

Student engagement and graduate level employability: An empirical investigation into the impact of a work placement year.

Abstract

This study investigates whether employment at a graduate level is related to the completion of a work placement year. A number of control variables are included in the analysis namely degree subject discipline; the regional location of study, total student tariff points at degree entry; gender, degree classification, disability, the socio-economic status of parents and the nature of pre-university education. The contention is that these control variables may reflect the individual difference dimensions referred to by Moores and Reddy (2011).

The results of the study provide robust and rigorous empirical evidence that student engagement in a placement year is significantly related to both general employment and perhaps more importantly graduate level employment. Further, total tariff points on entry and degree classification are statistically significant with regard to predicting graduate level employment. All of the other control variables investigated have no significant influence on graduate level employment.

Keywords: Student engagement, work placement, graduate employability.

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INTRODUCTION

In the recent White paper (2011) *Higher Education: Students at the Heart of the System* the Government affirms that students should expect to receive excellent teaching. One of the dimensions identified by Gibbs (2010) of a high quality learning experience is the levels of student effort and engagement. It is argued that the reforms contained in the White paper (section 2.7, page 27) *will "...restore teaching to its proper position, at the centre of every higher education institution's mission"*.

The first reform outlined is the introduction of a Key Information Set (KIS) following the findings of research commissioned by the Higher Education Funding Council for England (HEFCE), by the end of September 2012 all universities and colleges will be required to publish a KIS on their web-site for all undergraduate degrees (of more than one year's duration). Graduate level employment statistics will form part of this set. Whilst such statistics are currently available (Higher Education Statistics Agency, HESA, and unistats.direct.gov.uk) it is likely the introduction of the KIS will draw considerable attention to this area and increasingly sixth form students, parents, school principals, career teachers and career officers will be assessing a university's performance as measured against criteria such as graduate level employment when completing their UCAS applications.

Graduate level employability is relatively easily measured (see Elias and Purcell 2004), measuring student engagement is much more problematic. Kuh et al (2007) promulgate a rather broad definition as the extent to which students are engaging in activities that higher education research has shown to be linked with high-quality learning outcomes. There is certainly currently quite a substantive and growing body

of work which suggests that the taking of a work placement (or internship) year is associated with better final year degree performance (see, for example, Surridge, 2008, Green, 2011, and Mansfield, 2011).

Coates (2007) provides a more detailed consideration of engagement which encompasses five engagement scales, namely; active and collaborative learning; participation in challenging academic activities; formative communication with academic staff; involvement in enriching educational experiences; feeling legitimated and supported by university learning communities. This framework has been translated to form the basis of the National Survey of Student Engagement (NSSE), which is an annual survey of higher educational institutions in the United States and Canada. A sixth aspect of engagement has been introduced by the Australasian Survey of Student Engagement (AUSSE) namely work-integrated learning (the integration of employment-focused work experience into study).

Students' views at the University of Ulster do provide an insight into the issues of interest. A survey of final year students across a number of undergraduate degrees (17 undergraduate degrees, response rate 17.4%) conducted in week 11 of the second semester was undertaken in 2010. A few of the 72 questions asked related specifically to students' perceptions on the relationship between employability, student engagement in a work placement and degree classification. The results are reported in table 1.

INSERT TABLE 1

Students' views on the importance of degree classification, work experience and engaging in a one year work placement year are relatively unambiguous with regard to indicating agreement or disagreement to relatively straight forward statements. However, when a value judgment is required in terms of ranking the importance of work experience and degree classification with regard to future employment, the student response becomes much less clearly defined. This reflects the fact that students' need a more informed framework on the relationship between employability, degree classification and student engagement in a work placement year.

There is some evidence on the relationship between work placement and employment. In an early study, Bowes and Harvey (1999) investigate the impact of a sandwich year on employment using HESA national statistics. Essentially any form of full-time employment, however is considered as the matter of interest. It is arguable that the matter of more interest is whether successful students are employed in posts at a graduate level. The results of the study however, support the contention that (page 3)“.....graduates who undertook a sandwich placement as part of their course of study are more likely to secure full-time paid employment within six months of graduating than graduates from full-time courses.” Similarly, the HEFCE (2009, page 28) report finds that 88% of graduates from 2006/2007 who had taken a work placement year were employed, compared with 81% of all graduates. Although, as with Bowes and Harvey (1999) there is no distinction between graduate level and other employment nor is there any consideration of other factors which may impinge upon graduate employment.

The most recent research study which does employ the Elias and Purcell (2004) distinction with regard to the nature of graduate employment, by Moores and Reddy (2011) suggests that, *“...placement programme graduates across the university (Aston University) are significantly more likely to be (1) in work, and (2) in graduate level jobs.”*

The Moores and Reddy (2011) study makes a significant contribution to the literature in that both graduate and non-graduate employment are separated, tests of statistical significance are performed using non-parametric analysis, plus the impact of degree classification is explored. However as noted by the authors, *“...the possibility that pre-existing differences between placement and non-placement students on one or more individual difference dimensions may account for some or all of the benefits.”*

This study investigates whether employment at a graduate level is related to the completion of a work placement year, adopting both non-parametric tests and binary logistic regression and data relating to a maximum of 651 students at the University of Ulster. A number of control variables are included in the analysis namely degree subject discipline; the regional location of study, total student tariff points at degree entry; gender, degree classification, disability, the socio-economic status of parents and the nature of pre-university education. The contention is that these control variables may reflect the individual difference dimensions referred to by Moores and Reddy (2011).

The results of the study provide empirical evidence that student engagement in a placement year is significantly related to graduate level employment. Further, total tariff points on entry and degree classification are statistically significant.

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TABLE 1: Placement, employability and Degree Classification

STATEMENT	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean Response	Median Response	Mode Response	Number of Respondents
1. I believe that any paid employment, whether part-time or full-time, is important in securing full-time employment on graduation?	50.3	37.6	10.5	4.2	1.4	Agree	Strongly Agree	Strongly Agree	165
2. I believe that my degree classification is important in obtaining future full-time employment.	49.7	36.4	10.9	2.4	0.6	Agree	Agree	Strongly Agree	165
3. I believe that taking a placement year is important in obtaining future full-time employment.	47.9	29.7	11.5	9.1	1.8	Agree	Agree	Strongly Agree	165
4. I believe that my degree classification is more important than work experience in obtaining future full-time employment.	23.9	29.4	25.2	19.6	1.8	Agree	Agree	Agree	163
5. I believe that my degree classification is more important than taking a placement year in obtaining future full-time employment.	11.0	26.2	29.9	28.0	4.9	Neutral	Neutral	Neutral	164
6. Part-time employment gives me all the work experience I need to secure a job on graduation.	6.1	12.7	25.5	35.2	20.6	Disagree	Disagree	Disagree	165

It should be noted that 106 of the respondents had actually completed a placement year.

TABLE 2: Descriptive statistics for the sample under study
GENERAL STATISTICS

Destination	DLHE Respondents (%)	DIS (%)	Average Tariff Points	Average Final year Mark (%)	Disability (%)	Number
Graduate employment	32.8	77.1	311.9	63.3	7.0	214
Non-graduate employment	47.5	62.9	288.6	60.4	6.8	309
Further study	11.3	60.8	298.7	63.4	9.6	74
Unemployed	8.4	55.6	283.8	59.8	5.6	54

PRE-UNIVERSITY SCHOOL STATISTICS

Destination	1. Grammar	2. Secondary	3. College	Unidentified	Number
Graduate employment	37.4%	47.2%	8.9%	6.5%	214
Non-graduate employment	29.7%	51.3%	11.0%	8%	309
Further study	44.6%	36.5%	4.1%	14.8%	74
Unemployed	20.4%	63.0%	5.6%	6.0%	54

LOCATION STATISTICS

LOCATION	1. JORDANSTOWN	2. COLERAINE	3. MAGEE
Graduate employment	36.7%	21.4%	30.6%
Non-graduate employment	46.3%	46.4%	52.1%
Further study	9.8%	24.1%	5.0%
Unemployed	7.2%	8.0%	12.4%
Number	417	112	122

SOCIO-ECONOMIC CLASS OF PARENTS

CLASS	Graduate employment	Non-graduate employment	Further study	Unemployed
1. Semi-routine				

occupations	9.8%	11.6%	5.4%	11.1%
2. Small employer & own account	17.8%	12.6%	10.8%	22.2%
3. Lower managerial & professional	23.4%	20.6%	23.0%	16.7%
4. Higher managerial & professional	5.6%	6.5%	12.2%	5.6%
5. Lower supervisory & technical occupation	5.1%	6.5%	8.1%	3.7%
6. Routine occupations	5.6%	10.6%	5.4%	5.6%
7. Intermediate occupations	13.8%	11.0%	12.2%	11.1%
Missing	19.2%	20.6%	23.0%	24.1%
Number	214	309	74	54

SUBJECT AREA

Subject	Graduate employment	Non-graduate employment	Further study	Unemployed	Number
1. Accounting	44.2%	30.2%	16.3%	9.3%	86
2. Business studies	26.2%	56.9%	8.6%	8.3%	313
3. Consumer studies	18.4%	42.1%	36.8%	2.6%	38
4. Economics	30.8%	46.2%	0	23.1%	13
5. Human resource management	52.1%	41.5%	3.8%	1.9%	53
6. Management	30.0%	50.0%	10%	10%	10
7. Marketing	37.7%	40.6%	11.6%	10.1%	138

Total number of respondents from DLHE report 651

Table 3: Non-parametric correlations (Kendall's tau_b)

Variable	Statistics	Subject	LOC	TT	Gender	Y3	DIS	DISAB	SEC	CLAS	SCHC	GE	E
Subject	Cor Coe N	1.00 651											
LOC	Cor Coe N	0.13** 651	1.00 651										
TT	Cor Coe N	-0.04 620	-0.39** 620	1.00 620									
GENDER	Cor Coe N	-0.01 651	-0.00 651	-0.08* 620	1.00 651								
Y3	Cor Coe N	-0.11** 651	0.02 651	0.23** 620	-0.17** 651	1.00 651							
DIS	Cor Coe N	-0.19** 651	-0.05 651	0.02 620	-0.07 651	0.26** 651	1.00 651						
DISAB	Cor Coe N	-0.07* 647	-0.02 647	-0.01 616	-0.01 647	-0.03 647	0.02 647	1.00 651					
SEC	Cor Coe N	-0.06 517	0.00 517	0.05 496	0.04 496	0.01 517	-0.03 517	0.03 515	1.00 647				
CLAS	Cor Coe N	0.10** 651	0.02 651	-0.26** 618	0.16** 651	-0.74** 651	-0.30 651	0.03 647	0.00 517	1.00 651			
SCHC	Cor Coe N	-0.03 595	0.08 595	-0.10** 569	0.05 595	-0.02 595	-0.07 595	0.02 593	-0.09* 491	0.01 595	1.00 585		
GE	Cor Coe N	0.05 523	-0.10* 523	0.17** 497	-0.00 523	0.17** 523	0.15** 523	0.00 520	-0.03 419	-0.20** 523	-0.08 484	1.00 523	
E	Cor Coe N	-0.03 651	-0.11** 651	0.02 620	-0.08* 651	-0.01 651	0.09* 651	-0.02 647	-0.01 517	0.04 651	0.05 595	. 523	1.00 651

**Correlation is significant at the 0.01 level using a two-tailed test.

*Correlation is significant at the 0.05 level using a two-tailed test.

Table 4: Binary logistic regression estimation. Dependent variable any employment

		Variables in the Equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Location	-.369	.144	6.548	1	.010	.692
	Constant	2.073	.265	61.034	1	.000	7.952
Step 2 ^b	Location	-.362	.145	6.259	1	.012	.696
	Degree classification	.432	.195	4.943	1	.026	1.541
	Constant	1.151	.483	5.672	1	.017	3.161
Step 3 ^c	Location	-.328	.145	5.108	1	.024	.720
	Placement year	.637	.281	5.126	1	.024	1.890
	Degree classification	.602	.209	8.286	1	.004	1.826
	Constant	.298	.610	.238	1	.625	1.347

a. Variable(s) entered on step 1: Location.

b. Variable(s) entered on step 2: Degree classification.

c. Variable(s) entered on step 3: Placement year.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	440.613 ^a	.013	.022
2	435.553 ^a	.024	.039
3	430.540 ^b	.034	.056

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

b. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Total number of observations in the estimation is 469.

Table 5: Binary logistic estimation. Dependent variable graduate level employment

		Variables in the Equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Degree classification	-.745	.180	17.116	1	.000	.475
	Constant	1.240	.400	9.603	1	.002	3.455
Step 2 ^b	Total tariff points on entry	.005	.002	6.928	1	.008	1.005
	Degree classification	-.592	.189	9.830	1	.002	.553
	Constant	-.669	.824	.658	1	.417	.512
Step 3 ^c	Total tariff points on entry	.006	.002	8.457	1	.004	1.006
	Placement year	.678	.279	5.905	1	.015	1.970
	Degree classification	-.402	.205	3.853	1	.050	.669
	Constant	-1.794	.954	3.538	1	.060	.166

- a. Variable(s) entered on step 1: Degree classification
- b. Variable(s) entered on step 2: Total tariff points on entry.
- c. Variable(s) entered on step 3: Placement year.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	499.200 ^a	.047	.064
2	492.081 ^a	.065	.087
3	485.966 ^a	.080	.107

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Total number of observations in the estimation is 383.