



SUMMARY REPORT

Futuretrack Stage 4: Transitions into employment, further study and other outcomes

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In common with many countries in recent decades, UK governments since the late 1980s have promoted the expansion of higher education (HE), on the assumption that a major factor underlying economic prosperity is the development of a 'high skills' economy. Governments have also been concerned to emphasise that widening access to HE demonstrates commitment to the extension of equal opportunities. Education and access to career opportunities helps citizens to realise their potential to be socially mobile, to participate fully in society and access the full range of rights, resources and socio-economic advantages that UK citizenship and economic growth are assumed to confer.

TAKING A LONGITUDINAL PERSPECTIVE

Futuretrack is a longitudinal study of people who applied in 2005/06 for a full-time place in a UK higher education institution, to commence study in October 2006.

The research has involved the collection and analysis of both quantitative and qualitative data over a five and a half year period. Online surveys were conducted with respondents at four stages: when they were applicants in summer 2006, in summer 2007 one year on, in autumn 2009 (repeated for those on four year degree programmes in 2010) and in winter 2011/12, five and a half years from the first survey.

This report is based on the Stage 4 survey, when the majority of respondents had completed three or four year undergraduate courses 18 or 30 months previously. Many of them, along with most of the sub-sample who had not obtained such degrees by full-time study, could be assumed to have achieved some degree of labour market integration.

The Stage 4 survey was the most challenging stage of the research to design, conduct, and analyse:

- Reaching and maintaining contact with respondents was more difficult than at earlier stages given that most had left higher education and were geographically mobile.
- The online questionnaires at all stages needed to be flexible, to be relevant to different groups of respondents, including those who did not take up a place in HE.
- This highly complex questionnaire produced a correspondingly complex data set.

At the outset of this ambitious longitudinal survey, we did not anticipate the political and economic changes that have taken place between 2005-6, when the cohort applied to enter HE, and the changed higher education and labour market context that they encountered almost six years later. They have been competing for opportunities during a global recession and where the graduate labour market and HE are political 'hot potatoes' that are rarely far from the forefront of media critical attention and political controversy.

THE QUESTIONS ADDRESSED AT STAGE 4

The Stage 4 questionnaire built on the earlier stages of the Futuretrack project. Its objective was to investigate graduates' evaluation of their HE experience, the career and employment choices that faced them, the opportunities they had accessed, the extent to which their aspirations and plans at the start of their courses had changed or remained stable, had been realised or obstructed. We wanted to know what had influenced career planning and aspirations.

Stage 4 was also an opportunity to explore how far prior educational and social advantage and disadvantage had been reinforced or had become less important during the process of HE, and the impact of studying in different types of HEI and in different regions. We wanted to examine the relationships between the educational and cultural capital brought into HE, the impact of different types of HE experience, including the knowledge and skills developed in subjects and disciplines, the variables that led to satisfaction with the experience of HE and early career outcomes. Analysis of Stage 4 responses allows us to address the big questions that are debated by all concerned with HE provision and graduate employment:

- What is the impact of participation and investment of time and resources in the increasingly diverse undergraduate course options now available?
- How far does an undergraduate degree provide access to opportunities?
- Does it still make sense to talk about 'graduate jobs' and 'non-graduate jobs'?
- Has this cohort of graduates been integrated into the labour market to the same degree as their recent predecessor course-leavers were?
- Which graduates have constituted 'talent' – qualities sought after and paid a premium by employers for their HE knowledge and skills, and which have not yet been able to access jobs that require or use their HE credentials and competences?
- What has been the impact of HE choices and performance on relative earnings?
- Has higher education expansion led to increased under-employment and how far, and where, has the graduate premium increased, remained stable or declined?

We know that graduate unemployment since 2009 has increased, in conjunction with UK unemployment generally: but which types of graduates have been unable to access appropriate employment and why? We have considered the graduate outcomes in relation to the economic climate they have entered. How far was it possible to assess whether their experiences could be attributed to the global recession, or give any indication that current patterns of integration are indicative of changing longer-term trends in the demand for the graduate labour?

Finally, although the residual non-HE participant sub-sample was small, we hoped that it would be possible to make some evaluation of the differential impact of following an alternative path to full-time HE participation and investigate the experiences of those who had not obtained degrees. How had their careers developed, and how far did the longer experience of

employment that most had acquired compare with the value of a degree in terms of relative earnings, access to opportunity and satisfaction with their current situations? For all categories of respondent, we asked them to evaluate their experiences, choices and opportunities, and how they envisaged their longer-term career prospects.

CLASSIFYING GRADUATE JOBS

In our earlier work on the graduate labour market we have employed a simple but useful device to help us understand the integration of graduates into the labour market. By assigning the detailed occupational categories of the Standard Occupational Classification (SOC) to 'graduate' or 'non-graduate' categories, we can explore how this classification correlates with: graduates' views of the appropriateness of their job for someone with their education; their use of HE-acquired skills and knowledge; their earnings; and job satisfaction. However, we were dissatisfied with the way in which we had operationalised this classification (termed SOC(HE)), given that we had relied to a significant extent on information from the Labour Force Survey about the occupations of degree holders.

We have revisited this classification, using an approach by which we evaluate jobs in terms of their use of the knowledge and high level skills acquired through higher education, defined as 'expertise', the use of communication skills developed as a part of a degree course and a component we term 'strategic skills and knowledge' – the requirement a job makes on the incumbent in terms of high level evidence evaluation and decision making skills which again form part of a course curriculum. The resulting classification has enabled us to identify more sharply the distinction between graduate jobs ('experts', 'communicators' and 'strategists'), and non-graduate jobs.

GRADUATE INTEGRATION INTO THE LABOUR MARKET

Compared with the experiences of graduates some ten years earlier, Futuretrack graduates faced a tough labour market. The greater number of graduates seeking employment, coupled with harsh economic conditions, have combined to create higher levels of graduate unemployment, a higher proportion of graduates in non-graduate employment and a lower rate of career progression for graduates than was the situation ten years earlier. More than 10 per cent of Futuretrack graduates have experienced significant spells of unemployment, which for some may still be continuing beyond the date of the survey.

There is strong evidence that graduates are taking non-graduate jobs, in which they do not consider their graduate skills and knowledge to be useful.

Despite this rather negative finding, it remains the case that the labour market allocates opportunities not just on the basis of factors such as course results and subjects studied but also according to the category of university attended, the age of the graduate, ethnic background and parental education. These factors appear to be instrumental in decreasing or increasing the likelihood that graduates will experience unemployment or enter a graduate job and are associated with entry into further study. None of these results is surprising, but the strength of the observed associations was, in some instances, greater than expected. For example, graduates of Asian ethnic background are significantly less likely to have worked in non-graduate

occupations than graduates from other ethnic backgrounds (including 'white').

STUDENT FINANCE AND ITS IMPACT ON CHOICE

Futuretrack graduates have experienced a range of tuition fee and associated debt repayment regimes. For those who studied at English institutions, fees of approximately £3,000 per year applied for most students. The situation in Scotland was different, with an endowment scheme initially replacing tuition fees. This scheme was abolished in 2008, with Scottish students at Scottish universities paying no tuition fees. In Wales, the cap on tuition fees rose to £3,000 in 2007-08, bringing them in line with universities in England and Northern Ireland, but with all Welsh students receiving a grant of £1,890 towards their fees.

The analysis of accumulated student debt at the time of graduation reported in chapter 4 reveals how instrumental these different fee and grant regimes have been in terms of the debt that is reported. While student debt has risen dramatically in real terms over the past ten years, the differences between graduates according to the institution they attended are remarkable. Almost half of graduates from English universities had debts of £20,000 or more. For those who attended a Scottish university only 1 in 6 had similar levels of debt.

Those who have accumulated higher debts than the average tend to be males though the differences by gender are not marked. Those of Asian ethnic origins are less likely to report that they had any debt at all on graduation. Social background appears to be linked to student indebtedness, though for those with high debt levels there are few significant differences by social class categories. The length of undergraduate course undertaken has a relationship with debt as expected; longer courses lead to higher levels of debt.

In terms of the ways in which the reported level of debt impacted upon post-graduation options, we note that the most marked effect is the way in which it limits postgraduate study.

The repayment of debt is clearly linked to the subsequent activity history of graduates. Those who were unemployed at the time of the survey, were in a non-graduate job or had low earnings were the least likely to have made any progress whatsoever in repaying their debts.

GRADUATE EARNINGS

The earnings of graduates, particularly the 'graduate premium' (the additional earnings advantage conferred by a degree) is an indicator both of the productivity of higher education and of the value that society places upon particular jobs held by graduates. In terms of productivity, it has been argued elsewhere that the average increase in productivity associated with the acquisition of an undergraduate degree has a net present value of more than £200,000 over a male graduate's working life. This may well have been the case when this estimate was produced, but it does not reflect the evidence revealed here, that the relative earnings advantage associated with a degree appears to have been declining slowly over the past decade, possibly by as much as 2 per cent per annum relative to average earnings in the economy. Equally, it does not take account of the fact that not all graduate jobs are valued in the same way. Those who undertook Law degrees, or studied in Medicine and Related Subjects, have experienced much less of a decline, whereas for the Arts and for those who graduated from universities we categorise as 'low

tariff access institutions', the decline is much greater than average.

Despite these findings, we have evidence that supports the contention that a degree continues to confer a significant earnings advantage. Comparing the earnings of those who completed their undergraduate studies with those who applied for a place but did not take it up, or who did not complete their undergraduate studies, demonstrates the potential scale of this effect. While there are important selection effects at work here, the comparison between these applicants to higher education, in terms of whether or not they went on to gain a degree, is a comparison between two groups where both had the desire to enter higher education and the motivation to apply.

Underlying all of the analyses is a continuing and seemingly permanent finding – the fact that male graduates earn more than females. We drew attention to this in our studies of the 1995 and 1999 graduating cohorts. The same results are still in evidence some ten years later. We can highlight specific sectors of the economy and types of work where the gender differential in earnings is endemic.

OTHER GRADUATE OUTCOMES

We looked at the outcomes of UK graduates at the time of the Stage 4 survey along the following dimensions:

- subjects which led to full-time employment or further study and access to opportunity;
- qualifications, skills and demand for graduate labour;
- subject studied in relation to knowledge and skills;
- organisations and industries where Stage 4 graduates worked;
- views of the respondents about why they accepted their current job;
- whether they achieved the type of work they hoped to;
- satisfaction with their current job, and their perceptions of their longer-term career prospects.

Subjects with the highest proportions of graduates in employment were Medicine and Dentistry, Education, Business and Administrative Studies, and Subjects Allied to Medicine. Subjects with the highest proportions of graduates still in full-time study at the Stage 4 survey were Physical Sciences, followed by Biology, Veterinary Sciences, Agriculture and related subjects and Languages. The relationship between subject studied and these later outcomes remains significant when controlling for key demographic and socio-economic variables. Graduates who studied Medicine and Dentistry were least likely to be unemployed, while those who studied Historical and Philosophical Studies were more than twice as likely to be unemployed as graduates from Social Studies.

Being from a non-white ethnic group or having at least one parent who had a degree increased the likelihood of being in further study relative to being in employment. Graduates in Medicine and Dentistry, Subjects Allied to Medicine, Education, Engineering and Technologies were most likely to have entered graduate jobs early in their careers. Those least likely to have entered a graduate job had studied Arts, Humanities, Languages and Interdisciplinary subjects, and to a lesser extent Social Studies and some areas of the Natural Sciences. There is clear evidence of the impact of the recession with increased proportions of graduates finding it harder to achieve rapid integration into appropriate occupations, compared to earlier

graduates. This was most noticeable in Architecture, Building and Planning, Law, Mathematics and Computer Sciences, and Education.

Some new graduates have more career route options than others, depending on whether they could afford to spend time in unpaid work experience, felt able to wait for an appropriate vacancy, felt forced to take whatever job they could or to choose or have no option but to be unemployed.

There are no significant differences in non-graduate employment or unemployment from graduates from different socio-economic backgrounds but there were differences in the likelihood of participation in 'other' activities, which included unpaid work, travel and postgraduate study. Graduates from the highest entry tariff universities were most likely to enter expert occupations or graduate occupations as a whole. Graduates from the medium tariff universities and specialist HEIs demonstrated a similar propensity to low-tariff university graduates to be in non-graduate jobs or unemployed. Full-time students who entered university at a relatively young age were more likely than older students to be engaged in non-paid work activities and to have postponed or failed to access graduate jobs.

DEVELOPING AND USING SKILLS

Respondents were asked the extent to which they had developed different skills on their course. Fewer graduates thought that they had developed entrepreneurial skills or numerical skills very much, or to some extent, on their courses, but the discrepancies between development and use were relatively low in both cases, compared to more 'academically' based skills and soft skills. Those skills most in demand – spoken communication, team-working, numeracy and entrepreneurial skills – may have been developed more on courses; and those least demanded – research skills – were developed less. The skills of spoken communication, team-working and ability to manage time were less likely to have been explicitly developed across the full spectrum of subjects, and required in virtually all employment contexts. A shortfall in the extent to which graduates had acquired or been given sufficient opportunity to develop numerical skills was one of the most frequent reasons for dissatisfaction cited by STEM subject graduates who were dissatisfied with their choice of course. However, high proportions of graduates claimed to be using the knowledge and skills they had acquired as students in their current occupations.

Around three-quarters of graduates thought they possessed all the skills employers were looking for when recruiting for the type of job they wanted, but just over three fifths believed they were using these skills in their jobs. A higher proportion of STEM and other numerate subject group graduates thought this than those from Arts subjects. In terms of employment, graduates in Medicine and related subjects, Engineering and Mathematics and Computing graduates were among the most likely to have accessed graduate employment. Graduates from the other main vocationally orientated subject, Education, were the second highest. Overall graduates from the broad area of Natural Sciences were least likely to have done so.

There are wide variations in the proportion of graduates in expert graduate jobs. The highest proportions are those who studied Nursing and Pharmacology, with those from the Engineering sub-groups also more likely to be in expert graduate jobs. The proportion of graduates either unemployed or in non-

graduate jobs was much higher for graduates in Biology, Mathematics and Physical and Terrestrial Geography and Architecture, and especially so for those who studied Sports Science and Agriculture.

TYPE OF EMPLOYMENT

Nearly two-thirds of graduates were employed in large organisations, 10 per cent in micro-companies with less than 10 employees, 27 per cent were almost equally divided between small and medium organisations. The great majority of graduates of Medicine and allied subjects, and three quarters of Engineering and Technologies graduates were employed in large organisations. In contrast, over half of graduates in Architecture, Building and Planning, Creative Arts and Design, and in Education worked for an SME. Graduates in Medicine and Dentistry and allied subjects, and Education were most likely to be in public sector employment. Ten per cent or more of graduates in any of the subjects in Social Studies, Historical and Philosophical Studies, and Linguistics and Classics were employed in the Not-for-Profit sector. Overall 58 per cent of graduates worked in the private sector.

Gender distributions of employed graduates by sector remains unchanged from the Class of 1999² graduates. There have been significant changes in proportions of graduates in various sectors. The proportions of both male and female graduates in distribution tripled while there was a substantial decline in the proportions of graduates in banking. Among male graduates the proportion in construction fell by half while there was a growth in the information and communication sector.

Over half of graduates in the education, business services, information and communication, local and national government and the construction sectors worked in jobs which were done only, or mainly, by graduates. This was true for only just over 10 per cent of graduates with jobs in distribution, hotels and catering, and around a quarter of those with jobs in transport and tourism. The majority of graduates with jobs in manufacturing worked in occupations where a significant proportion of job-holders were not graduates.

Graduate employment in non-graduate jobs is currently extensive across the full industry sector spectrum. In terms of the types of graduate jobs 70 per cent of 'experts' worked in wholly or mainly graduate job contexts, whereas this was true for around two thirds of 'communicators' and just less than half of 'strategists'. Two thirds of graduates in employment had a permanent or open-ended contract and a further fifth were on a fixed term contract. Eight per cent were agency workers or had temporary or casual work. Five per cent were self-employed. This rose to 18 per cent for graduates from specialist HE colleges that tend to offer longer expert and communication courses designed to prepare them for client-focussed work.

JOB SATISFACTION

Sixty per cent of graduates in employment were satisfied with their job. Ten per cent were very dissatisfied. Satisfaction with future career options was even higher with over 70 per cent saying they were satisfied. These are remarkably positive responses. The characteristics our respondents thought were important in jobs remained largely unchanged with the opportunity to use initiative and the job itself being most frequently cited. The Stage 4 graduates did give greater emphasis

than earlier surveys to job security and hours of work, which may reflect the current graduate labour market. In terms of the subjects studied at university over 40 per cent of those with Engineering and Technologies, Subjects Allied to Medicine, Mathematical and Computing Science, Education and Physical Sciences degrees were very satisfied with their current job. The least satisfied, with over 20 per cent saying they were not satisfied with their current job were graduates in Law, Biology and associated subjects, Historical and Philosophical Studies, Creative Arts and Design, and Architecture, Building and Planning.

There were clear differences between STEM graduates and those from non-STEM courses in terms of why they accepted their current jobs. STEM graduates were more likely to say the job was 'exactly the type of work I wanted' while non-STEM graduates more often said the job they did was 'better than being unemployed' or that 'it suits me in the short term'. Overall 29 per cent said that their current job was exactly the type of work they wanted. Graduates who studied Subjects Allied to Medicine and Education were more likely to be in a job they wanted, while those who studied Social Studies or Law remained significantly less likely to agree with this. Black and Asian graduates are less likely to agree that they are in a job with the sort of work they really wanted. Graduates with good degrees and those with no debts were more likely to be in the job they wanted. This implies that levels of debt influence job choice.

LONGER TERM CAREER PLANNING

Comparing the career planning activities of Stage 3 respondents while still at university with the career and work outcomes achieved at Stage 4 reveals that of those who had hoped to obtain employment related to longer-term career plans (some 46 per cent had said this) 87 per cent said that they were now in a job which used the skills developed in HE and three quarters said they were using knowledge acquired in their studies. Those who planned to get a job related to their undergraduate studies were indeed more likely to use the skills and knowledge obtained. Those who felt confident, while still studying, that they could find a job allowing them to use the skills and knowledge obtained were even more likely to do so in practice.

WORK EXPERIENCES AND PAID EMPLOYMENT

Our findings confirm previous analyses that, since the 1990s in particular, increased financial pressure and higher levels of debt had fostered an increase in the proportions of students taking on paid work in parallel with their course-work during term. The majority of Futuretrack respondents undertook some type of work experience during their undergraduate degree, including paid work, either for career development reasons or only for the money, vacation internships, sandwich placements and other structured shorter placements as well as unpaid work. Only 21 per cent of graduates had no work experience at all.

Work experience and other types of formal placements and assessed project work as part of the course are a more common feature of study at HEIs outside the highest tariff group. Conversely, graduates from highest tariff HEIs were more likely than those of other types of HEI to have taken part in paid or unpaid work which was not a recognised part of their studies, although they are also the most likely to have undertaken no paid or unpaid work while in HE. The provision of work

² Purcell, K., Elias P, Davies R. and Wilton N. (2005).
The Class of '99. DfES Research Report No 691 DfES: Sheffield

placements and other work-based learning as part of undergraduate courses was lowest amongst graduates of Linguistics and Classics and Historical and Philosophical Studies, and highest amongst three of the most vocational subject groups: Medicine and Dentistry; Subjects Allied to Medicine; and Education. Graduates of subjects which have a high number of teaching hours, including the Physical Sciences, Mathematical and Computational Sciences and Creative Arts and Design, were the least likely to have undertaken any form of paid or unpaid work during their studies.

Using the revised SOC(HE) classification categories for graduate jobs, expert and communicator type jobs have the highest proportions of graduates who had undertaken structured work placements. The strategist job type has the highest proportion of respondents who undertook paid work only for the money. On the other hand, the unpaid work and unemployed categories have the highest proportions of respondents with no work experience at all, as well as the lowest proportions of structured work placements whilst studying.

Those who had any kind of work experience were more likely to say that they felt their job was very appropriate for someone with their level of skills and qualifications. However, those who did work placements integral to the course, a vacation internship or paid work for career experience, had a higher proportion of respondents who felt that their job was very appropriate compared to those who did unpaid work for career experience or those who undertook paid work only for the money. The respondents who had no work experience at all also had the highest proportion who felt that their job was inappropriate for them, and they were also more likely to be in non-graduate jobs or unpaid work.

UNPAID WORK

There has been very little systematic investigation of the impact of unpaid work experience and internships on career outcomes. Our analysis suggests that the timing of doing unpaid work, during an undergraduate degree or after graduation, can lead to different early career outcomes for graduates.

Most graduates did no unpaid work at all, and of those who did undertake it, the majority did so during their undergraduate degree only. A further 6 per cent did unpaid work both during their course and after graduation, and 5 per cent after graduation only.

The subject group with the lowest incidence of unpaid work is Mathematical and Computer Sciences. Social Studies and Law subjects, Medicine and related, and Education subjects have the highest proportions of respondents who did unpaid work during their degrees. Graduates from Creative Arts and Design subjects had the highest proportion of respondents who did unpaid work after graduation only. For interdisciplinary subjects, those that involved a STEM subject were more likely to have done no unpaid work at all, and less likely to have done unpaid work during the degree, than those which did not include a STEM subject. Graduates who attended highest tariff universities were most likely to do unpaid work during their course and least likely to do so after graduation. Those who attended Specialist HE colleges were the least likely to do no unpaid work at all, but also the most likely to do so after graduation.

Respondents who have dependants, either adults or children under the age of 18, living with them are more likely to have

done unpaid work after graduation only or both during course and after graduation.

Unpaid work undertaken at different times of the respondents' experiences of university has a varied impact on their current types of jobs, even when controlling for background characteristics and types of HEI attended. Undertaking unpaid work *during* the course only compared to doing no unpaid work, increases the likelihood of being employed in an expert or communicator role by at least one and a half times relative to being employed in a non-graduate job. However, undertaking unpaid work *after* graduation diminishes the odds of being employed in all three types of graduate jobs relative to a non-graduate job and relative to doing no unpaid work at all. Interestingly, doing unpaid work both during the course and after graduation also has a significant diminishing effect for being employed in an expert role relative to a non-graduate job (the effect is also diminishing but not significant for strategic and communicator roles).

Part of the explanation for the above finding could be that graduates who undertook unpaid work after they graduated were much more likely to be currently employed in the distribution, hotels and catering industry sector, which also has the largest proportion of non-graduate jobs compared to other industry sectors.

ADVANTAGES OF EXTRA-CURRICULAR ACTIVITY

There is evidence that participation in extra-curricular activities while in HE is associated with positive labour market integration. In particular, graduates who were office holders or student representatives while in HE, indicating experience of leadership and roles of responsibility had more positive outcomes. Graduates who took part in extra-curricular activities and those who were office holders, were less likely to be unemployed, and more likely to be employed in a graduate job. This demonstrates the value employers place on such activities as a means of demonstrating desirable characteristics, such as teamwork and leadership, and in particular the value placed on these activities by employers recruiting in areas of traditional graduate employment. As increasing proportions of graduates leave HE with a 1st or 2:1 (the traditional requirement for employment in a graduate job), 'added value' in the form of extra-curricular experience, along with work experience outside academic studies has become an increasingly important way graduates may set themselves apart from others in their graduating cohort.

Graduates with extra-curricular experience while in HE were less likely to be earning a comparatively low salary, and those with experience of being an office holder or student representative were even less likely. In part because of their easier transition into the labour market, graduates with extra-curricular experience and those who had been office holders were found to be more positive about their post-graduation careers. They were found to be more likely to agree to some extent that they were satisfied with their current job, to feel it was appropriate for someone with their skills and qualifications and to agree that they were positive about their long-term career prospects.

SOCIO-ECONOMIC BACKGROUND AND EXTRA-CURRICULAR ACTIVITY

The findings indicate that participation in extra-curricular activities is clearly associated with labour market advantage. Earlier stages of the Futuretrack longitudinal survey and previous research has shown that some groups are less likely, due to a lack of finances, self-confidence or time, to have engaged in extra-curricular activities. Among the Futuretrack graduates, socio-economic background appeared to have the closest relationship with whether a respondent had taken part in extra-curricular activities while in HE or been an office holder. Two thirds (67 per cent) of those from a routine and manual background had taken part in extra-curricular activities while in HE, compared to over three quarters (80 per cent) of graduates from a higher managerial or professional background. Similarly, 13 per cent of graduates from a routine and manual background had been an office holder, compared to 20 per cent of graduates from a higher managerial or professional background. A similar pattern was observed when looking at the proportions of each group whose parents had a degree.

It was found that those students who had extra-curricular or office-holder experiences in HE were more likely to be in a graduate job. This suggests that participation in these activities can act as an intervening factor in enabling those from less advantaged backgrounds to gain access to similar opportunities to those from more advantaged backgrounds. Consequently, the lower proportions of graduates from a routine and manual background who have engaged in these activities, and the possibility that this is a result of exclusion based on personal characteristics, demonstrates the extent to which ability to make full use of HE experiences can further reinforce disadvantage, despite having the potential to enable graduates to overcome it.

Furthermore it may be that other variables associated with socio-economic background such as type of HEI, subject studied and access to social networks that facilitate labour market entry and achievement may be more important than socio-economic background *per se*.

LIVING AT HOME OR AWAY

Previous Stages of the Futuretrack project have shown that students who lived at home while studying had different HE experiences than those who did not live at home, that living at home played a key role in determining the type of HEI they had access to and graduates who had chosen to study locally or within a relatively close distance to enable them to remain living at their existing homes, tended overall to be less positive about their experience of HE. This appeared to be the case regardless of whether a student lived in an adult home with or without dependents or remained in their parental home while they studied. However, when examining the impact of having lived at home while studying on transition into the labour market, it was clear that not all groups of students who lived at home had the same experiences. Age was used as a proxy to differentiate graduates who had lived in their own home while they studied (older graduates who were aged 21 and over when they entered HE) and those who remained in their parental home (younger students aged under 21 when they entered HE).

Differentiating between these two groups revealed that students who lived in their own home appeared to be somewhat

advantaged in the labour market, being more likely to be in employment, more likely to be in a graduate job, more satisfied with their current job and more likely to think that their job was appropriate for someone with their skills and qualifications. In part this is likely to be because of their greater labour market experience prior to, and sometimes during, HE. However, they were also found to be less likely to be positive about their long-term career prospects, which is likely to reflect their age and the amount of time they have to develop their careers.

Younger students, who it was assumed remained in their parental home when they indicated that they lived at home while they studied, were found to be the most likely to be working in a non-graduate job, the most likely to be earning less than £15,000 per annum, to be least likely to say they were satisfied to some extent with their current job and to agree to some extent that their job was appropriate for someone with their skills and qualifications and to be less likely to agree that they were positive about their long-term career prospects. They were also least likely to have achieved a 1st or 2:1 degree. This is an issue for policy makers. As tuition fees for HE rise, it is anticipated that a greater proportion of students will remain in their parental home while they study as a way of saving money.

Graduates from a routine and manual background, those who did not have a parent with a degree, female students and those from minority ethnic groups were all more likely to remain in their parental home while they were studying. With the exception of Asian students, graduates from all the non-traditional groups were also more likely than their more traditional comparator groups to live in their own home while they studied. Comparison of graduates from a routine and manual background who remained in their parental home while they studied and those who left, showed that those who left were less likely to be in non-graduate jobs.

TAKE UP OF CAREERS ADVICE

The proportion of graduates who had visited their HEI Careers Advice Service while they were in HE was surprisingly low. At the end of their final year in HE, 44 per cent of graduates said that they had not visited their HEI Careers Service. When looking at the different labour market experiences of those who had and had not visited their Careers Service when in HE, the benefits, in terms of the proportions who were in graduate employment, were unclear, as those who had not visited their Careers Service were approximately as likely as those who had, to be in a graduate job, and to be positive about their job.

A clearer difference was seen when considering graduates' perception of the value of the advice they had received. This showed that graduates who, at the end of their final year, before they had completed their transition into the labour market, thought that the advice they had received had been very helpful were the most likely of those who had received advice to be in graduate employment, although those who had not visited their Careers Service were even more likely. Those who had found their advice very helpful were slightly less likely to be working in a job that was done mostly or only by non-graduates and were the most optimistic about their long-term career plans.

NETWORKING

There was similarly no clear picture when examining access to very helpful advice from HEI Careers Services. However, the

relatively small proportion of graduates who used their HEI's Careers Advice Service indicated that graduates had sought careers advice elsewhere.

The two most common sources for this advice were friends and family and department teaching staff, and it was in access to these resources that the impact of disadvantage became clearer. This was particularly the case when looking at the access of students from disadvantaged backgrounds to advice from their friends and family. Access to helpful advice from friends and family indicates that an individual has access to social networks comprised, at least in part, of individuals with knowledge and experience of the types of employment or further training the student aspired to enter. Access to these types of networks can be as a result of relationships which pre-exist HE or which are developed during a student's time in HE. When students come from a background where individuals with suitable knowledge and experience are relatively rare, networking in HE becomes increasingly important. However, the Futuretrack evidence has shown that students from less traditional backgrounds are often limited in the extent to which they are able and/or willing to engage in networking with other students and in particular with those who have higher levels of social and cultural capital. Consequently, these more excluded students lack the resources to find graduate employment that their more advantaged peers possess, and as a result are more likely to become excluded graduates, working in non-graduate employment and not realising the social and economic benefits of HE.

The less positive labour market experience of graduates who did not take part in extra-curricular activities, who remained in their parental home when they studied, and who did not develop the kinds of social networks that provided them with helpful careers advice, and the extent to which such activities are more likely amongst particular disadvantaged groups presents a challenge to the prevailing notion that HE participation is a vehicle for social mobility and reducing the impact of prior disadvantage. It instead suggests that prior disadvantage can be further entrenched by the very different HE experiences of those from more and less advantaged backgrounds.

LOOKING BACK: THE BENEFITS OF THE DEGREE

Between Stage 3, and Stage 4, graduates had become less likely to agree that their subject, skills they had developed in higher education and higher education institution had been an advantage to them in looking for employment. The proportion of graduates who believed their degree subject had been an advantage to some extent fell from 77 per cent to 60 per cent. The proportion that believed their HEI had been an advantage fell from 68 per cent to 50 per cent, and the proportion who believed the skills they had developed on their course had made them more employable fell from 78 to 70 per cent.

Graduates with degrees in STEM and vocational subjects were the most likely to believe their subject had been an advantage, while graduates in Arts subjects were the least likely. Large falls in the proportion of graduates agreeing that their subject was an advantage were seen amongst those subjects associated with professions that have been worst hit by the recession, as well as amongst the STEM group as a whole.

Similarly, graduates with degrees in STEM and vocational subjects were the most likely to believe the skills they had developed on their course had made them more employable.

Particular issues for graduates in Law, Architecture and Media and PR-related subjects who hoped to go into employment using their subject skills were identified due to both over-supply and lack of demand in these areas. Graduates of all subject groups were more likely to say that they were using their undergraduate course skills in their current job than that they were using their subject knowledge. As was expected, graduates from the highest tariff HEIs were the most likely to believe that their HEI had been an advantage in looking for employment, with those from lowest tariff HEIs least likely.

Graduates' opinions about the extent to which their course offered good value for money are based on both the quality of the teaching and support they received and on the returns on having a degree that they had experienced (or anticipated experiencing) in the labour market. At Stage 4, approximately 60 per cent of graduates agreed to some extent that their degree had been good value for money and approximately a quarter disagreed to some extent.

EXPERIENCES OF INTERNATIONAL STUDENTS

We find evidence of the role international student mobility can play in developing skills that enable graduates to make an appropriate transition into the labour market. The development of communication and English language skills had been identified by many of them as a motivating factor in their decision to study in the UK. For European and other international students, the closing of the gap between graduates who had learned English as children or adults and those graduates who were monolingual English speakers demonstrates the extent to which UK HE experience had enhanced the employability of particular groups of international graduates. More than 65 per cent of non-native speakers of English rated their written and spoken communication skills after graduation as 'very good' or 'excellent' and because of the greater challenges most had faced as undergraduate students learning in a second language, they probably applied more stringent criteria than native speakers.

After graduation, international graduates were more likely than UK nationals to embark on taught Masters and PhD courses. There were various reasons for this. International graduates were more likely to have gained a first class degree, providing them with greater access to post-graduate study opportunities. However, like those of the UK students who did so, a significant proportion had gone on to further study in order to gain a recognised qualification that would give them an advantage in the labour market.

European and other international students were less likely than UK-domiciled graduates to have accrued debts as undergraduates. More than 50 per cent of all international graduates and more than 30 per cent of all other European graduates had not accrued any repayable debts at the time of their graduation. This largely reflects the funding regimes in the countries in which they studied and the relationship between social class and access to international experiences.

Looking at the career destinations of graduates of three-year undergraduate courses shows that European and other international graduates were likely to move more quickly into graduate occupations and experienced shorter periods of unemployment. Graduates who were nationals of countries outside Europe were most likely to be employed in a graduate

occupation at the time of the Stage 4 survey, which is likely to be related to the types of subjects in which these graduates were concentrated and their relative educational and socio-economic advantages. Students who had come to the UK from non-European countries were more likely than UK students to study STEM subjects. As a consequence, international students were likely to be employed in expert graduate jobs.

UK GRADUATES WORKING OVERSEAS

Early-career international migration of UK-national graduates is relatively rare. Of all UK-national graduates, 2 per cent were living in a different European country and 4 per cent were living in a non-European country at the time of the survey.

Motivations for moving abroad were diverse, including a desire to use language skills developed while studying or develop greater competence in another language, but difficulties in finding employment in the UK and perceptions that the situation might be easier elsewhere were mentioned frequently.

The experiences of international graduates were broadly positive and they were as satisfied as UK national graduates with their HE experiences. Nevertheless, the comments provided by international graduates who indicated that with hindsight they would choose to study at a different HEI, very often reflected a wish that they had studied in a different country to the UK. Non-European international graduates reported dissatisfaction about their course fees, the UK-orientation of their courses and difficulties in transferring their skills and qualifications outside the UK context, but overall, 70 per cent considered that their course had been good value for money and two-thirds stated that they would definitely or probably choose the same undergraduate course again.

NON-GRADUATES: THOSE WHO DID NOT COMPLETE A DEGREE

Non-graduates comprise 8 per cent of the Futuretrack sample in Stage 4. Almost two-thirds of the non-graduates entered HE at some point but subsequently dropped out. Those who applied to enter HE but who ultimately did not graduate are less likely to be from a traditional student background. They are more likely to come from routine and manual backgrounds, to have parents with no experience of HE, and to be mature students when they applied to enter HE. Although the Futuretrack non-graduates are not representative of all non-graduates as they applied to enter HE, this difference between the characteristics of graduates and non-graduates raises issues about the greater exclusion of some groups from HE and consequently the extent to which HE can be seen as perpetuating disadvantage rather than promoting social mobility.

Despite being in the labour market for longer, non-graduates were only slightly more likely than graduates to have been in employment at the time of the survey, with most of this difference offset by the proportion of graduates who were still studying at post-graduate level. Non-graduates were more likely to be in permanent employment.

There was broad similarity in the sectors in which graduates and non-graduates were employed and in the size of their employer. However, there were significant differences in the proportion of each group who were in jobs only or mostly done by graduates.

Non-graduates whose social background was most similar to that of traditional students were the most likely to be employed in jobs mostly or only done by graduates. While having a degree undoubtedly gives graduates an advantage, having characteristics associated with being a graduate, aside from having a degree, cannot be discounted as factors in enabling non-graduates to find graduate-level employment.

The non-graduates in the Futuretrack cohort were earning less in their current job than graduates, and research suggests that they can expect this gap to widen as their careers progress.

Non-graduates who had undertaken further training were positive about the impact it had on their careers. Employer support appears to be key in enabling non-graduates to undertake both vocational education and training and enter HE on a part-time basis.

Satisfaction with their current job was broadly similar amongst graduates and non-graduates. However, non-graduates were less optimistic about their long-term career prospects, less likely to believe they had the skills employers were looking for when recruiting for the kind of job they wanted, and less likely to say that they had a clear idea about what kind of job they wanted to have in five years' time. This suggests that the impact of not having a degree may not be seen relatively early in respondents' careers, but it has longer-term implications which will become evident as the careers of both groups progress.

WOULD THEY DO IT ALL AGAIN?

The proportion of respondents who said that with hindsight they would definitely or probably study the same course again fell by approximately 10 per cent, from 70 to 60 per cent, between Stages 3 and 4. Choosing a different course was more frequently mentioned than choosing a different HEI. Reasons given by graduates who would choose a different HEI were focussed on a perceived lack of prestige of their actual HEI and the impact respondents thought this had on their employment prospects, and on unsatisfactory teaching and/or resources.

Graduates who said that with hindsight they would change their subject predominantly said they would change to something that they thought would give them more of an advantage in the labour market – usually something more specialised, vocational or technical, with a more clearly defined career path. A small minority took the opposite view, and said that they would choose something more enjoyable, regardless of the impact it had on their employability.

Respondents noted that at the time they applied to enter HE they had not realised how much the opportunities in the labour market would be affected by the recession and consequently, only a small minority thought that they had been badly advised about the implications of their subject and HEI choice.

It would be expected that as respondents entered the labour market, their clarity about their future careers would increase. However, this has not been the case. Graduating into a recession and uncertainty about the long-term impact this will have on their careers has resulted in a significant minority of respondents feeling unclear about their future career and lacking in optimism about their long-term career prospects. However, approximately two thirds of all graduates agreed that they are optimistic about their long-term career prospects, and just 4 per cent would choose not to go into HE if they were facing today (the time of the survey) the choice they made in 2005/06.



ACKNOWLEDGEMENTS

The study upon which this report is based, Futuretrack, is an ambitious and groundbreaking study of the process of higher education in the United Kingdom. Its ambition was to track applicants for a full-time place in higher education in 2006 as they made their way through the undergraduate stages of higher education and onwards, or the alternative pathways they chose. It was groundbreaking in that it was the first longitudinal survey ever undertaken exclusively via a web-based approach and for which statistical controls could be applied.

The most important contribution to this study that we gratefully acknowledge is that from our financial sponsor, the Higher Education Careers Service Unit (HECSU). This ambitious and innovative study came with a significant risk. HECSU accepted this risk. Without the strong support of its Chief Executive and all the HECSU board members, the study could not have taken place. Secondly, we are most grateful to the Universities and Colleges Admissions Service (UCAS) for facilitating this survey of applicants. Their cooperation in the early stages of this study was invaluable. Thirdly, we have been supported at all stages of the study by a Steering Group, the members of which have given freely of their time and advice, assisting particularly with the many methods we have employed to retain contact with study participants. We also wish to

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As with any major longitudinal study, we owe an enormous debt to those who have participated in the study. In this modern age of mobile communication and social networking, persuading people to engage with an online survey is no mean feat. Yet many thousands of people responded to our requests for information, giving generously of their time for the benefit of future generations who might embark upon the same journeys they have made.

Given the wide range of these acknowledgements, it may seem invidious to name one additional person who we wish to thank, but the contribution made by Jane Artess, Director of Research at HECSU deserves such a mention. Her support throughout has been a tremendous asset that the Futuretrack team has drawn on and we wish to put on record our appreciation of her interest and encouragement.

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