

RICHER INFORMATION ON STUDENT VIEWS SUPPORTING THE HESA REVIEW OF DESTINATIONS AND OUTCOMES DATA

**Report prepared for the Higher Education
Statistics Agency (HESA)**

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Executive summary

A series of face-to-face and online focus groups were conducted with 66 students and graduates, as part of a project to identify what students want from Higher Education (HE), what they gain in terms of career and personal development, and what sources of information and support are available and considered most useful when applying to university, throughout HE and upon graduation. Participants were also asked to consider what sources of information would become more important to students in the future. Main findings included the following:

- ❖ Students were much more likely than in previous years to use university rankings and online sources of information in their decisions about which course and which university to choose. However, there was some uncertainty about the reliability and validity of such online sources and students tended to consult various sources to gather as much information as possible. The DLHE was not widely known;
- ❖ Parents, friends and teachers remained a valuable source of advice in prospective students' decision-making processes and current students were seen as a particularly important (and unbiased) source of information about particular courses and universities; university open days continued to be important for UK students, although international students were more likely to rely upon online sources of information and advice to seek out university rankings, which are of high importance;
- ❖ Findings on location of Higher Education Institutions (HEIs) and post-graduation employment choices highlight the important role played by the collection of contextual data, alongside hard data on outcomes such as graduate earnings. Some UK prospective students chose to stay close to home when attending university, either because of parental pressures, child or elder-care responsibilities, financial considerations or because of their own preferences. However, choices about future working locations appeared to be wider, including working abroad. Some older students and graduates remained tied to their local communities, primarily because of family responsibilities, and working options also remained limited. International and EU students appeared to be particularly concerned about the implications of the British exit from the EU and how that would affect their future career options;
- ❖ Participants were generally very positive in their reflections about choosing to go to university. Almost all said that they would choose to go to university again, although many felt that there was an advantage in taking some time out of full-time education and gaining some work experience. Some students may have chosen a different university or course if they had been more informed about teaching quality and the number of contact hours;
- ❖ Participants were also generally very positive about their HE experience and would recommend HE study to those thinking of applying now. However, others recommended considering alternative options, if such options were available. The benefits of HE included both career-related and longer-term personal development, such as having better job opportunities, a broader perspective about the world and meeting people and hearing views that they would not have heard otherwise. Many recognised the range of skills they had developed as a result of attending HE, such as research skills, team working, critical thinking, etc.
- ❖ Participants recognised that employers were looking for graduates with soft skills, but current students had a relatively limited understanding of what constituted a graduate job,

with many assuming that the term 'graduate job' was used to refer specifically to graduate schemes run by large organisations. There was a gap between the positive aspirations of current students and the realities of gaining a good job after graduating, with some graduates still working in jobs which did not require a degree.

- ❖ Information on the timetabling of courses was generally unavailable but was considered important for current students and graduates, particularly those having to make arrangements for their other responsibilities. The availability of information on work placements remained important throughout HE study and labour market information on graduates became more important as time went on. However, there was limited understanding of the range and sources of labour market information available. Contact with ex-students was highly valued, both as a source of information before entering HE and for finding out information about particular jobs;
- ❖ Participants highlighted the greater use of technology in future decision-making for prospective students, particularly in terms of accessing and personalising information on HE but also the labour market. Some also reflected upon the future of HE as a whole and whether or not enhanced technology would reduce the need for students to be physically present. Teaching quality emerged as an important factor in future decision-making and participants felt that student satisfaction surveys would remain important.

1. Introduction

In May 2016, HESA launched a consultation on the data that are collected across the UK about what happens to graduates after they finish study. A particular focus of this consultation was hearing the views of students, Higher Education (HE) providers, employers, professional bodies and societies and others about their perceptions of what information will be needed in the future: What information should be gathered about the post-study outcomes of those leaving HE in the future? How can new and more efficient ways be used to deliver better quality data for students and those who support their studies? (HESA, 2016).

This report provides a summary of the main findings from a series of face-to-face and online focus groups, conducted in June and July 2016 with current students and graduates, to help inform the consultation in identifying what students want from HE, what they gain in terms of career and personal development, and what sources of information are considered most useful when applying to university and upon graduation. Participants were also asked to consider what sources of information would become more important to students in the future.

1.1. Report structure

The report begins with an outline of the policy context to the current project (Section 2), highlighting the increasing need since the 1980s to collect data on graduate outcomes, the current DLHE and other sources of information for prospective students and the development of university rankings data. Section 3 describes the methodology used for the project and the sampling strategy and achieved sample for the focus groups. In Section 4, the main findings from the research are presented, before moving onto the Conclusions and Recommendations in Section 5.

2. Policy context

Data have been collected on the destinations of graduates for many years and, from the 1980s onwards, there has been increased debate about the need for indicators to measure the performance of the HE sector, driven in part by a need to achieve value for money (see, for example, the 1985 DfES Green Paper *The Development of Higher Education into the 1990s*). However, as recently as the early 1990s, there was little focus on how these data might be made available to prospective students and used by them to make decisions about the type of higher education that would most suit their needs and aspirations.

Since the 1990s, labour market change, combined with an expansion in student numbers, has resulted in a changing graduate labour market. While, on average, possession of a degree leads to higher lifetime earnings (Elias and Purcell, 2013), it is no longer possible, at the individual level, for a prospective student to simply assume that they will achieve a professional or graduate job upon graduation and it is increasingly clear that graduation from some institutions and with a degree in some subjects results in an increased likelihood of achieving a graduate job, in comparison with other institutions and degree subjects. These changes have combined with a shift towards outcome-based measures and public accountability and delivering value for money (Audit Commission, 1999), particularly as the burden for paying for HE has shifted from the State to the individual learner, resulting in increased calls for data to be made available that is useful to students when making decisions about HE.

The Dearing Report in 1997 proposed the development of indicators of performance for the HE sector that would allow meaningful comparison on performance against other similar institutions (DfES, 1997), and this need for meaningful comparable data is repeated in subsequent government reports and reviews throughout the 1990s and into the 21st century. The 2009 report *Higher Ambitions* proposed a blueprint to be published by all universities for providing information to prospective students on the nature and quality of their programmes (BIS 2009), while the Browne Review of 2010 drew attention to the need for data on employment outcomes, calling for information to be made available to students about what they can expect from their time in HE and the outcomes they may expect in terms of skills acquisition and employment, in part so that they may assess for themselves the ‘value’ of a degree. Latterly, emphasis has also been placed upon how the type of data collected can be made as useful as possible for students and parents, with BIS in 2014 suggesting methods to broaden the range of information available and the Universities and Science Minister expressing the aspiration in 2015 for “more data to be made available”, while HEFCE have undertaken a review of information about learning and teaching, and the student experience, including reviews of Unistats and KIS, and the NSS (see, for example, DELNI, HEFCE, HEFCW and SFC, 2015; Diamond et al, 2015; Callender, Ramsden and Griggs, 2014; Griggs et al, 2014).

Despite these calls, and in recognition of the need for durability and stability in data collection, the current methodology employed by HESA in collecting data on graduate outcomes has not changed dramatically since 2002. Since then, technological and methodological developments in areas such as data capture and linkage have provided a range of possibilities for refining methods, to make data collection more efficient and the data collected more useful.

2.1. Data sources

Currently, DLHE data are collected on the destinations of all graduates six months after they leave HE (the DLHE survey), supplemented by a biennial sample survey collecting data three years later (the longitudinal DLHE survey, or LDLHE). Data collected include: type of activity (employment, study, travelling, etc.); employment (job title, duties, salary, employer, location, motivations and how the role was accessed); further study (what is being studied and how is it funded); HE experience and preparedness for future activity; and specific questions about working in the regulated professions. In 2014, BIS announced the Small Business, Enterprise and Employment (SBEE) Act, which came into force in 2015. This permits the linking of HE student data (and potentially school and FE data) to national tax and welfare records to chart transitions from education into employment for the purpose of educational evaluation and the creation of a Longitudinal Education Outcomes dataset, bringing together data held by BIS/BEIS, DfE, DWP and HMRC. Linking of student record data to HMRC tax data has been explored by IFS (Britton, Dearden, Shephard and Vignoles, 2016), and, while certain deficiencies have been found (for example, the exclusion from the data of graduates working abroad or in self-employment), this data linkage appears to be an efficient and cost-effective way of providing data on graduate salaries and, somewhat more problematically, on the proportion of students working in graduate jobs. These data do not capture contextual information on location, job type and industry, type of work, use of skills, motivations, job satisfaction or well-being, all potentially important measures for assessing positive outcomes of HE.

These developments, combined with the proposed introduction of the Teaching Excellence Framework (TEF), which will use metrics related to graduate employment (with the aspiration that this will eventually come from linked student record-HMRC tax data, although DLHE will be used for at least the first two years of the TEF), student satisfaction (drawn from the NSS) and student retention (from HESA performance indicators and the Individualised Learner Record (ILR)) as well as other, as yet unknown, metrics and expert judgements (with benchmarking based on the student's entry qualifications, age, gender, ethnicity, disability and subject studied), raises questions about what data should be collected by HESA or other organisations to allow a full and nuanced picture of the positive outcomes of HE to be developed, which goes beyond simply assessing the economic, salary-related returns to HE.

The possibility of linking data, and the potential ways that different types of data may be combined to produce information that can be used to assess the benefits of different institutions and courses, also highlights two further issues that must be addressed when considering changes to the present system of data collection. Firstly, it draws attention to the amount of data currently collected on students and graduates by various stakeholders. The Higher Education Commission in 2016 found that the current system was overly complicated, burdensome, expensive and involved unnecessary duplication, while Diamond, et al. (2015) identified 43 different sources of online information about HE, of which 24 were 'decision-making tools' such as course-comparison websites and ranking systems and 19 provided general information, for example, about student life, aspects of teaching and learning and broad trends in the graduate labour market. Secondly, with so much data available to them, how might prospective students access and assess data that are reliable and trustworthy? Concerns have been raised about the quality of the data collected in various surveys, focusing on the timing of these surveys, particularly the growing length of time it may take someone to

find a graduate job, the robustness and comparability of the data collected, its coverage and hence trustworthiness, and the ability of those who might use the data to fully understand what it shows. For example, it was reported in THE in 2015 that institutions may be attempting to manipulate DLHE data by targeting individuals from courses known to have positive outcomes and incorrectly managing the data collected, while HEFCE analysis of NSS 2014 data showed that 6.1% of respondents to the NSS survey gave the same answer to every question. The review of the NSS undertaken by HEFCE in 2014 to inform the development of the survey from 2017 onwards examined various suggestions to counter this, resulting in changes to the survey interface to help to address acquiescence bias (DELNI, HEFCE, HEFCW and SFC, 2015a; DELNI, HEFCE, HEFCW and SFC, 2015b; Callender, Ramsden and Griggs, 2014).

As well as the DLHE data, there are numerous other types of data collected by a range of bodies, some of which are made available to prospective students while others are not. Currently, the NSS is a survey of final-year students on undergraduate programmes and asks participants to rate their level of agreement with 23 positive statements on a five-point scale. The statements are grouped into six areas, or 'scales': quality of teaching and learning; assessment and feedback; academic support; organisation and management; learning resources; and personal development. In addition, there is an overall satisfaction statement and a statement about the Students' Union. Other surveys cover satisfaction of particular student groups, such as the Postgraduate Taught Experience (PTES) and the Postgraduate Research Experience (PRES) surveys for postgraduate students and the International Student Barometer (ISB) for international students. UK Performance Indicators (UKPIs) are also used to provide institutions with comparative data on issues such as participation, student retention, learning and teaching outcomes, research output and employment of graduates. Individual institutions and/or courses will also collect student satisfaction data as part of their internal management processes and provide details on course structure, module content and expected learning gains and graduate profiles on their websites and in prospectuses. HEIs are also required to provide financial information, staff-student profile data and other monitoring data to a range of agencies, while data on applicant characteristics and results of applications are available from UCAS. The 2016 Higher Education and Research Bill (May 2016) makes various proposals to promote transparency and data sharing that may reduce some of this duplication of effort.

The Unistats website draws together some information from these various sources, making it available to prospective and current students, while the KIS also draws together information from the NSS, DLHE and information on how courses are taught, assessed and accredited, as well as the costs of study, including tuition and accommodation fees. Other data is available to institutions but not to students; some comparable data is not made available beyond the organisation that was responsible for collecting it. The amount of data collected on institutions places a burden on both the institution itself and its students, as well as creating a confusing landscape of sometimes contradictory data sources that must be navigated by prospective students seeking the information that they need. Indeed, Diamond et al. (2014), Griggs et al. (2014) and Oakleigh Consulting and Staffordshire University (2010) all suggest that prospective students may not even look for information they think would be useful, because they do not know that it is available. Further development of the Unistats website and of Key Information Set (KIS) data following the recommendations of the Oakleigh report went some way to alleviate this (see DELNI, HEFCE, HEFCW and SFC, 2015), but the subsequent review of the KIS and Unistats showed that there may be further work to be done on brand recognition

and market penetration and on helping students to understand what information would be helpful to them, which may involve a move away from the KIS approach (Diamond et al., 2015; International Centre for Guidance Studies and the Careers Research and Advisory Centre, 2013).

2.2. Rankings

The data collected from various sources are then combined in different ways to produce rankings of institutions. Unlike the school system, HE institutions are independent bodies and the government role in defining how data should be used to rank institutions has largely been taken on by the media and other external organisations (Goldstein and Foley, 2012). The Times produced its first set of university league tables in 1992, followed by the Sunday Times in 1998 and the Guardian in 1999. Various other media outlets, including the Daily Telegraph and the Financial Times have also produced their own rankings at various times (Pollard et al, 2013) and QS and U-Multirank, amongst others, provide world rankings of universities and subjects. However, analysis of these rankings shows discrepancies in the data used and how these are weighted, leading to institutions being ranked differently, depending on the source consulted. For example, in 2008, HEFCE found that the weight attached to entry standards ranged from 11% to 23%, while that attached to student-staff ratio ranged from 9% to 17%. Furthermore, the rationale for data inclusion and weighting is not always clearly explained (Dill and Soo, 2005) and the act of ranking leads to small differences in score being interpreted as large differences in quality (Cheng, 2011).

3. Methodology

To capture students' and graduates' views of HE and information, a qualitative approach was adopted for this study, which comprised one face-to-face focus group and seven online focus groups using the VisionsLive platform.

3.1. Research participant recruitment

Participants were primarily recruited via higher education institutions (HEIs) and existing links with student career and support services, and other professional associates. A flier was produced for contacts to disseminate by email and display on their noticeboards and electronic screens. Social media was also used to recruit participants.

In order to ensure the inclusion of older, as well as younger, students and graduates, an additional sample was drawn from a contact list of eligible participants from a previous IER project (Futuretrack, which tracked the HE experiences and early careers of 2006 HE applicants) who had agreed to be contacted in the future. From this list, 85 participants from 58 HEIs were informed about the project and invited by email. This sample targeted graduates who had reported in the previous project that they had positive career outcomes, those who did not have enough information about the choices they were making when applying to HE, and those who said, after graduating, that they had made the wrong choice about HE (excluding people who had made the wrong choice for personal reasons or due to a change of interests). This sample comprised an even split of men and women, Arts/Social Sciences and Sciences, as well as pre-'92 and post-'92 HEIs. Of those invited from this list to participate, 40% were aged 17 or 18 years when they had entered HE in 2006, 30% 19 or 20 years, and 30% 21 years or over.

All interested participants from both sources were directed to a webpage containing further project information and the purposes of the research to ensure that all participants understood the nature and consequences of participating in the study. Participants were then asked to read and electronically accept the online consent form. The focus groups were offered during a five-week period and were organised on different dates and times in order to attract a greater number of participants. All were given options to select the dates and times of their preferred focus group(s)¹. Participants had the additional option to sign up to an online bulletin board discussion that would be available for three consecutive days. Only three participants signed up for this option, however, so this was not taken forward. The online form also collected anonymised data on key characteristics of participants, including gender, age, ethnicity, main place of residence, HEI of study, course and mode of study. This information was reviewed regularly to monitor uptake and any possible under-representation of particular groups.

Participants were offered £10 to thank them for their time. Previous experience of conducting focus groups of students and graduates had shown that this is sufficient to provide an incentive to participate.

¹ Potential participants could choose more than one time slot.

The research team gained ethical approval for the research from the IER Research Ethics Committee (IERREC) at the University of Warwick.

3.2. Research participants

A total of 218 individuals signed up to take part in the face-to-face and online focus groups, of whom 78% were invited to attend a focus group at their preferred time. Where possible, focus groups were set up on the primary selection criterion of age, and then included an even gender profile and geographical spread of participants. This was not always possible as the majority of those signing up were: female (74%); aged under 20 (23%) or aged 21-25 years (49%); located in England (71%); defining themselves as White (British, Scottish, Welsh, Irish, Polish or other) (62%); and were (or had been) enrolled on a full-time course (97%). Males, older students and those who were studying or had completed their studies part-time or by another mode were over-sampled.

Invitations were emailed to 170 individuals in total, of whom 66 accepted and participated in a focus group. For the face-to-face focus group, participants were recruited through the Careers Service and individual academic departments. Fifteen students were invited to the face-to-face focus group and 13 attended. Invitations for the online focus groups were emailed from an IER email address via the VisionsLive platform. The aim was to have between 10 and 15 participants per focus group, and so 16-29 participants were invited to each session. Invitees were able to accept or decline the invitation and upon acceptance received a second email with details of how to join the online focus group and a link to the session. All invitees were sent a reminder email within 48 hours of the focus group session and were asked to indicate if they could no longer attend, at which point some were assigned to another group. In spite of the email reminders, there was a high rate of 'no-shows' in the online focus groups, although three groups had 10 or more participants.

Table 3 below provides an overview of those attending the focus groups.

Table 3: Summary of focus group participants (n=66)

Demographic profile		Number	Percentage
Gender	Male	20	30%
	Female	45	68%
	Other	1	2%
Age	20 years or under	16	24%
	21-25 years	34	52%
	26 years and over	12	18%
	Prefer not to say	4	6%
Ethnicity	White British/English/Scottish	29	44%
	White Other	9	14%
	White and Black African	1	2%
	White and Asian	3	5%
	Black African	4	6%
	Black Caribbean	1	2%
	Chinese	6	9%
	Bangladeshi, Indian or Pakistani	7	11%

	Other Asian	5	8%
	Other ethnic group	1	2%
	East Midlands	3	5%
	London	8	12%
	North East	3	5%
	North West	9	14%
	South East	9	14%
	South West	6	9%
	West Midlands	12	18%
	Yorkshire & The Humber	1	2%
	Ireland	1	2%
	Scotland	12	18%
	Unsure or other/prefer not to say	2	4%
Mode of study	Full-time	65	98%
	Part-time and/or online	1	2%

3.3. Focus group methodology

Each focus group lasted around 90 minutes and was led by a member of the research team using a structured interview guide. A second researcher moderated responses and supported the discussion with follow-up questions and prompts. Prompts were used to probe for further detail and create a comprehensive understanding of the issues raised during the discussions. Notes were taken for the face-to-face group, which was also digitally recorded. The online focus group data were recorded and downloaded for analysis at the end of each session.

The focus group guide included questions on: HE and career decision-making; sources, accessibility and perceived value of information; access to information before, during and after HE; support needed and accessed; reflections on the benefits of HE; and the future of HE and sources of information required. The guide was piloted with the face-to-face focus group and then adapted for the online focus group. This involved shortening and simplifying some questions, creating visual stimuli and reproducing some questions as online polls. This adaptation of the guide ensured that all topics in the guide could be covered and that the process was interesting and engaging for the participants.

Online focus groups were chosen due to the time constraints and requirements of the project. They provided the opportunity to reach a geographically dispersed population of students and graduates, as well as offering the same benefits as face-to-face groups, such as the ability to use visual stimuli. Unlike face-to-face focus group sessions, the online focus groups enabled multiple conversations to take place at the same time. For example, individual participants could communicate with each other and focus group moderators could probe both the group and individuals (with private messaging) around meanings, interpretations and decision-making processes. The online focus groups also enabled individuals to participate at a location convenient to them and offered an environment in which participants could feel comfortable and open to sharing views. Participants were also able to participate anonymously.

3.4. Data analysis

The data were coded and analysed using a framework approach according to themes that emerged. Comprehensive Excel spreadsheets were designed and used to incorporate all key summary information. The coding and analyses were undertaken by the research team. The findings were synthesised for the final report and anonymised verbatim quotes were used to highlight key themes.

4. Findings

The following sections describe the main findings from the face-to-face and online focus groups, before moving on to the Conclusions and Suggestions in Section 5.

4.1. Making decisions about university and course

4.1.1. Influences on decision-making

Previous research (see, for example, Diamond et al, 2015; Griggs et al., 2014; Oakleigh Consulting and Staffordshire University, 2010; Purcell et al, 2008) has shown that prospective students use a variety of sources of information when making decisions about whether to go to university and if so, what and where to study. While it has been suggested that the sheer number of information sources available, particularly as online data provision has expanded, makes it difficult for students to identify and find suitable information sources, the key sources of information that influenced the decision-making processes of the students and graduates in the focus groups were reasonably consistent both across groups of students and over time. Research by CFE (2014) has shown that there are limits to the amount of information-processing prospective students can undertake and that more information does not necessarily lead to a more informed decision. The students and graduates appeared predominantly to use sources of information that are well-established and form a 'core' of information used by prospective students. Compared to earlier research, there appears to be some increase in the use of social media and blogs, i.e. sources that provided personal experiential information, and a decline in the use of physical prospectuses. Most common sources of information include family and friends, prospectuses and institutional websites, visits to particular HEIs, and information from teachers. Information gained from official sources of raw data tends to be less frequently mentioned, although league tables and other rankings produced from official data by newspapers and university guides feature somewhat more commonly, especially by international students and students with higher entry qualifications.

4.1.2. Online sources of information

A slide was introduced (below), with the question: 'Did you use other sources of information in making your decision to go to university?' For the face-to-face focus group, the question was asked without any visual prompting, but similar verbal prompts were introduced.



Early focus groups suggested that very few, if any, participants had heard of - or consulted - the DLHE directly so this was included as a specific prompt in later groups. One student told us that he had participated in the DLHE: '*As I am a postgraduate student*'; another told us: '*I did look up HESA after I signed up for this focus group*'. On the other hand, Unistats and various league tables use DLHE data so participants may have seen the data via these other sources. The early evaluation of Unistats and the KIS (2013) suggested that the Unistats website was generally well-used, although the 2014 CFE study, reported in the 2015 HEFCE review, found that only around 20% of prospective students had used the Unistats website and the students and graduates in the focus groups used it less frequently than various ranking sites that use much of the same data but provide rankings in a ready-made format. Table 4.1 shows the main findings relating to online sources. The UCAS website was much less frequently mentioned as a source of information by focus group participants than has been the case in other reviews (for example, the 2015 HEFCE/2014 CFE review and the 2010 Oakleigh report). This may be because participants saw much of the UCAS data as a high-level starting point - it told them what courses existed and what grades they might need to be accepted, but they then used other information sources to explore these options in more detail.

Table 4.1: Online sources of information used in decision-making

Most popular
The Guardian rankings
The student room (http://www.thestudentroom.co.uk/)
Times Higher Education
QS World rankings
The Times rankings
Mid-popularity
Student satisfaction surveys
Prospects

Good Universities Guide
Unistats
Least popular
UCAS
National Careers Service
Which Uni?
DLHE

The student room, where current and prospective students ask and respond to questions in online forums, was a very popular source of information for participants: *'I used The Student Room quite a lot, for information on things that weren't so academic based'.*

When asked about the reliability of online sources, participants appeared to have done a lot of research overall, combining several sources (online data was only one potential source of information), with other sources being more or less important in their decision-making: *'I trusted sources from impartial sources more, such as the student satisfaction survey, I don't feel like they have a vested interest'; 'Generally though I feel like most of the sources are quite trustworthy, when you compare multiple and see the general trend, you don't have to rely on one'.* One participant commented that he did not trust different ranking systems so *'Tried to average them all out in my head.'*

4.1.3. Other sources of information

As well as asking students and graduates about online sources of information, they were also asked about other sources of information. As with the previous findings, the vast majority of face-to-face participants chose 'parents' as their main influence. Others included teachers, friends, a student in the year above in school and prior knowledge of the chosen university. Results were similar for the online focus groups: parents were selected by the most participants overall (30/53), followed by teachers (21/53) and peers (20/53). Even the focus group with a larger proportion of older participants, most of whom were graduates, reported a heavy reliance on parents (5/10 participants) and peers (4/10) (See Table 4.2, below). However, in this older group, two of the participants also highlighted the influence of local/family responsibilities and one reported community affiliation as an influence on their decision-making. This is likely to reflect their increased ties to the local community, including partners, children and older relatives. Later information about geographical horizons (see also 4.1.4) confirmed these findings. For example, two of the older participants told us: *'I am taking care of my son, then a close university will allow me to manage my time'; 'I had two teenage children, a home to look after, dogs, elderly parents, part-time work, so it had to be local to enable me to carry on my parental responsibilities and be able to study'.* For those who chose 'other' on the poll, probed responses centred upon another relative, long-term relationships

and financial considerations. Personal contacts were also important, particularly when it came to issues of trust. One international student said that she relied upon her aunt to do the research for her as she already lived in the UK. A UK student told us: *'The sources I trusted were my partner, his University friends and my mum who had all graduated from the university.'*

Table 4.2: What or who else played a part in your decisions about your choice of university or course? (n=53)

	Number	Percentage
Parents	30	57%
Teachers	21	40%
Peers	20	38%
Other	13	25%
Local/family responsibilities	4	8%
Community affiliations	3	6%

Note: 6 missing responses

In spite of a heavy reliance on early online research, university open days were a particularly valuable source of information, especially for UK-based participants: *'Open days I agree was probably the other best source, as you get the vibe'; 'I work with the uni for open days now and I really feel they would be a massive help in coming to choose a university'*. While some students were limited to the nearest university that taught the course that they wanted, younger students, in particular, were more mobile and more concerned about the 'feel' of different HEIs, echoing the previous finding that prospective students valued information on what the day-to-day experience of studying a particular course, at a particular institution, would be. International students were more reliant on online sources due to the costs of attending open days.

4.1.4. Geographical horizons for studying and working

It is important to understand the impact of location on student decision-making and consequently on graduate outcomes because this provides context to the data collected on, for example, salaries, allowing more nuanced interpretation. Someone who has been mobile once, for example, who has migrated to attend university, is more likely to be mobile in the future, for example, in seeking employment. Consequently, HEIs with a large proportion of students who remain at home to study are also likely to see their graduates express a preference for remaining in the local area post-graduation. As salary levels and job availability vary by region, this may result in the data showing that graduates of particular institutions have lower salaries or more difficulty finding work than would be expected given their other characteristics. We were therefore interested in gauging whether or not HE study had expanded students' geographical horizons when it came to making choices about their careers.

All participants were initially asked: 'When you were choosing a course and a university, how broad were your geographical horizons? For instance, how far were you willing to move to study?' A follow-up question then asked 'In considering a career or your next steps now, how wide are your geographical horizons for future employment?'

Unsurprisingly, the international students were much broader in their horizons, and many had considered other universities in the US, Australia or elsewhere, before deciding on the UK: *'Applied to the USA, England, Scotland and Singapore. Distance was not an issue'; 'Anywhere was fine...but I did have my heart set on coming to the UK'.*

Many of the UK students preferred to remain closer to home, while also wanting some independence. Parental decisions played a key role for some of the female students. For example, one told us that she came from London: *'My parents were quite reluctant to let me leave cos I'm the first in my family to go to university...but [university] is not too far from home, and the Maths department has a very good reputation.'* Another female student told us: *'For me personally...my parents were quite strict with where I had to study...they wanted me to be closer to home...if anything really I was happy to be studying at [university]...so going by their decision didn't really affect me'.*

Other students had received little guidance on their options for studying elsewhere: *'If I had known more about studying abroad, I definitely would have looked in to that option further. At 18 I felt young and ill-equipped to make decisions like that and as I was the first of my family to go to university, no one could guide me on those decisions.'*

Others had more freedom to choose, but were still keen to remain relatively close to home. One student described her search strategy: *'I personally physically drew a circle on a map so that I could choose from universities within 1.5hrs radius of my home. I'm a home bird!'* Similarly, another participant said: *'I was looking in my local area only. I knew my local university had a good reputation for my particular subject, so was quite lucky to be able to go there'.* However, local 'choices' were often linked to financial or family constraints. For example, one participant added: *'I wanted to stay at home for financial reasons although if this wasn't an issue I would have chosen to study somewhere further away from home.'* On the other hand, another participant in the face-to-face group had little choice but to move away from her local area: *'The only uni locally didn't do Maths so I had to go.'*

When asked about their choices for future work, many international and EU students were uncertain about choosing the UK, partly as a result of the EU referendum.² For example, one described uncertainty about getting a job in the UK after studying, although felt that the degree would provide a *'Pool of options.'* Others said: *'I'm foreign, I'm uncertain about whether I'm still welcome here or not'; 'Brexit has really made me consider the possibility of having to leave'; 'It is worrying because of many uncertainties that it brings'.* However, many remained 'global' in their horizons for future work, suggesting that they would search wider than the UK: *'Anywhere that pays well'.*

² The EU referendum took place on June 23rd, 2016, half-way through the focus groups, and so we included prompts specifically relating to the British exit in later groups.

Some UK students were similarly broad in their job horizons, even those who had started HE quite recently: *'For me, experience is worth considering rather than the geographical locations. Also, I would love to travel to enhance my life experience as well as my knowledge.'*

Some of those who had only considered local options for HE study were broader in their potential job searches (although it should be noted that some were still in the early years of HE and were therefore less likely to have made any firm decisions about future work location): *'I'd like to stay in the UK or Ireland but as I said before, I'm a home bird'; 'Before starting university I would have wanted to stay in my city, but now I would quite like to move to a different area to make things more interesting'; 'Very wide, again wouldn't mind staying in the same department but would consider moving across the whole of UK. Also considered other countries like Sweden, Italy or Poland.'* Others reported no change in their geographical horizons for work, primarily due to family considerations: *'Close to my house, just here local...I am thinking about school and when my son goes to school, then a local job will be great.'*

Others even reported a narrowing of their horizons for work, mainly as a result of long-term relationships: *'I already have a job lined up, in [city] (so a 40 minute drive from my current location), and that was about as far as I was willing to go because I got married during university and my husband is in a training scheme in [city]!'* Another added: *'Relationships and career make the net smaller I think'.*

4.1.5. The importance of location for employment

All participants were asked what was important about location for future employment, with prompts relating to financial or family considerations. Responses reflected the importance of life stage: one young female student looked ahead to her thirties, when she would be much more likely to want good schools nearby, although she wasn't personally thinking about these requirements yet. This also resonated with another student: *'Depending on what stage of life I would be at when applying for a new job, definitely the quality of schools, housing markets and accessibility, both domestically and internationally.'* Others reported other important factors: *'I prefer bigger cities. I don't think I could live in a small town for longer than a year. Also English-speaking. And also, I'd prefer if my religious community was present in that city.'*

Others weighed up the relative importance of financial and family considerations for location of employment: *'Finances, work-life balance, schooling for children, commute, living costs, house prices etc.'; 'Money (salary, living costs etc.), but it is not the most important aspect now'; 'Both hold their own weight, my family is what keeps me in [city] and the financial considerations is why I haven't worked/studied abroad as of yet';* other participants suggested other important factors, as well as the cost of living in a particular area: *'The cost of living, the safety of the area, population/community'; 'The cost of living, and accessibility to get to and from work, safety, so many factors I'd say.'*

4.1.6. Summary

Applicants spent a lot of time researching the various choices of university and course, and online sources of information were a vital part of that research. Most were well aware of the range of online sources available, although the DLHE was not well-known. Many used a variety of options in their decision-making, including rankings, student recommendations and satisfaction surveys, and valued the face-to-face experience of open days.

Social networks of parents, teachers and peers played a key role in the early decision-making of applicants to HE, suggesting that potential students who lack these networks, for example, those who are the first in their family to attend HE or who live in low-participation neighbourhoods, may have a greater need for alternative sources of information. Attention should therefore be given to ensuring that such information is readily available to those without traditional support networks.

The need to collect contextual data to better understand the processes through which students choose particular universities and graduates choose particular types of employment was highlighted in discussions about geographical location. Some UK students were more local in their choices, either because of parental pressures, child or elder-care responsibilities or because of their own preferences. However, many participants' choices about future working locations appeared to be wider, including working abroad, and both widening and narrowing of geographical preferences was evident as a result of HE. Some older students and graduates remained tied to their local communities and working options were therefore more limited. International and EU students appeared to be particularly concerned about the British exit from the EU and what that would mean for their ability to work here after studying.

4.2. Reflections on decision-making

4.2.1. Was university the right decision?

Surveys consistently show that the majority of graduates do not regret going to university. For example, the 2012 Futuretrack survey showed that just 4% of graduates said that with hindsight they would not go to university (Purcell et al., 2013). However, higher proportions of graduates say that they would choose a different course (between a quarter and a third of respondents; see for example, Purcell et al., 2013; CIPD, 2006; HESA, 2007) and/or a different HEI (between 18% and 25% of respondents).

All focus group participants were asked: 'If you were applying now, would you still choose to go to university?' As with the previous research outlined above, the overwhelming majority said that they would and were extremely positive about their experiences: *'I would, absolutely. I started my first year at age 22 so I'd given myself a lot of time to decide what I wanted from my university experience and what I wanted to study. It was miles different to any ideas I'd had at age 18! I'm now 24 and going into my final year and very confident I made the right choice'; 'University is always a good place to find yourself, and a fantastic experience of one's lifetime'; 'Attending university would have still been a very important part of my life plan';* one older female graduate told us: *'I have learned a lot, made friends, before I had none, had a great help from the teachers, staff and everyone...I am looking for better opportunities now...my vision was so narrow before'.*

A few were unsure: *'Tough question! I am not sure I would. I think that there is a lot of benefit to gaining experience. Some of the most senior people in my current company do not have degrees and they are very successful in their field. You can't get too far without experience in your field, but you can get a job without a degree.'* One was very negative about his experience, but this was not a typical response: *'I think I learnt more in one year studying abroad than in 4 years total of university. I could have lived abroad without university. I don't use my degree in my career and the debt is extortionate for that.'*

Others commented that they would still choose to go to university, but would spend some time out of full-time education first: *'I would take a gap year or try a job in the field I'm interested in first but would definitely still go to university'*; others supported this view of taking a year or more out before starting university and in one focus group, there was a discussion about the benefits of gap years: *'I would take a year off, look for local opportunities, and see if Brexit actually does more good than bad'*; *'I would, but maybe I would take another year out and get myself more financially stable'*; *'[Participant] has a good point - think colleges should put more emphasis on doing gap years for this reason'*.

Participants were then asked: Would you choose the same course if you were applying now? Again, the majority said they would choose the same course, although there were some additional comments: *'Possibly'* (there was another course that one male student would have preferred but this was not available at the time he applied). *'I may have enjoyed another course a bit more than this one'* (Biomedical Sciences); another added: *'Don't know if a Computing one would have been more fun'*; One international student said: *'I would still like to study the same course but I think I would like to have more general education subjects like in the USA or other European universities'*; two students also said they would change from joint honours to single honours courses.

Others were more negative about their choice of course, specifically in terms of career outcomes: *'I am actually quite disillusioned with the academic side of the university experience - Linguistics is very theoretical so has very little application...Also, staff were very focused on research and actually not very good at teaching at all'*; *'I didn't get access to very good careers advice at school so I just chose a universal subject that I knew I was good at. Having worked for several companies now I have a better idea of careers that might have suited me well but are now difficult for me to get into without going back to study again'*; *'I think I would have benefitted from professional qualifications in my field over the degree I have'*.

Again, participants were asked: 'Would you choose the same university if you were applying now?' Responses were more mixed. Some were negative about their choices: *'My university is very small and has not many sociology related offers for postgrads'* (especially in his specialty); some reported both positive and negative experiences of studying within their particular university: *'Yes, because the university I chose is very well-respected, so to have a degree from there is great for employment, and also because I love the city the university is in. No, because the teaching and student support (especially under special circumstances) was generally poor'*; *'Maybe a different University in the UK because of the weather.'*

On the whole, participants were positive in their reflections about decision-making. Almost all said that they would choose to go to university again, although the advantage of taking some time out of full-time education and gaining some experience was highlighted. Some students would have chosen a different course for various reasons and there were some more negative comments about the choice of university because of teaching quality.

4.3. Access to information

4.3.1. Access to information before entering higher education

Research by Oakleigh Consulting and Staffordshire University (2010) showed that the information students most wanted in making their decisions about HE could be grouped into three broad areas: satisfaction with institutions/courses, including overall satisfaction with courses, as well as satisfaction with particular aspects of courses such as teaching quality and the number of teaching hours; employment, with employment rates being somewhat more important than salary levels; and cost and related financial issues, including the cost of accommodation and the availability of bursaries. In 2015, a HEFCE review of information about HE showed that while there had been some changes to the type of information sought and the sources used by prospective students since 2010, and that there were important differences between different groups of students, for example, between those planning to study part-time and full-time, prospective students broadly sought the same types of information. One key difference between the 2010 and 2015 findings was in the importance placed by prospective students on detailed information about courses and first-hand accounts from current students, which were considered much more important by participants in the 2015 review.

However, as noted above, significant concerns have been raised about the ability of students to access the data that they need. The Futuretrack survey of 2006 HE applicants showed that almost a third of respondents did not feel that they had adequate information about the courses available and a similar proportion said they needed more help and advice in choosing their course. Similarly, only around half of the Futuretrack respondents said that when they were applying to enter HE they had enough information about the relationship between courses and employment options (Purcell et al., 2008).

Given this project's focus on measurable information, participants in this research were asked a series of questions to gauge the value of particular types of information in their decision-making process. The first question in this series (a poll for the online groups) asked: 'With hindsight, what would you have most wanted to know when you were making decisions about entering university, and about what and where to study?' Options or probes are shown below and participants could choose more than one option.



- ✧ labour market outcomes of graduates, including salary
- ✧ level of university careers advice and support, e.g., CV writing, interview skills
- ✧ university employability initiatives such as work placement support
- ✧ level of student satisfaction
- ✧ level of local employer engagement in courses
- ✧ university skills training and development
- ✧ information on self-employment and entrepreneurship
- ✧ timetabling and flexibility of courses

An overwhelming majority of participants said they would have wanted information on 'labour market outcomes of graduates, including salary' (for the online poll, 28/53 participants); this was followed closely by 'university employability initiatives' (25/53) (see Table 4.3 below). Responses did not vary much by age of the participants. The least popular option was 'information on self-employment and entrepreneurship' (9/53). As with the 2010 study, level of student satisfaction remained important but was chosen by only 18 of the participants, in comparison with 28 who chose labour market outcomes of graduates. The importance placed on timetabling and flexibility of courses was somewhat lower than was suggested by the 2015 HEFCE review, although those who did want this information considered it very important, as the text entries below show.

Table 4.3: With hindsight, what would you have most wanted to know when you were making decisions about entering university, and about what and where to study? (n=53)

	Number	Percentage
Labour market outcomes of graduates, including salary	28	53%
University employability initiatives such as work placement support	25	47%
University skills training and development	19	36%
Level of student satisfaction	18	34%
Timetabling and flexibility of courses	18	34%
Level of university careers advice and support, e.g., CV writing, interview skills	16	30%
Level of local employer engagement in courses	13	25%
Information on self-employment and entrepreneurship	9	17%
Other	6	11%

Note: 11 missing responses

The face-to-face focus group allowed us to gain more information on what students would most have wanted to know, and responses focused largely on the practicalities of studying a particular subject at a particular institution: *'Useful to have a normal account of 'a day in the life' of a typical student, e.g., 'on a normal week this is what the average Maths student will get up to...something a bit more realistic...nothing staged'; 'Module guidelines would be very useful, too'.* One international student said that before applying, it would be helpful to know the number of classroom hours (he had previous experience of studying in the US): *'I can really tell the difference in the number of contact hours';* another said: *'Interest in the careers of similar graduates – where they work, what they do - 'pathways' of graduates from particular courses'.* This interest in first-hand accounts of what it is like to study on a particular course was also reported by CFE (2014) and in the 2015 HEFCE review of the KIS and Unistats, although as in these reviews, some students suggested that information like this that is provided by HEIs has the potential to be somewhat biased, as well as sometimes difficult to find and inconsistently presented across institutions.

The lack of knowledge of the DLHE, as reported earlier, may explain the large number of responses relating to labour market outcomes. We then asked 'Was the information you wanted to know available or not?' The participants varied in their answers, with many saying that they thought it was available but that it was either hard to find or they hadn't really looked for it, despite it being information they would have found helpful. Other participants said that certain information would have been useful in determining the right course and university for better career options; for example, one said he was *'Keen to establish how connected the university is/was to the world of work - I'm going to university to improve job prospects. If the course is disconnected to employment, then why do it?'* Others added: *'Because it's a gamble to undertake an undergraduate degree with no information about post-uni prospects'; 'Employability initiatives would give me the assurance that the university will help me during the early stages of my career in securing a graduate job.'* As in the CFE (2014) research, participants attached less importance to salary information than they did to the types of jobs their course would prepare them for.

While KIS data provides some course-level information, for example, learning and teaching activities and assessment methods, it is clear that students in the focus groups were unaware of some of this information and that other key pieces of information are not covered in the KIS, leaving the provision of such information to individual HEIs and course leaders, which resulted in inconsistencies and missing information. This data has been found to be the most challenging and onerous for HEIs to produce due to the variety of modules, teaching methods and course routes available at a single HEI (HEFCE, 2015). In relation to course-level data, timetabling of courses seemed to be a particularly important issue and the majority said that this was not available at all before starting: *'Things like timetables and course flexibility were only available after enrolling'; 'Information on course timetabling not at all. I'm lucky if I have a clue on my first day back what I'm doing!'* This prompted a discussion in one focus group: *'Timetabling was never available until the term had started. Made it difficult to plan life around it'; 'Timetabling was slow to come out and there was no flexibility on attendance, it was very difficult to explain an absence without a long procedure'.* Asked if timetabling information would have been helpful, participants said: *'Yes, I think it would be. It would make it easier to decide how far away you could live, etc. with the commute'; 'I'd also echo the others' view on the timetabling, I found Uni exceptionally slow to release timetable information'.* A participant from another group also reported on the implications of this lack of information: *'Timetabling wasn't*

available. And when we got it, I found it severely limited my choices for other subjects...' One student said that timetabling information would have allowed him to gauge the number of hours of contact time for his particular course, which *'would have made a huge difference in whether I chose to come here or not.'* Diamond et al. (2015) found that information concerning the number of contact hours and expectations for self-study was amongst the least available outside course websites, and that in general, the more specific the information, the less likely it was to be provided in a systematic way that allowed comparison either on HEI websites or elsewhere.

The importance of providing appropriate information to compensate, in part, for the lack of social networks of non-traditional applicants was also highlighted, with one female participant who had gone to a college where the majority of students did not go on to university reporting: *'There wasn't much information on how to apply to university...we didn't really know how it all worked; so maybe a little more outreach at schools and colleges'*. She also felt that nobody could tell her what it was like to study at a top university: *'There were things online but they weren't that relatable – it was all either online surveys or accounts of people who, it wasn't quite the same experience'*.

4.3.2. Access to information and support during higher education

There was an interest in how knowledgeable students were about the support available at university level and whether or not they had made use of such support. Participants were therefore asked 'Have you made use of some or all of the support offered or information available at your university? Prompts included work placements, CV writing, interview skills, general skills training and development, labour market information, other. In the face-to-face group, participants' answers highlighted some concerns that the level of careers advice was inadequate beyond a superficial level and a demand for more personalised information and support: *'I think it's quite general...they only can help you at the basic level'*. A graduate said: *'I barely used it when I was there. All the advice was too generic'*. When asked what she would have liked, she said: *'It would've been good to get either previous graduates or people from industry that could give more specific career/cv/interview tips relating to the actual jobs people applied for...I just felt like I could get better information from my own research'*.

However, another group reported that the information and support was useful in thinking about future careers and taking appropriate steps to achieve future career aspirations: *'Very useful for decision making and planning. It has influenced my thinking about the future a lot'; 'I build better CV and when I need to prepare for job interview I go for preparation interview in the University'; 'Picking modules for next year and thinking of job prospects later on'*; one participant who wanted to do further study found it less useful: *'For me not really. But we did have sessions where former students came and talked about their paths after university. And I think I related most to those who were doing a PhD after or a Masters, etc'*. There was also some discussion of skills development courses *'Which will be valued by employers'*. These would be more useful if they were more *'Practically-orientated'*.

There were some differences in responses to this question between the international students, who were generally very motivated to seek out support and information, perhaps as a result of the higher fees they were paying for their courses, and the UK students, who were unlikely to engage with career planning support until relatively late in HE, if at all. In one group, a prompt was included: 'Have you taken advantage of work placements, CV writing, interview

skills, general skills training and development, labour market information (LMI)?' Three said they had used all of these except LMI; one said *'In my first year I went to the Learning Resource centre and got general help about writing but not so much career stuff'*; when probed if there was any reason for a lack of engagement with LMI, three said no, they didn't realise its importance or didn't think that far ahead. Others felt that they were still getting to grips with living and studying independently and had not yet thought about careers. One young student said that this was a *'Bane of the university'* for him: *'Everything is so forward-thinking'*. For some of these students, the deadlines for work placements had passed by the time they had decided to look for one.

A poll (or a question in the face-to-face group) then asked: 'What support and information *should* be made available to current students to help them to make appropriate choices about the activities they should undertake while at university? Various options were included (See Table 4.4 below). The most popular response was 'practical careers advice and support' (42/53 participants), followed by 'courses to develop particular skills' (39/53), 'the importance of engagement with extracurricular activities and employment/work placements' (37/53). On this poll, a need for 'labour market information' was reported by 28/53 participants, similar to the earlier poll result. The least popular responses were 'activity reports (e.g., Higher Education Activity Report, HEAR)' (11/53) and 'information on self-employment and entrepreneurship' (3/53). However, 60% of the older focus group, undertaken with a majority of graduates, reported that students should be provided with information on self-employment, in contrast with most of the other groups.

Table 4.4: What support and information should be made available to current students to help them to make appropriate choices while at university? (n=53)

	Number	Percentage
Practical careers advice and support	42	79%
Courses to develop particular skills	39	74%
Importance of engagement with extracurricular activities and employment/work placements	37	70%
Labour market information	28	53%
Advice on self-employment and entrepreneurship	22	42%
Activity reports (e.g., Higher Education Activity Report, HEAR)	11	21%
Other	3	6%

Note: 3 missing responses

All participants were also asked 'Have you found any other sources of information that you think have been useful to you in planning for your future career?' Responses largely fell into two areas: information gained from university-led initiatives and information related to personal aspirations and interests and specific jobs gained elsewhere. Knowledge about career development opportunities within particular jobs was seen as useful, as was information on opportunities to work abroad (e.g., as provided by the Civil Service): *'That sounds quite*

appealing to me'. Others reported '*Partnerships with other universities and organisations, plus internships*'; '*Master classes arranged by the university have been really helpful at times*'.

Most reported on advice from former students as being useful; for example, knowing how happy graduates were with their jobs would be a big influence on one student, e.g., is it what they expected it to be? Job satisfaction was far more important to her than a lot of other factors highlighted in certain careers. One suggested that turnover of staff could be used to measure job satisfaction. Others said: '*People who are already in the field I want to go into. Talking to them really makes a difference*'; one film student said: '*Attended in-department talks with film directors, journalists and actors which have been very insightful*'; others said: '*Experience and guidance of others*'; '*Direct contact with students via social media*'.

Others highlighted occupational-specific websites, e.g., ACCA, CIMA, or other online sources such as FindAPhd and wikijobs; one student added: '*LinkedIn groups are good for networking and some careers advice*'.

Another poll then asked students and graduates: 'In light of your own experiences, what information and support did/do you want now, when considering and reflecting upon your future career and next steps?' (See Table 4.5). Options were included. A total of 33/43³ participants chose 'labour market information', followed by 'availability and importance of HE employability initiatives such as work placements, activity records' (28/43) and 'availability and importance of additional support at higher education for making job applications' (24/43). Only 11/43 chose 'information on self-employment options'. In other words, access to labour market information appeared to grow in importance throughout the course of study, and other options such as information on work placements and additional HE support remained important throughout.

Table 4.5: In light of your own experiences, what information and support do you want now? (n=53)

	Number	Percentage
Labour market information, such as income data; work-life balance and flexibility of particular jobs; promotional pathways of jobs; opportunities to work abroad; gender balance of jobs	33	62%
Availability and importance of HE employability initiatives such as work placements, activity records	28	53%
Availability and importance of additional support at HE for making job applications	24	45%
Availability and importance of additional skills provision at HE	21	40%
Information on self-employment options	11	21%

³ The poll was not included in the older students' online focus group due to time limitations.

Other	1	2%
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Note: 3 missing responses

A further question asked participants: 'Is/was there something not offered at your university which you feel would benefit you in getting the job/post-graduation outcome you want?' One student highlighted information relating to further study: *'I personally wished they had more information on how to choose Masters. I think because most people want to work after their undergraduate, most focuses on future work'*. Others said: *'Labour market intelligence with forecasts on sustainable careers at a regional level'*. Work placements to give experience of different types of work were a popular response, with one adding: *'My course do not offer a year out in industry whilst others do, but this hasn't bothered me'*. In another group, 4 highlighted the benefit of work placements and 2 said mandatory placements; another highlighted the perceived importance of work placements: *'No, I think my University offers everything I need! I feel my work placement in my 3rd year gives me a really good advantage and provides me with experience to get a job at the end of my degree'*.

Another group similarly focused on the importance of information on work placements or job opportunities/career goals: *'I wish work experience was more well known, I didn't get emails about it from my department, it was mostly up on a wall at the end of the department floor which you don't really go past often'; 'I feel like my university kind of loses track of their students – as in, they get enrolled, and as long as they're passing their classes, that's it. I wish there was more objectives made for each student on how to reach their career goals. Because right now I'm shooting in the dark here'; 'Would be nice to know of jobs abroad in my industry'*.

When asked in one group if careers services need to be better marketed at university, most agreed: *'I agree. It doesn't help students enough if they're unaware'*; but one said: *'Personally, I see information about it everywhere and I think it's difficult to miss. But I know a lot of students have never used it and are unaware of what it does somehow...'*

4.3.3. Summary

Information needs for prospective students can be grouped into two main areas: information about courses, particularly the operation of courses in relation to timetabling and module options and the availability of work placements and other types of work experience; and information about the expected outcomes of different courses, whether in relation to learning-gain or employment prospects. Information required by students while they were in HE gradually became more employment-focused as students progressed through their courses, with students wanting to know more about the different types of employment their course could lead to, how different jobs are structured and information about how to make successful job applications. Information on self-employment did not seem especially relevant or of interest to the focus group participants, although the older participants seemed to value this more. Personal contact and the ability to speak to students and graduates about their own experiences was also highly valued.

Some information identified by students as being important but not available, such as employment destinations data and some course-level information does appear to be available, but students have either assumed that it is not, or do not know where to look for it.

4.4. The benefits of higher education

4.4.1. The role of higher education in shaping students' careers or career plans

When assessing the benefits of HE, there is a tendency to focus primarily on economic outcomes and, in particular, salary levels as a proxy for career success. However, numerous reports have highlighted the range of direct and indirect social and cultural benefits accrued by the individual and by wider society from participation in HE and have outlined the rationale for assessing positive outcomes from HE using a broader set of measures or metrics (see Behle et al., 2015). Skills development, and the extent to which HE equips graduates with the skills that employers look for, is an increasing area of interest to potential students, policy makers and employers themselves. Students have been found to have greater confidence in their skills development than employers do, with particular areas of mis-match occurring in the development of soft skills such as communication and self-management, and some specific technical skills in certain subject areas (see Atfield and Purcell, 2010). Additionally, different students will have different aspirations for HE, from employment prospects and higher salaries to social and cultural experience and development (see Diamond et al., 2014).

Participants were asked about the role of HE in shaping their careers or plans for their future careers. Responses showed that some participants viewed HE participation in a largely instrumental way, as a means to an end, in this case gaining access to a particular profession, whereas others were broader in their responses, providing information on the wider benefits of HE in careers. Responses related to access to employment included: *'A huge role. It will give me the qualifications I need to prove that I can work at a certain level in my chosen field'*; an international student said: *'I think having a degree from the UK can give a slight international advantage, and that's something that's really important in such a competitive industry'*; *'Looking at the various options for someone with a psychology degree has given me lots of career ideas. I would have been much more limited if I didn't go to university'*; *'The workshops and careers courses provide in the university, and also all the professional knowledge and skills I have gained'*; *'Higher education can ensure a quick or better start in someone's career, generally speaking, I think'*; *'It reassured me that this is what I wanted to do and helped to refine the ideas and set specific time-bound goals'*.

Responses were even positive for those who were less sure about their future careers: *'I didn't know and I still am not sure what I want to do, so this way HE has opened more doors to possible careers'*; *'I liked that I had an opportunity to explore my field from one of the best places it thrives in and I am a little closer to knowing what I exactly want to do with my time'*; *'HE greatly supports me to determine which career path should I follow'*.

Some participants were less positive, however: *'I need to do this course in order to legally be able to enter my chosen profession. It has given experience and support but I think more could be done to raise confidence and give skills before being ready for full time work'*; *'The skills I would need for my career I could only learn through working and not through my university course...but my degree does make me more employable'*; *'It has mostly made me know what I don't like, rather than what I do!'*; *'The degree itself did not shape my career. But the people I met during the course did'*.

In one focus group, students and graduates talked about the wider benefits of HE: *'I have definitely grown up as an individual'*; several agreed to this or added a similar response. One

said: *'It provided me with a great platform to discuss my plans with like-minded people and even experts. It has made me feel more confident about my future'.*

4.4.2. Other influences on career plans

When asked 'What else has shaped your career plans?' some participants highlighted the importance of their own motivations and ambitions: *'Interests. Past achievements. Beliefs. Ambitions'; 'I have got to know myself better, know my strength and weaknesses and plan to use that knowledge to my advantage and make a career that suits me most and that makes me happy as I would be doing things I have genuine passion for;'* *'Motivation to learn and acquire knowledge at an advanced level'; 'Motivation to shape own career path'; 'Our life goal decides our career plans, and we do adaptations on the way to achieve it.'*

Others talked more about the influence of other people and support mechanisms, some of them provided by HE (although HE was rarely credited with being a direct source of this support): *'Life experience, friends, relatives'; 'Being involved in university widening participation programme was influential'; 'Advice from family and friends'; 'Online opportunities'; 'Working in a job that gets you closer to your career helps'; 'The contact I had with people who work in my desired industry, their advice and experience'; 'Taking part in conferences and workshops in your field exposes you to the reality of it and you could make a better decision'; 'Some practical considerations also shaped my career plans (what kinds of jobs are available in the places I want to live)'; 'Having gained voluntary experience working in schools during my time at university – that really cemented the idea of becoming a teacher.'*

In some groups, participants were also asked 'What or who do you think had the greatest impact for you in getting to where you are now?' The majority of participants who were asked this question centred upon family and friends: *'The support of my family and friends, especially those from church. I have to do the work, applications, etc. at the end of the day, but without their belief in me guidance and encouragement to keep going in tougher times I think I'd be in a very different place'; 'My family, for sure. There's no pressure from them, but only positive encouragement. Being first generation from a huge family to go to university comes with its own pressure, so to have their support is amazing.'*

As with the earlier question, others were much more likely to focus on their own determination: *'I had the greatest impact. I've had great support but I decided what I wanted and I'm the one putting in the effort to get it;'* another said: *'I've had the greatest impact on myself'.* Others added in the support of particular teachers or lecturers: *'Determination, ambition, persistence and enthusiastic, passionate lecturers, friends and people I met'; 'My media teacher for helping where I went to university, my family and friends for constant support and probably my peers for gaining extra knowledge and I'd say my inability to stay still for too long, haha'.*

4.4.3. The role of higher education in developing skills valued by employers

Questions then focused upon what particular skills and attributes participants thought that employers are currently looking for from graduates. Participants, even the youngest ones and those still relatively new to HE, appeared well aware that employers valued so-called 'soft skills', in addition to more academic skills: *'Transferable skills: skills that you can take from one job to another' (teamwork, leadership, etc.); 'Group skills'.* One participant said: *'...We are increasingly in a world where the younger labour force want a range of careers over their*

working life so they are looking for transferable skills and CPD opportunities'. Others said: 'Organisation, time management, people skills, communication and possibly innovation or something to show you can think on your feet'; 'Work ethic, leadership, innovative and critical thinking, responsibility, organisational skills, language and social skills, working under pressure'.

Good communication skills were thought to be particularly sought after by employers: *'That's why I think work placements etc. are super important...because communication skills are not something you really learn in university...Studying is different to the actual practical work'; 'Knowledge of maths, as in, numerical illiteracy is frowned upon; good communication skills are a given'; 'General employability skills of course such as good communication, leader yet team player, etc., and your course shows your area of expertise mainly'; 'Soft skills (communication, self-planning and management)'.*

Other participants focused more on the importance of work experience for employers: *'Experience of internships'; 'Depends on the course but I think they want proven dedication so previous experience in the field either by a job or volunteering'; 'Some form of experience in the field, public speaking skills and general initiative.'* 'Speaking another language should make you *'stand out'*. In summing up these various requirements, one participant said: *'It has been my experience that most employers want the 'ready package'. I know they will deny that but that has been my experience at least. They are reluctant to train people up'*. Diamond et al. (2015) found that provision of work placements was a key area where online information for prospective students was lacking.

Participants were then asked if they thought they had these skills. As with the earlier Atfield and Purcell report (2010), students almost invariably responded that they had or were confident that they would in the future, although many added that they were *'still developing'* or *'working on'* these but thought they would have them by the time they graduated. Responses included: *'Probably, but so do a lot of other people – so I feel the need to constantly upgrade my skills'; 'I'm confident I do but I'm still learning about how best to articulate those skills... That said, there will also be new skills that I need to develop to enable me to move into the next occupational adventure!'*

Participants were also asked if their skills in this area were as a result of going to university or were developed through other activities. One reported that HE had not helped in developing these skills fully: *'Only some of them! Interpersonal skills and communication skills, yes. Technical/technological skills or other more specific ones, definitely not. I don't feel my degree prepared me particularly well for anything except writing essays and studying, and most jobs go well beyond that!'* Another contradicted this by saying: *'Got a lot from the uni, but still trying to improve myself and my skills';* yet another added that it was a combination of both: *'Uni studies provide us the knowledge we would need in work, but we learn how to use the trick properly outside the uni.'*

However, those who responded to this question generally felt that studying was not sufficient to fully develop the skills required by employers and that extra-curricular activities were also required, many of which were made available within the university: *'I think my part-time jobs are the best way I am developing these skills, the jobs are based within the uni. I am not sure whether the course alone would teach all the skills you would need'; 'I think societies and clubs*

are a great opportunity for us to expand beyond the skills set we learn in our degree'; 'Other ways, for sure. Part-time jobs and society involvement!'; 'Other ways too. School placements, part-time work, being on society committees'.

4.4.4. The role of higher education in career and personal development

In their review of the NSS, Griggs et al. (2014) found that students indicated that information on whether a course had helped with personal development, including confidence, communication skills and problem-solving, was the least sought and least useful information. This focuses only on how specific courses impact on personal development, while the findings from the focus groups suggest that this is not the most appropriate level to assess the impact of HE on personal growth and development. Younger students and graduates in the focus groups tended to discuss how HE played a role in their transition from dependent child to independent adult, broadening their horizons and developing their self-confidence and independence, not only in their academic work, but in their day-to-day lives.

Participants in the face-to-face focus group were first asked about the career benefits of HE and gave the following answers: *'Improvement in lifetime earnings'; 'Job prospects'; 'Putting you ahead in the job stakes – having a qualification under your belt'; 'Presentation skills'*. One young student said that *'Uni has been all about balance'* (preparing for posters, presentations, essays, other assignments, as well as developing time management skills, communication skills and, given the diverse student body, seeing different lifestyles and ways of learning and being exposed to things you would not normally be exposed to). *'Being immersed in that can help you pick up skills that you wouldn't normally have picked up'*.

For the online participants, two polls were included which focused on the benefits of HE, firstly in terms of career (see Table 4.6 below) and secondly in terms of personal development (See also Table 4.7). For the career benefit poll, 'research skills' (44/53), 'an ability to work independently' (43/53) and, perhaps unsurprisingly, 'a better qualification (43/53) were the most commonly mentioned benefits of HE. The least popular response was 'preparedness for the world of work' (22/53) and this was particularly unpopular among the older group, with only 20% of participants choosing this option.

Table 4.6: What do you think you have gained from HE study overall in terms of your career? (n=53)

	Number	Percentage
Research skills	44	83%
Ability to work independently	43	81%
Better qualification	43	81%
Team-working	33	62%
Presentation skills	30	57%
Understanding of your chosen field and promotional pathways	28	53%

Preparedness for the world of work	22	42%
Other	6	11%

Note: 2 missing responses

In terms of the personal development gains of going to university, the face-to-face group reported that: *'It tends to develop you better as a person, makes you a bit more well-rounded, ...it's just a natural by-product of the whole experience...skills that you just have to get to survive, e.g., time management'*. Another female student said she'd developed *'Massively'* in the last year, *'Being able to live as an adult'*. One added: *'Some of the skills you develop are transferable to work life but most of them are just...something that will shape you for the rest of your life'*.

By far the most popular response in the personal development poll was 'meeting people and hearing views that you may not have come across otherwise' (47/53). This was followed by 'self-confidence' (42/53) and 'independent thinking' (41/53). Less popular options were 'autonomy' (27/53), 'finding your way in the world' (26/53) and, lowest of all, 'well-being' (17/53). Again, this response was particularly low among the older group, with only 10% of participants choosing this option.

Table 4.7: What do you think you have gained from HE in terms of your personal development? (n=53)

	Number	Percentage
Meeting people and hearing views that you may not have come across otherwise	47	89%
Self-confidence	42	79%
Independent thinking	41	77%
Seeing things from a broader perspective	38	72%
Long-term friendships	37	70%
Preparedness for the next steps	33	62%
Autonomy	27	51%
Finding your way in the world	26	49%
Well-being	17	32%
Other	2	4%

Note: 3 missing responses

Participants were all asked if there was anything they should have gained from higher education overall which they had not, in terms of career and/or personal development. Some groups were non-committal on this question, but participants in one group said: *'The way of thinking and working in professional atmosphere'; 'More job fairs and networking. It wasn't enough to me'*; one (mature) graduate added: *'HE enabled me to kick start my working life at*

a higher point than without a degree'. However, he then added: 'Depends on the subject area and relevance to related employment. How do you embed high-level comms skills into Geography?' When probed, another said: 'I think the need for independent study in HE helps hone self-management skills but unless you do a scientific/maths-y subject, the uni do nothing to improve your numeracy skills!'

In another group, participants said: *'Perhaps only that you should be encouraged to work, even a little bit, as the idea that life is handed to you is incorrect'; 'The uni should organise more extra-curricular things, like lectures from outside speakers, etc'.* However, one was more positive about the longer-term benefits of HE: *'Personally I feel I got all I could out of my time in HE, since working with the university as well they have also helped me in furthering and developing skills I didn't know I had the ability to do. So in a non-educational sense, the university is still helping me now.'*

4.4.5. The longer-term advantages of having studied at university

Participants were then asked to think of the longer-term advantages of university study, compared with not going to university. In the face-to-face group, participants focused particularly upon a greater cultural awareness: *'Being thrown in with lots of other people from very different backgrounds...it raises your awareness that there is a lot more around you than just what you think is around you, and it does help you learn about other cultures....makes you well-rounded and culturally immersed.'* A final-year student added: *'Anecdotally, people are just more thoughtful; problem-solving, too'.*

Responses from the other focus groups were divided between having better job-related skills and prospects, and becoming a more rounded individual as a result of university, through gaining independence, learning new things and meeting new people. Job-related benefits included: *'I definitely think my prospects are better with a university degree. It gives you the skills to do so much work. Even things outside your degree'; 'Definitely helping me get into the field of study I want to be in'.* A film student added: *'For me, I understand my subject. It sounds silly I know, but a lot of people think they know film. University has untaught me all the rubbish and has given me a rich knowledge of film history, how to speak the language of the academic/critic and the technical side; framing, projection, and all that jazz.'* An international student said: *'Going to university opens up a lot of opportunities for me, especially going to a British reputable university, it automatically makes me more attractive as a potential employee...I'd say a university diploma is just like a ticket for me to go into the next step, it just makes it easier given that I am not European and I need visas to live and work everywhere.'* An older participant told us: *'I feel it has definitely opened up more opportunities for me. Before university my work experience consisted of cleaner, retail assistant and bank support staff...as an intern I have had several extensions to my contract as well as a couple of "promotions" for want of a better word. None of which would have been possible had I have not gone out of my way to gain my degree.'*

On the other hand, many of the participants focused on the wider long-term personal benefits of having studied at university: *'It has allowed me to learn a lot about myself and acquire a lot of new skills which would allow me to live on my own independently. Don't think this would've been possible had I not gone to uni'.* One group debated the wider benefits, with one participant saying: *'Ability to better understand the world around me and contribute to it'*; which prompted a lot of agreement: *'Also, a more diverse group of friends'; 'It helps with global*

awareness for sure'. In summing up, one student said: 'Broader perspective, understanding how other people think, opening up my mind – Uni seems to slowly clear the fog of confusion'.

4.4.6. The prospects and reality of gaining a 'graduate' job

The definition of a 'graduate job' is somewhat contentious, and as a consequence, the proportion of graduates reported as being employed in a graduate job tends to vary, depending on the definition used. Nevertheless, there is general agreement that while the numbers fluctuate, the increase in the proportion of young people entering HE, combined with a recessionary labour market, has resulted in an increased proportion of graduates working in jobs that are not graduate jobs, based on measures such as the qualifications required for the job, the skills used in the work or the salary earned. The CIPD in 2015 put the figure for graduates employed in non-graduate jobs at over 50%, while HESA data suggest a figure of between 30% and 40% (HESA, 2015).

In one focus group, it became apparent that current students were perhaps overly optimistic about their prospects for getting a graduate job at the end of their degree or were unconcerned about the possibility of not getting such a job. We therefore introduced two further questions into the later groups to ask: 'When we talk about graduate jobs, what does that mean to you?' and 'We hear that a lot of graduates don't go into graduate jobs after getting their degrees. Does that worry you?' Responses to the first question demonstrated that many students had a limited knowledge of what the term 'graduate job' implied, with many focusing on graduate schemes run by large organisations: *'The typical graduate job schemes...they're conducted in a set way from what I understand'; 'Yeah, a typical grad scheme, a big company basically'; 'Grad schemes like for KPMG and PwC, etc...where you need a degree to get onto it; something you need to apply for in your first or second year!'* Others discussed different meanings of a graduate job: *'Entry-level jobs that don't require experience but require a degree'; 'Higher-level skills, jobs that require a degree and pay above 18k'; 'Graduate jobs meaning...the course you've studied...leading you to that job'; 'A job that you get at the end of your university course, that uses your skills that you have learnt'; 'First job after uni'; 'A job that is tailored to students that have just come out of university, so there may be more support and awareness.'*

In response to the second question, participants were relatively optimistic about their opportunities as a graduate: most said they were not worried about their prospects, some said they were 'slightly' worried and one focused again on large organisations' graduate schemes: *'It's understandable that most graduates don't go into grad schemes as the number of graduates each year would undoubtedly be greater than the number of grad scheme opportunities available, so I'm not too worried to hear that'.* In another group, participants showed more concern about their prospects, especially those who were just about to graduate, or had already done so: *'It is scary for students when their friends have got onto grad scheme and you might not have'; 'I am at that stage right now and it slightly worries me to be honest.'* Others were more mixed in their responses: *'I feel like I'll deserve a little down time before diving into a full career, however, the competition for jobs is so high, but we have to be dedicated and committed to reaching our goals'; 'I got an offer but I am still applying for what I want to do most.'*

In some of the later groups, which included a larger number of graduates, a further question also probed on whether or not their current job required a degree. Responses demonstrated

that the prospects of new graduates were often far removed from the more optimistic expectations of current students: *'No sir!...But I would love to use my degree to secure a better job'; 'For me it's just a line on my CV which has to be there to make me competitive but no employer has ever asked about it. I did the MSc for my own curiosity but neither has helped me'; 'No-one has ever asked to see any evidence I have a degree!'*

However, other graduates highlighted the necessity of having a degree for their current work. One told us: *'I'm 3 jobs in to my career at this point. I don't think I would be where I am without the piece of paper unfortunately...Not when you compete against others who have a degree'*. Others similarly said: *'The employer I am joining next month wants his staff to have a degree of some sort, 2:1 or higher, but not in any particular subject'; 'Yes, a master degree is kind of compulsory if you want to find a good job in my country'; 'In my case I do, since my work is more related to science researches, but I don't think generally it's true'; 'They offer apprenticeships now but they weren't available for me so a degree is necessary'*.

4.4.7. Recommending university to others

A series of questions then asked: Thinking of the longer term, would you recommend university study to someone who was considering it now?

If so, what would you advise them to do before applying to university?

And what would you advise them to do while at university?

And what would you advise them to do just before leaving university?

Almost all of the focus group participants said that they would recommend university to someone who was considering it now. For example, one older student mother told us: *'Yes I would, whenever I meet someone I ask them to go to the uni, I even have some mums considering going'*. However, there were additional points made which suggested some hesitation in recommending university to everyone. Some focused upon personal considerations, whereas others highlighted the financial implications of HE. For example, participants said: *'Perhaps. I really think it depends on the individual – for some people they flourish and grow, for others they need to do their own thing'; 'Not if they put the fees up even more'; 'It depends on the person and their circumstances. I'm very aware of the debt factor'*. However, a student in the face-to-face group said: *'For the individual, it's more than just a financial issue, it's about social mobility and a way of life where you have the choice about what jobs you might do.'*

Others highlighted the need to consider other career routes: *'Yes, if they really needed it for their career, e.g. sciences, otherwise I would recommend other routes'*. One international student added: *'Definitely if that person comes from my country. However, if that person comes from a more developed country where there is government support available and there exists more opportunities, I would say it's not the only way possible to achieve one's goals'*.

When asked what students should do before applying to university, participants talked about careful research and weighing up all available options. Online sources of information were only one part of this research process and open days were seen as very important in making an informed decision. For example: *'Research – but not just online, which was a mistake taken by myself, but first hand research. Go to open days, speak to previous students, and talk about*

how you're feeling; 'Do lots of research and visit the university'; 'Look around the city too and find out about the social life and whether you'd like it'; 'Ask students at open day'; 'Go to the Open Day of every place you intend to apply for'. Others noted the importance of recommendations from current students, not just at Open days: 'Read the studentroom...it is a MUST'; 'Ask other students who used to be in school'.

Other participants focused upon the choice of course, and how important it was to genuinely like the subject, rather than just choosing it because they got a good result at A level: *'Choose something you love, because you're going to do it for a number of years. Also, check student satisfaction'; 'I would advise them to be absolutely sure that the degree they're considering is worth it. Not just in terms of employability but in terms of what they are interested in. Three/four years is a long time'; 'I would advise only to take the course if it is required for your chosen career, and even then to be extra confident you want that career. At 18 you don't know for sure what's going to crop up.'*

Preparation and thorough research seemed to be key: *'I know of quite a few people who are unhappy or have dropped out because they weren't prepared'.*

Advice for students while at university centred first and foremost on getting involved in as many activities as possible, including societies, volunteering and other extra-curricular activities: *'Join societies. Definitely go to the lectures/seminars, it will pay out in the end. Try to take advantage of all the offers the uni gives'; 'Study hard but not too much. Do extra-curricular activities and enjoy yourself'; 'Work hard and play hard'; 'Join at least one society. Then you have something to get out of the flat/house for that isn't academic and they will have a whole other pool of friends!'*

In one group, participants were asked 'What about things you could do to help you get the kind of job you want in the future?' Five said volunteering and another added: *My University offers the Student Development Award (SDA) which is a really good qualification to have, especially when applying for placements which is extremely competitive'.*

Participants gave a variety of suggestions for students just before leaving university, which linked in specifically with existing university support. Many reflected upon their own decisions and planning while at university: *'Don't start too late with looking into what to do next. Like I did; 'Make sure they have all of the skills they need and if they don't have some, to make use of the university's resources before they leave'; 'Definitely have a career plan, know what makes you stand out against others'; 'Networking'; 'Getting a professional CV together'.*

The predominantly graduate group recommended a level of flexibility in job-searching: *'Just before leaving I would say they should go to interviews as early as possible to beat the rush...really look in to the industries that are out there and see what you would enjoy. Also don't be afraid to make a mistake. There's plenty of time to find a job you want to stick at for 15 years'; 'Try to plan ahead as much as possible, keep open-minded when searching for jobs and weigh up every option'; 'Don't limit yourself to your subject field.'*

4.4.8. Summary

Participants were generally very positive about their HE experience and would recommend HE study to those thinking of applying now. However, many were also aware of the financial

implications of HE study and recommended considering alternative options, if available. The benefits of HE included both career-related and longer-term personal development. Participants highlighted that employers were looking for graduates with soft skills, as well as some more technical skills and most were confident that they were at least on their way to developing these skills, with both university study and extra-curricular activities having a role to play in this.

Current students had a relatively limited understanding of what constituted a graduate job, with many assuming that the term referred specifically to graduate schemes run by large organisations and hence data showing relatively low levels of 'graduate employment' were not a particular concern as they would still get a 'good job'. The graduate participants had mixed experiences, with some still working in jobs which did not require a degree, whereas others had required a degree to gain employment. This is similar to findings from the 2015 HEFCE review of KIS and Unistats, that showed that users did not engage with the data provided as closely as had been anticipated, and did not always read explanatory text that would enable them to understand what the data was showing.

4.5. The future of higher education and the sources of information required

The final set of questions required participants to cast their minds forward and focus upon the future of HE and what types of information would be most beneficial to those considering university study in the coming decades. Various studies have highlighted the growing use of ICT in provision and use of HE information (see, for example, Callender, Ramsden and Griggs, 2014; Diamond et al. 2014; Griggs et al., 2014; Briggs and Wilson, 2007) and the opportunities social media provides for HEIs to communicate with prospective students (Dunnett et al., 2012; . Kintrea et al., 2011; Johnstone, 2010).

The first question asked: 'Thinking of students in the future, what effects do you think enhanced technology might have on provision of information to help people in their decisions about university?' Some participants focused upon the expanded use of technology which was already available, particularly technology that enabled prospective students to interact with current students and learn more about their personal experiences: *'Lots of student blogs to get the 'personal experience' of students - these exist already but possibly on a larger scale'* – one student added *'They're kind of hidden'*; another agreed: *'If you can find it, that's great, but if you can't...some people would quite like that information'*; *'Having a student take over the uni Twitter account and tell students what they are getting up to while they go'*.

Potential changes in the provision of HE, and in particular increased provision of MOOCs and other online courses were envisaged: *'A nice use of technology'*; *'So useful for people who might have a job, children or live somewhere else,'* but another said *'I'm not sure if online courses will increase, because personally I prefer being physically present. But it'll definitely help people with no access to those courses'*; *'I think we may see a lot more distance learning'*; *'Could there even be universities?'* This prompted a discussion around not being physically present at uni; *'Technology may very well fundamentally change the university system.'* This was also discussed at some length in another online group: *'People might not see going into university as an important thing, because of the sheer number of study resources available online for free'*; another added *'I don't see why we must physically attend a university to get a*

degree. Free online classes could be a great way to get a degree from any university in the world regardless of geographical location, age or financial abilities'.

When asked: 'How might technology affect the information available to you about HE and careers?' participants focused on the increased availability of information and greater opportunities to personalise the information that was available: *'More available'; 'Hopefully it will be more flexible and accessible'; 'More personal advice'; 'It would help us in getting the information, however, at the same time it would hinder our chances of landing that job...because due to technology the advert could be reached by loads of people'.*

More online resources seemed especially useful for international students: *'Online chats with students from that University instead of Open days'; 'I know that some universities provide visual tour of the campus. And also online chat to answer any questions before the students apply for the university'; 'It's also nice to have online tours of university, especially for international students who cannot afford to visit unis before applying'; 'Some specific filtered information on their courses and scholarship options'.*

The face-to-face focus group was asked: 'Thinking of potential students in the future, do you think particular sources of information may become more or less important in their decisions about which university and course to choose? Participants said: *'Physical prospectuses will become less important as more stuff moves online. Online resources are far more detailed and comprehensive; there's only so much information you can fit into a hard copy'.* Asked about student satisfaction, participants still felt this would be important to applicants in the future.

When asked about information on teaching quality and number of teaching hours, there was broad agreement that teaching quality was a crucial indicator, but that it was hard to assess and needed to be *'on an independent website'*. Rankings were also seen as maintaining their importance: *'Still always be the rankings'*. When asked what should be measured in the rankings, one said: *'They have a range of things, don't they, like student satisfaction, teaching quality, career opportunities'*. One added: *'I think the teaching quality should be highlighted'* (top researchers are not necessarily good teachers). Common ranking criteria would also be useful for potential students: *'They're all over the place and none of them are consistent'; 'Maybe it would be nice if there was an actual independent body...with rankings for specific things, rather than just the university'*. It was suggested that students could choose what they wanted to look at, and a sort button could then do the work for them (e.g., if a student wants to sort or weight data by location, student satisfaction, teaching quality, etc.), although this is already available on several websites.

For the online groups, a poll asking the same question was then introduced. Options were included (See Table 4.8, below). 'Teaching quality' also emerged as the most important source of information in the future (40/53), followed by 'student satisfaction surveys' (38/53) and 'number of work placements offered and their length' (33/53). The least popular options were 'information on skills development at HE' (25/53) and 'information on work-life balance and flexibility of particular jobs' (23/53). Perhaps unsurprisingly, this varied with age of the participants, as 70% of the older (predominantly graduate) group chose this latter option. This older group was also less likely to select 'student satisfaction surveys' than many of the other groups.

Table 4.8: Thinking of potential students in the future, do you think particular sources of information may become more or less important in their decisions about which university and course to choose? (n=53)

	Number	Percentage
Teaching quality information	40	75%
Student satisfaction surveys	38	72%
Number of work placements offered and their length	33	62%
Level of employer engagement in courses and assessment	30	57%
Online data sources on labour market information	29	55%
Alumni recommendation	26	49%
Income data	26	49%
Information on skills development at HE	25	47%
Information on work-life balance and flexibility of particular jobs	23	43%
Other	0	

Note: 4 missing responses

Finally, participants were asked if they had anything else to add, particularly around the kind of information which could be provided to potential and current students in the future. Responses again focused on the need for course-level information on how courses were taught and what they would learn from studying these courses: *'I would have liked to have understood that the universities that rank most highly are typically those which produce top-quality research, but that a knock-on effect is that lots of the staff are not there because they want to teach but rather because we want to do research; 'More precise info about Erasmus locations'; 'They could be better informed about the particular skills they will obtain from the course'; 'Likely workload, module options and timetable samples, living costs estimates, salary comparisons for job with and without a degree, etc.'* Others focused on employment outcomes from particular courses and more generally: *'Need to align course with careers information – not at institutional level but at course level'; 'Satisfaction in jobs and progression opportunities'; 'How many people did placement years'; 'Work-life balance and if people want to stay in their current profession'; 'Progression opportunities'; 'The ratio of the number of job applications to the number of job offers'; 'How long it takes after graduation to be employed'; 'Work placements are important but what matters is the number of students each of those companies pick'; 'The jobs/universities where people are the happiest, the jobs/universities where people have the most mental illnesses, the jobs with the fastest opportunities for promotion'; 'The most culturally diverse companies and universities'.*

Other responses focused on financial information and value for money: *'I'd say more honest information about the money side to uni, before, during and after should be presented'; 'A*

sense of return on investment could be interesting....e.g. for every £1 of loan investment £x return!'; 'Financial opportunities for students. I feel many students are unaware of the bursaries/grants that may be available to them'. Finally, one participant highlighted the need for information to be made available to others involved in advising potential students and graduates: 'Please don't forget parents and carers are important in the decision-making process too!'.

The predominantly graduate group was asked 'Have those of you who have graduated been surveyed on these issues for the DLHE survey?' Only one said yes and two were unsure; when asked if they had looked at 'data about the career outcomes of people studying your subject / at your uni /etc?', they said: *'The alumni group send through glossy brochures with it in'; 'Yes, but it was not very extensive/helpful'; 'I guess I am signed up to the LinkedIn page so if I wanted to find out the truth for myself I could'*; several had not looked, however. One participant said: *'Yes I did, that was something I looked at when considering what course to study'*. When asked 'Would you know where to find such information, if you wanted to see it?' most did not know or were unsure.

4.5.1. Summary

When asked about the future of HE and the information applicants might find useful, participants focused upon how technology may continue to change the HE landscape, resulting in increased provision of MOOCs and other methods of distance learning, raising questions of whether it is possible to design a system of data collection that can be applicable across an increasingly diverse sector. In terms of data provision, most saw the extended use of technology as a positive development, allowing the provision of more data and the personalisation of such data to reflect the priorities of the individual student. However, it was also suggested that data requirements would remain largely unchanged, with data on teaching quality and student satisfaction remaining important, and ranking systems still being widely used.

5. Conclusions and recommendations

The following section highlights the conclusions from the main research findings and a brief set of suggested recommendations to support the HESA review of destinations and outcomes data. It is important to note that these conclusions and recommendations are based on research with a relatively small number of respondents, and also that post-hoc rationalisation of decision-making and its influences often occurs (see Diamond et al. 2013).

5.1 Conclusions

In 2010, Oakleigh Consulting and Staffordshire University undertook a review of prospective students' information needs on behalf of HEFCE. In 2013/4, HEFCE also funded research on the NSS as a source of information for prospective and current students (Diamond et al. 2014, Griggs et al. 2014) and on the Unistats website and the Key Information Set (KIS) (DELNI, HEFCE, HEFCW and SFC, 2015; Diamond et al, 2015). The findings from these reviews highlight various issues that are also pertinent to the current review of the DLHE.

A comparison of the 2016 data to that highlighted in the 2010 report to HEFCE on prospective students' information needs in initial decision-making (Oakleigh Consulting and Staffordshire University, 2010) demonstrates that although the broad categories of information sought by current and prospective students remain the same, the importance of online sources of information generally has increased, as has the significance attached to rankings and to access to personal accounts of lived experience at different HEIs and on different courses. The review of the Unistats website and the KIS (2015) found that the most important information sought by prospective students was detailed information about courses, including how courses were taught and assessed.

However, the focus groups conducted for this review of the DLHE showed that, with hindsight, current students and graduates wished that they had accessed more information about graduate destinations, including types of employment that particular courses could lead to and expected salaries. Labour market information about graduates emerged as the most important source of information before entering university, remained in the top four sources of important information while at university and re-emerged as the most important source of information pre-graduation. However, there was limited understanding of the range and sources of labour market information available, as well as on how to interpret the data that are available.

This lack of knowledge about the kinds of information applicants should look for before they entered HE, where to find such information and how to interpret it once it was found was highlighted in the Unistats/KIS review. Common across all the reviews was the issue of there being an overwhelming amount of information available to current and prospective students. The focus groups in this research showed that students found the information difficult to interpret, and frequently they fell back on the kind of ready-made analysis presented in rankings and league tables, but without a true understanding of what these rankings actually showed or how to account for any differences between them. As in the Unistats/KIS review, there was support for high-level, authoritative, impartial information to supplement information provided by individual HEIs, but the lack of knowledge of existing sources of information displayed by students in the focus groups suggests that marketing and brand recognition is important in enabling students to find the information they want and to trust it once they have

found it. Within the plethora of online sources of information now available to current and prospective students, official sources of raw data, such as the DLHE, are rarely used and, in the case of the DLHE in particular, are generally unknown.

Current students' views and their levels of satisfaction with courses and universities were important across all the reviews. These were most likely to be found on HEI websites, although the popularity of the student room website suggests that there is an appetite for information from other sources, with concerns being expressed about the potential bias in information presented by HEIs. Similarly, personal experience, either of other students or that which can be obtained through open days, is especially valued, although how such data may be provided in a rigorous manner presents a challenge for future data provision.

Information on teaching quality and the operation of courses, including the provision of different modules and timetabling of courses, was important to students before entering HE, especially for older students with additional responsibilities, and emerged as the least available source of information for prospective and current students. The greater availability of some of this information would have potentially made a difference in students' initial decision-making. However, the reviews of the NSS and Unistats/KIS indicate that the collection and presentation of this information was the most difficult for HEIs and was seen as burdensome and often not very useful due to the diversity of options and teaching methods employed by different courses. Similarly, provision of work placements and opportunities for gaining work experience were important to the students and graduates in the focus groups, but the Unistats/KIS review showed that such information was rarely available to prospective students.

Social networks (parents, teachers and peers) were important in the decision-making processes of students and graduates in the focus groups and provided important information not just about the range of study and employment options available, but also the value of different options, including the value of attending HE at all. It was clear that particular groups of students lack access to these networks or have networks that cannot provide them with the information they require, and attention should be given to ensuring that these groups do not miss out on the essential information they need to make decisions about HE.

The National Union of Students (NUS) raised concerns in the Unistats/KIS review about the lack of contextual data available on graduate outcomes. Findings from the focus groups give more detail on the importance of this contextualisation of HE data. Older students and those from other non-traditional backgrounds indicated that they faced constraints on where and what they can study and were likely to consider a smaller range of options when making decisions. For example, while broadening of horizons, both social and geographical, was seen as a key benefit of HE, students and graduates faced constraints in achieving this. These constraints included family commitments, financial considerations, personal preferences and political change (such as uncertainty over the implications of the recent British vote to leave the EU), all limiting the locations where graduates could or would seek employment. The evidence provided by students and graduates therefore shows that different students face different constraints and also have different aspirations that they hope to achieve through participation in HE: data that shows only how much a graduate earns cannot hope to capture this in a meaningful way. There is a need to contextualise the data that is available, whether this is through a process of benchmarking or through the provision of data that prospective

and current students and graduates can use to enable them to fully understand the data presented to them.

The review of the NSS indicated that students were somewhat less interested in how different courses had an impact on personal development, but the findings from the focus groups suggest that students and graduates placed great importance on the impact of HE more broadly on their social and cultural development. Consequently, there is scope for outcomes data to be collected on this, but care should be taken on what reference points are used - 'during your time in HE' rather than 'on your course' - and also in the terminology employed in collecting such data. The focus group responses suggested, for example, that 'well-being' may be too broad a term, but that components of well-being, such as self-confidence and self-efficacy and satisfaction with life were understood by students to be an outcome of HE that was important, potentially measurable and added to the existing measures that focus primarily on economic outcomes.

Overall, the vast majority of participants were very positive about going to university, in spite of the recent increase in tuition fees, and felt that it had or would enable them to achieve their career and other ambitions. Current students were relatively optimistic about their prospects for entering employment after graduating, but there appeared to be some confusion about terminology such as 'graduate jobs' which could lead to misinterpretation of data. Graduate participants demonstrated the contrast between the aspirations of current students and the realities of post-graduation opportunities, suggesting that there is a need to collect more data on graduates' reflections on HE in light of their subsequent labour market experiences over a longer period of time, and that focusing the majority of data collection on current students and recent graduates potentially misses important information that can be of use to potential and current students.

The implications of technological developments focused primarily on the provision of personalised information, either through increased opportunities for students to personalise data themselves, for example through sorting and weighting, or through the facilitation of personal contact between prospective and current students or current students and graduate mentors. It was also suggested that technology may also allow greater provision of online courses, adding further to the already diverse range of institutions and experiences covered by existing data collection.

5.2 Suggestions from the focus groups

The following section draws together the various comments, opinions and suggestions made by the 66 students and graduates who took part in the focus groups.

5.2.1. Data coverage

In light of the need expressed by students for data on the relationship between particular courses and graduate outcomes:

Suggestion 1: Collection of detailed information on employment outcomes.

Currently, the DLHE survey provides information on employers, including name, location and type of business, employees' pay, hours worked, job title and duties, the qualifications the respondent required to get the job, how they found their job and why they decided to take it. All this information was noted by respondents as being important and it is suggested that HESA should continue to collect this information through the DLHE, as it is not currently readily available through other sources or is available but not in a form that allows it to be linked to student record data.

In light of the variety of career-related aspirations expressed by students and the wider variety of outcomes from HE that they valued:

Suggestion 2: Collection of data on job satisfaction and the factors associated with this.

Currently, the DLHE provides two pieces of information that are used as indicators of HE achieving positive outcomes for graduates: salary levels and SOC classification derived from a respondent's job title and duties, broadly, whether the respondent has a graduate job. However, students in the focus groups relatively infrequently mentioned these measures when discussing the career-related outcomes they hoped to achieve from participation in HE. Instead, they mentioned broad measures of job satisfaction: whether someone had the job that they wanted (for example, a job in a particular industry, even if work in this industry is generally low-paid), a job in a suitable location, a job that had opportunities for progression, for work-life balance, that was enjoyable or challenging, etc. The DLHE includes a question on whether respondents are satisfied with their current job, but provides no detail on what aspects of their current job the individual is or is not satisfied with, nor what has influenced their level of overall satisfaction.

Consequently, it is suggested that the DLHE should develop measures that recognise that while for some students, decisions about HE primarily involve a financial cost-benefit analysis - how much will it cost them to get their degree and how much having a degree will add to their earning power - the overwhelming majority of students placed value on a much broader range of job characteristics; to be able to assess whether they will achieve what they want from different degrees, students indicated that they needed such information to be made available to them. These measures may be statistical or HESA may consider the provision of additional qualitative data on the realities of doing particular jobs.

Similarly, in light of the wide range of broader social and cultural outcomes of HE valued by students:

Suggestion 3: Broadening the scope of the DLHE to include measures related to the impact of HE on social and cultural development and life satisfaction.

Responses from students and graduates in the focus groups suggested that 'well-being' as a measure may be too broad. However, the students in the focus groups thought that HE should - and did - enable them to develop some components of well-being, such as tolerance, cultural awareness, independence and self-confidence, and that these helped them to develop as a

well-rounded person, able to fully participate in society. Based on this, it is suggested that one way to broaden the DLHE would be through the inclusion of such measures. The LDLHE includes a question for PhD/research students on whether this degree has enhanced their social and intellectual capabilities beyond employment, and duplication of this question in the DLHE may go some way towards meeting the data requirements expressed by the students in the focus groups.

5.2.2. Data availability

In light of the increased use of online data sources and the need for students to be able to assess the reliability and validity of the information available:

Suggestion 4: Raising the profile of DLHE data as an impartial source of information on graduate outcomes.

Currently, DLHE data appear to be under-used by students in the focus groups, particularly when they had applied to enter higher education. Students in the focus groups did not know that the DLHE exists, where it can be found or the methodologies used in its collection. This lack of knowledge on the part of the students in the focus groups suggests that there is potential to promote the revised DLHE, and the Unistats website, much more extensively as a 'go-to' source of impartial comparative data on post-study outcomes.

In light of the possibilities provided by technological change:

Suggestion 5: Personalisation of information on HE based on individual aspirations and preferences. Use of technology to visualise data in different ways.

Students and graduates in the focus groups expressed a desire to be able to personalise the information that is available, visualising it in different ways to make it more applicable to their personal concerns and preferences. It was suggested that technological developments make this feasible and this could be investigated further. The HE statistics mobile app could also be developed further to enable more customisation of data.

5.2.3. Data usage and linking

The possibility of data linking to produce robust information at relatively low cost, demonstrated by the linking of student record data to HMRC tax data, suggests that there is great potential in this area. However, expansion of this to other types of data would require significant adjustment to existing surveys and other data sources, as well as co-operation between a variety of governmental and non-governmental agencies. This is clearly something to be explored, but the cost, both in financial terms and in disruption to the stability and internal comparability of existing datasets, may be too high. Consequently, suggestions in this section relate to the creation of synergies in data provision and how existing data can be presented and used in such a way that they complement and contextualise the findings of the DLHE.

The NSS, as a student satisfaction survey, focuses primarily on students' views on teaching methods and resources, but provides little information on skills development beyond the three questions on self-confidence, communication skills and problem-solving, or on the extent to

which students feel prepared for work, although there are proposals to include more student engagement questions from 2017. The DLHE, on the other hand, provides information on the duties undertaken by an employee, which can be used, to an extent, as a proxy for skills used and, when a qualification was a formal or informal requirement of the job, on the respondent's views on what their employer considers most important about their qualification, i.e. whether their employer values the subject they studied, the level to which they studied or work experience obtained on their course. While students in the focus groups reported wanting to know about each of these things, the NSS currently lacks explanatory power in relation to the outcomes found in the DLHE data, e.g., doing x in HE (as identified in the NSS, even at the aggregate level) is more likely to lead to outcome y in the DLHE, so it is important that they have opportunities to do x while they are in HE if they want to achieve outcome y. In light of this:

Suggestion 6: Greater cross-promotion with the NSS and greater ease in understanding how experiences identified in the NSS relate to outcomes identified in the DLHE.

Currently, the development of skills, including skills learned through work placements, is a missing link in the data attempting to chart a student's journey into, through and out of HE. Such data that do exist tend to be produced on an ad-hoc basis by individual institutions and departments. While the DLHE may not be the most suitable source for such data, HESA and HEFCE could consider creating a more seamless transition between datasets, to allow students to relate the in-university findings of the NSS to the post-university findings of the DLHE survey more easily.

Additionally, as students in the focus groups indicated that they were using the websites of individual HEIs to find the information they wanted, HESA could work with HEIs to encourage them to provide links to NSS and DLHE data on a single webpage to facilitate easier access to information and to maintain and display the KIS widget as a matter of course. Similarly, HESA and HEFCE could provide more guidance to institutions on presentation of course-level data, for example, on the modules available, the number of hours of in-class and out-of-class study expected of students, sample timetables, etc.

In light of the identified need to contextualise data so that it can be interpreted fully:

Suggestion 7: Benchmarking and contextualisation of DLHE data to produce a more accurate picture of the 'value' of HE.

The DLHE survey includes a variable on location, but this is not linked to information on what impact location may have on labour market opportunities, including the availability of jobs, average earnings, cost of living, etc. DCLG currently collects information on rents and mortgage payments at the regional level, ONS data is available on cost of living, wages and self-employment and BIS collects data on the occupational profile of local labour markets. These data could be used to benchmark graduate outcomes to better understand how outcomes are mediated by various locational, and other, factors that students and graduates in the focus groups identified as being important in their decision-making process.

In light of concerns about interpretation of DLHE data:

Suggestion 8: Promotion of good practice in data use, including explanation of methodologies and terminology.

Students in the focus groups demonstrated a basic misunderstanding of what the term 'graduate job' refers to in the reporting of graduate outcomes. While this term is contested and different definitions are used, particularly by those with a vested interest in showing employment in graduate jobs to be particularly high or low, the level of misunderstanding of the term, and hence of graduate outcomes data shown by some students in the focus groups, suggests that students enter HE not fully informed about what they may expect to achieve as a result of HE and consequently are unable to fully determine the likely costs and benefits of their decisions. There was also some evidence of a lack of knowledge of how the data used in rankings are collected and weighted, which made it difficult for the students to know what information to trust.

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