

Key Findings from the Stage 3.1 survey

(Conducted with 3rd year final year undergraduates as they approached the end of their courses in summer 2009)

The experience of UK undergraduate education: how higher education courses and study contexts studies impacted on students' assessments, evaluations and predictions of educational outcomes¹.

- Overall, evaluations of tuition, academic support and feedback provided remained positive as students approached the end of their undergraduate courses and the majority agreed with the statement 'My course is helping me to develop the skills I believe I will need to get a job'. Two thirds of students agreed that they had been given good feedback both after the first year at HE and in the final year, but a minority of students tended to be somewhat more critical as their courses had proceeded and they perceived the amount of work required as increasingly demanding. The characteristics associated with greater and less satisfaction with different dimensions of the HE experience indicated differences related to the academic context and personal characteristics of students, with some interesting differences. For example:
 - mature students, female students and Asian and black students were more likely than other students to agree with the statement 'the amount of work I had to complete on my course was excessive' compared with other students;
 - students studying at a high tariff university were less likely to state that the amount of work was excessive compared with students studying at a lower tariff university;
 - Satisfaction with tuition and support ranged from 87 per cent of students of Historical & Philosophical Studies to 70 per cent of students of Engineering & Technologies.
- Over half of all respondents regarded their courses as vocational and 45 per cent as non-vocational. Not surprisingly, subjects studied were an important indicator as to whether respondents defined their courses as vocational and it is not surprising that students of Architecture, Building & Planning, Subjects allied to Medicine, Law, Education and Engineering & Technologies were most likely to do so. However, personal characteristics, particularly age and ethnicity also appeared to have a significant impact, as black and mature students were more likely to assess their

¹ Gaby Atfield, Kate Purcell and Jane Artess *The experience of UK undergraduate education: how higher education courses and study contexts studies impacted on students' assessments, evaluations and predictions of educational outcomes Skills development and perceptions of skills required*. FT Working paper 5 September 2010.

courses as vocational – and this was borne out by their early career planning propensity, as revealed by the Futuretrack Stage 2 survey.

- Under a third of all third year final year students had taken part, or would take part in their final year, in work placements or study abroad as part of their courses. This proportion is correlated with differences in the student population according to the 'vocationality' of their subjects. While half of all students on vocational courses had been engaged in work placement(s) and/or time spend abroad (or plan to be engaged in one of these before the end of their final year), only 15 per cent of students studying non-vocational courses reported such activities. Older students were more likely to report work placements than younger students, which is likely to relate to their more employment-orientated motivations and clearer sense of career direction and occupational targets. Students of specialist HE colleges were more likely to report placements than those in highest and high tariff universities. The overall majority of students who had taken part in work placements considered them to have been very useful in terms of gaining experiences and skills.
- Final year students were more likely to live with family or a partner in their final year than in their first year, which is more likely to reflect an increase in cohabitation among younger students rather than return to the bosom of families of origin, and is in line with the other increased category, of living in self-catering accommodation with other students, either university-owned or privately-rented.
- Students who lived in student hall/ residence or in rented self-catering accommodation were the most likely to agree with the statement that they had a positive experience at the university or college where they had studied.
- Respondents were asked to reflect on their course choice and indicate whether they would do the same if starting in HE again. Most (70 per cent) students would choose the same course definitely or probably again; a further 15 per cent stated that they would choose something similar, and 10 per cent would opt for something completely different. Those more likely to opt for something completely different were predominantly male, had studied at a Highest Tariff University, or had studied a Business and Administration course. They tended to be less confident about achieving hopes after graduation and about achieving a good class of degree. They were less likely to state that they had good careers advice either during the application process or during their last year at HE.
- Reasons given for choosing a different course if they could start again included disappointment that their interests had not been met by their chosen course, changing awareness of their own skills and abilities, becoming aware of a wider range of options than they had considered when embarking on HE, and concern about the usefulness of their degree in the light of changes in the economic situation. The pattern of response was very diverse, with some non-vocational students concluding that in the light of the current recession they would prefer to have studied something more vocational, while some who had opted for occupationally-focused courses wished they had allowed themselves a wider range of options and were concerned about the transferability of their skills and knowledge.

- The importance of excellent careers information and guidance on the basis of individual strengths, weaknesses and preferences at the course-choice stage is reinforced by the evidence in this paper. It is, and should be expected to be the case that students' perceptions change during their period in HE, but better information about the implications of early choices would lead to less ill-judged investment in HE.

Widening access and equal opportunities; the HE experience of non-traditional students².

- Despite the considerable emphasis on widening participation in UK higher education both within HEIs themselves and in wider policy-making circles, study at different types of HE continues to be accessed differently according to socio-economic advantage and disadvantage, age, possession or lack of disabilities. This leads to different qualities of HE experience, academically and socially.
- This paper has examined the experiences of these three groups of non-traditional students – students from routine and manual background, mature students (aged 21 and over when they entered HE) and who had reported having a disability or long-term illness that affected their ability to do academic work.
- In all, a little over two fifths of the final year respondents (41 per cent) reported membership of one or more of the categories
 - 21 per cent came from routine and manual socio-economic backgrounds;
 - , 27 per cent were mature students;
 - 9 per cent reported long-term illness or disability. Just under half of them reported membership of more than one of these groups.

Career plans

- More than half of the mature students hoped to find employment related to their long-term career plans in the year after they graduated. They were the only group for whom this figure was over 50 per cent.
- Mature students were much more likely than non-mature students to say that they had a clear idea about the kind of career they wished to develop. More than half (53 per cent) of

²Gaby Atfield and Heike Behle (September 2010) *Widening access and equal opportunities; the HE experience of non-traditional students*. Futuretrack Working paper 6.

the older mature students rated themselves as '1' on a scale of '1' to '7' rating of their career clarity, compared to 28 per cent of the young students who entered HE aged 20 or less.

- The differences in plans for the year after graduation between the other non-traditional groups are not as large, although it is noticeable that students with a disability or long-term illness were more likely to say that they hoped to continue in full-time study after their degree.
- Mature students were the most likely to be confident that they would achieve their plans for the year after their degree (65 per cent said they were 'very' or 'quite' confident), while students with a disability or long-term illness were least likely to be 'very' or 'quite' confident (55 per cent). Seventeen per cent of students with a disability or long-term illness said they were 'not very confident' or 'not confident at all' of achieving their aspirations for the year after graduation, compared to ten per cent of mature students.
- Mature students were also the most optimistic about their long-term career plans. Seventy per cent of mature students agreed to some extent that they were optimistic, compared to 66 per cent of students from a routine and manual socio-economic background and 61 per cent of students with a disability or long-term illness.

Barriers and constraints faced by non-traditional students

- Various explanations have been proposed for the different experiences of non-traditional students in HE and the seemingly less-successful career outcomes of non-traditional graduates compared to their traditional contemporaries. We examined four of these explanations: attending a lower-ranked university; focussing on academic achievement at the exclusion of wider skills and social development; lack of self-confidence; and lack of geographical mobility.
- Non-traditional students are less likely to attend an HEI in the highest tariff group, and more likely to attend one in the lowest tariff group. This has implications for the social networks and skills and subject knowledge they develop in HE, both of which has an impact on the likelihood that they will be successful in the labour market.
- Non-traditional students were found to perceive HE as being hard work, with older students who were the most likely to have family and other commitments being the most likely to express this opinion.
- Students from routine and manual socio-economic backgrounds and those with a disability or long-term illness were less likely than traditional students to expect to achieve a first class or 2:1 degree (which is held by many employers as a pre-requisite for a graduate job). Conversely, mature students were more likely to expect to achieve one of these grades.
- Students from all non-traditional groups were less likely to see being a student as fun. Sixty-three per cent of mature students agreed that being a full-time HE student was fun, compared to 79 per cent of younger students. Similarly, 70 per cent of students from a routine and manual socio-economic background agreed (Eight per cent less than students from other socio-economic backgrounds), as did 67 per cent of students with a

disability or long-term illness (Nine per cent less than students without a disability or long-term illness).

- Students from all non-traditional groups were also less likely to agree that being a student at their university had been a positive experience overall. For both the mature students and the students from a routine and manual socio-economic background, the difference in overall agreement compared to their comparator group was around three per cent, but there was an eight per cent difference between students with and without a disability or long-term illness (80 per cent compared to 87 per cent).
- Across all the final year students, the proportions rating their self-confidence as 'excellent' or 'very good' increased, but the students from non-traditional backgrounds started with lower levels of self-confidence and saw it increase less.
- Students from non-traditional groups were found to be more likely than traditional students to expect to develop their career locally and to be somewhat more likely than traditional students to make choices about where they would consider looking for work based on factors like considering the needs of their family, their familiarity with particular areas and, with the exception of mature students, the cost of living in a particular region, while traditional students were more likely than non-traditional ones to say that their geographical preferences were based on employment opportunities.
- The impact of experience of work as an intervening factor that may improve the labour market outcomes of non-traditional students was examined. It was found that non-traditional students were more likely to take part in formal work experience as part of their course, but slightly less likely to do paid work. This highlights the vocational nature of much of the engagement of non-traditional students with HE and it will be interesting to see whether this has an impact on the post-graduation careers of the Futuretrack students.
- Overall, a picture emerges of the non-traditional students as a group who seek to minimise the economic, social and psychological risks of entering HE by working hard, in particular focussing on academic achievements, but whose ability to engage completely and benefit fully from HE is limited by a lack of confidence, finances and an understanding the wider implications of the choices they make. Nonetheless, there is a great deal of evidence in the Futuretrack survey that students from non-traditional backgrounds have gained from the experience of HE and are glad that they took part, although the extent to which this is evident inevitably varies across the different groups of non-traditional students as well as within each group.

"For me personally, at my age, higher education and university life has been the most wonderful experience possible. I have mixed, studied, argued with a range of youngsters, who found an old person willing to put his views on the line. Studying has encouraged me to continue the need for knowledge" [White student, aged 26 and over, from a routine and manual socio-economic background, studying Historical and Philosophical Studies at a lower tariff university]

*The impact of paid and unpaid work and of student debt on experience of higher education*³.

- Students in their third and final year of HE were more likely to have paid work that they had had in their first year: 47 per cent had had some paid work during term, three-quarters had done some paid work during vacations, and only 22 per cent had done no paid work whatsoever.
- In most regions, between 40-50 per cent of the finalists had undertaken paid work, but students in Northern Ireland and Scotland were considerably more likely to have done so, whereas those in Wales and the East of England were least likely to have had such jobs.
- The weekly hours of term-time working had also increased since the first year student survey. Women's average hours of paid work during term had risen from eight to over 12 hours per week, while men's had increased from eight and a half to 13.4.
- The extent of participation in paid work during term was correlated with the type of HEI attended; those at HE colleges and low tariff universities reported longest hours of work, those at the highest tariff HEIs least. BUT the average hours of paid work among those in the highest tariff category had doubled between first and third years, from five to ten hours weekly.
- Males worked longer hours in jobs than females; Black Caribbean were most likely to have paid work, followed by White students, those in the 'other ethnic minorities and mixed' group, Black African and those from an Asian Indian background were most likely to have worked very long hours. Asian Bangladeshi, Pakistani and Chinese UK students were least likely to have undertaken paid work during term in their final year
- Comparing how third year students had obtained their paid jobs; they were more likely so have done so via family and other networks than in their first year.

³ Kate Purcell and Peter Elias *The impact of paid and unpaid work and of student debt on experience of higher education* FT Working Paper 3, April 2010.

- Growing reasons for doing paid work during term were to pay for essential living costs and leisure and to get work experience of a particular industry or occupation or generally and the pattern of reasons for vacation work was similar: necessity and the need to get experience. It is clear that the message that employers look for work experience has got through.
- The amount of voluntary or unpaid work done by finalists was less than in their first year, but where it had grown; it tended to be unpaid work as an intern or related to studies. The reasons where there had been the biggest growth were 'experience for future career' and 'To learn new skills'.
- The Futuretrack survey reinforces previous findings that participation in paid work during term is related to educational and socio-economic advantage and disadvantage. It is too early to investigate either the positive or negative impacts of paid work on academic achievement or opportunities, but students working long hours were more likely to be dissatisfied with various aspects of their courses, to predict lower grades for themselves than those who worked less, and to participate less in other extra-curricular activities.
- We found evidence of both unwilling participation in paid work and frustration that paid work was not available in a significant minority of the cases where students did not have jobs. Job shortages related to particular locations or to the recession in general were commented on, as was the difficulty in finding work sufficiently flexible to fit with the demands of coursework.
- Many mature students reported family and community responsibilities that precluded paid work, but which in themselves constituted work and caused stress alongside study requirements, emphasising the heterogeneity of both the student population and their support and information needs.
- Nearly a third (31 per cent) of the third year finalist respondents expected to have debts of over £20,000 on completion of their courses, and in this group, 8 per cent expected debts of over £25,000. Male students anticipated higher debts, on average, at the end of their course than females.
- The scale of debts anticipated by these students had increased as their studies had progressed, leading to an increase in the average level of debt predicted and higher proportions expecting debts of over £20,000.
- Those attending HEIs at the 'higher tariff' end of the spectrum were least likely to have been accruing high debts than those at the lower end. Those at the low tariff universities were most likely to expect to end up with debts of over £25,000, followed by those at Specialist HE colleges, whereas those at the highest tariff universities were half as likely to do so.
- Those with accumulated debt of £15,000 or more were more likely to predict that their future options would be constrained by debt. Nearly 60 per cent of those whose debt fell below the £15,000 level reported that their career options would not be restricted,

compared to well under half of those whose debts already exceeded £15,000. They were more likely to say that they would like to do a postgraduate course, but did not wish to add to debts, or that they would have to settle for a less attractive job than they would prefer, in terms of career aspirations, so that they could pay off debts, or to have reported that the locations where they would be able to seek employment would be limited (mainly because of a need to return to parental homes for support while engaging in job-search).

- Third year students reported an increased tendency to agree with the statement 'I am worried about the prospect of having to repay loans and debts when I have completed my course'.
- Men worried less than women about debts. This may reflect their higher expected earnings, which we also looked at in this chapter.
- The average earnings expected by the Futuretrack sample of students about to graduate in summer 2009 was £19,665.
- Third year finalist males, those who were studying Law or Social Studies, those attending the Highest tariff universities, those from Black, Asian or Mixed ethnicity backgrounds, those in older age groups and those who had already applied for jobs or were planning full-time postgraduate study had higher earnings expectations.
- Third year finalist women, those who were studying Biology, Veterinary Sciences, Physical sciences, Architecture, Mass Communication, Classics, History, Creative Arts and Interdisciplinary subjects, those with a disability, and those who had no clear direction in mind, having not yet applied for jobs and planning temporary employment, had relatively lower expectations.
- Socio-economic background had no significant impact on expected earnings, but type of HEI and gender did, with males at the highest tariff universities expecting an average starting salary of £2,000 per annum more than women from similar HEIs and £6,000 per annum more than women at Specialist HE colleges whose male peers expected to earn on average £1,000 more. These relativities, at least, are likely to be realised, on the strength of existing graduate earnings patterns.
- There is evidence of a relationship between expected debt and expected earnings, but the picture is mixed, with no significant difference between those declaring that they will have no debts on graduation and those expecting debts of over £20,000, but those predicting debts under £20,000 predicted somewhat lower earnings, on average.

Career decision making, use of careers advisory services and career choices⁴.

Fifty six per cent of respondents stated that they had used their HE Careers Advisory Service, in their final year, most of who thought it had been very or quite helpful. Only

⁴ Heike Behle, Kate Purcell and Jane Artess *Career decision-making, use of careers advisory services and career choices* (Final working paper in preparation).

17 per cent of those who reported that they had done so stated that it had been 'not helpful' or 'not helpful at all'.

- Forty four per cent of all respondents had not used the University Careers Advisory Service in their final year.
- Students who considered their course as non-vocational were substantially more likely to report that they had visited the careers service website or other careers websites (e.g. Prospects) as finalists, or that they had taken part in a university-wide careers event for final year students. Students who categorised their course as vocational were less likely to have done so, but more likely to take advantage of opportunities in which they got specific practical help or advice on CV writing, completion of application forms and interview technique training.
- Asian and black students were more likely to state that they had used their HEI Careers Advisory Service. Other groups of students who stated that they had used the Careers Service were students at the high and highest tariff universities, students who expected to gain a high class of degree, students who were not sure if they would achieve their hopes after graduation and students who had started to look for employment.
- In their final year, the majority of students claimed to have a relatively clear idea about the occupation they eventually wanted to enter. Less applicants thought they had a clear idea than during the application process, when 29 per cent of students stated that they had a very clear idea ('1'), but while this proportion dropped after their first year of study to 14 per cent, during their final year of study 31 per cent of students reported that they had a very clear idea about the occupation they wanted to enter. Female and older students are more likely to report that they had a clear idea, together with those studying at a lower tariff university, who had been more likely to enter HE with clear employment-related goals.
- Forty four per cent of students on vocational courses stated that they had a very clear idea ('1' on the '1-7' scale), and at the other extreme, 32 per cent of students who had defined their course as non-vocational reported that they had little or no idea ('4-7' on the '1-7' scale).
- Despite the depressed graduate labour market that they were about to enter or move towards, 60 per cent of all students were very or quite confident that they could achieve their hopes for the year after they graduated. Twenty seven per cent stated that they were not sure, and 14 per cent were not very confident or not confident at all.
- Nineteen per cent of all students hoped to be enrolled on a full-time postgraduate degree course in the year after graduation. However, a significantly higher proportion (34 per cent) stated that they had actually applied for or were considering applying for another course in the next year. There was an indication that some of these students were considering applying to do another course as a 'fall-back' position in case they could not obtain appropriate employment. Twenty seven per cent of

students reported that they had applied or planned to apply for a full-time course whilst 6 per cent stated that they wanted to do a part-time course.

- Asian and black students and students at the highest and high tariff universities were more likely to have applied to be enrolled in a full-time course, together with students who expected a first and upper second class honours class of degree.

Job search and motivations⁵.

- Just over half of the final year Futuretrack students had started searching for employment at the time they completed the survey.
- Of those who had started looking for work, approximately half had applied for a job related to their long-term career plans and 18 per cent had applied for a job not related to their long-term career plans.
- Students at the highest tariff universities were the most likely to have started searching for employment and to have started applying for jobs related to their long-term career plans. Students at the lower tariff universities were more likely to have started looking for employment than those at high tariff universities, but they were less likely to have applied for a job.
- Male students, while no more likely to have started looking for employment than female students, were more likely to have actually applied for a job.
- Approximately a quarter of respondents who had applied for at least one job related to their long-term career plans had been offered a job they had accepted or planned to accept, compared to around a fifth of those who had applied for a job not related to their long-term career plans.
- The proportion of students expecting to get a first class degree who had been offered a job related to their long-term career plans was more than 10 per cent higher than the proportion of those who expected to achieve a 2:1 or 2:2.

⁵ Gaby Atfield and Kate Purcell, *Job search and motivations*. FT Working Paper 2, April 2010).

- More than three quarters of respondents said that they would like to do unpaid work or an internship after they graduate to gain experience related to their career, but 38 per cent said that they could not, for which the most commonly given reason was not being able to afford to.
- Opportunities for promotion was the most important job attribute when students were considering what kind of job they would look for. Flexibility for work-life balance, long-term security and opportunities for further training were all more important to the Futuretrack students than a competitive salary.
- More than two thirds of respondents hoped to obtain a job related to the subject they had studied in the medium to long term, while just under a quarter said they had no preference and eight per cent said that they hoped to obtain a job not related to the subject of their course. Among students who had decided that they did not want to pursue a career related to the subject they had studied, the most common reason given was simply that they no longer enjoyed the subject. However, students who were studying more vocational subjects but who did not plan to find a job related to their subject were more likely to say this was a result of making the wrong decision in choosing the subject in the first place.
- When students were asked the geographical locations in which they would consider looking for employment, Greater London was the most popular, with 44 per cent of respondents saying they would consider work in this area. Northern Ireland and Scotland appeared to be the most successful in encouraging students to consider remaining in the area, while Eastern England may face particular problems in retaining graduates, both those who have studied in the region and those who were domiciled there before they entered HE. Further exploration of the HE structure in regions related to these responses needs to be undertaken.
- While the availability of employment was an important consideration for students when considering the locations where they might work, constraints such as needing to consider the needs of family members and the overall cost of living in an area placed particular constraints on certain groups within the Futuretrack cohort.
- More than a third of respondents thought that the job market in which they would develop their career would be international, and they would consider jobs that involved working in or travelling frequently to countries outside the UK. Conversely, 14 per cent of respondents said that they expected their job market to be local and did not envisage moving location to develop their career, and a further quarter of respondents said that they might move within their region but they did not see themselves moving further. Again, different groups of students experienced constraints in the choices available to them in terms of the location of their career, meaning that they might make decisions that

were sub-optimal when considered purely from an economic perspective but which met other needs and preferences.

Skills development and perceptions of skills required⁶.

This paper engaged with the literature on 'employability', pointing out that a plethora of diverse phenomena has been gathered under this heading and used in different contexts and 'mixes' by different commentators, conflating social, educational and organisational skills and knowledge. These have ranged from basic literacy and numeracy skills, attitudinal and personality traits, social skills, evidence of potential to engage in further learning and adapt to new environments, through commercial awareness and general organisational skills, to the formally learned skills and knowledge that constitute competence in a specific occupation or context. There is a tendency on the part of some advocates of work experience to assume that development of 'employability skills' is implicit in work experience.

Final year students who completed the questionnaire had been asked to evaluate their basic written and spoken communication skills, numeracy and computer literacy at all three stages of the survey so far, and to rate their self-confidence before embarking on their courses and as they approached graduation. They were also asked about the extent to which they had developed particular skills within the academic and employability skills spectrums cited by skills and 'employability' stakeholders within and beyond higher education.

An examination of the responses of the Futuretrack cohort members approaching the end of their undergraduate courses in 2009 showed that they were well able to distinguish between skills possessed and skills acquired in HE, both formally, as part of the curriculum, and informally, through the process of being a student. They generally also exhibited systematic understanding of distinctions between the market value and wider intrinsic value of different kinds of educational qualifications, in terms of subject studied, skills development and expectations of employment. Once again, the heterogeneity of the UK undergraduate system is illustrated by these findings.

Two significant areas of discrepancy emerge in the analyses:

- *a discrepancy between the extent to which graduating students believed they possessed the key skills and competences included under the broad heading of 'employability skills' and the extent to which they believed that these had been developed **on their courses**; and*
- *A discrepancy between students' self-evaluations of their skills and employment-readiness and employers' reported opinions about the skills and employability of recently-qualified new graduates. This was particularly the case among students who*

⁶Gaby Atfield and Kate Purcell *Skills development and perceptions of skills required*. FT Working Paper 4, September 2010.

had studied on the subjects traditionally found to have provided a greater challenge for graduates to obtain employment appropriate for their skills and qualifications: for example, those who had studied Historical & Philosophical subjects⁷.

Students believed that they had developed their social and organisational skills as students, but that the experience of being a student – engaging in extra-curricular activities, doing paid and unpaid work unrelated to their courses, and simply being required to live more independently and meet a wider range of people and situations had all contributed to this. Throughout the stages of the Futuretrack survey, beyond simply the pedagogic opportunities – it has been clear that students from relatively disadvantaged educational and socio-economic backgrounds were less likely to have participated in the kinds of extra-curricular activities that provide such evidence, were more likely to have stayed in their pre-HE family households and communities and attended HEIs where such activities were less central to the experience of being a student (Atfield and Purcell 2010), had higher levels of participation in paid work and concerns about debt (Purcell and Elias 2010).

The complexity of different evidence sources for allegations about skill shortfalls in the graduate labour supply has been discussed in the paper and contradictions in reports from different employer-related sources, which indicate different expectations on the part of recruiters and recruits about what graduates in the given organisations might be expected to do, as new graduates, and what they might require to be inducted into, as employees in particular contexts. We conclude with summaries of the detailed findings.

*Students beliefs about the extent to which **they personally** possessed key skills*

- On all the skill categories presented, the students rated their ‘basic’ skills on average more highly at each stage of the survey.
- The majority of final year students rated their skills as at least adequate in all areas and most were confident of their skills and knowledge. This varied by core skill area:
- The skills most often rated as excellent or very good were those which applied across the disciplinary spectrum, whereas those somewhat more often reported to be merely adequate or not good were those less generally developed as an integral part of courses:
 - 74.5 per cent rated both their written communication and ability to work in a team as excellent or very good; 67 per cent rated their computer literacy as excellent or very good;
 - surprisingly, 58 per cent rated their leadership skills as excellent or very good;
 - 57 per cent rated their creativity as excellent or very good.
- There were three areas where their confidence in their abilities was less often high; the first two of these personal attributes rather than skills or knowledge *per se*:
 - just over half (53.2 per cent) rated their self-confidence as excellent or very good;
 - 47.4 per cent rated their self-discipline as excellent or very good;
 - finally, 45.2 per cent rated their numerical skills as excellent or very good.

⁷ As with other Futuretrack Stage 3.1 Thematic Working papers, we largely omitted consideration of those areas where the majority of undergraduates were completing four year courses because of the unrepresentative nature of 3rd year finalists in these disciplines, but they will be fully included in the Stage 3 composite analysis.

- On average, women tended to rate themselves lower than men on numeracy, self-confidence, leadership and computer literacy: areas traditionally associated with male gendered aptitudes.
- Differences in relation to ethnic background appeared to be related to cultural willingness to use extremes of the classification spectrum, as at the previous stage of the survey.
- Students at higher tariff HEIs tended to rate their written communication and numeracy skills higher than those at less *elite* institutions, but slightly lower on average on some of the organisational attributes such as team working abilities and self-discipline.

Students' perceptions of skills developed on courses

- between 80-90 per cent of students reported that their research skills, specialist knowledge, critical analysis, and ability to apply knowledge had been developed 'very much' or 'quite a lot';
- between 70-80 per cent said the same of written communication, logical thinking, interpersonal skills, presentation skills and time-management; and in addition, this was the case for over 60 per cent of respondents as far as problem-solving skills, ability to work in a team and spoken communication were concerned.
- It is not surprising that other areas of skill and knowledge were less often developed on courses: computer literacy, the ability to use numerical data and enterprise skills were part of the syllabus of fewer courses – but these were developed to a high level on some courses.
- Significant differences were found in self-rating of skills, knowledge and competence according to subject studied, gender, age and type of HEI:
 - in the case of computer literacy, those who had studied Maths & Computing, Architecture, Building & Planning, Physical Sciences and Engineering & Technologies were more likely to have said they had been substantially developed;
 - in the case of the ability to use numerical data, those who had studied Physical Sciences, Maths & Computing and Engineering & Technologies were again so much more likely to have developed these skills substantially on their courses;
 - enterprise skills were studied by those in vocational courses which were also more likely than most to lead to self-employment and/or industry and commerce and the need to market their services or products: Business & Administration, Architecture, Building & Planning, Engineering & Technologies, Creative Arts & Design;
 - conversely, 'employability skills' that more properly constitute what we might label as attitudinal or personality characteristics: self-reliance, perceived awareness of their own strengths and weaknesses, self-discipline and self-confidence, were all felt to have been developed on courses, but generally less likely to have been highly rated by students in terms of their evaluations of their core strengths and weaknesses.
- For selected subject comparisons, the percentages rating themselves as excellent or very good ranged widely, as follows:
 - **written communication**, from 84 per cent of students of Historical and Philosophical Studies to 61 per cent of Engineering and Technologies students;
 - **ability to work in a team**, percentages ranged from 80.5 per cent of Creative Arts and Design students to (somewhat surprisingly) 69 per cent of Engineering and Technologies students;

- **self-confidence** and **self-discipline**, the ranges were narrower - in the first, from 63 per cent of Business and Administration students to 52 per cent of Historical and Philosophical students, and in the second from 56 per cent of Business and Administration students to 44 per cent of Physical Sciences students;
 - **Numerical skills**, the range was from 70.7 per cent of Mathematics and Computing students rating themselves as excellent or very good to 35 per cent of Historical and Philosophical Studies students.
- Students in Engineering and Technologies and Mathematical and Computer Sciences were the most likely to rate their skills development as below the mean on many of the skills. Whether this reflects a general tendency to be more self-critical or that their courses are focused on the specific knowledge of their field that they do not enable them to develop wider transferable skills to a great extent is not clear.
 - Almost three quarters of final year students thought that the experience of being a student had made them more employable than they would otherwise have been, and more than 80 per cent agreed to a greater or lesser extent that the experience of being a student had enhanced their social and intellectual capabilities more broadly.

*The **main skills** students considered **employers seek** in graduate recruits*

Respondents were asked to name three skills or attributes that they considered to be the main skill or attributes sought by graduate employers.

- The categories identified by the respondents corresponds very closely to similar lists produced by employers groups and government agencies that have been derived from research among employers to establish the key, or 'employability' skills they seek when recruiting graduates.
- The three 'skills' that were most commonly mentioned by students were a strong work ethic, communication skills (in which we include written communication skills), and ability to work in a team; areas of skill identified by employers as lacking among recent graduates.
- Computer literacy, knowledge, analytic ability and knowledge had relatively few mentions, but it is likely that these were considered to be essential skills scarcely requiring to be singled out – implicit in the 'graduate threshold' of a graduate job.
- Qualifications were rarely mentioned – although 'the essential 2.1' came up in comments and it is interesting that those most likely to nominate it as one of the things graduate employers look for were those anticipating getting lower second class honours.
- The skills and attributes least often mentioned were numeracy and enterprise skill, which indicates that the widespread belief among employer and policy HE stakeholders that graduates tend to lack, and undervalue, these competences is well-founded.
- However, they recognised that specific qualifications represent only a minimum for getting a graduate job, necessary but not sufficient on their own to guarantee access to employment, and the importance of demonstrated 'softer skills' to discriminate among similarly qualified job applicants.
- It is clear that the students were aware of the importance of employability skills, but the comments that they made indicate that they assume that the proof of possessing these skills is generally evaluated by evidence of employment *experience*, whether as part of their courses or alongside them.

The extent to which students believed they had the skills and qualities that graduate employers seek

- There were differences in the extent to which students considered that the subject they were studying, the skills they had developed and the HEI they had attended would be advantages or disadvantages in seeking employment.
 - Those who were studying vocational subjects were most likely to believe that the subject they had studied would be an advantage in looking for employment (i.e. the three groups most likely to *strongly agree* that their subject would be an advantage were those completing courses in Subjects allied to medicine, Law and Education).
 - Students studying the subjects that have developed numeracy skills were among the most likely, on average, to consider their subject as an advantage. For example, students studying Mathematical & Computing Sciences and Business & Administration Studies were not so likely to *strongly agree* that the subject they studied would be an advantage, but they were amongst the most likely to agree to some extent that their subject would be advantageous and least likely to regard it as disadvantageous.
 - Students at the highest tariff universities were most likely to believe that the university they attended would be an advantage in looking for employment (43 per cent *strongly agreed* that this was the case, and 93 per cent *agreed to some extent* (selecting 1 to 3 on the seven point scale).
 - However, the gap between the different types of HEI is more unexpected, in particular the gap between the highest and high tariff universities and the similarity between the medium and lower tariff HEIs and general HE colleges.
 - Students at the lower tariff universities were more likely than those at medium tariff universities to strongly agree that the HEI they attended would be an advantage in looking for employment.
 - The relatively high level of strong agreement that their HEI would be an advantage amongst students at lower tariff universities reflects the high proportion of vocational courses at these and the likelihood that students graduating from these universities are more likely to be seeking to develop their careers locally or regionally than nationally or internationally. It is important to note that the lower tariff group is very polarised, with more than one third of students disagreeing to some extent with the statement , ‘The university I attend is an advantage in looking for employment’ (i.e. choosing 5-7 on the seven point scale).
- As they approached the end of their undergraduate courses, over 80 per cent of respondents believed that they have the skills employers are likely to be looking for when recruiting for the kind of jobs they wanted to apply for. Only six per cent of respondents disagreed with the statement that they had the skills they thought employers would be looking for and ten per cent said the skills they had developed on their course had not made them more employable. *But are their evaluations correct, and – for those who have the skills, are there jobs for them to apply for?* It will depend on the skills they can offer and the extent to which employers are recruiting new graduates. However well-equipped labour market entrants are, they are ultimately dependent on the demand for labour in the socio-economic and occupational contexts in which they seek employment, and the

recession, allied to political priorities of the current government is likely to continue to present this cohort of graduates with considerable challenges.