0.002)	(0.003)	(0.004)	(0.005)			
Level 3	0.007***	0.016***	0.032***	0.040***	0.029		
	(0.003)	(0.003)	(0.003)	(0.003)			
Full Level 3	0.085***	0.087***	0.098***	0.102***	0.096		
	(0.003)	(0.004)	(0.005)	(0.006)			
Level 4+	0.075***	0.071***	0.066***	0.060***	0.066		
	(0.004)	(0.004)	(0.005)	(0.005)			

## Table 19: Estimated employment probability premium of 19-24 year old achievers relative to non-achievers

	Percentag	e Point Emplo	yment probab	ility Premium i	n Time Period a	fter Spell End
						3-5 year
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average
Below Level 2	0.0002	0.003**	0.003**	0.003**	0.003	0.003
	(0.0009)	(0.001)	(0.001)	(0.001)	(0.002)	
Level 2	0.012***	0.014***	0.017***	0.016***	0.016***	0.016
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	

	Percentage Point Employment probability Premium in Time Period after Spell End					
						3-5 year
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average
Full Level 2	0.016***	0.005***	0.0003	0.002	0.004*	0.002
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	
Level 3	0.008***	0.005**	0.015***	0.021***	0.025***	0.020
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	
Full Level 3	0.027***	0.011***	0.009***	0.013***	0.017***	0.013
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	
Level 4+	0.010***	0.006*	0.008**	0.010**	0.012***	0.010
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	

## Table 20: Estimated employment probability premium of 25+ year old achievers relative to non-achievers

	Percentage Point Employment probability Premium in Time Period a					
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average
Below Level 2	-0.0003	0.002***	0.003***	0.004***	0.003***	0.003
	(0.0003)	(0.0004)	(0.0004)	(0.0005)	(0.0005)	
Level 2	0.005***	0.009***	0.010***	0.010***	0.010***	0.010
	(0.0005)	(0.0005)	(0.0006)	(0.0007)	(0.0007)	
Full Level 2	0.014***	0.010***	0.010***	0.014***	0.019***	0.018
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Level 3	0.002**	0.003***	0.005***	0.010***	0.012***	0.009
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Full Level 3	0.017***	0.009***	0.011***	0.020***	0.022***	0.018
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	
Level 4+	0.008***	0.009***	0.010***	0.009***	0.008***	0.009
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	

## Table 21: Estimated probability of 19-24 year old Achievers being on *Active Benefits*, compared to non-achievers

	Percentage Point Probability of Achievers V Non-achievers being on Active Ber							
						3-5 year		
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average		
Below Level 2	0.008***	-0.003**	-0.002*	-0.001	0.0001	-0.001		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 2	0.003**	-0.003**	-0.006***	-0.004***	-0.007***	-0.006		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Full Level 2	-0.041***	-0.035***	-0.023***	-0.022***	-0.017***	-0.021		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Level 3	-0.013***	-0.017***	-0.011***	-0.008***	-0.008***	-0.009		
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)			
Full Level 3	-0.039***	-0.037***	-0.018***	-0.013***	-0.015***	-0.015		

	Percentage	Point Probab	ility of Achieve	rs V Non-achiev	vers being on Ad	tive Benefits
						3-5 year
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Level 4+	-0.005**	-0.011***	-0.011***	-0.009***	-0.011***	-0.010
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	

\*\*\* significant at the 0.1% level; \*\* 1% and \* 5%

### Table 22: Estimated probability of 25+ year old Achievers being on *Active Benefits*, compared to non-achievers

	Percentage	vers being on A	ctive Benefits					
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average		
Below Level 2	0.009***	0.002***	-0.0008**	-0.0008**	-0.002***	-0.001		
	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)			
Level 2	0.006***	-0.001**	-0.003***	-0.004***	-0.004***	-0.004		
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0004)			
Full Level 2	-0.021***	-0.021***	-0.014***	-0.012***	-0.009***	-0.012		
	(0.0005)	(0.0005)	(0.0006)	(0.0007)	(0.0009)			
Level 3	-0.002***	-0.006***	-0.007***	-0.005***	-0.006***	-0.006		
	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0005)			
Full Level 3	-0.020***	-0.020***	-0.011***	-0.009***	-0.009***	-0.010		
	(0.0006)	(0.0006)	(0.0007)	(0.0009)	(0.001)			
Level 4+	-0.005***	-0.009***	-0.007***	-0.007***	-0.008***	-0.007		
	(0.0007)	(0.0007)	(0.0007)	(0.0007)	(0.0008)			

\*\*\* significant at the 0.1% level; \*\* 1% and \* 5%

## Table 23: Daily earnings premium for Achievers v Non-achievers in the *Academic* category of learners

	Percentage Log Daily Earnings Premium in Tax Year after Spell End							
					3-5 year			
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average			
Level 2	-0.009	-0.005	0.027	0.035*	0.019			
	(0.013)	(0.014)	(0.15)	(0.014)				
Full Level 2	0.113***	0.083***	0.154***	0.112***	0.116			
	(0.018)	(0.024)	(0.025)	(0.025)				
Level 3	-0.097***	-0.046***	0.063***	0.119***	0.045			
	(0.006)	(0.006)	(0.061)	(0.006)				
Full Level 3	-0.296***	-0.147***	0.023*	0.135***	0.003			
	(0.009)	(0.009)	(0.010)	(0.010)				

## Table 24: Daily earnings premium for achievers v non-achievers engaged inVocational Class-room Based Learning

	Percentage Log Daily Earnings Premium in Tax Year after Spell End						
					3-5 year		
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average		
Below Level 2	0.017***	0.016***	0.013***	0.017***	0.015		
	(0.002)	(0.002)	(0.002)	(0.002)			
Level 2	0.004*	0.006**	0.009***	0.015***	0.010		
	(0.002)	(0.002)	(0.002)	(0.003)			
Full Level 2	0.109***	0.099***	0.114***	0.097***	0.103		
	(0.004)	(0.005)	(0.006)	(0.007)			
Level 3	0.020***	0.022***	0.030***	0.036***	0.029		
	(0.003)	(0.003)	(0.003)	(0.003)			
Full Level 3	0.019***	0.020***	0.063***	0.091***	0.058		
	(0.005)	(0.005)	(0.006)	(0.006)			
Level 4+	0.084***	0.086***	0.086***	0.075***	0.082		
	(0.004)	(0.004)	(0.004)	(0.005)			

Table 25: Daily earnings premium for achievers v non-achievers engaged inVocational Workplace Based Learning (excluding apprenticeships)

	Percent	age Log Daily Ea	rnings Premium	ı in Tax Year after	Spell End
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average
Below Level 2	0.058***	0.079***	0.080***	0.062***	0.074
	(0.009)	(0.010)	(0.011)	(0.012)	
Level 2	0.030	0.056*	0.042	0.037	0.045
	(0.017)	(0.022)	(0.030)	(0.033)	
Full Level 2	0.130***	0.103***	0.094***	0.092***	0.096
	(0.003)	(0.003)	(0.004)	(0.005)	
Full Level 3	0.114***	0.097***	0.085***	0.089***	0.090
	(0.004)	(0.005)	(0.006)	(0.006)	
Level 4+	0.094***	0.093***	0.087***	0.082***	0.087
	(0.009)	(0.010)	(0.011)	(0.012)	

# Table 26: Estimated employment probability premium for Achievers v Non-achievers in the Academic category of learners

Percentage Point Employment probability Premium in Time Period after						
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average
Level 2	0.010***	0.006*	0.008*	0.010**	0.011**	0.010
	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	
Full Level 2	-0.012**	-0.015***	-0.025***	-0.021**	-0.026***	-0.024
	(0.004)	(0.004)	(0.007)	(0.008)	(0.008)	
Level 3	0.005**	0.006**	0.013***	0.027***	0.030***	0.023
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	
Full Level 3	0.037***	0.032***	0.026***	0.049***	0.048***	0.041
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	

	Percentage Point Employment probability Premium in Time Period after S					
			3-5 year			
Achievement	3mths	1yr	Зуr	4yr	5yr	average
Below Level 2	0.0003	0.002***	0.003***	0.003***	0.002***	0.003
	(0.0003)	(0.0003)	(0.0004)	(0.0005)	(0.0005)	
Level 2	0.005***	0.008***	0.009***	0.009***	0.008***	0.009
	(0.0004)	(0.0005)	(0.0006)	(0.0006)	(0.0007)	
Full Level 2	0.013***	0.016***	0.016***	0.020***	0.020***	0.019
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	
Level 3	0.009***	0.009***	0.008***	0.010***	0.009***	0.009
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Full Level 3	0.052***	0.050***	0.038***	0.040***	0.022***	0.033
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	
Level 4+	0.012***	0.011***	0.012***	0.012***	0.011***	0.012
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	

### Table 27: Estimated employment probability premium for achievers v non-achievers engaged in Vocational Class-room Based Learning

## Table 28: Estimated employment probability premium for achievers v non-achievers engaged in *Vocational Class-room Based Learning* (excluding apprenticeships)

Percentage Point Employment probability Premium in Time Period after Spell End						ter Spell End
Achievement	3mths	1vr	Зvr	4vr	5vr	3-5 year average
Below Level 2	0.010***	0.017***	0.022***	0.014***	0.015***	0.017
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	
Level 2	0.024***	0.031***	0.041***	0.011	0.013	0.022
	(0.003)	(0.005)	(0.006)	(0.009)	(0.011)	
Full Level 2	0.016***	0.007***	0.005***	0.009***	0.011***	0.008
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
Level 3	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	
Full Level 3	0.021***	0.015***	0.017***	0.020***	0.021***	0.019
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	
Level 4+	0.007*	0.004	0.007*	0.008*	0.006	0.007
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)	

### Table 29: Raw employment probabilities one year after spell end date for '*Academic*' qualification category

Spell	Spell Achievement						
Participation	No	Below		Full	Level	Full	
	achieve	Level 2	Level 2	Level 2	3	Level 3	
Level 2	0.51	0.49	0.56				
Full Level 2	0.35	0.38	0.38	0.33			
Level 3	0.51	0.49	0.50	0.61	0.59		
Full Level 3	0.49	0.49	0.53	0.63	0.53	0.60	

 Table 30: Raw employment probabilities one year after spell end date for 'Vocational & Provider' qualification category

Spall		Spell Achievement							
Darticipation	No	Below	Level	Full	Level	Full	Level		
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+		
Below Level 2	0.37	0.40							
Level 2	0.50	0.44	0.53						
Full Level 2	0.47	0.45	0.49	0.52					
Level 3	0.60	0.55	0.59	0.64	0.64				
Full Level 3	0.53	0.55	0.57	0.63	0.62	0.66			
Level 4+	0.70	0.72	0.74	0.78	0.74	0.77	0.76		

## Table 31: Raw employment probabilities one year after spell end date for 'Vocational & WBL' qualification category (excluding apprenticeships)

Spoll	Spell Achievement							
Darticipation	No	Below	Level	Full	Level	Full	Level	
Participation	achieve	Level 2	2	Level 2	3	Level 3	4+	
Below Level 2	0.46	0.52						
Level 2	0.52	0.49	0.61					
Full Level 2	0.70	0.71	0.75	0.74				
Level 3	n/a	n/a	n/a	n/a	n/a			
Full Level 3	0.75	0.78	0.83	0.77	0.78	0.81		
Level 4+	0.75	0.81	0.85	0.81	0.82	0.81	0.80	

### Table 32: Estimated daily earnings premium for apprenticeship achievers v non-achievers

	Percent	Percentage Log Daily Earnings Premium in Tax Year after Spell End					
					3-5 year		
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average		
Full Level 2 apprent.	0.145***	0.120***	0.109***	0.104***	0.111		
	(0.005)	(0.005)	(0.006)	(0.007)			
Full Level 3 apprent.	0.171***	0.162***	0.147***	0.159***	0.156		
	(0.006)	(0.006)	(0.007)	(0.008)			

## Table 33: Raw average daily earnings in year after the end of apprenticeship learning spell

Spell Participation	Spell Achievement					
	No achieve	Level 2	Level 3			
FL 2 apprentice	28.90	34.16				
FL 3 apprentice	34.95	34.97	45.54			

	Return to employment probability in time period after spell end					
						3-5 year
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average
FL 2 apprentice	0.027***	0.019***	0.011***	0.008***	-0.001	0.006
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	
FL 3 apprentice	0.028***	0.011***	0.005*	0.001	0.001	0.002
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	

#### Table 34: Estimated employment probability premium for achievers v nonachievers: apprenticeships

### Table 35: Raw employment probabilities one year after spell end date for apprenticeships

Spell Participation	Spell Achievement				
	No achieve	Level 2	Level 3		
FL 2 apprentice	0.60	0.73			
FL 3 apprentice	0.75	0.81	0.83		

## Table 36: Estimated probability of achievers being on Active Benefits (job-seeking), compared to non-achievers: apprenticeships

Percentage Point Probability of Achievers V Non-achievers being on Active Benefits						
						3-5 year
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average
FL 2 apprentice	-0.032***	-0.031***	-0.026***	-0.025***	-0.023***	-0.025
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	
FL 3 apprentice	-0.026***	-0.022***	-0.017***	-0.020***	-0.019***	-0.019
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	

### Table 37: Proportion of apprentices on *Active Benefits* (job-seeking) one year after learning spell ends

Spell Participation	Spell Achievement				
	No achieve	Level 2	Level 3		
FL 2 apprentice	0.11	0.06			
FL 3 apprentice	0.05	0.07	0.03		

## Table 38: All those with Higher Apprenticeship aim, raw average daily earnings in each year after the end of learning (population size in brackets)

	Spell Achievement				
Tax year after learning		Full			
	No achieve	Level 3	Level 4+		
1 <sup>st</sup> Year	£43.67	£38.18	£45.01		
	(82)	(93)	(716)		
2 <sup>nd</sup> Year	£46.07	£38.71	£53.09		

Tax year after learning	Spell Achievement Full					
	No achieve	Level 3	Level 4+			
	(32)	(14)	(112)			
3 <sup>rd</sup> Year	£43.73	£67.75	£58.76			
	(8)	(2)	(12)			

## Table 39: Returns to daily earnings for L1 and L2 English and Maths achievers [for population of FL 2 and/or FL3 achievers]

	Percenta	Percentage Log Daily Earnings Premium in Tax Year after Spell End							
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average				
FL2 Achievers	0.060***	0.035***	0.048***	0.042***	0.042				
	(0.004)	(0.006)	(0.007)	(0.008)					
FL3 Achievers	-0.002	0.001	0.018***	0.017***	0.012				
	(0.003)	(0.004)	(0.004)	(0.005)					
FL2 or FL3 Achievers	0.021***	0.015***	0.031***	0.027***	0.024				
	(0.003)	(0.003)	(0.004)	(0.004)					

## Table 40: Returns to daily earnings for subgroups of L1 and L2 English and Maths achievers [for population of FL 2 achievers]

	Percentage Log Daily Earnings Premium in Tax Year after Spell End						
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average		
Only Literacy Key Skills	0.029***	0.027**	0.040***	0.039***	0.035		
	(0.007)	(0.008)	(0.009)	(0.010)			
Only Numeracy Key Skills	0.018	0.016	0.016	0.018	0.017		
	(0.010)	(0.014)	(0.016)	(0.019)			
Literacy and Numeracy Key	0.060***	0.047***	0.066***	0.066***	0.060		
Skills	(0.008)	(0.011)	(0.013)	(0.015)			
Only Literacy Certificate	0.035***	0.021	0.039	0.001	0.020		
	(0.010)	(0.016)	(0.025)	(0.037)			
Only Numeracy Certificate	0.030*	0.024	0.027	0.004	0.018		
	(0.013)	(0.022)	(0.033)	(0.048)			
Literacy and Numeracy	0.023	0.068*	0.094*	0.090	0.084		
Certificate	(0.017)	(0.032)	(0.047)	(0.070)			

## Table 41: Returns to daily earnings for subgroups of L1 and L2 English and Maths achievers [for population of FL 3 achievers]

	Percentage Log Daily Earnings Premium in Tax Year after Spell End							
	1 <sup>st</sup> Vear	3 <sup>rd</sup> Voar	1 <sup>th</sup> Vear	5 <sup>th</sup> Vear	3-5 year			
Achievement	1 Teal	5 1641	4 1641	5 Tear	average			

	Percentage Log Daily Earnings Premium in Tax Year after Spell End					
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average	
Only Literacy Key Skills	-0.010*	0.012*	0.020**	0.014*	0.015	
	(0.005)	(0.005)	(0.006)	(0.006)		
Only Numeracy Key Skills	-0.006	0.009	0.026***	0.011	0.015	
	(0.006)	(0.007)	(0.007)	(0.008)		
Literacy and Numeracy Key	0.037***	0.033***	0.044***	0.033***	0.037	
Skills	(0.005)	(0.006)	(0.007)	(0.008)		
Only Literacy Certificate	-0.011	-0.007	0.015	0.022	0.010	
	(0.012)	(0.018)	(0.022)	(0.028)		
Only Numeracy Certificate	-0.049***	0.007	0.055**	0.073**	0.045	
	(0.012)	(0.017)	(0.021)	(0.027)		
Literacy and Numeracy	-0.051*	-0.004	-0.005	0.035	0.009	
Certificate	(0.022)	(0.033)	(0.043)	(0.057)		

## Table 42: Concentrations of Men and Women across Sector Subject Areas, for Full Level 2 (FL2) and Full Level 3 (FL3) qualifications

Proportion of Women FL2	Proportion of Women FL3
86%	86%
1.50%	3.60%
14.40%	4.80%
48%	19%
97%	96%
62%	70%
94%	97%
58%	62%
7%	4%
34%	45%
	Proportion of Women FL2 86% 1.50% 14.40% 48% 97% 62% 94% 58% 7% 34%

## Table 43: Estimated daily earnings premiums for female-dominated Sector SubjectAreas

Adult social care					
		Log Daily Ear	nings in Tax Yea	r after Spell End	
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Average 3-5
Full Level 2	0.185***	0.132***	0.117***	0.099***	0.116
	(0.006)	(0.008)	(0.009)	(0.011)	
Full Level 3	0.130***	0.101***	0.142***	0.173***	0.139
	(0.007)	(0.009)	(0.010)	(0.012)	
Child development	and wellbein	g			
		Log Daily Ear	nings in Tax Yea	r after Spell End	
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Average 3-5
Full Level 2	0.059***	0.060***	0.069***	0.058**	0.062

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Full Level 3	(0.013) 0.135*** (0.008)	(0.016) 0.097*** (0.010)	(0.018) 0.109*** (0.011)	(0.019) 0.115*** (0.012)	0.107		
Hair and beauty	•						
	Log Daily Earnings in Tax Year after Spell End						
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Average 3-5		
Full Level 2	0.096***	0.098***	0.076***	0.058***	0.077		
	(0.011)	(0.012)	(0.014)	(0.015)			
Full Level 3	0.099***	0.087***	0.068**	0.056*	0.070		
	(0.017)	(0.010)	(0.022)	(0.024)			

## Table 44: Estimated daily earnings premiums for male-dominated Sector Subject Areas

Construction									
		Log Daily Earnings in Tax Year after Spell End							
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Average 3-5				
Full Level 2	0.212***	0.178***	0.160***	0.131***	0.156				
	(0.007)	(0.009)	(0.011)	(0.013)					
Full Level 3	0.224***	0.165***	0.155***	0.121***	0.147				
	(0.014)	(0.017)	(0.020)	(0.023)					
Engineering and manufacturing									
		Log Daily Earnings in Tax Year after Spell End							
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Average 3-5				
Full Level 2	0.194***	0.127***	0.117***	0.107***	0.117				
	(0.006)	(0.008)	(0.009)	(0.010)					
Full Level 3	0.229***	0.196***	0.148***	0.136***	0.160				
	(0.010)	(0.012)	(0.014)	(0.015)					
Transportation									
		Log Daily Ear	nings in Tax Yea	r after Spell End					
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	Average 3-5				
Full Level 2	0.150***	0.166***	0.163***	0.169***	0.163				
	(0.009)	(0.011)	(0.013)	(0.015)					
Full Level 3	0.239***	0.203***	0.172***	0.202***	0.192				
	(0.014)	(0.015)	(0.017)	(0.019)					

## Table 45: Estimated daily earnings premiums for Sector Subject Areas that are neither male nor female dominated

#### Information & Communication Technology

	Percentage Log Daily Earnings Premium in Tax Year after Spell End					
					3-5 year	
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average	
Full Level 2	0.077***	0.116***	0.124***	0.125***	0.122	
	(0.006)	(0.009)	(0.012)	(0.017)		
Full Level 3	0.056***	-0.037**	-0.013	0.069***	0.006	

	(0.012)	(0.014)	(0.015)	(0.017)					
Customer service									
	Percent	age Log Daily Ea	nrnings Premium	n in Tax Year afte	r Spell End				
	ct	rd	th	th	3-5 year				
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4" Year	5"'Year	average				
Full Level 2	0.110***	0.093***	0.090***	0.096***	0.093				
	(0.005)	(0.007)	(0.008)	(0.010)					
Full Level 3	0.088***	0.085***	0.083***	0.081***	0.083				
	(0.009)	(0.011)	(0.013)	(0.015)					
Hospitality and Catering									
	Percentage Log Daily Earnings Premium in Tax Year after Spell End								
					3-5 year				
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average				
Full Level 2	0.121***	0.098***	0.120***	0.108***	0.109				
	(0.007)	(0.009)	(0.011)	(0.012)					
Full Level 3	0.093***	0.061***	0.078***	0.069***	0.069				
	(0.011)	(0.013)	(0.014)	(0.016)					
Business studies									
	Percent	age Log Daily Ea	rnings Premium	n in Tax Year afte	r Spell End				
					3-5 year				
Achievement	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average				
Full Level 2	0.114***	0.086***	0.079***	0.061**	0.075				
	(0.008)	(0.011)	(0.015)	(0.022)					
Full Level 3	0.012	-0.015	0.104***	0.199***	0.096				
	(0.014)	(0.017)	(0.020)	(0.021)					

## Table 46: Estimated employment probability premiums for Sectors Subject Areas dominated by women

Adult	social care								
	Percentage Point Employment probability Premium in Time Period after Spell End								
						Average			
Achievement	3mths	1yr	3yr	4yr	5yr	3-5			
Full Level 2	0.045***	0.037***	0.034***	0.035***	0.032***	0.033			
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)				
Full Level 3	0.046***	0.038***	0.038***	0.048***	0.040***	0.042			
	(0.002)	(0.002)	(0.003)	(0.003)	(0.004)				
Child o	Child development and wellbeing								
	Percentage	Point Employn	nent probability	/ Premium in T	ime Period afte	er Spell End			
						Average			
Achievement	3mths	1yr	3yr	4yr	5yr	3-5			
Full Level 2	0.026***	0.026***	0.026***	0.027***	0.037***	0.030			
	(0.003)	(0.004)	(0.005)	(0.005)	(0.006)				
Full Level 3	0.078***	0.073***	0.063***	0.061***	0.053***	0.059			
	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)				
Hair a	nd beauty								

	Percentage Point Employment probability Premium in Time Period after Spell End Average							
Achievement	3mths	1yr	Зуr	4yr	5yr	3-5		
Full Level 2	0.020***	0.021***	0.027***	0.029***	0.020***	0.025		
	(0.003)	(0.003)	(0.004)	(0.004)	(0.005)			
Full Level 3	0.021***	0.024***	0.021**	0.020*	0.012	0.018		
	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)			

## Table 47: Estimated employment probability premiums for male-dominated Sector Subject Areas

Constr	ruction												
	Percentage	Point Employn	nent probability	y Premium in T	ime Period afte	er Spell End							
						Average							
Achievement	3mths	1yr	Зуr	4yr	5yr	3-5							
Full Level 2	0.032***	0.027***	0.022***	0.017***	0.008*	0.016							
	(0.002)	(0.002)	(0.002)	(0.003)	(0.004)								
Full Level 3	0.026***	0.006	-0.007	-0.014*	-0.016*	-0.012							
	(0.004)	(0.005)	(0.006)	(0.006)	(0.007)								
Engine	ering and n	nanufacturin	g										
	Percentage	Percentage Point Employment probability Premium in Time Period after Spell End											
	Aver												
Achievement	3mths	1yr	Зуr	4yr	5yr	3-5							
Full Level 2	0.030***	0.015***	-0.001	-0.004	-0.012***	-0.006							
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)								
Full Level 3	0.062***	0.046***	0.032***	0.030***	0.021***	0.028							
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)								
Transp	portation												
	Percentage	Point Employn	nent probability	y Premium in T	ime Period afte	er Spell End							
						Average							
Achievement	3mths	1yr	Зуr	4yr	5yr	3-5							
Full Level 2	0.018***	0.010***	0.019***	0.039***	0.029***	0.029							
	(0.002)	(0.003)	(0.003)	(0.004)	(0.005)								
Full Level 3	0.029***	-0.001	-0.005	-0.003	-0.016*	-0.008							
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)								

# Table 48: Estimated employment probability premiums for Sector Subject Areas that are neither male nor female dominated

Information & Communication Technology												
Percentage Point Employment probability Premium in Time Period after Spell E												
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	3-5 year average						
Full Level 2	0.003	0.010***	-0.011**	-0.023***	-0.029***	-0.021						
	(0.002)	(0.002)	(0.003)	(0.004)	(0.005)							
Full Level 3	0.052***	0.053***	0.031***	0.033***	0.023***	0.029						
	(0.004)	(0.004)	(0.005)	(0.006)	(0.006)							

Custor												
	Percentage	Point Employm	ent probability	Premium in Ti	ime Period afte	r Spell End 3-5 year						
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average						
Full Level 2	0.003**	-0.005**	-0.007**	-0.002	-0.001	-0.003						
	(0.001)	(0.002)	(0.002)	(0.003)	(0.003)							
Full Level 3	0.0002 -0.008**		-0.011**	-0.008	-0.005	-0.008						
	(0.003)	(0.003)	(0.004)	(0.005)	(0.005)							
Hospit	ality and Ca	tering										
	Percentage	Point Employm	ent probability	Premium in T	ime Period after	r Spell End						
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average						
Full Level 2	0.033***	0.033*** 0.026***		0.025***	0.027***	0.025						
	(0.002)	(0.002)	(0.003)	(0.003)	(0.004)							
Full Level 3	0.038***	0.028***	0.025***	0.023***	0.007	0.018						
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)							
Busine	ess studies											
	Percentage	Point Employm	ent probability	Premium in T	ime Period after	r Spell End						
						3-5 year						
Achievement	3mths	1 <sup>st</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year	5 <sup>th</sup> Year	average						
Full Level 2	0.023***	0.012***	-0.005	-0.010*	-0.017*	-0.011						
	(0.003)	(0.003)	(0.004)	(0.005)	(0.007)							
Full Level 3	0.057***	0.056***	0.053***	0.064***	0.055***	0.057						
	(0.004)	(0.005)	(0.006)	(0.007)	(0.008)							

Customer service

## Table 49: Subjecting our Regression Estimates to Coarsened Exact Matching and Difference-in-differences

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
						CEM-DID	CEM-DiD		CEM-DiD	CEM-DID
	OLS	OLS (fully	DiD	DiD	CEM (no	PT (no	PGR (no	CEM	PT	PGR
	(basic)	specified)	(PT)	(PGR)	earnings)	earnings)	earnings)	(earnings)	(earnings)	(earnings)
NVQ2 Men	22.00	14.86	9.31	6.99	14.81	9.43	7.69	10.93	11.59	11.33
Ν	349309	349309	349309	349309	349309	349309	349309	349309	349309	349309
r2_a	0.014	0.121	0.041	0.008	0.107	0.040	0.007	0.107	0.042	0.008
NVQ2 Women	11.97	11.73	8.85	7.51	12.44	9.18	7.89	9.84	11.36	11.89
Ν	274114	274114	274114	274114	274114	274114	274114	274114	274114	274114
r2_a	0.005	0.109	0.028	0.009	0.106	0.025	0.006	0.106	0.027	0.007
NVQ3 Men	20.97	14.67	8.23	6.83	16.83	9.34	8.46	13.87	11.32	11.04
Ν	87035	87035	87035	87035	87035	87035	87035	87035	87035	87035
r2_a	0.016	0.156	0.138	0.031	0.144	0.135	0.027	0.147	0.138	0.029
NVQ3 Women	11.98	13.29	10.39	9.38	13.30	10.69	9.44	12.4	11.68	12.48
Ν	172305	172305	172305	172305	172305	172305	172305	172305	172305	172305
r2_a	0.005	0.008	0.045	0.012	0.093	0.043	0.009	0.096	0.043	0.010

#### Table 50: Estimated Earnings Premiums Returns for various Achiever (A) and Nonachiever (NA) comparisons

	NVQ1 NA	NVQ1 A	NVQ2 NA	NVQ2 A	NVQ3 NA	NVQ3 A	NVQ4+ NA	NVQ4+ A
NVQ1 NA	1	1	1	/	1	1	1	1
NVQ1 A	Basic: +12.28% All contr +9.01%	1	1	1	1	1	1	1
NVQ2 NA	Basic: +15.63% All contr +11.13%	Basic: +3.35% All contr +2.51%	1	1	1	1	1	1
NVQ2 A	1	Basic: +28.08% All contr +18.09%	Basic: +24.73% All contr +15.97%	1	1	1	1	1
NVQ3 NA	1	1	Basic: +15.77% All contr +17.23%	Basic: -8.96% All contr +2.40%	1	1	1	1
NVQ3 A	1	1	1	Basic: +4.42% All contr +18.79%	Basic: +13.38% All contr +14.65%	1	1	1
NVQ4+ NA	1	1	1	1	Basic: +40.75% All contr +27.69%	Basic: +27.37% All contr +17.23%	1	1
NVQ4+A	1	1	1	1	1	Basic: +34.40% All contr +29.19%	Basic: +7.04% All contr +9.27%	1

## Table 51: Estimated daily earnings premiums for different cohorts of learners whose highest learning aim is Full Level 2 in the relevant year

	1 year	2 year	3 year	4 year	5 year	6 year		
FL2 (cohort 2005)	15.23	13.7	11.86	11.44	11.69	11.04	Non-Ach.	63310
N obs	88719	85498	80723	80914	81935	84076	Achievers	93334
FL2 (cohort 2006)	16.84	14.4	12.62	13.68	12.51	11.62	Non-Ach.	57852
N obs	100690	94617	94194	95109	97497	95633	Achievers	118240
FL2 (cohort 2007)	16.77	13.4	12.9	11.79	10.39	/	Non-Ach.	58074
N obs	102638	101393	101165	103441	100908	/	Achievers	136253
FL2 (cohort 2008)	15.09	12.67	12.36	11.79	/	/	Non-Ach.	80649
N obs	155688	153376	155516	150949	/	/	Achievers	209731
FL2 (cohort 2009)	16.34	14.53	12.68	/	/	/	Non-Ach.	103371
N obs	235092	237628	229170	/	/	/	Achievers	319300
FL2 (cohort 2010)	13.9	11.16	/	/	/	/	Non-Ach.	107870
N obs	337672	323569	/	/	/	/	Achievers	437347
FL2 (cohort 2011)	11.72	/	/	/	/	/	Non-Ach.	108496
N obs	355474	/	/	/	/	/	Achievers	486706

## Table 52: Estimated daily earnings premiums for different cohorts of learners whose highest learning aim is Full Level 3 in the relevant year

	1 year	2 year	3 year	4 year	5 year	6 year		
FL3 (cohort 2005)	1.13	-2.9	3.11	6.66	11.48	12.25	Non-Ach.	46032
N obs	102636	100410	101503	104880	109317	113268	Achievers	126245
FL3 (cohort 2006)	3.71	0.35	3.23	8.84	12.97	12.8	Non-Ach.	45737

Nobs	<b>1 year</b> 125506	<b>2 year</b> 121852	<b>3 year</b> 127612	<b>4 year</b> 135186	<b>5 year</b> 140430	<b>6 year</b> 138589	Achievers	165950
	120000	121002	12/012	100100	110100	100000	, terrievers	100000
FL3 (cohort 2007)	2.8	-1.31	4.7	10.94	13.72	/	Non-Ach.	42503
N obs	141437	142321	152473	161197	159407	/	Achievers	206804
FL3 (cohort 2008)	4.17	2.27	7.09	11.8	/	/	Non-Ach.	43956
N obs	148366	149392	158950	157117	/	/	Achievers	231700
FL3 (cohort 2009)	14.12	9.64	12.97	/	/	/	Non-Ach.	50781
N obs	190403	195797	192290	/	/	/	Achievers	271825
FL3 (cohort 2010)	11.79	7.99	/	/	/	/	Non-Ach.	57804
N obs	251856	240828	/	/	/	/	Achievers	342865
FL3 (cohort 2011)	6.25	/	/	/	/	/	Non-Ach.	65186
N obs	261912	/	/	/	/	/	Achievers	379744

# Table 53: Estimated daily earnings premiums for different cohorts of learners whose highest learning aim is Level 3 Apprenticeship in the relevant year

	1 year	2 year	3 year	4 year	5 year	6 year		
FL3 Appr. (cohort 2005)	14.78	10.34	14.86	13.94	15.59	16.13	Non-Ach.	46032
N obs	12833	12319	11798	11881	12218	12664	Achievers	126245
FL3 Appr. (cohort 2006)	17.35	14.3	15.62	14.73	15.42	15.89	Non-Ach.	45737
N obs	19596	18679	18658	19324	20005	19823	Achievers	165950
FL3 Appr. (cohort 2007)	16.45	16.97	16.98	17.99	15.05	/	Non-Ach.	42503
N obs	24623	24444	25043	26033	25608	/	Achievers	206804
FL3 Appr. (cohort 2008)	13.24	16.45	14.42	12.91	/	/	Non-Ach.	43956
N obs	29716	29910	31046	30487	/	/	Achievers	231700
FL3 Appr. (cohort 2009)	19.74	15.89	17.76	/	/	/	Non-Ach.	50781
N obs	35559	36639	35735	/	/	/	Achievers	271825
FL3 Appr. (cohort 2010)	16.13	12.59	/	/	/	/	Non-Ach.	57804
N obs	50501	48604	/	/	/	/	Achievers	342865
FL3 Appr. (cohort 2011)	13.74	/	/	/	/	/	Non-Ach.	65186
N obs	57934	/	/	/	/	/	Achievers	379744

	Year 1				Year 3					Year 5			
	(0)	(1)	(2)	(9)	(1)	(2)	(9)		(1)	(2)	(9)		
				CEM-DiD			CEM-DID				CEM-DiD		
	empl.	OLS	OLS (fully	PT	OLS	OLS (fully	PT		OLS	OLS (fully	PT		
	prob.	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	_	(basic)	specified)	(earnings)		
NVQ2 Men (<1 month contr)	-2.02	28.96	18.30	18.94	22.56	12.23	12.07		15.32	6.53	13.74		
Ν	79056	44719	44719	44719	6692	6692	6692		491	491	491		
r2_a	0.613	0.007	0.152	0.052	0.009	0.130	0.085	_	0.007	0.252	0.251		
NVQ2 Men (<6 months contr)	-0.81	30.41	21.22	19.12	27.57	17.78	15.69		14.22	4.15	15.25		
Ν	102084	60039	60039	60039	9249	9249	9249		766	766	766		
r2_a	0.006	0.022	0.149	0.045	0.029	0.132	0.071	_	0.011	0.152	0.109		
NVQ2 Men (>6 months contr)	0.21	21.68	13.77	9.59	18.87	11.80	7.56		0.43	-3.36	10.86		
Ν	87602	50168	50168	50168	7245	7245	7245		3226	3226	543		
r2_a	0.596	0.005	0.138	0.045	0.006	0.125	0.081	-	0.001	0.194	0.095		
NVQ2 Men (all contr)	-0.33	27.97	19.52	16.26	25.62	16.66	13.22	_	11.14	1.54	7.64		
Ν	108219	63561	63561	63561	9901	9901	9901		9872	9872	867		
r2_a	0.573	0.023	0.146	0.043	0.028	0.132	0.069		0.006	0.149	0.108		

### Table 54: Coarsened Exact Matching and Difference-in-differences for a population of NVQ2 Men with an expected learning spell duration of less than 6 months

## Table 55: Coarsened Exact Matching and Difference-in-differences for a population of NVQ2 Women with an expected learning spell duration of less than 6 months

	Year 1					Year 3			Year 5			
	(0)	(1)	(2)	(9)	(1)	(2)	(9)	(1)	(2)	(9)		
				CEM-DID			CEM-DID			CEM-DID		
	empl.	OLS	OLS (fully	PT	OLS	OLS (fully	PT	OLS	OLS (fully	PT		
	prob.	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)		
NVQ2 Women (<1 month contr)	-3.48	18.86	23.65	20.15	6.01	9.23	14.72	N/A	N/A	N/A		
Ν	18384	9630	9630	9630	1548	1548	1548	N/A	N/A	N/A		
r2_a	0.631	0.004	0.180	0.036	0.001	0.182	0.072	N/A	N/A	N/A		
NVQ2 Women (<6 months contr)	-1.12	10.79	14.23	12.32	6.30	8.44	9.41	0.47	12.02	7.13		
Ν	30754	17693	17693	17693	3073	3073	3073	435	435	435		
r2_a	0.607	0.003	0.181	0.032	0.002	0.159	0.038	0.001	0.206	0.125		
NVQ2 Women (>6 months contr)	3.10	-4.49	3.82	0.91	-3.70	1.58	3.30	N/A	N/A	N/A		
Ν	23548	12761	12761	12761	2120	2120	2120	N/A	N/A	N/A		
r2_a	0.622	0.001	0.183	0.028	0.001	0.178	0.049	N/A	N/A	N/A		
NVQ2 Women (all contr)	-0.25	8.19	11.03	10.11	5.88	7.01	8.13	5.19	14.88	14.35		
Ν	33835	19691	19691	19691	3472	3472	3472	497	497	497		
r2_a	0.593	0.002	0.173	0.026	0.002	0.157	0.044	0.001	0.191	0.108		

	Year 1				Year 3					Year 5			
	(0)	(1)	(2)	(9)	(1)	(2)	(9)		(1)	(2)	(9)		
				CEM-DID			CEM-DID				CEM-DID		
	empl.	OLS	OLS (fully	PT	OLS	OLS (fully	PT		OLS	OLS (fully	РТ		
	prob.	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	_	(basic)	specified)	(earnings)		
NVQ2 Men (<1 month contr)	-0.01	29.79	17.30	16.34	25.35	15.48	14.78		21.23	15.46	14.25		
Ν	640812	227284	227284	227284	92304	92304	92304		22632	22632	22632		
r2_a	0.567	0.006	0.181	0.094	0.005	0.127	0.130	_	0.005	0.113	0.168		
NVQ2 Men (<6 months contr)	0.81	29.16	17.21	14.81	24.97	15.42	13.67		21.19	14.29	11.95		
Ν	810322	316944	316944	316944	135497	135497	135497		35036	35036	35036		
r2_a	0.561	0.019	0.175	0.077	0.016	0.132	0.109	_	0.016	0.119	0.147		
NVQ2 Men (>6 months contr)	1.15	17.97	10.65	8.44	14.53	8.81	7.73		16.83	11.88	9.09		
Ν	777003	301756	301756	301756	129469	129469	129469		31958	31958	31958		
r2_a	0.553	0.006	0.164	0.080	0.005	0.119	0.115	_	0.007	0.111	0.157		
NVQ2 Men (all contr)	1.11	24.36	14.48	11.81	20.41	12.50	10.79		19.63	13.42	10.43		
Ν	903959	354886	354886	354886	154744	154744	154744		39966	39966	39966		
r2_a	0.546	0.018	0.173	0.072	0.015	0.131	0.106		0.016	0.116	0.144		

### Table 56: Coarsened Exact Matching and Difference-in-differences for a population of NVQ2 Men with an expected learning spell duration between 6 months and 1 year

## Table 57: Coarsened Exact Matching and Difference-in-differences for a populationof NVQ2 Women with an expected duration between 6 months and 1 year

	(0)	(1)	(2)	(9)		(1)	(2)	(9)	(1)	(2)	(9)
				CEM-DID				CEM-DID			CEM-DID
	empl.	OLS	OLS (fully	PT		OLS	OLS (fully	PT	OLS	OLS (fully	PT
	prob.	(basic)	specified)	(earnings)		(basic)	specified)	(earnings)	(basic	specified)	(earnings)
NVQ2 Women (<1 month contr)	0.97	15.95	14.38	14.97	-	10.30	13.57	15.56	9.33	13.17	15.10
Ν	477969	211502	211502	211502		88393	88393	88393	25144	25144	25144
_r2_a	0.511	0.002	0.128	0.046		0.001	0.095	0.064	0.001	0.078	0.084
NVQ2 Women (<6 months contr)	1.49	16.42	14.78	16.50		10.53	12.44	14.31	8.50	12.10	16.99
Ν	625676	290537	290537	290537		126349	126349	126349	37818	37818	37818
_r2_a	0.511	0.007	0.121	0.044		0.004	0.093	0.061	0.003	0.077	0.086
NVQ2 Women (>6 months contr)	2.63	12.01	11.74	11.95		5.61	8.81	9.51	6.90	9.37	7.63
Ν	581593	266911	266911	266911		115914	115914	115914	33421	33421	33421
r2_a	0.498	0.003	0.122	0.041		0.001	0.093	0.059	0.001	0.078	0.078
NVQ2 Women (all contr)	1.97	14.88	13.46	14.35		8.82	10.79	12.22	8.24	10.98	13.10
Ν	706851	327359	327359	327359		146156	146156	146156	43653	43653	43653
r2_a	0.499	0.008	0.121	0.041		0.003	0.009	0.058	0.003	0.078	0.079

	Year 1					Year 3			Year 5			
	(0)	(1)	(2)	(9)	(1)	(2)	(9)		(1)	(2)	(9)	
				CEM-DID			CEM-DID				CEM-DID	
	empl.	OLS	OLS (fully	PT	OLS	OLS (fully	PT		OLS	OLS (fully	PT	
	prob.	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	_	(basic)	specified)	(earnings)	
NVQ2 Men (<1 month contr)	12.72	28.55	21.79	39.18	9.17	6.52	29.86		N/A	N/A	N/A	
Ν	34143	2446	2446	2446	1963	1963	1963		N/A	N/A	N/A	
r2_a	0.567	0.007	0.216	0.119	0.001	0.140	0.173	_	N/A	N/A	N/A	
NVQ2 Men (<6 months contr)	7.00	37.78	23.29	18.67	34.36	22.70	19.37		27.82	16.26	17.10	
Ν	70156	16742	16742	16742	14494	14494	14494		5502	5502	5502	
r2_a	0.382	0.029	0.197	0.122	0.026	0.133	0.162	_	0.022	0.138	0.189	
NVQ2 Men (>6 months contr)	3.85	21.40	15.11	14.19	16.91	12.46	12.87		14.81	7.83	2.01	
Ν	80094	21415	21415	21415	18364	18364	18364		6776	6776	6776	
r2_a	0.367	0.012	0.200	0.128	0.135	0.135	0.170	-	0.006	0.157	0.203	
NVQ2 Men (all contr)	4.91	29.04	18.01	14.68	24.86	16.50	14.33		22.17	11.95	4.86	
Ν	90945	25289	25289	25289	21735	21735	21735		8343	8343	8343	
r2_a	0.376	0.028	0.204	0.116	0.021	0.141	0.155		0.019	0.153	0.187	

### Table 58: Coarsened Exact Matching and Difference-in-differences for a population of NVQ2 Men with an expected duration of over 1 year

## Table 59: Coarsened Exact Matching and Difference-in-differences for a populationof NVQ2 Women with an expected duration of over 1 year

_	(0)	(1)	(2)	(9)	(1)	(2)	(9)	(1)	(2)	(9)
				CEM-DiD			CEM-DID			CEM-DiD
	empl.	OLS	OLS (fully	PT	OLS	OLS (fully	PT	OLS	OLS (fully	PT
	prob.	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)
NVQ2 Women (<1 month contr)	13.29	26.52	21.25	33.68	17.80	11.13	28.66	19.83	12.24	23.73
Ν	108293	11243	11243	11243	7161	7161	7161	2708	2708	2708
r2_a	0.231	0.005	0.103	0.140	0.003	0.104	0.157	0.004	0.117	0.166
NVQ2 Women (<6 months contr)	10.49	22.59	14.63	20.77	17.94	10.70	18.86	19.53	9.88	16.70
Ν	152005	24815	24815	24815	18387	18387	18387	7780	7780	7780
r2_a	0.285	0.012	0.133	0.114	0.009	0.122	0.129	0.013	0.128	0.129
NVQ2 Women (>6 months contr)	5.22	8.77	6.06	9.33	7.84	5.37	8.81	8.87	5.36	7.78
Ν	150967	25225	25225	25225	18645	18645	18645	7486	7486	7486
r2_a	0.264	0.002	0.141	0.116	0.002	0.132	0.130	0.003	0.123	0.120
NVQ2 Women (all contr)	7.96	16.53	9.94	14.76	13.45	7.66	12.89	15.28	7.60	13.30
Ν	183415	31701	31701	31701	23881	23881	23881	10160	10160	10160
r2_a	0.289	0.009	0.136	0.106	0.007	0.127	0.119	0.010	0.122	0.117

Table 60: Coarsened Exa	act Matching and Difference-in-differences for a population
of NVQ3 Men with an ex	pected duration of less than 1 year

	Year 1						Year 3		Year 5			
_	(0)	(1)	(2)	(9)		(1)	(2)	(9)	(1)	(2)	(9)	
				CEM-DiD				CEM-DID			CEM-DID	
	empl.	OLS	OLS (fully	РТ		OLS	OLS (fully	РТ	OLS	OLS (fully	РТ	
	prob.	(basic)	specified)	(earnings)		(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	
NVQ2 Men (<1 month contr)	-2.35	23.83	16.62	13.13		29.33	24.23	21.05	N/A	N/A	N/A	
Ν	31055	12196	12196	12196		1963	1963	1569	N/A	N/A	N/A	
r2_a	0.501	0.008	0.218	0.142		0.029	0.196	0.179	N/A	N/A	N/A	
NVQ2 Men (<6 months contr	r) 0.44	22.57	15.23	13.58		27.25	19.02	15.35	N/A	N/A	N/A	
Ν	53199	25849	25849	25849		3553	3553	3553	N/A	N/A	N/A	
r2_a	0.518	0.016	0.176	0.123		0.038	0.162	0.176	N/A	N/A	N/A	
NVQ2 Men (>6 months conti	r) 1.97	13.05	10.40	9.10		21.89	11.51	4.79	N/A	N/A	N/A	
Ν	48374	22373	22373	22373		2697	2697	2697	N/A	N/A	N/A	
r2_a	0.502	0.004	0.166	0.120		0.013	0.158	0.145	N/A	N/A	N/A	
NVQ2 Men (all contr)	0.94	18.66	13.29	11.73		26.34	17.44	15.57	N/A	N/A	N/A	
Ν	62476	31113	31113	31113		4360	4360	4360	N/A	N/A	N/A	
r2_a	0.505	0.014	0.164	0.113		0.037	0.154	0.169	N/A	N/A	N/A	

## Table 61: Coarsened Exact Matching and Difference-in-differences for a population of NVQ3 Women with an expected duration of less than 1 year

	(0)	(1)	(2)	(9)		(1)	(2)	(9)	(1)	(2)	(9)
				CEM-DiD				CEM-DID			CEM-DiD
	empl.	OLS	OLS (fully	PT		OLS	OLS (fully	PT	OLS	OLS (fully	PT
	prob.	(basic)	specified)	(earnings)		(basic)	specified)	(earnings)	(basic)	specified)	(earnings)
NVQ2 Women (<1 month contr)	2.73	6.62	11.20	13.42		18.71	11.00	15.49	N/A	N/A	N/A
Ν	72340	27877	27877	27877		2732	2732	2732	N/A	N/A	N/A
r2_a	0.367	0.001	0.285	0.137	_	0.014	0.184	0.152	N/A	N/A	N/A
NVQ2 Women (<6 months contr)	1.73	6.55	11.69	14.54		15.68	11.08	18.91	17.74	10.85	13.81
Ν	104103	48052	48052	48052		5919	5919	5919	1172	1172	1172
r2_a	0.390	0.001	0.216	0.106		0.014	0.135	0.111	0.017	0.112	0.076
NVQ2 Women (>6 months contr)	1.88	1.42	7.72	7.48		11.58	9.60	7.73	N/A	N/A	N/A
Ν	99177	45087	45087	45087		4204	4204	4204	N/A	N/A	N/A
r2_a	0.383	0.001	0.226	0.109	_	0.002	0.150	0.113	N/A	N/A	N/A
NVQ2 Women (all contr)	1.81	4.08	9.41	11.95		14.22	9.85	15.06	14.70	10.24	9.39
Ν	118075	55793	55793	55793		7075	7075	7075	1497	1497	1497
r2_a	0.393	0.001	0.199	0.094		0.012	0.125	0.101	0.011	0.102	0.087

	Year 1						Year 3		Year 5			
	(0)	(1)	(2)	(9)		(1)	(2)	(9)	(1)	(2)	(9)	
	a			CEM-DiD				CEM-DID			CEM-DiD	
	empi	OLS	OLS (fully	PT		OLS	OLS (fully	PT	OLS	OLS (fully	PT	
	nrah	(basic)	specified)	(earnings)		(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	
NVQ2 Men (<1 month contr	) 10.31	32.57	22.39	19.42		29.93	21.15	21.30	25.94	16.88	20.46	
Ν	146204	30030	30030	30030		12076	12076	12076	2814	2814	2814	
r2_a	0.218	0.008	0.182	0.259		0.011	0.151	0.253	0.014	0.160	0.189	
NVQ2 Men (<6 months cont	r) 6.70	29.84	21.73	24.19		28.96	21.82	24.34	24.52	18.04	15.45	
Ν	213696	64182	64182	64182		28902	28902	28902	8249	8249	8249	
r2_a	0.255	0.022	0.177	0.216		0.028	0.150	0.220	0.030	0.141	0.175	
NVQ2 Men (>6 months cont	r) 4.34	19.33	16.39	18.58		19.93	16.59	16.67	17.16	14.07	8.21	
Ν	234811	72163	72163	72163		33187	33187	33187	9658	9658	9658	
r2_a	0.250	0.011	0.164	0.203		0.016	0.132	0.210	0.017	0.123	0.189	
NVQ2 Men (all contr)	5.06	24.06	18.81	20.92		24.05	18.97	19.73	21.08	3 15.88	11.10	
Ν	259648	82295	82295	82295		38870	38870	38870	1211	2 12112	12112	
r2_a	0.261	0.023	0.167	0.192		0.028	0.141	0.197	0.028	0.128	0.167	

### Table 62: Coarsened Exact Matching and Difference-in-differences for a population of NVQ3 Men with an expected duration of over 1 year

## Table 63: Coarsened Exact Matching and Difference-in-differences for a population of NVQ3 Women with an expected duration of over 1 year

	(0)	(1)	(2)	(9)	(1)	(2)	(9)	(1)	(2)	(9)
				CEM-DID			CEM-DiD			CEM-DID
	empl.	OLS	OLS (fully	РТ	OLS	OLS (fully	PT	OLS	OLS (fully	PT
	prob.	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)	(basic)	specified)	(earnings)
NVQ2 Women (<1 month contr)	4.02	14.89	19.81	23.23	12.15	17.40	18.07	9.25	16.86	26.63
Ν	285920	95089	95089	95089	41344	41344	41344	12556	12556	12556
r2_a	0.368	0.001	0.068	0.069	0.001	0.065	0.088	0.001	0.073	0.086
NVQ2 Women (<6 months contr)	2.88	17.84	19.42	22.64	14.61	16.00	16.66	12.98	14.93	14.48
Ν	377003	144399	144399	144399	72871	72871	72871	24102	24102	24102
r2_a	0.384	0.006	0.089	0.073	0.005	0.082	0.091	0.005	0.071	0.085
NVQ2 Women (>6 months contr)	3.20	10.25	13.22	15.65	8.71	11.24	12.82	11.26	13.71	11.15
Ν	403133	155835	155835	155835	80698	80698	80698	26689	26689	26689
r2_a	0.378	0.003	0.088	0.068	0.002	0.079	0.086	0.004	0.072	0.076
NVQ2 Women (all contr)	3.04	14.04	15.50	18.43	11.66	12.88	14.17	12.31	13.66	12.10
Ν	442674	173509	173509	173509	91326	91326	91326	31121	31121	31121
r2_a	0.388	0.007	0.091	0.070	0.005	0.081	0.084	0.007	0.072	0.075

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