

# Graduate Market Trends



## In Brief

### Skills shortages force London businesses to recruit from overseas

Businesses in London struggling to meet their skills needs are increasingly looking overseas for both graduates and lower-skilled staff, the CBI ([www.cbi.org.uk](http://www.cbi.org.uk)) and KPMG revealed.

Results from the London Business Survey show that the majority (58%) of firms in the capital are recruiting from overseas to fill gaps. Contrary to the perception that overseas workers often perform low-skilled jobs, 83% of the firms recruiting from overseas are bringing in those with higher, degree-level skills.

According to John Cridland, CBI Deputy Director-General, 'many employers are choosing foreign graduates over British applicants because they are of a higher quality and are more employable. British graduates are competing in the job market with a topslice of talent from overseas universities. To remain attractive to employers UK graduates need better careers advice and stronger employability skills in areas like teamworking and communication.'

### Graduate unemployment fell by more than half three years after graduation

Analysis of data from the first ever HESA Destinations of Leavers from Higher Education (DLHE) Longitudinal Survey reveals that, three and a half years after graduation, only 2% of graduates were unemployed compared with 5% six

months after graduation when they were first surveyed.

The percentage of graduates in full-time paid employment had reached 74% (up from 57% when first surveyed), and 6% of graduates were in part-time paid work only (7% when first surveyed). The median salary of UK-domiciled graduates who were working full-time at the Longitudinal Survey stage was £23,000. Graduates with postgraduate qualifications had the highest median salary (£28,000) followed by first degree graduates (£22,000) and other undergraduates (£20,000).

The report is available at [www.hesa.ac.uk](http://www.hesa.ac.uk).

### Students 'poor at predicting own performance'

First year university students tend to overestimate their scores when faced with specific tests, although females, white and working class students have less inflated views of themselves, according to research on students' academic self-perception (<http://ftp.iza.org/dp3031.pdf>).

The study found that 'working class' students underestimate numeracy performance relative to 'upper class' students and women underestimate relative to men in literacy and numeracy. The gender and class gaps are especially large in numeracy, at around 20% of the average score.

Self-perception, however, is found to have limited impact on the expected probability of success and expected returns amongst the university students in the study.

## Contents

<b>In Brief</b>	<b>1</b>
<b>Editor's notes</b>	<b>2</b>
<b>Articles</b>	<b>3</b>
What Do Graduates Do? 2008 <i>Charlie Ball (HECSU)</i>	3
Recognising the Breadth of Contemporary Graduate Achievement <i>Professor Mantz Yorke (Lancaster University)</i>	6
What Impact Does Higher Education Have on Subsequent Learning? <i>Rachel Brooks (University of Surrey)</i>	8
Higher Education, Careers and the Skills Agenda after Leitch <i>Stephen McNair (National Institute of Adult Continuing Education Centre for Research into the Older Workforce)</i>	10
Prospects Directory Salary & Vacancy Survey <i>Colin Laviton and Pearl Mok (HECSU)</i>	12
SPEED-ing to Success: Career Plans and Destinations of SPEED Graduates <i>Naomi Woodier (University of Derby)</i>	18

continued on page 2

## UK outperforms overseas institutions on careers advice

Careers advice, careers service and work experience are rated more highly by international students at UK universities compared to those overseas, according to research from i-graduate for the Council for Industry and Higher Education (CIHE).

Comparing international students at UK universities and those at overseas institutions, the study found that international students in the UK are more satisfied than their counterparts at overseas institutions with their ability to earn money whilst studying, but less satisfied with their employability and the contacts made for the future. Overseas institutions also score significantly better on integration: meeting host friends and experiencing the host culture.

For more information, see the article 'Does the UK lead the world in international education?' at [www.cihe-uk.com/docs/0711igradUKfwd.pdf](http://www.cihe-uk.com/docs/0711igradUKfwd.pdf).

## No problems of 'over-supply' of graduates...

Concerns about the 'over-supply' and 'over-qualification' of graduates are misplaced, research from the London School of Economics concluded.

Rather, skills mismatch, or inadequate

levels of skills, is found to be more of a problem than over-qualification. The study supports the continuing expansion of higher education, but calls for appropriate policies to provide information and incentives that will direct people into subject areas, such as science and engineering, for which there is relatively high demand in the labour market.

A summary of the research can be found in the Autumn 07 issue of CentrePiece <http://cep.lse.ac.uk/centrepiece/>. The full report is available at [www.oecd.org/dataoecd/55/31/38006954.pdf](http://www.oecd.org/dataoecd/55/31/38006954.pdf).

## ...But 'over-educated' graduates lack management and leadership skills

'Over-educated' graduates, defined as those not being in a graduate job, are not lacking in academic skills, but they failed to develop management and leadership skills whilst at university, according to another report from the London School of Economics.

Graduates who are over-skilled for the job, representing 15% of graduates, are also found to lack 'unobservable characteristics' associated with higher earnings, such as motivation, presentation and punctuality. The wage penalty for these graduates is estimated to be 21%,

almost eradicating the financial benefit of higher education. The research, however, found no evidence that graduates from 'new' universities are at any disadvantage in the labour market.

The report 'Over-education and the Skills of UK Graduates' is available at: <http://cee.lse.ac.uk/cee%20dps/ceedp79.pdf>

## More students opting for career-related term-time job

While bar jobs and shop work still account for a big part of student earnings, over 40% of working students are now opting for more career-orientated or varied employment, according to the Royal Bank of Scotland's (RBS) Student Living Index (RBS press release 12 November 2007).

The study revealed that 41% of students work during term time, and the numbers taking on office-based work has risen by 37% since 2004. Students in Dundee, Birmingham and Sheffield are the most likely to have a job whilst at university, earning an average weekly wage of £113, £110 and £98 respectively. On the other hand, students at Oxford, Durham, St Andrews and Southampton are the least likely to take on term-time employment. Only 15% of students work part-time during the term in Oxford compared with 61% in Dundee.

## Editor's notes

The latest graduate destinations figures, presented in the article 'What Do Graduates Do? 2008', show that UK graduates continue to enjoy low unemployment and positive job prospects. The data for the 2006 graduating cohort six months after graduating showed a slight decrease in unemployment compared with the 2005 cohort. With the recent turmoil in the financial market and talk of a possible recession to come, it would be very interesting to see how those graduating more recently will fare in the job market this coming year, and what effect the economic slowdown has on graduate recruitment.

Regardless of the state of the economy, recruiters will always be faced with the task of deciding how best to go about selecting the suitable candidate for their post. According to Graduate Careers Australia's 2007 *Graduate Outlook Survey*, as reported in the Summer 07 issue of *Graduate Grapevine*, interpersonal and communication skills are rated as the most important selection criteria for recruiting graduates, followed by critical reasoning and analytical skills/problem solving/lateral thinking/technical skills, and the least desirable characteristics are a poor attitude and lack of work ethic. Students and graduates, therefore, would need to demonstrate their personal and other soft skills to employers, and cannot rely solely on their academic achievements. Furthermore, with increasing numbers of students obtaining a 'good' degree, a 2.1 honours degree no longer holds the same currency as a decade ago. Latest figures from the Higher Education Statistics Agency show that 13% of those graduating in 2007 obtained a first class honours award, an increase of one percentage point from 2005/06, and 48% obtained an upper second class honours award, an increase of one percentage point from 2005/06. In this issue of GMT, Professor Mantz Yorke, author of *Grading Student Achievement in Higher Education*, expresses his views about how the current assessment system could be modified to suit employers' needs. See the article on p6.

I hope you will enjoy reading this latest issue of GMT.

*Pearl Mok*

Pearl Mok (Editor)

**Graduate Market Trends**  
is published by The Higher  
Education Careers Services Unit  
Prospects House  
Booth Street East  
Manchester M13 9EP  
t 0161 277 5200 f 0161 277 5210

**Publisher and Editor**  
Pearl Mok e [gmt@prospects.ac.uk](mailto:gmat@prospects.ac.uk)

**Designers**  
Simon Gurnhill/Chris Hicks

**Price**  
£15 (Annual subscription £50)

The Higher Education Careers Services Unit (HECSU) is a registered charity that supports the work of higher education careers services in the UK and the Republic of Ireland and funds major research projects that benefit the higher education careers sector. Its commercial arm, Graduate Prospects, publishes the Prospects series of graduate recruitment and postgraduate study publications and provides online information via the UK's official graduate recruitment site, [Prospects.ac.uk](http://Prospects.ac.uk)

©2008 HECSU



# What Do Graduates Do? 2008

## Summary

Each year, Graduate Prospects/The Higher Education Careers Services Unit (HECSU) and the Association of Graduate Careers Advisory Services (AGCAS) produce *What Do Graduates Do?*, an annual review of graduate first destinations. The publication is designed as a guide for careers advisers, teachers with responsibility for careers guidance, young people considering higher education as an option, and parents to give an overview of the first career steps taken by graduates from a range of degrees. The data comes from the Destinations of Leavers from Higher Education (DLHE) survey, conducted by the Higher Education Statistics Agency (HESA). In this article, **Charlie Ball** from HECSU presents an overview of the main findings from the 2008 edition of *What Do Graduates Do?* This edition looks at those students from the UK who graduated from UK higher education institutions (HEIs) with a first degree, foundation degree or HND in 2006.

### First degree all subjects

263,050 UK-domiciled graduates received undergraduate first degrees from HEIs in the UK, a rise of 2.6% on 2005.<sup>1</sup> The rate of increase in graduate numbers appears

to have stabilised at a moderate level in recent years, and now seems unlikely to increase dramatically without significant changes in educational policy, although there is good reason to expect that the proportion of women getting degrees (57.1% in 2006) will continue to increase.

209,245 graduates replied to HESA's DLHE survey in 2006, the largest sample that has ever been surveyed for this research. 57.8% of respondents were women, similar to the proportion for 2005.

### First destinations

Although the situation as a whole had remained positive, 2005 saw a marginal rise in graduate unemployment overall. A further increase in graduate numbers might have been expected to result in another modest rise, but the unemployment rate fell from 6.2% to 6.0% in 2006 (see Figure 1), the lowest level for six years.<sup>2</sup>

There was little variation in overall graduate destination outcomes between 2005 and 2006, suggesting relative stability in the UK graduate economy. 70% of graduates were working in the UK, or combining work and study, six months after graduation. 13.5% had gone onto study in the UK as their main first activity – 2.8% of whom were studying to be teachers.

### Types of work

146,375 graduates were working in the UK six months after graduating in 2006, of whom 58.9% were women – women being slightly more likely than men to go straight into work.

As in previous years, the health professions remain the most popular for graduates. 13.3% of all UK-domiciled graduates working in the UK were in the health sector (see Table 1). Pre-registration house officers and nursing were two of the most common graduate jobs across the UK, and this is reflected in the importance of health as a graduate occupation.

Management also remains very popular, with almost one in ten graduates, 9.5%, entering management. The most common management job for graduates was in the retail and associated industries.

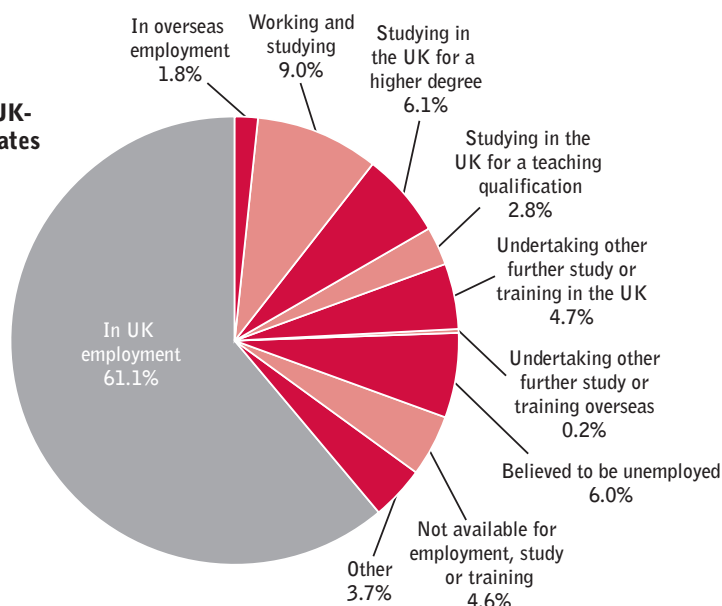
Business and finance roles were also important. 8.1%, or approximately one in twelve graduates, entered roles in business, financial services and associated professions. These jobs were spread over a range of functions, with chartered accountancy the most common option.

The fastest growing group of occupations were in social and welfare, which accounted for 3.7% of graduate employment in 2006. Social work was the most important occupation for graduates in this section.

Overall, employment outcomes for 2006 were very similar to those in 2005, with only small changes in employment percentages in each category. The encouraging news was that in 2006 no falls were seen in the proportion of graduates in any of the categories of jobs covering graduate-level roles.

Furthermore, there was another fall in the proportion of graduates in clerical and secretarial jobs in 2006. This category has fallen from 12.3% of graduate employment in 2004 to 10.4% in 2006. These positions are usually seen as entry-level jobs that allow inexperienced graduates to gain and demonstrate the skills they need to progress in employment, and as a result, graduates pass quickly out of them into jobs that more commonly require graduate-level skills.

**Figure 1. First destinations of UK-domiciled graduates from 2006**



**Table 1. Types of work of UK-domiciled graduates from 2006 who were employed in the UK six months after graduation.**

Marketing, Sales and Advertising Professionals	4.6%
Commercial, Industrial and Public Sector Managers	9.6%
Scientific Research, Analysis & Development Professionals	1.1%
Engineering Professionals	3.2%
Health Professionals and Associate Professionals	13.3%
Education Professionals	6.7%
Business and Financial Professionals and Associate Professionals	8.1%
Information Technology Professionals	4.0%
Arts, Design, Culture and Sports Professionals	5.8%
Legal Professionals	0.8%
Social & Welfare Professionals	3.7%
Other Professionals, Associate Professional and Technical Occupations	5.5%
Numerical Clerks and Cashiers	2.6%
Other Clerical and Secretarial Occupations	10.4%
Retail, Catering, Waiting and Bar Staff	9.0%
Other Occupations	11.5%
Unknown occupations	0.1%

## Subjects

### Sciences

The number of physics graduates rose modestly again in 2006, up to 2,110, meaning that if the trend continues, physics will have more graduates than chemistry in 2007. The unemployment rate for physics graduates also fell from 8.7% in 2006, to 8.2%. However, this still leaves physics graduates more likely to be out of work six months after graduation than any of the other major science subjects, and more likely to be unemployed than graduates from several arts subjects popularly believed to have fewer employment options.

Relatively few physics graduates went into jobs in science – 5.8% – whilst nearly one in five, or 19.4%, went into jobs in business and finance.

As a contrast, a fall in the number of biology graduates was not enough to prevent the unemployment rate for biologists from rising sharply in 2006, up to 7.9% from 7% the previous year. Science remains the most popular employment option for biology graduates, as it does for chemistry graduates. The number of chemistry graduates fell again, this time by 7.1%,

although unemployment rates fell to below the UK graduate average. Over a third of chemistry graduates, 34.3%, went onto further study, largely PhDs – a doctorate being the requirement for many R&D jobs in chemistry. However, there was also a welcome rise in the number of chemistry graduates going into teacher training.

The number of sports science graduates again rose strongly, but unemployment, still relatively low at 4.9%, also went up. Sports and fitness occupations dominate employment for sports scientists, but management and teaching are also significant.

### Maths, IT and computing

The number of mathematics graduates rose very slightly in 2006, but unemployment rates remained below the graduate average at 5.4%. Business and finance roles, already comfortably the most common employment outcome for maths graduates, saw a jump of 4 percentage points in 2006, with 37.9% of working maths graduates going into a role in the sector.

The number of graduates in IT and computing disciplines fell by 4.9% in 2006, down 785 to 15,145. However, the

unemployment rate for IT graduates, already the highest of any major subject, actually increased marginally to 10.4%. 1,225 computing or IT graduates from 2006 were out of work six months after graduating. 43.2% of those who did find work did so in IT jobs, and these generally had salaries higher than the average.

### Engineering

Issues for graduates in IT disciplines were mirrored by those in electrical and electronic engineering. Despite falling numbers, unemployment rose and stood at 9.5% six months after graduating. However, like IT, there were rewards on offer for those who did get work – the majority of graduates in the discipline, 52.4%, were working in the IT or engineering industries. There is evidence of improvement, as the engineering industry took an increased proportion of graduates in the discipline, 31.2% as opposed to 26.8% in 2005.

The situation for mechanical engineers seems to be improving. The proportion of mechanical engineers employed in engineering rose sharply in 2006, up from 54.9% to 61.6%, indicating strengthening demand.

Both architecture and building and civil engineering remain success stories, with low unemployment (both standing at 3.4%) and with the large majority of graduates from both disciplines going onto employment in areas directly relevant to their degrees. Civil engineering in particular saw a sharp rise in graduates going into jobs in engineering, with nearly three quarters, 74.5%, of employed civil engineering graduates being in an engineering job six months after graduating. However, despite this clear demand, there was actually a fall in the number of graduates in the discipline in 2006, and this remains a concern for those industries that have need of civil engineers.

### **Social sciences**

Only geography of the social sciences saw a fall in graduate numbers in 2006, and this is especially noteworthy as geography also saw the largest fall in unemployment rates – down 2.5 percentage points to well below the graduate average at 3.8%. Law and psychology continued their rapid expansion of graduate numbers. However, sociology, politics and economics all saw unemployment rates above the national average, and only economics did not have more graduates than the average in non-graduate jobs six months after graduating.

Nearly half of all working economics graduates, 43.5%, went into roles in business and finance, and this option was also popular with politics, geography and law graduates. All social sciences also saw significant numbers of graduates go into management, with this being the most common graduate employment outcome for graduates in geography, sociology and politics. Psychology graduates, however, were more likely to take up social and welfare positions.

Law students remain the exception from these destinations. Over a third of law graduates, 34.8%, went onto further study, almost all at law school. Of those who did go into the workplace, the most common option (18.1%) was to go into legal roles.

### **Arts and humanities**

Only English saw a fall in graduate numbers in 2006, and generally employment prospects appeared to be slightly more favourable than in 2005.

The unemployment rate for language graduates increased slightly, but it remains the only arts and humanities group to have an unemployment rate after six months lower than the national average, and graduate numbers increased after a period of decline.

The employment rate for media studies graduates remained high, with over three quarters, 75.5%, of graduates working or combining work and study, six months after graduation. One in six, 15.9%, of media studies graduates went to work in the media six months after graduation, but one in ten also went into marketing and sales jobs.

Performing arts (21.1%), fine art (19.6%) and design graduates (36.8%) were all most likely to go into jobs in the creative arts, media and design professions, whilst history graduates and modern language graduates were most likely to enter management, at 11.4% and 12.3% of UK-employed graduates respectively.

Education remains the most popular job area for English graduates, with 10.9% going into these roles, mainly as teachers. Performing arts graduates also went into education in numbers, with 13.3% going into teaching roles, often freelance. Modern languages and history graduates were also in demand from the business and finance industry, with 12.0% and 9.7% respectively of UK-domiciled graduates working in the UK six months after graduating in a business and finance position.

### **Business studies, accountancy and marketing**

Although the number of business studies graduates fell in 2006, the subject remained comfortably the most popular, with one in thirteen first degrees awarded being in a business or management discipline.

There was little change in outcomes for business and management graduates, with business and finance roles (18.6% of working graduates) and management (22.4%) the most common jobs taken up by graduates in this area.

Similarly, the most common jobs for marketing and accountancy graduates were directly related to the subject of study. 30.9% of marketing graduates were in marketing or sales roles six months after graduating, whilst 44.7% of working accountancy graduates were in business or finance roles, largely as accountants.

### **HND and foundation degrees**

2006 saw another rise in the number of foundation degrees awarded, up to 7,915 from 5,090 in 2005. 19.9% of foundation degrees, 1,575, were awarded in academic studies in education, and other popular subjects included design, computer science, management and social work. 31.4% of foundation degree leavers went on to study for an honours degree, and unemployment rates remained extremely low at 2.2%. When combined with HNDs, which are slowly being replaced by foundation degrees, the unemployment rate fell significantly in 2006, down to 3.1% - lower than any first degree subject covered in *What Do Graduates Do?* One in nine HND and foundation degree graduates (11.6%) who went into work, did so in management.

### **Further information**

To access the latest edition of *What Do Graduates Do?* online, go to [www.prospects.ac.uk/links/WDGD](http://www.prospects.ac.uk/links/WDGD)

### **References**

1. *What Do Graduates Do? 2007*, Graduate Prospects and AGCAS, 2007, [www.prospects.ac.uk/cms/ShowPage/p!eaLidbl](http://www.prospects.ac.uk/cms/ShowPage/p!eaLidbl)
2. *What Do Graduates Do? 2002*, Graduate Prospects and AGCAS, 2002, [www.prospects.ac.uk/cms/ShowPage/p!ejkkL](http://www.prospects.ac.uk/cms/ShowPage/p!ejkkL)



## Summary

Many employers nowadays require applicants to have gained an upper second class degree, but the current degree classification system cannot represent the breadth of students' achievements. **Professor Mantz Yorke, Visiting Professor in the Department of Educational Research at Lancaster University and author of *Grading Student Achievement in Higher Education: Signals and Shortcomings***, suggests a way in which the current assessment system could be modified to help recruiters select the most appropriate candidates for their vacancies.

### Degree classification: a dodgy divide

The dividing line between upper and lower second class degrees is of significance to many employers since it can be used in making an initial sift of applicants. However, it is at the point in the scale for classifying honours degrees where it is most difficult, statistically, to make a clean cut. Further, an overall classification can bundle together some very different kinds of achievement: for example, essay writing, numerical capability, competence with information technology, ability to work with others, and so on. So a graduate with a lower second class degree could, for some job opportunities, be superior to one with a better classification because the 'fit' between their achievements and the job and person specifications might be more appropriate.

Gradings for achievements are generally less precise than many believe. A percentage mark, for example, signals a broad level of achievement. It is a *judgement* rather than a measurement. It should not be treated as if it were a property such as length or mass, whose measurements can be added or averaged. Simplistically combining judgements of different kinds of achievement is likely to mislead. This is why a more disaggregated approach to the reporting of student achievement is necessary. The recent report of the Burgess Group, which was charged with reviewing the honours degree classification, has proposed a

# Recognising the Breadth of Contemporary Graduate Achievement

Higher Education Achievement Record (HEAR) which would provide, alongside the honours classification, a more differentiated picture of a graduate's achievements.<sup>1</sup> However, where the classification and HEAR are both provided (as the Burgess Group recommended), the temptation for an employer will be to take the short cut and look first at the classification (and perhaps the institution attended) and only subsequently (if at all) at the HEAR.

There is plenty of evidence that employers, when recruiting graduates, look for a wide range of personal attributes and achievements – the latter not being limited to the academic domain but including what have come to be termed 'soft skills'. Basically, they want graduates who will be effective in the job. Being effective means being able to integrate knowledge, skills and personal qualities in practical situations.

### Employability is complex

The Higher Education for Capability movement which was active during the 1990s promoted such integration when John Stephenson, its Director, argued that capable people had confidence in their ability

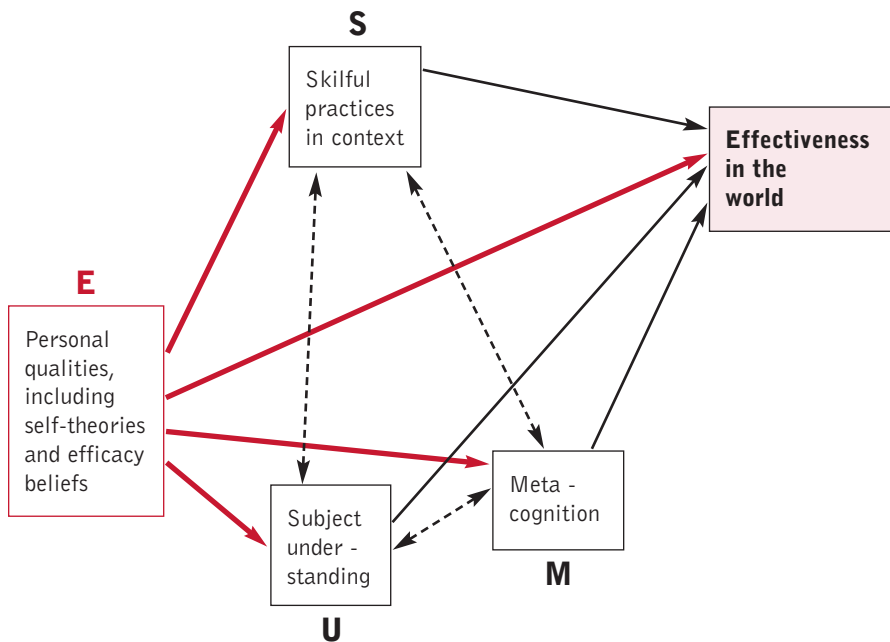
- to take effective and appropriate action;
- to explain what they were seeking to achieve;
- to live and work effectively with others; and
- to continue to learn from their experience.

Such people not only knew about their specialisms, but they also had the confidence to apply their knowledge and skills within varied and changing situations and to continue to develop their specialist knowledge and skill. It is hard to imagine any employer demurring.

More recently, the Enhancing Student Employability Co-ordination Team [ESECT], which brought together a range of parties with an interest in the development of students and the recruitment of graduates, developed the USEM account of employability which owes a lot to the pioneering work of John Stephenson and his colleagues. The USEM account is summarised in Figure 1, and is backed by theory and empirical evidence (details can be found in the series *Learning and Employability* published by the Higher Education Academy and available on its website at [www.heacademy.ac.uk/resources/publications/learningandemployability](http://www.heacademy.ac.uk/resources/publications/learningandemployability)).

The late Peter Knight referred to the work arena (and also to higher education itself) as demanding 'wicked' competences which are 'achievements that cannot be neatly pre-specified, take time to develop and resist measurement-based approaches to assessment'.<sup>2</sup> 'Wicked' competences are essential to a graduate's employability. They may need the duration of a whole programme for their development (perhaps more, if a life-long perspective on learning is taken), and are unlikely to be developed fully in single modules of study. So, an assessment regime that in effect treats modules as self-contained entities may do a disservice to the recognition of a graduate's employability. Adding or averaging module marks to produce an honours degree classification obscures, rather than reveals.

Implicit in Figure 1 is the integration of skills, understandings and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupations. It is this integration that provides a considerable challenge to assessment in higher education. Ticking off achievements



**Figure 1.**  
**The USEM**  
**account of**  
**employability**

against a list of desired skills (an approach favoured by some institutions) is inadequate. Michael Eraut writes, in the context of medical education but clearly with wider relevance:<sup>3</sup>

*“treating [required competences] as separate bundles of knowledge and skills for assessment purposes fails to recognize that complex professional actions require more than several different areas of knowledge and skills. They all have to be integrated together in larger, more complex chunks of behaviour.”*

What thoughts do Knight’s and Eraut’s observations prompt, regarding the connection between assessment and employability?

### Claiming achievements

Students in the UK are expected to undertake personal development planning (PDP) and to build up a portfolio of achievements to which they can refer when applying for jobs. At present, uptake has been patchy, partly because academics and students tend to see this as ‘just another chore’, and because the latter tend to see no direct relationship to learning and assessment. The benefit is seen as slender when compared with the effort required (one student, responding to a survey of the first year experience in the UK wrote: ‘I ... felt the PDP compulsory meetings were a total waste of time – sorry!’).

If, however, students were required to make a *claim* for their award, rather than have the award determined by some computational algorithm, PDP would gain in potency. The requirement would encourage the metacognitive activities of reflection and self-regulation, which are valued by employers. Requiring students to claim for their award would, in effect, ask the student to answer the question:

‘How have you satisfied, through your work, the aims stated for your particular programme of study?’ The multi-dimensionality of employability suggests that students from the same cohort might make quite different cases for their award whilst fulfilling the broad expectations set out for it. For example, one might centre the claim on a developed capacity to relate the disciplinary content to practical situations whereas another might opt to make a case based on high levels of academic achievement. Differentiated information such as this ought to be useful to employers.

The claims-making approach is not limited to students who enter higher education straight from school, since it can be adapted to the needs of older students who bring greater life-experience to their studies.

A student’s claim could be required to consist of not only their record of achievements in curricular components, but also to incorporate evidence from learning experiences such as those generated through work placement. (Where work placements can lead to grades, these grades are usually weighted lightly in the overall assessment.) ‘Wicked’ competences could be more clearly brought into the picture. The preparation of a claim would assist the student in making applications for jobs (as most will want to do), and the institution in preparing supporting references. When the claim is used prospectively, as in applying for a job, relevant extracurricular experience could also be brought into play since this could indicate to a potential employer some attributes and achievements that it might value but which are not highlighted in the higher education experience (for

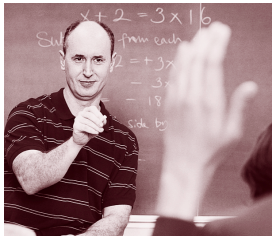
example, voluntary work and juggling successfully with multiple demands on one’s time).

Some might object that claims-making would increase the complexity of assessment and recruitment. Regarding the former, the claims-making approach would not be a ‘bolt-on’ activity at the end of a student’s time in higher education: rather, it would require some radical rethinking about the design and implementation of assessment if it is not to add to the burden on academics. Recruiters, on the other hand, might argue that having to deal with a fuller account of applicants’ achievements would be more expensive in terms of time and effort. But if recruitment is seen in terms of investment, then it is likely to be worthwhile to make an extra effort at the recruitment stage in order to reduce the chances of making a less than optimal choice, whose cost may only appear after a period of time.

The assessment of student achievement is dominated by thinking that still reflects the circumstances of a system which catered for an elite minority. This thinking does not fit the needs of a mass higher education system and its stakeholders. It is time for change.

### References

1. Universities UK and GuildHE (2007) *Beyond the honours degree classification: The Burgess Group final report*. London: Universities UK and GuildHE. Available at [http://bookshop.universitiesuk.ac.uk/downloads/Burgess\\_final.pdf](http://bookshop.universitiesuk.ac.uk/downloads/Burgess_final.pdf) (accessed 17 October 2007).
2. Knight, P. (2007) *Fostering and assessing ‘wicked’ competences*. Available at [www.open.ac.uk/cetl-workspace/cetlcontent/documents/460d1d1481d0f.pdf](http://www.open.ac.uk/cetl-workspace/cetlcontent/documents/460d1d1481d0f.pdf) (accessed 10 October 2007).
3. Eraut, M. (2004) A wider perspective on assessment. *Medical Education*, 38 (8), pp.803-4.



## Summary

**Rachel Brooks, Senior Lecturer from the University of Surrey,** outlines findings from a recent research project, funded by the Economic and Social Research Council, on *Young Graduates and Lifelong Learning*.<sup>1</sup> Drawing on data from the 90 young adults who were interviewed for the project, she explores the impact of higher education on subsequent learning.<sup>2</sup>

### Introduction

While graduates' experiences within the labour market have been scrutinised in depth, their take up of further education and training has been the focus of only a very small number of studies. Nevertheless, the interface between higher education (HE) and lifelong learning is likely to assume increasing importance in future years as a result of, firstly, the expectation that all will engage in lifelong learning as a means of keeping skills up-to-date and, secondly, the expansion of HE and the consequent increase in the proportion of the labour force comprised of graduates. The UK's National Adult Learning Survey has emphasised that graduates are more likely than other groups of people to engage in further learning, and to be motivated by the intrinsic nature of the subject matter.<sup>3</sup> However, beyond this we know relatively little about the learning of graduates as a specific group. This research reported here was intended to start to address this gap by drawing on interviews with young adults across the UK, which explored the relationship between HE and lifelong learning.

### The research project

Between October 2005 and April 2006, we interviewed 90 graduates in their mid-twenties who had studied at one of six HE institutions. These institutions were chosen to reflect different 'market positions' and comprised: an Oxbridge college, a 'redbrick' university, a 1960s campus university, a post-1992 university, a college of HE and a college of the University of London. Our final sample comprised 15 alumni from each of the six institutions, of which there were 58

# What Impact Does Higher Education Have on Subsequent Learning?

women and 32 men. Respondents were recruited using a mailshot from the alumni offices of the six institutions, plus adverts on the 'Friends Reunited' website. The interviews were wide-ranging but, amongst other things, covered: the young adults' experiences of HE, employment and any education, training or other form of learning that they had undertaken since leaving university; the meanings respondents attached to work, learning and leisure; and the relative importance of these activities in their lives. We then conducted a series of follow-up focus group interviews with some of the 90 respondents, to explore some of the themes that had emerged from the individual interviews.

Our data from both the individual interviews and focus groups suggested that experiences of HE influenced decisions about further learning at three levels, in relation to: the process of learning; the construction of learner identities; and understandings of the relationship between learning and the wider world.

### The process of learning

Many respondents across all six institutions claimed that one of the most positive consequences of their time in HE was that they had, for the first time in their lives, learnt how to study independently. This was believed by respondents to have a significant impact on future learning, giving them the necessary skills and motivation to engage in further education and training, through formal and/or informal routes:

*I think my best learning experience... was going to university and learning that no one was going to do it for me and if I wanted to get anywhere I'd have to do it for myself and learn all the life skills. (Rose<sup>4</sup>, social worker, Redbrick)*

Although this transition to more independent forms of study (and its impact on subsequent learning) was both emphasised and broadly welcomed by our respondents, this positive response was often held in tension with a more ambivalent attitude towards the intensity of their HE courses. Indeed, a significant proportion of young graduates talked of a distinct 'learning fatigue' at the end of their undergraduate studies, brought on by the exhaustion they experienced in the final stages of their degree. For many of these respondents, this had discouraged them from pursuing further learning (particularly of a formal kind) in the years immediately after graduation, as this quotation illustrates:

*One of the reasons I picked my job at [organisation] was because when I came out of uni I suppose I was so mentally exhausted after, you know, four years of studying that the thought of going into a job that involved, like, training for qualifications and things, I deliberately avoided jobs like that. (Ellie, invigilator and beauty therapist, Redbrick)*

Although, in almost all cases, this was reported to be a temporary phenomenon, with most keen to take up further learning at some later point, it does highlight enduring assumptions about a 'front-loaded' education system, with many young adults experiencing a significant break in their learning careers at the point of graduation.

### Learner identities

Here again, the influence of HE on further learning appeared complex and multi-directional. For a considerable number of respondents (across most institutions and subject areas), degree-level study had served to strengthen their identity as a learner, through: developing their intrinsic interest in the subject they

were studying; increasing their confidence in their own ability to learn; and, in some cases, providing them with the freedom to admit to an enjoyment of learning for the first time in their lives.

For others, however, experiences of HE had been much less positive and, in some cases, had undermined respondents' sense of themselves as academic achievers. This was particularly the case for some of the young women in the sample, who had attended the highest status institutions. In particular, several had found the Oxbridge tutorial system quite intimidating. Alice, for example, had arrived at Oxbridge intent on staying on to do a PhD and working as a physicist. However, by her final year she had been put off the subject, primarily as a result of her dislike of the way she had been taught:

*[I] went into this tutorial system where I was expected to sit with someone I didn't really know very well and, you know, expound my views and give solutions and talk and ask searching questions and it wasn't something I could do at that stage so it was a bit frustrating really... My tutorial partner had a similar sort of comprehensive background and she was very quiet and shy and... because she was so quiet as well, it was just, you know, embarrassing silences the whole time. (Alice, executive administrator, Oxbridge)*

Here, Alice alludes to the way in which her academic identity was undermined, partially as a result of the social discomfort she experienced within her tutorials, and her dislike of having to 'perform' in the way that was expected of her. This had discouraged her from pursuing further formal study post-graduation.

### Relationship between learning and the wider world

This project provides little evidence to support some of the claims that have been made in the academic literature about the likely increase in 'disappointment' and 'disillusionment' with education as graduates enter a congested labour market in search of full-

time jobs.<sup>5</sup> In large part this can be explained by the realisation (often before respondents had even entered HE) that a degree did not provide an automatic route into professional employment. Indeed, many had an acute awareness of the absence of any automatic correspondence between success at university and success at work. As a consequence, there were no young adults in our sample who were discouraged from further learning because of a general disillusionment about the relationship between education credentials and employment. However, respondents' understandings of this relationship played an important role in informing their decisions about further learning. Indeed, the same kind of considerations that had come into play in relation to their decision to enter HE (i.e. that without a degree the type of jobs open to them would be very restricted), also exerted an important influence on their decisions about further learning – through the belief that such learning would allow them to specialise and gain more work-related skills, and give them an advantage over other graduates<sup>6</sup>:

*There are so many good people out there with degrees, who are all the same, and if you only have one degree then employers would say 'Ah, this person has two ... which makes him stand out'. And so I've ... tried to collect as many education things as possible now, just to make myself stand out... (Carlton, solicitor, Redbrick)*

*My degree has turned into my ticket for a job but I know damn well that if I want to progress up the ladder I'm going to have to do more... I'll have to do an MBA or an MA in something or, something that will distinguish me. (Jason, medical sales representative, College of HE)*

### Conclusion

There are clearly a number of very important benefits associated with HE – in terms of employment, health, parenting and civic engagement, to name but a few. Nevertheless, our research suggests that the results of the National

Adult Learning Survey, which demonstrate a strong association between acquisition of a degree and engagement in further learning, may mask some more problematic issues. Indeed, it appears that the influence of HE on subsequent learning is complex and multi-directional. While HE may exert a variety of positive influences (such as facilitating independent learning), these often co-exist alongside less positive effects, such as the 'learning fatigue' reported by many of the young adults, and the ways in which the learning identities of some of the young women in the study, who attended high status institutions, were weakened by their HE experiences. We therefore conclude by suggesting that, while the impact of a hierarchical and stratified HE market on university choices and graduate employment has received detailed attention, further research is urgently needed to explore the ways in which processes of teaching and learning – and their impact on further learning – may also differ by university type and/or status.

### References and notes

1. Brooks, R. (2006) *Young Graduates and Lifelong Learning*. End of Award Report to the ESRC. Available at: [www.esrcsocietytoday.ac.uk](http://www.esrcsocietytoday.ac.uk)
2. These points are made in more detail in: Brooks, R. and Everett, G. (2008, forthcoming) *The Impact of Higher Education on Lifelong Learning*, *International Journal of Lifelong Education*, 27, 3.
3. Fitzgerald, R., Taylor, R. and La Valle, I. (2003) *National Adult Learning Survey 2002* (Research Report 415) London, Department for Education and Skills.
4. Names of all respondents have been changed to ensure anonymity.
5. See, for example, Dwyer, P. and Wyn, J. (2001) *Youth, Education and Risk. Facing the Future*. London, Routledge.
6. This is discussed further in: Brooks, R. and Everett, G. (2009, forthcoming) *Post-graduation reflections on the value of a degree*, *British Educational Research Journal*.



## Summary

**Stephen McNair, Director of the National Institute of Adult Continuing Education (NIACE) Centre for Research into the Older Workforce**, discusses the implications of the Leitch Review of Skills and the issues associated with a 'demand led system' of education and training. The article is a summary of the presentation he gave at the Higher Education Careers Services Unit (HECSU)/Higher Education Academy (HEA) conference on 12 June 2007.

The labour market is changing. It is ageing, as birthrates fall and life expectancy rises (the average age of some occupational groups is now well over 50!). Young people are taking longer to become established in the labour market, with gap years, and trial jobs. The centre of gravity of the workforce is moving from (traditionally male) manual skills to (more commonly female) service sector and knowledge based jobs (although there will remain a baseline demand for practical skills – and high levels of retirement mean that demand for replacement workers remains strong in some areas despite overall decline in the workforce numbers). The market is becoming increasingly international: although a majority of people never move more than a hundred miles from where they grew up, far more people are moving between regions, countries and continents. And the market is complex: behind the broad patterns of labour market behaviour, large and small firms are very different, as are occupational sectors. Some sectors are likely to remain low skilled, while the skill base of others is shifting. Styles of management are also changing: as the *Skills at Work* survey reported last year, task discretion at work matters a lot to people, and in the UK (unlike many other countries) it has been falling in both public and private sectors.<sup>1</sup>

Attitudes to work are also changing: most people in the workforce like work (though not always their present jobs) and the proportion increases with age. However, at all ages they want better work-life balance, and employers,

# Higher Education, Careers and the Skills Agenda after Leitch

increasingly conscious of the shortage of real talent, are slowly responding.

It is against this background that the Government commissioned Lord Leitch to prepare a report on the future skill needs of the economy.<sup>2</sup> The report, published last December, presented an alarming picture. Leitch argued, on the basis of comparative data on qualifications, not only that the UK was well behind its economic competitors in workforce skills, but is slipping further down. The only reason our competitive shortfall is not more evident, he suggests, is that we work longer (but less productive) hours to keep up, itself a cause of stress, ill health and poor quality of life.

In Leitch's view, continuing on our present course will lead to declining competitiveness and growing skills shortages. Work, and especially skilled work, would move overseas, rising unemployment would generate social tensions, especially as more skilled migrant groups are sucked in to fill gaps left by underqualified native British workers. With this decline would go shrinking tax revenues, leading to cutbacks in public services, generating further tensions and spiralling economic and social decline.

By contrast, addressing the skills shortfall would lead to improved economic performance (£80b additional growth if Leitch's ambitious targets were achieved), higher inward investment, more jobs, and more rewarding jobs. Successful tackling of illiteracy and innumeracy would lead to declines in crime and poor health. The result would be a happier and healthier population with higher standards of living, and better products and services available to a more prosperous population.

Leitch suggests that current methods for tackling skills problems are inadequate: they are too slow, and too loosely linked to the real needs of the current labour market. Government planning for skills has failed, and

channelling public funding through education and training providers simply encourages them to provide what suits them rather than what the end users – employers and individuals – need and want. The result is a general lack of confidence that training can make a difference, which in turn feeds low levels of training, and low skills.

His solution is to move towards a 'demand led system' of education and training. Employers would be more closely engaged in the design of training and qualifications, and would have access to impartial brokerage (through 'Train to Gain') to help them find the right solutions for their particular needs. Individuals would be given more power to buy what they believe they need (through individual learning accounts), making informed choices with the support of a universal adult careers service.

Although this seems eminently sensible, there are problems with such a radical transformation of a large and complex system (despite its shortcomings, annual expenditure on public and privately funded further education and higher education runs into tens of billions). We cannot afford to fundamentally destabilise existing institutions by sudden change, but transitional measures risk major complexity and unintended consequences. Already, we see a positive initiative, the provision of impartial skills brokerage to employers through the Train to Gain scheme, subverted by the requirement that brokers help achieve a target of level 2 qualifications, which is the Government's aim (supported by Leitch) not employers'. A system where the customers' needs are mediated by Government is not customer led at all!

But the problems go deeper than 'mere' implementation. One key issue is the definition of the customer. Anyone who works in careers guidance knows that 'employer' is a slippery concept. Few people want to be 'employers': most

business people are driven by a passion to make widgets, or to make money. Those who represent employers in policy discussions tend to be some distance from doing the job, and the line managers who have to get it done. My personal observation of employer advisory committees in higher education is that participants are there for a variety of purposes: talent spotting (of students or staff), filling their own CVs, demonstrating corporate social responsibility, gathering intelligence about competitors or sometimes being gracefully phased into retirement. They rarely have a clear view of the practical needs of the whole of their own business, let alone of the whole sector. Even when grouped together into sector bodies, the identification of skills needs tends to become a specialised function for researchers and consultants, while individual employers regularly disown the qualifications and strategies which have been devised or approved by their representatives, and the line managers who have to manage the work processes, are rarely involved directly.

A further problem is Leitch's dependence on formal qualifications, both to measure the problem and provide the solution. However, the fact that the UK has one of the strongest economies in the OECD member states, despite its shortfall in qualifications, suggests that we have misunderstood the relationship between qualifications and performance at work. Either skills have no impact on economic performance (which seems unlikely), or qualifications do not properly measure skills, particularly perhaps for the older workers who have the lowest levels of qualifications but the most experience. This is not surprising: we know that skills decay if not practised, and that the content of qualifications becomes out of date. The competence of a worker who acquired a vocational qualification 30 years ago and has worked for a good employer ever since is entirely different from someone who acquired the same qualification at the same time but has never worked in the industry, yet Leitch treats both equally in the measurement of our skills base, and Government policy will not support

acquiring a second qualification at the same level, however long ago the first was acquired. In an ageing workforce this is perverse. There is also a growing body of evidence about other ways of developing skills. The *Skills at Work* report published earlier this year by the SKOPE consortium, and recent (not yet published) work by Alan Felstead on the NIACE annual Adult Learners Survey both suggest strongly that an individual's capacity to do a job is more closely related to the way work is organised, and support between co-workers, than the formal qualifications held by workers. Perhaps employers are right to be sceptical of the value of qualifications, other than those which provide the generic underpinning for continuing learning (ironically, a feature of traditional 'academic' qualifications, from GCSE English and Maths to first degrees). This evidence suggests that most of the learning which makes people productive happens in the course of work, not in classrooms, it is created by learning not teaching, maintained by practice, decays with neglect and is destroyed by bad management.

What does this mean for careers practitioners in higher education? Firstly, it is clear that much of what Leitch has proposed is going to be implemented, and, unlike some previous skills initiatives, higher education will probably be involved. This is right, since many of the skills of the future economy are the high level and intellectual skills which universities exist to develop. However, past experience of this kind of policy initiative suggests that implementation will be narrower than intended, and that the bureaucracies necessary to change large systems will themselves create perverse incentives, for those working in them and for the providing institutions. Some further education principals already report having to divert resources from good long-term working relationships with local and regional employers to meet the requirements of funding systems designed in the wake of Leitch, to make them responsive to those same employers. Once again, it appears that the real customer is the Government, not the employer.

Higher education also ought to play to its strengths. Firstly, by making sure that our students understand what is happening in the labour market, what employers are looking for, and the importance of learning at and through work, not just learning in preparation for it. Secondly, to make sure that the knowledge about skills, economic and social trends and scenarios which is gathered and stored in higher education is being brought to bear on informing us and our clients. It is not uncommon for economic development units, or regional skills observatories, based in a university, to have little contact with the careers services of that institution. Thirdly, as part of higher education we have a responsibility to provide a critical view of developments in the world outside. Unlike other educational institutions, universities have always had a constitutional independence of the State, to ensure that it can provide an impartial and informed view of issues independent of the short-term fashions and interests of politicians. Academic freedom must be earned to be justified. The careers service is closer to the outside world, and less able to take a lofty academic view, and it is inevitable, and proper, that we should be engaged in the transformation of education and training which the Government is seeking to implement, but this should not be an uncritical engagement. The long-term public interest is best served if our graduates go out with an informed ability to challenge the world, not merely conform to it, and if we, as professionals, are contributing our understanding of the real working of the labour market to the public debate. We should not try to avoid Leitch, but neither should we become the slaves of an implementation plan.

## References

1. Felstead A. et al. *Skills at Work* 1986-2006, SKOPE, ESRC Centre on Skills Knowledge and Organisational Performance.
2. Leitch. 2006. *Prosperity for all in the global economy: world class skills*, London, HMSO

# Prospects Directory Salary & Vacancy Survey

This survey analyses job vacancies from Graduate Prospects' annual graduate vacancy publication *Prospects Directory*. *Prospects Directory* is an A to Z of graduate recruiters, indexed by company, type of work and subject of study, and contains comprehensive careers information. The vacancies featured are primarily aimed at finalists looking for jobs commencing after graduation. Recruiters who appear in the publication can also be found at [www.prospects.ac.uk/profiles](http://www.prospects.ac.uk/profiles).

## Scope of the survey

This survey analyses vacancies advertised in the 'company profiles' and 'A-Z recruiter listings' sections of the 2007/8 issue of *Prospects Directory*, published in September 2007 and aimed at finalists graduating in 2008. The study examines 18,500 vacancies from over 300 recruiters, of which 26% have salary information.<sup>1</sup>

Table 1 shows the salary distribution for these vacancies, and Figure 1 shows the distribution of salaries within broad salary bands.

## Key findings

- The average salary offered by advertisers in the 2007/8 issue of *Prospects Directory* is £24,048, with a median of £23,500. These represent a 4.4% and 6.8% increase from last year's figures (£23,024 and £22,000

respectively). The high salaries are a reflection of the types of recruiters featured, which are almost exclusively large organisations which offer high remuneration (see caveats).

- Salaries offered range from £14,732 to £39,000. The highest salary is offered to graduates entering the graduate area management trainee programme with a nationwide retailer. The next highest salaries, at £38,000 and £36,000 are for trainee solicitors working in London. The lowest salaries, at £14,732 and £15,300, are for support workers for a charity organisation and graduate management trainees for a leisure company, respectively.

## Caveats

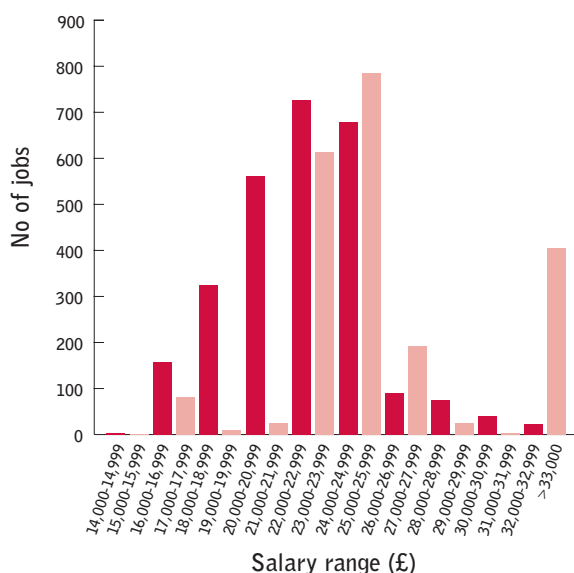
The following facts *must* be taken into account when making inferences from this survey about the overall population of new graduates.

- Vacancies advertised in *Prospects Directory* are posted mainly by large companies and organisations and are aimed specifically at graduates. A substantial number of graduates, however, obtain posts which are not specifically targeted at degree holders. As a result, **the average salary offered in *Prospects Directory* is likely to be higher than the average graduate starting salary (reported by students in the Destinations of**

**Leavers from Higher Education survey, for example<sup>2</sup>), as there is a bias towards larger firms and specific graduate jobs.**

- Vacancy sizes do not necessarily reflect the number of companies recruiting. In some cases, **a large number of vacancies arise as a result of the recruitment activities of just one or two companies.**
- Although this survey is large, it accounts for only a small sample of the total number of posts on offer to graduates, and trends identified from such small samples may not necessarily be representative of the overall graduate recruitment market. In addition, only around 26% of recruiters have provided salary information.
- Occupations which require additional qualifications, such as law, medicine and education, are not covered in this survey.
- Many smaller graduate employers recruit locally and do not require the scope offered by advertising in *Prospects Directory*.
- Salaries are recorded at the lowest base level reported in the advertisements, so do not include commission or other bonuses, and other increments based on, for example, experience and postgraduate qualifications, unless these are incorporated into the salaries given without having specified that this is the case.

**Figure 1. Distribution of salaries from vacancies advertised in 2007/8 Prospects Directory ([www.prospects.ac.uk/profiles](http://www.prospects.ac.uk/profiles))**



**Table 1. Vacancies advertised in Prospects Directory 2007/08**

Sample Size (Vacancies)	18,499
Sample Size (Salaries)	4,821
Lowest Salary	£14,732
Highest Salary	£39,000
<b>Mean Salary</b>	<b>£24,048</b>
Lower decile (bottom 10%)	£18,500
Lower quartile (bottom 25%)	£22,000
<b>Median Salary</b>	<b>£23,500</b>
Upper quartile	£25,000
Upper decile	£29,000

<sup>1</sup>Information from both the paper version of *Prospects Directory* and from [www.prospects.ac.uk/profiles](http://www.prospects.ac.uk/profiles) is used for this survey, as the two sources are complementary.

<sup>2</sup>See 'Graduate employment and salaries review', *What Do Graduates Do? 2008*, HECSU/AGCAS. [www.prospects.ac.uk/links/WDDG](http://www.prospects.ac.uk/links/WDDG)

## Salaries and vacancies by: job category

Prospects Directory 2007/8							
	Vacancies		Salaries				
	Sample	% of Total	Sample	Range		Median (£)	Mean (£)
				Lower (£)	Upper (£)		
Administration	1705	9.2	275	18450	29000	20000	22662
Advertising, marketing & PR	242	1.3	117	22000	30000	24000	23936
Animal & plant resources	0.0	0	0				
Arts, design & crafts	11	0.1	2	18500	18500	18500	18500
Construction & property management	855	4.6	167	18000	25250	22500	21981
Counselling, social & guidance services	0.0	0	0				
Economists, statisticians etc	323	1.7	227	18500	25000	25000	23210
Education, teaching & lecturing	375	2.0	0				
Engineering	3031	16.4	843	18000	32000	22500	22867
Finance, insurance and pensions & actuarial work	5958	32.2	911	16000	30000	24000	23516
Health care	29	0.2	13	14732	17000	17000	16477
Hospitality	2	0.0	0				
Human resources & employment	432	2.3	232	16564	30000	22500	22329
Information services	107	0.6	23	18000	24000	21196	20234
Information technology	1352	7.3	360	20000	35000	25000	24826
Law enforcement & public protection	58	0.3	38	17744	27402	24842	24452
Legal services	467	2.5	317	18500	38000	36000	35572
Leisure, sport & tourism	5	0.0	2	15300	15300	15300	15300
Logistics & transport	206	1.1	98	17500	30000	23000	23679
Management consultancy	1216	6.6	150	20800	35000	25000	25843
Manufacturing & processing	245	1.3	65	22500	29000	24842	24899
Natural resources & the environment	23	0.1	4	22000	24000	23000	23000
Publishing, media & performing arts	147	0.8	72	17400	23500	17400	18247
Sales, retail & buying	1429	7.7	864	16000	39000	22500	22985
Scientific services	275	1.5	41	21000	32000	27040	27126
Others	6	0.0	0				
<b>TOTAL ALL TYPES OF WORK</b>	<b>18499</b>	<b>100.0</b>	<b>4821</b>	<b>14732</b>	<b>39000</b>	<b>23500</b>	<b>24048</b>

Discussion of vacancies is limited to those job categories where there are 30 or more vacancies offered. Discussion of salaries is limited to those job categories where there are 30 or more vacancies with salary information.

Smaller sample sizes are too open to variation to identify any significant trends or factors at work.

### Key findings by job category

- A third of the vacancies (32.2%) advertised in the 2007/8 issue of

Prospects Directory are positions in finance, insurance, pensions and actuarial work. Since the publication of the Directory, however, the financial sector has experienced a downturn and it is unclear what effect this will have on the level of graduate recruitment in the coming year.

- One in six (16.4%) vacancies are in engineering and one in 11 (9.2%) are in administration which includes vacancies in general graduate management trainee schemes.

- Vacancies in legal services command the highest mean and median salaries, at £35,572 and £36,000 respectively. The next highest mean and median salaries, at over £27,000, are for vacancies in scientific services. The number of vacancies with salary information for these positions, however, is small.

## Salaries and vacancies by: type of employer

Prospects Directory 2007/8								
	Vacancies		Salaries					
	Sample	% of Total	Sample	Range		Median (£)	Mean (£)	
				Lower (£)	Upper (£)			
Civil service & local government	518	2.8	436	17400	25276	23000	22122	
Armed forces	104	0.6	84	22400	27000	22400	23167	
Education	368	2.0	0					
Other public & voluntary bodies	308	1.7	302	14732	28000	20000	21473	
<b>TOTAL PUBLIC AND NON-PROFIT SECTOR</b>	<b>1298</b>	<b>7.0</b>	<b>822</b>	<b>14732</b>	<b>28000</b>	<b>20919</b>	<b>21990</b>	
Agriculture	2	0.0	0					
Construction industries	759	4.1	215	22500	27000	23000	23748	
Oil, mining & extractive industries	351	1.9	20	30000	32000	30000	30721	
Chemical manufacturers	352	1.9	95	24500	32000	26000	26649	
Engineering products	1073	5.8	372	20000	28000	22500	22897	
Food, drink & tobacco	294	1.6	167	24500	29000	27040	26768	
Other products	216	1.2	31	21000	27040	26000	24094	
Energy & natural resources	322	1.7	123	20800	24842	24000	22923	
Industrial services	2218	12.0	380	18000	27000	22000	21231	
<b>TOTAL MANUFACTURING INDUSTRIES &amp; INDUSTRIAL SERVICES</b>	<b>5586</b>	<b>30.2</b>	<b>1402</b>	<b>18000</b>	<b>32000</b>	<b>23000</b>	<b>23432</b>	
Finance	1911	10.3	289	17000	30000	24000	24277	
Accountants	952	5.1	0					
Banks & building societies	1190	6.4	230	16000	27250	24000	23576	
Insurance	304	1.6	197	17000	27250	24000	23653	
Legal	427	2.3	295	36000	38000	36000	36678	
<b>TOTAL PROFESSIONAL SERVICES</b>	<b>4785</b>	<b>25.9</b>	<b>1011</b>	<b>16000</b>	<b>38000</b>	<b>24000</b>	<b>27614</b>	
PR Consultants	0	0.0	0					
Computer consultants	1198	6.5	419	17000	35000	25000	25125	
Management consultants	1541	8.3	8	22000	31000	24000	25871	
Recruitment consultants	325	1.8	20	18500	18500	18500	18500	
Advertising & marketing	204	1.1	7	22000	22000	22000	22000	
Private training provider	70	0.4	70	18500	20000	20000	19571	
<b>TOTAL CONSULTANCIES AND AGENCIES</b>	<b>3338</b>	<b>18.0</b>	<b>525</b>	<b>17000</b>	<b>35000</b>	<b>25000</b>	<b>24102</b>	

## Salaries and vacancies by: type of employer

Prospects Directory 2007/8							
	Vacancies		Salaries				
	Sample	% of Total	Sample	Range		Median (£)	Mean (£)
				Lower (£)	Upper (£)		
Retail	697	3.8	625	16000	39000	23000	23788
Wholesale & warehousing	215	1.2	7	28080	29000	29000	28737
Hotels & catering	158	0.9	150	18500	18500	18500	18500
Publishers	400	2.2	1	17000	17000	17000	17000
Transport & communications	310	1.7	238	17000	32000	25000	24274
Entertainment & leisure	124	0.7	2	15300	15300	15300	15300
Other commercial services	1422	7.7	38	18500	23000	18500	20357
<b>TOTAL SERVICE INDUSTRIES</b>	<b>3326</b>	<b>18.0</b>	<b>1060</b>	<b>15300</b>	<b>39000</b>	<b>23000</b>	<b>23037</b>
Other industries NEC	167	0.9	1	17000	17000	17000	17000
<b>TOTAL ALL INDUSTRIES</b>	<b>18499</b>	<b>100.0</b>	<b>4821</b>	<b>14732</b>	<b>39000</b>	<b>23500</b>	<b>24048</b>

Discussion of vacancies is limited to those types of employer where there are 30 or more vacancies offered. Discussion of salaries is limited to those types of employer where there are 30 or more vacancies with salary information.

Smaller sample sizes are too open to variation to identify any significant trends or factors at work.

### Key findings by type of employer

- The highest number of vacancies by type of employer advertised in the 2007/8 issue of Prospects Directory are in industrial services companies (12%), which include engineering consultancies, followed by finance (10.3%), and management consultancies (8.3%).
- The highest mean (£36,678) and median (£36,000) salaries are offered to trainee solicitors by firms in the legal sector. Food and drink companies and chemical manufacturers offer the next highest salaries. Vacancies in these companies include research as well as commercial and head office support roles.
- Of the five main types of industries, professional services firms offer the highest mean salary at £27,614. The highest median salary (£25,000) is offered by consultancies and agencies, due to the large number of jobs in IT/computing companies with starting salary at this level.
- The hotel and catering industry offers the lowest mean and median salaries, at £18,500.

## Salaries and vacancies by: subject of study

Prospects Directory 2007/8							
	Vacancies		Salaries				
	Sample	% of Total	Sample	Range		Median (£)	Mean (£)
				Lower (£)	Upper (£)		
Medical & related subjects	36	0.2	20	17000	23500	17000	19345
Biological sciences	16	0.1	0				
Agriculture & related subjects	128	0.7	70	16000	29000	25000	24070
Any life science	24	0.1	0				
<b>TOTAL LIFE SCIENCES</b>	<b>204</b>	<b>1.1</b>	<b>90</b>	<b>16000</b>	<b>29000</b>	<b>25000</b>	<b>23030</b>
Chemistry	64	0.3	15	19000	29000	22500	22604
Materials science	8	0.0	5	20000	21000	20000	20147
Physics	64	0.3	10	19000	29000	20000	21220
Astronomy	0	0.0	0				
Geology	172	0.9	18	19000	32000	32000	27593
Environmental science	0	0.0	0				
Any physical science	0	0.0	0				
<b>TOTAL PHYSICAL SCIENCES</b>	<b>308</b>	<b>1.7</b>	<b>49</b>	<b>19000</b>	<b>32000</b>	<b>22500</b>	<b>23947</b>
Mathematics & statistics	292	1.6	110	19000	29000	24000	23647
Any computer related subject	298	1.6	73	20000	26000	24000	23526
Computer studies	202	1.1	38	20000	24000	23000	22547
<b>TOTAL MATHEMATICAL SCIENCES &amp; INFORMATICS</b>	<b>792</b>	<b>4.3</b>	<b>221</b>	<b>19000</b>	<b>29000</b>	<b>24000</b>	<b>23419</b>
General engineering	90	0.5	48	18000	30000	22500	21616
Civil engineering	471	2.5	146	18000	30000	22500	22182
Mechanical engineering	351	1.9	79	20000	32000	23000	23814
Aeronautical engineering	19	0.1	12	22500	22500	22500	22500
Electrical engineering	247	1.3	70	20000	32000	23000	23393
Electronic engineering	283	1.5	72	20000	32000	23000	23133
Production engineering	116	0.6	57	20000	32000	22500	23421
Chemical engineering	225	1.2	43	19000	32000	26000	25400
Electrical and electronic	1	0.0	1	19000	19000	19000	19000
Any engineering	700	3.8	123	22400	30000	22400	23369
Technology	109	0.6	35	18500	30000	22500	23268
Architecture, building & planning	594	3.2	78	18000	24000	22500	22121
<b>TOTAL ENGINEERING &amp; TECHNOLOGY</b>	<b>3206</b>	<b>17.3</b>	<b>764</b>	<b>18000</b>	<b>32000</b>	<b>22500</b>	<b>23025</b>

## Salaries and vacancies by: subject of study

Prospects Directory 2007/8							
	Vacancies		Salaries				
	Sample	% of Total	Sample	Range		Median (£)	Mean (£)
				Lower (£)	Upper (£)		
Economics	152	0.8	131	19000	25000	25000	24775
Law	0	0.0	0				
Other social studies	44	0.2	14	20800	22500	22500	22128
<b>TOTAL SOCIAL STUDIES</b>	<b>196</b>	<b>1.1</b>	<b>145</b>	<b>19000</b>	<b>25000</b>	<b>25000</b>	<b>24519</b>
Business/ management studies	217	1.2	76	20800	27000	23500	23211
Financial management	228	1.2	62	22000	25000	23000	23174
Accountancy	17	0.1	0				
Marketing/ market research	87	0.5	30	22000	30000	22500	24053
Other business/administration studies	31	0.2	13	17500	23000	22500	21900
<b>TOTAL BUSINESS &amp; ADMINISTRATION STUDIES</b>	<b>580</b>	<b>3.1</b>	<b>181</b>	<b>17500</b>	<b>30000</b>	<b>23000</b>	<b>23242</b>
Mass communication	2	0.0	0				
Education	0	0.0	0				
Creative arts	20	0.1	18	17500	22500	22500	21500
Other arts/ humanities	0	0.0	0				
<b>TOTAL ARTS &amp; HUMANITIES</b>	<b>22</b>	<b>0.1</b>	<b>18</b>	<b>17500</b>	<b>22500</b>	<b>22500</b>	<b>21500</b>
LANGUAGES AND LINGUISTICS	67	0.4	67	17400	23500	17400	17855
LANGUAGES AND RELATED STUDIES	10	0.1	3	23500	23500	23500	23500
ANY SOCIAL ECONOMICS/BUSINESS	31	0.1	8	20000	22000	21000	21000
ANY SCIENCE	383	2.1	7	20000	30000	22000	23429
ANY SCIENCE/ ENGINEERING	180	1.0	42	20800	27040	24500	24808
ANY NUMERATE DISCIPLINE	366	2.0	137	17500	30000	23000	22710
ANY SUBJECT	12155	65.7	3091	14732	39000	24000	24609
<b>TOTAL ALL SUBJECTS</b>	<b>18499</b>	<b>100.0</b>	<b>4821</b>	<b>14732</b>	<b>39000</b>	<b>23500</b>	<b>24048</b>

Discussion of vacancies is limited to those disciplines where there are 30 or more vacancies.

Smaller sample sizes are too open to variation to identify any significant trends or factors at work. Due to the limited number of subjects with 30 or more vacancies with salary information, no comments about salaries by subject of study are drawn.

### Key findings by subject of study

- Two-thirds (66%) of the vacancies on offer in the 2007/8 issue of Prospects Directory are open to graduates from any discipline, indicating that many employers are looking for the 'soft' skills that graduates acquired during their study rather than their knowledge in a specific subject.
- Of vacancies which require specified degree disciplines, engineering & technology (17.3% of total vacancies), followed by mathematical sciences (4.3%), are the most in demand.



## Summary

**Naomi Woodier from the Centre for Entrepreneurial Management, University of Derby**, reports on a research study carried out at the University which explores the aspirations and intentions of students on the Student Placements for Entrepreneurs in Education, 'SPEED', programme, and follows the transitional experiences of these students as they experience first hand practising their entrepreneurial skills and preparing themselves for a potential career in self-employment.

## Introduction

The transition from university study to life beyond is often difficult and many graduates are not well prepared. This lack of preparedness for the realities after graduation is a common experience for most students, who find the connection between their desire to practise their skills and the need to prepare for leaving university difficult.<sup>1</sup> During this crucial transition stage, students need 'stepping stones' and exposure to 'business basics' to get started. It has also been suggested that students lack self-confidence during this time.<sup>2</sup>

Research suggests that the experiences of simply participating in a degree programme and of being a student are not in themselves sufficient preparation for being enterprising or becoming entrepreneurial.<sup>1</sup> Traditionally, it is only *after* graduation that interventions have been made to help a graduate business idea off the ground, and it has been argued that the point of intervention should be made earlier, to allow students the opportunity to experience exploring starting a business first hand *before* graduating, to enable them to practise and develop their skills and entrepreneurial self-efficacy.<sup>3</sup>

## SPEED programme

Student Placements for Entrepreneurs in Education, 'SPEED', is an initiative which started in 2006 and finishes in 2008, to help budding student entrepreneurs gain real business start-up experience, *while studying at university*.

# SPEED-ing To Success: Career Plans and Destinations Of SPEED Graduates

The programme allows would-be entrepreneurs to test and prove their concepts within a supported environment whilst at university, and to create a new business which becomes an integral part of their education.<sup>3</sup> The need for ongoing, enhanced and targeted interventions, to encourage and support would-be entrepreneurs on their journeys from student to graduate entrepreneur is what makes the SPEED programme unique.

Universities are seen as the key to engaging more explicitly with enterprise in the regional and national economies. This is also manifested in the mission of the National Council for Graduate Entrepreneurship (NCGE), and this has major implications for enterprise education, extracurricular preparation and student careers guidance. The NCGE mapping study documents that many universities have expanded their provision of both enterprise courses and other activities to encourage graduate business venturing, for example, through entrepreneur clubs and social events, summer schools, and business incubation.<sup>1</sup> SPEED is yet another move towards engaging more closely with enterprise, but with students instead of graduates.

The SPEED project brings together 21 partners, including 12 higher education institutions (HEIs), private-sector businesses, a variety of enterprise support agencies, and five regional development agencies. All have an interest in, and experience of, developing graduate entrepreneurship and generating business start-ups.

The total number of SPEED placements during the funded period of this project is 750. A comprehensive support package including advice, training, facilities, and resources has been put in place at each university to

deliver these funding opportunities. A range of financial support is being made available averaging circa £6,000 per placement.<sup>4</sup> Each primary partner has a specific number of placements for the duration of this project and each has confirmed that they will be responsible for placements in the following numbers:<sup>4</sup>

Birmingham	60
Central England	15
Coventry	80
Derby	75
Nottingham Trent	60
Southampton Solent	60
Staffordshire	90
Thames Valley	120
Ulster	30
Warwick	50
Wolverhampton	90
Worcester	20
<b>Total</b>	<b>750</b>

Current research on graduate entrepreneurship appears to show surprisingly little recognition of student aspirations and intentions regarding the enactment of their propensity for enterprise and of the transition processes from student to entrepreneur.<sup>5</sup> At the University of Derby, a research study was carried out to explore SPEED students' aspirations and intentions, and to follow the transitional experiences of these

students as they gained first-hand experience of practising their entrepreneurial skills and preparing themselves for a potential career in self-employment.

### Student Profiles

The study comprises 30 SPEED students from the 2006-07 cohort at the University of Derby. A breakdown of the students is demonstrated in Table 1 and the types of business ideas that the students were developing is shown in Table 2.

Out of the 30 students enrolled on SPEED, we had 24 males (80%) in comparison with six females (20%). The numbers of females were considered considerably low, with four out of the six students being involved in art/fashion/design businesses, one being involved in developing a software business and the other developing an online retailing business.

Out of 30 students, we had a considerably high number developing business ideas that were from a website/software/computer and art/fashion and design background, which was directly related to the course they were enrolled on. Previous research has identified that the large number of students pursuing more creative business ideas might be because students on creative degree courses accounted for nearly 18% of the total enrolment of 15,435 students at the University of Derby in 2006/07.<sup>6</sup> This amounts to almost 3,000 students graduating from a creative degree course, at undergraduate or postgraduate level.

Findings from Rae and Woodier also highlight that the highest number of students from the University of Derby who have started up their own businesses originate from creative, art and design

Gender	Number
Male	24
Female	6

**Table 1. Gender of SPEED students**

Type of business	Number
Online retailing business	4
Music business	3
Graphics/website/software/games development	10
Art/fashion/design business	6
Film/TV/video business	3
Hospitality business	1
Management consultancy business	3

**Table 2. SPEED business ideas**

subject areas, which is suggested as being linked both to the shortage of directly relevant employment opportunities and to their desire to practise the creative skills developed at university.<sup>1</sup>

The age distribution of students on SPEED has been segmented into four categories. At the University of Derby, our students were predominantly from the 18 to 25 years old group, and the average age for the whole sample of the 30 SPEED students is 26 (see Table 3).

### Student career plans

The study revealed that only 50% of the 30 SPEED students who graduated in 2007 have gone on to develop their own businesses. These students have chosen to develop their businesses full-time, with a number of them having other part-time paid positions, working at nights/weekends or a few days a week. Those students who have decided not to pursue their businesses part-time or full-time upon graduation have decided to pursue other career plans and destinations.

The students were surveyed at the beginning of their SPEED programme, halfway through and at the end to capture their emerging career plans and intentions upon graduation. The first survey indicated that over 75% of the cohort had career plans upon graduation to develop their ideas and start a business, if they had not already done so. Halfway through their programme, this decreased to just over 50% and at the end of SPEED, this remained at 50%. Those students who indicated that they had no immediate plans to start a business and continue with

Age	Numbers
18-25 years old	17
26-33 years old	8
34-41 years old	2
42 + years old	3

**Table 3. Age of SPEED students**

their business ideas after graduation cited that this was because of the uncertainty about the business and its potential success and sustainability as a full-time career option, after university. These students may indeed have lacked the entrepreneurial self-efficacy to pursue their businesses. Furthermore, students highlighted that they were considering 'keeping their options open' for other career opportunities.

Although in output terms, many students have not gone on to start a business, Derby's measure of success is the overall quality of the learning experience undergone by the students. SPEED facilitates and provides the funding for students to experience starting a business while at university. At Derby, we emphasise that it is the experience and entrepreneurial journey rather than the business start-up that is important.

### Student destinations

Three months after the SPEED programme, our study followed the students to find out if they were still in business. Out of the 50% that had continued with their ideas after graduation, just over 35% were in business full-time. The remaining 15% were pursuing their businesses on a part-time basis, due to other commitments, family, money and a need for more support. Those students who indicated that they required more support highlighted that this was because while they were at university, they had access to a mentor, other entrepreneurial students, and general advice and help. Students also indicated that leaving university has unfortunately distracted them away from their goal of starting a business in favour of securing other work, and for family and personal issues. Whilst the University offers support and incubation post-course, the students' perception is that there is a lack of continuation of support and this has disengaged many students. This perception is mainly down to a lack of promotion.

### Conclusions

Concluding the research, the University of Derby has taken considerable measures to maintain and build an entrepreneurial experience ethos amongst our students and as a result, we have started to address the pedagogy so that it meets the needs of the vast array of innovative and creative students that we have at Derby. The Centre for Entrepreneurial Management is now developing a suite of practice-based interactive enterprise support materials and sessions for enterprising students, SPEED students and SPEED graduates. Rob Moon and Simon Gee from the Centre state that 'SPEED has enabled us to reach out to other schools within the University and increase the diversity of students to which we are delivering enterprising experiences and

thus engage these students in starting their own businesses'. Without SPEED, Rob Moon and Simon Gee argue that 'we would not have been able to provide students with a greater propensity for sustainability post-graduation and these students are now able to contribute further towards the regional economic development.'

### References

1. Rae, D and Woodier, N. (2006) *Graduate Career Choices in Entrepreneurship*, National Council for Graduate Entrepreneurship, [www.ncge.org.uk](http://www.ncge.org.uk)
  2. Ball, L and Price, E. (1999) *Rethinking business start-up, a new model for success in art and design: Research and analysis of the needs of graduates*, University of Brighton.
  3. Birch, C and Clements, B. (2006) *Creating graduate entrepreneurship through self-employed work placements – Project SPEED*, ISBE, Cardiff, November 2006.
  4. Clements, B and Moore, S. (2006) *Heif 3 Final Bid* University of Wolverhampton.
  5. Hannon, P. (2004) *Making the journey from student to entrepreneur: a review of the existing research into graduate entrepreneurship*, National Council for Graduate Entrepreneurship, Birmingham.
  6. Foyle, C. (2006) *Planning and Statistics*, University of Derby.
-