Causes of differences in student outcomes

Report to HEFCE by King's College London, ARC Network and The University of Manchester

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Glossary

ACORN	A geodemographic categorisation of residential neighbourhoods in the UK
BIS	Department for Business, Innovation and Skills
BME	Black and Minority Ethnic
CPD	Continuing Professional Development
CRAC	The Career Development Organisation
DFES	Department for Education and Skills
DiSA	Disparities in Student Attainment
DSA	Disabled Students Allowance
ECA	Extra-Curricular Activities
ECU	Equality Challenge Unit
ESRC	Economic and Social Research Council
FE	Further Education
FEC	Further Education College
FSM	Free School Meals
HE	Higher Education
HEA	Higher Education Academy
HEAT	Higher Education Access Tracker
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institution
HEPPP	Higher Education Participation and Partnerships Programme
HESA	Higher Education Statistics Agency
NCSEHE	National Centre for Student Equity in Higher Education
NSP	National Scholarship Programme
NSS	National Student Survey
NUS	National Union of Students
OFFA	Office for Fair Access
POLAR	Participation of Local Areas – POLAR3 uses the HE participation rates of people who were aged 18 between 2005 and 2009 and entered a HE course in a UK HEI or English or Scottish FEC, aged 18 or 19, between academic years 2005-06 and 2010-11
SRHE	Society for Research into Higher Education
TLRP	Teaching and Learning Research Programme
UCAS	Formerly Universities and Colleges Admissions Service
VET	Vocational education and training
WP	Widening Participation

Executive Summary

Introduction

1.	This report was commissioned by the Higher Education Funding Council for England (HEFCE). It explores why different types of student achieve different outcomes in UK higher education (HE). It examines the possible causes for differential outcomes and evaluates the steps being taken by institutions to close outcome gaps. The three student groups we focus on are (1) those from lower-socio-economic backgrounds, (2) disabled students, and (3) black and minority ethnic (BME) students, although reference is also made to part-time and mature students. The four HE outcomes we explore are (1) retention, (2) attainment, (3) progression to graduate employment and (4) progression to further study. Findings are intended to inform policy interventions and to help all learners in HE to meet their full potential.

Methodology

2.	Our approach involved: compiling an extensive literature review (covering 'grey' and unpublished material, as well as published literature); interviewing a range of stakeholders in HE and in other sectors (including employer representatives); undertaking a series of international comparative studies; and conducting in-depth case study research into the approaches and interventions used to address differential outcomes in nine English HE providers. The full research report includes an extensive bibliography and signposting to resources and relevant networks.

Context

3.	The 2014 National strategy for access and student success in higher education emphasised not only entry into HE but also students' progression through the curriculum and on to further study or employment (BIS, 2014). Several HEFCE reports[1] have found differentials in outcomes and experiences for different groups of students. Variance in students' experience has also been captured by the National Student Survey (NSS)[2]. The modelling techniques used by HEFCE control for prior attainment and make allowance for differences in the performance of students at different universities, thus controlling for institutional effects. Among the patterns explored in the report are the tendency for socio-economically disadvantaged groups to do least well at university, even when prior attainment is controlled for, and the tendency for white students to achieve better outcomes (in relation to completion rates, attainment and employability), and to report the highest levels of student satisfaction.

Causes of Differential Outcomes

4.	Assessing the evidence on causation is complex because inequalities outside HE affect individuals' performance within HE. We take the position that differential outcomes for different student groups are underpinned by influences at three levels:

- The **macro level.** This is the wider context of learning, including both the structure of the English HE system and socio-historical and cultural structures such as those of race, ethnicity, culture,

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[1] HE and Beyond, Differences in Degree Outcomes and Student Ethnicity reports
[2] http://www.hefce.ac.uk/lt/nss/results/

gender and social background that are embedded in the general environment in which universities employers and students operate.

- The **meso level.** This covers the individual HE providers and related structures which form the social contexts within which student outcomes arise.
- The **micro level.** This is the level of communication between individual students and staff in the HE environment, including the micro-interactions that take place on a day-to-day level.

Four types of explanatory factors are identified in the research:

- **Curricula and learning**, including teaching and assessment practices: Different student groups indicate varying degrees of satisfaction with the HE curricula, and with the user-friendliness of learning, teaching and assessment practices.
- **Relationships between staff and students** and among students: A sense of 'belonging' emerged as a key determinant of student outcomes.
- **Social, cultural and economic capital**: Recurring differences in how students experience HE, how they network and how they draw on external support were noted. Students' financial situation also affect their student experience and their engagement with learning.
- **Psychosocial and identity factors**: The extent to which students feel supported and encouraged in their daily interactions within their institutions and with staff members was found to be a key variable. Such interactions can both facilitate and limit students' learning and attainment.

5. The complexity of the data presents challenges to understanding the causal factors of differential outcomes. Difficulties in identifying causes impact on institutions' willingness to act to reduce the gaps in HE outcomes. Some institutions report that they are moving away from a purely data-driven approach towards different types of research, incorporating 'action-research' where appropriate.

Approaches and Interventions to Address Differential Outcomes

6. We find that institutions differ regarding the extent to which their staff and students are aware of differential outcomes. Success in reducing differentials links to institutions' willingness and capacity to be more inclusive. Positive interventions include creating a sense of belonging, building social capital, enhancing the student experience, and developing more wide-ranging learning and teaching initiatives. In order to be effective, such activities require buy-in from professional services, students and academics. Changing institutional cultures is key to addressing differential outcomes, and this requires commitment and action from senior staff. Whole institution approaches succeed when they combine 'bottom-up' interventions with embedded strategic senior support. Such approaches are likely to have more impact than any one individual approach or policy.

7. The most effective interventions reduce gaps in outcomes by making improvements to the students' learning, boosting their engagement in HE, enhancing their wider student experience, and raising their confidence and resilience levels. Damaging psychological effects can arise from stereotyping, particularly the negative effects on students' self-confidence if HE staff or peers project bias, either consciously or unconsciously. Universal interventions avoid stereotyping, but targeted interventions remain necessary and useful in cases where the needs of specific student groups require systematically attention.

8.   Developments in curriculum, learning, teaching and assessment are important in tackling differentials, such as the use of an 'inclusion lens' and of student partnership approaches. Support for academic preparedness and navigating the curriculum emerge as important areas of interest: more successful interventions focused on induction, personal learning support, peer support and assessment. However, inclusive teaching was rarely found to be part of academic reward structures.

9.   The creation of more inclusive and supportive environments is emphasised, especially supportive peer relations and meaningful interactions between students and staff and among student peer-groups. Academics are perceived by students as role models and are key to delivering the implicit messages of success that underpin attainment and progression.

10.   Interventions to build students' contacts and networks were mainly based on the view that they could address the social and cultural capital issues that underpin differential outcomes. Peer-mentoring was found to be an effective and popular intervention, although the evidence base measuring its impact remains inconclusive despite students usually offering positive feedback. Some employer interventions took the form of building networks and access to information, including through employer-student mentoring. Virtual environments and social media have the potential to bridge geographic distances. Significant work is currently taking place in the field of student analytics and student information systems. Such monitoring and information gathering emerges as a useful evidence base from which to design interventions.

Evaluation of Interventions

11.   So far, many institutions have concentrated their resources on an exploratory phase of analysis of differential outcomes within their own context; the impact of interventions to address differentials on students' outcomes has yet to emerge. Future frameworks for evaluation should support comparative analysis of the effectiveness of different approaches and become an integral part of intervention planning. Institutions are increasingly moving from a narrow focus on student outcome indicators to a broader conceptualisation of impact (including impact on organisational cultures and the attitudes of staff). Longitudinal evaluations are the gold standard but remain the exception.

Recommendations

12.   A full set of recommendations are set out at the end of the report, addressed to the HEFCE, HEIs, staff and students. The recommendations seek to:

- Enhance the evidence base and strengthen and raise awareness of national networks, resources and insights from other spheres about tackling differential outcomes;
- Encourage institutions to embed diversity support within institutional cultures and practices, making strategically-connected 'micro-adjustments' to drive culture change;
- Embed monitoring, evaluation and data use at different levels (at programme and module level as well as within institutions and across the sector);
- Empower staff as change agents (including raising awareness of 'diversity thinking' as a central aspect of curricular, learning, teaching and assessment practice);
- Further promote and support institutions in working in partnership with students, creating a climate where students feel safe to raise potentially sensitive issues and empowered to open dialogue about their experiences and to challenge discriminatory practices.

1 Introduction

Statistical analysis shows that the least-advantaged students achieve lower rates of attainment and progression even after controlling for other influencing factors. This report was commissioned by the Higher Education Funding Council for England (HEFCE)[3], to gather and critically review the evidence on the causes of differential outcomes and the steps institutions are taking to address them. HEFCE aims to support students from all backgrounds to participate and succeed in higher education (HE), including their progress into postgraduate study and successful careers. Findings of this research are expected to inform Government and HEFCE policy interventions to address differentials between the outcomes of different groups. The research also aims to highlight some characteristics of best practice with a view to informing institutions that are perhaps newer to the issue of addressing differential student outcomes.

Differentials are examined with respect to four outcomes from HE:

1. achieving a degree

2. achieving a first or upper second class degree

3. achieving a degree and continuing to employment or further study

4. achieving a degree and continuing to graduate employment (as opposed to any employment) or further study.

There are differentials in HE in relation to the least-advantaged students (students from low socio-economic groups, disabled students, and those from black and minority ethnic groups). Whilst the report was commissioned to focus on these groups, it touches on other intersecting student characteristics such as gender, age, type of school and religious affiliation where these emerged in the literature reviews and fieldwork.

Whilst these outcomes are crucial to students as sound objective measures of the purposes and benefits of HE, we would not claim that they are the only gains that students might make; other gains may be less tangible or amenable to statistical comparison. HEFCE has identified differential levels of student satisfaction in the final year of study and we include some of these data from the National Student Survey (NSS) in section 2.3.

In addition to examining the causes of differential outcomes, this report analyses interventions that have been initiated by higher education institutions (HEIs) and employers. Finally, it examines the problems and possibilities for evaluation and proposes recommendations addressed to a range of stakeholders.

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[3] HEFCE funds and regulates universities and colleges in England. HEFCE invests on behalf of students and the public to promote excellence and innovation in research, teaching and knowledge exchange. Further information can be found on the HEFCE website: http://www.hefce.ac.uk/about/role.

1.1 Aims of the research

The overarching aims of the research were to:

1. Gather and collate existing evidence on causation and of practice, both in HE and in other educational spheres, and in England and other countries, with a view to identifying any gaps in knowledge and understanding.

2. Develop a typology of causation, interventions and approaches.

3. Critically review and evaluate this in order to identify the key considerations for future policy mechanisms with regard to HE in England, including the design and development of pilot activities and their subsequent evaluation.

1.2 Methodology

Reviews of existing literature encompassed both academic published literature and 'grey' literature which comprised unpublished institutional research and other reports and outputs which pertained to students' differential outcomes. We paid particular attention to providing a statistical overview of patterns of difference in students' outcomes drawing on existing analyses in order to define the phenomena whose causes we were seeking to explain. The subsequent literature reviews and fieldwork then examined causation and interventions that sought to address these differences.

1.2.1 Review of published literature

The starting points for this review were recent UK literature reviews that focus on: student retention and success (Jones, 2008; Thomas, 2011); the attainment of minority ethnic groups (Richardson, 2008c; Singh, 2011); widening participation (Gorard *et al.*, 2006; Moore *et al.*, 2013); social class and higher education (Stevenson and Lang, 2010); the role of HE students (Sanders and Higham, 2012); pre-entry interventions (Gazeley and Aynsley, 2012); the first-year experience (Harvey and Drew, 2006); peer mentoring (Andrews and Clark, 2011); part-time students (Callendar and Feldman, 2009); access to postgraduate research degrees (Wakeling and Kyriacou, 2010); black and minority ethnic (BME) staff experiences in HE (Leathwood *et al.*, 2009); inclusive learning and teaching (Hockings, 2010); and student engagement (Trowler, 2010). In addition, discipline specific reviews of the retention and success of BME students were consulted in the areas of medicine (Woolf *et al.,* 2011) and social policy degrees (Senior, 2012).

A small number of Higher Education Academy (HEA)-commissioned, non-UK reviews were also incorporated because of their focus on issues relevant to the current study: for example, Terrion and Leonard (2007) on peer mentoring in North America; Troxel (2010) on persistence and success in US higher education; Stevenson and Whelan (2013) on the retention, progression, completion and attainment of BME students in the USA and Krause and Armitage (2014) on Australian student engagement, belonging, retention and success.

Additional material was sought in major repositories of research and practical resources such as the HEA's Widening Access, Student Retention and Success (WASRS) national programmes archive. These include the products of major national research programmes such as the HEFCE/Paul Hamlyn Foundation What Works? Retention and Success national programme (2009-11) and earlier research, funded by HEFCE, under the final phase of the Teaching and Learning Research Programme (TLRP).

This initial work informed and was supplemented by searches of academic databases and sources (such as Academic Search Complete (EBSCO) and Ingenta Connect) using a range of appropriate search terms. These searches primarily sought to reveal relevant research on progression outcomes for UK HE students. However, cognisance was also taken of relevant recent international literature and of that relating to the schools and further education (FE) sectors (eg Carter-Wall and Whitfield, 2012 and Frumkin and Koutsoubou, 2013).

1.2.2 Review of 'grey' literature

Vice-chancellors and principals of all English HEIs were contacted in December 2014 with information about the project and asked to nominate a contact person for their institution who would liaise with the project team. Approximately 50 institutions did so. Of these, 23 sent documents relating to students' differential outcomes. This response rate from the sector is not necessarily indicative of the volume of work in this area: our own review of published online reports and personal knowledge of institutions suggests that there is a wider penumbra of activity. The timing of our call, the currency of particular projects and the availability of staff to respond to our call are all factors that influenced the volume of material we were able to collate. Therefore we make no claims about the prevalence of institutional research in this field but have sufficient contextual knowledge of the sector to believe that the material reviewed represents the variety and range of work that has been undertaken.

For those institutions which did submit institutional research, our assurance of confidentiality and anonymity was important. Whilst all wanted to contribute to the project, there was considerable caution about sharing data that may reveal unfavourable comparisons between outcomes for different student groups (even though these patterns were usually in line with the sector as a whole). For the institutions in the sample, their recognition of the need for collective learning and progress outweighed their caution. Similar considerations (as well as the logistical factors noted above) may have held back other institutions from responding to our call for evidence.

The review included institutional literature that goes beyond routine reporting, reports produced by stakeholder organisations, conference papers and other presentation material. It includes audio-visual material (e.g. YouTube video) as well as text documents. There was a geographical spread among the institutions who responded with documentation. They included 5 selective institutions (and many which select within some discipline areas) and 13 institutions which were established as universities post-1992. The strategy for reviewing and analysing the grey literature material comprised two elements: searching for substantive findings that that relate to student outcomes relating to causes and interventions; and identifying how institutions and other stakeholders have framed problems of inequality, often implicitly expressed in their choice of research methodology and intervention.

1.2.3 Stakeholder interviews

Interviews with stakeholders took account of the significant commitments and investments that have already been made in HE and beyond to understand the causes of inequality and to develop strategies and practical initiatives to address differences. Stakeholder interviews contextualised work with HE providers and offered insights into the relationships between specific organisational interests of a range of stakeholders and differentials in student outcomes. We asked stakeholders to describe the role their organisation had played in the past and was aspiring to play in the future with

regards to these issues. We identified initiatives stakeholders had undertaken to address gaps in attainment and the outcome of any evaluations or demonstrated impact. We conducted interviews with 17 stakeholder organisations involving a total of 20 respondents. A list of all participating stakeholder organisations is found in the acknowledgements.

1.2.4 International work

Four experts were asked to write country reports about the differential progression and attainment agenda in their respective countries. The countries included in this report are the US, Australia, Germany and Denmark. Country experts were provided with a template of questions to consider in their report. These questions included issues around the salience of issues, causality, evidence and interventions.

1.2.5 Institutional fieldwork

The selection of institutions for fieldwork and the design of fieldwork within each institution were informed by the initial reviews of literature and the completion of the supplementary statistical analyses. Institutions were selected on the basis that they were already aware of differentials in students' outcomes and had undertaken work in this area. We sought to map their journeys in establishing and embedding the agenda and to highlight some characteristics of best practice with a view to informing institutions that are perhaps newer to the issue of addressing differential student outcomes. Fieldwork was undertaken in nine institutions, involving interviews with between three and nine staff members in each case, which included both those with cross-institutional responsibilities and those based in academic departments. We were also able to conduct interviews with students in five of the case study institutions. In total 42 interviewees took part in the research (some of whom took part in more than one interview). All face-to-face and Skype interviews were audio-recorded and verbatim notes taken from a few that took place by telephone. The interview transcripts were systematically analysed with the aid of qualitative software Nvivo.

From the fieldwork within nine institutions and interviews with stakeholders, we have selected case studies of practice, focusing particularly on the use of data and examples of interventions. These case studies do not necessarily illustrate unique practices and neither do we seek to hold these up as ideal. They are chosen because they exemplify certain characteristics of the ways in which institutions are addressing differential student outcomes. They represent a range of current thinking and practices in the sector contextualised within particular HEIs. The HEIs are named, with their consent, in order to facilitate future conversations between institutions about questions of common interest.

1.3 Reporting the results

In the main the analysis from fieldwork does not identify any individual organisations, apart from in relation to some case studies of practice situated within particular institutions, named with institutions' consent. When findings are presented from interviews and documents in the report the source is allocated a number and attributed as follows:

SH – signifies stakeholder interview. The stakeholder interviews are then numbered from 1 through to 17.

IR01-Doc2 – signifies institutional research document.

IR01-Int1 – signifies an institutional fieldwork interview.

IR01-FG – signifies an institutional focus group with students.

This attribution is intended to provide readers with an overview of the spread of responses received. In addition, where stakeholders highlighted their own or other resources that are in the public domain, we cite from such documents directly.

Finally it is worth noting that while interview respondents were selected to present organisational views, it is possible that responses to some questions may represent personal rather than organisational perspectives. Such personal views can provide insights into individuals' underlying motivations and views that have led them to choose a career or remit that entails responsibility for equality and diversity and thereby add to the richness of the data.

1.4 Structure of the report

Section 2 of this report lays out the context of the research and the differentials in student attainment and progression that the subsequent analysis seeks to understand and that institutional initiatives aim to address. Section 3 moves towards a typology of causes for the differences in student attainment and progression. Section 4 discusses policy interventions and Section 5 reviews evaluations of initiatives. Section 7 draws together recommendations.

2 Context for the research

2.1 Introduction

This section sets the context for the research, both in terms of the current policy context and in relation to the patterns of differential outcomes that have been shown to exist within HE. The present project draws on and extends the key headline findings from the previous HEFCE reports (HE and Beyond (HEFCE, 2013/15), Differences in Degree Outcomes (HEFCE, 2014/03) and earlier Student Ethnicity reports (HEFCE, 2010/13)) and the results and trends of the first nine years of data from the National Student Survey (NSS).

2.2 Policy context

A fundamental principle of government strategy in relation to HE is that everyone with the potential to benefit from HE should have equal opportunity to do so. The 2014 National strategy for access and student success in higher education presented by HEFCE and the Office for Fair Access (OFFA) emphasises the full student life cycle and connects student success with employability attributes (BIS, 2014). It articulates the key notion that HE access starts rather than ends at the door to a university, involves student engagement with a curriculum and includes progress onto further study or into employment.

The stakeholders consulted for this project noted that the research was of 'huge interest' (SH 11, SH16, also SH 1, SH2), with several organisations stating an existing 'longstanding interest' (SH 5) or 'longstanding awareness' of the agenda (SH 9), or that it was 'already on the radar as part of the social mobility agenda' (SH 13); and with others highlighting it as a 'key topic going forward' through their strategic interest in how progression can be enhanced (SH 9).

Several respondents noted how addressing differential progression had become an easier topic to talk about in the last few years but that more could still be done to mainstream the conversation. As one respondent noted, 'everyone is happy to talk about diversity, and everyone agrees it is a good thing… still people get uneasy when talking about race and racism or disability' (SH 9). While early initiatives in the sector were very much about providing safe spaces for students and staff to discuss these issues, there was now greater awareness and more resources (SH 9, 16, 4) to which this project seeks to add.

Stakeholders were keen to learn from case studies that give practical information on what interventions make a difference (SH 11, 13, 14), especially those that spanned a range of institutions (SH 11) or showed a co-ordinated strategy (SH 5). Organisations that have a role in guiding and influencing HE providers also thought that the project might inform guidance for HE and the sharing of good practice on tackling differential outcomes (SH 11). Some organisations also viewed this project as an opportunity to raise awareness of the work they were doing in the area of equality and diversity (SH 6); or as a chance to network with other organisations, and learn from relevant research (SH 7, 15, 16) or particular individuals of influence (SH 12). Other stakeholders observed how, with limited funding, their own activities focused on one area of differential progression (e.g.

undergraduate attainment, SH 4, or staff diversity, SH 5) and that this project might help them learn about important related areas such as postgraduate transitions (SH 4).

Respondents viewed ownership of the differentials agenda as lying primarily with the HEFCE student opportunity team, OFFA's access agreements, practitioners in student retention and success and the HEA (e.g. SH 5).

Box 1: Drivers for addressing differential outcomes

The unifying ideal in the *National strategy for access and student success in higher education* (BIS, 2014) is that the benefits that HE brings should be shared amongst individuals, society and the economy. The strategy is based on the principle that equality of opportunity and diversity in the student body not only benefits individuals and brings public benefit; it is also vital to social mobility, and boosts economic growth by tapping into the knowledge and skills of the population.

The interest in this project amongst stakeholders was based on a range of values, normative considerations and organisational outlooks. Considerations ranged from philosophical to practical perspectives with all responses offering some insights into their own or their organisations' general underlying interest in the differential outcomes agenda and this project.

One theme was a social justice perspective or supporting this agenda because it is 'the right thing to do – it is about treating all people equally' (SH 5), and had the potential to 'redress centuries of racism and male hegemony' (SH 4). As another stakeholder remarked 'Policy regarding social mobility, social cohesion, social justice, has existed for considerable time' (SH 14). In this line of thinking, differentials in outcomes of HE could be broadly conceived and went beyond attainment and economic outcomes to include social and cultural outcomes as, for example, described in one US study (Bowen and Bok, 1998) (SH 6).

A second underlying consideration was linkage to the social mobility agenda and avoiding a waste of talent by providing opportunities for everyone to succeed. For example, one respondent, saw the agenda as being 'about access to higher education, about getting young people into the leading universities and also getting people into particular professions, law, medicine, but also… support for students after they get into university' (SH 3). A range of respondents, including all employer representatives, explicitly viewed differential progressions 'in light of the social mobility agenda, and concern about maximising potential within university and beyond' (SH 14). Employers wanted to 'look for the best – we don't want to miss out on those with potential' and thus seek to find meaningful ways to establish the relative merits of different applicants for graduate jobs (SH 15, also SH 16). One employer representative noted how she did 'not think we'll ever have complete equality but we will work towards equality of access. …normatively, there should not be a difference between UK groups according to their protected characteristics' (SH 16).

In more practical terms, stakeholders noted that the marketisation of HE had put more practical and employability considerations to the forefront of people's thinking and that students were the drivers for future change and the main influence on universities' future priorities (SH 12). The HE 'market' needed to meet the needs of students from different communities equally and to serve all students well.

Research with HEIs suggests that their interest in addressing differential outcomes is shifting from a concern based on the need to meet their legislative requirements in relation to equality of opportunity, towards one which recognises the importance of diversity as a key part of a vibrant and modern HE sector.

2.3 Salience in international context

It is interesting to note that outcome differentials often receive greater scrutiny in public discourse overseas than they do in the UK. For example, our US report noted that 'the issue of progression and completion is currently debated in print publications, television talk shows, documentaries such as the recent one produced by CNN 'Ivory Tower'; and at public forums by politicians, educators and past as well as current students'. The report goes on to note that 'President Obama has made it an important part of his presidency to channel funds to poorly represented groups both within universities and the labour force. He has publicly spoken about the need for black male attainment'. Similarly, in Australia, issues of equity – mainly focused on access – remain 'on the front burner'. However the report also notes that 'public debate has declined to some degree since 2013 with the election of a more conservative Federal government, but within schools and universities the issue of access remains highly salient'. In Denmark, 'differentials in (HE) attainment are a topic that is regularly brought up in mass media and by politicians'. However, discussions around differentials within HE appear less salient in Germany.

In both Denmark and Germany, discussions around differential progression appear to be more focused on the early stages of schooling and are less salient in the later stages. For example, in Denmark, there is a feeling 'that social inequality should be addressed at the early stages of the educational career (day care, primary school)' and in Germany the focus is on the inequalities in progression by social origin related to the tripartite secondary schooling system. The US report also notes 'government programmes, both at the national and state level, set up to assist with particular groups of under-represented student groups. These intervention programmes can start as far back as pre-school (age 3-5)' although this focus on the early years appears to be explicitly part of the HE and employment progression agenda.

Regarding the four outcomes this report investigates, retention and employment outcomes were the strongest themes in the international reports, although there was also some mention of differentials in attainment and in progression to postgraduate study.

Retention is a key issue in the US and Australia. The US struggles with 'one of the lowest HE completion rates of OECD countries with only 65.1% of students completing in 6 years… for community colleges that offer Associate Degrees, the rate is 33 percent.' The completion rates are higher for the more prestigious public universities and generally for private institutions. As in England, there is a relationship between student characteristics and university characteristics with the least advantaged students disproportionately represented in community colleges. The more prestigious four-year institutions 'cater to traditional students. The majority of students will usually be full-time, residential students with on-campus housing in dormitories'. Because of the relationship between social background and type of institution attended, retention interacts with race and socio-economic status. Overall, retention appears to be more of a challenge in the US than in England and this might explain why less focus is reported on differences in graduating grades attained at universities.

In Australia, universities are also concerned with retention 'which has financial implications' for institutions. 'Both academic and professional staff and dedicated units have been put in place to support students, to reduce avoidable student withdrawal, and to enhance student performance. More recently, some universities have moved to also supporting the student experience and to

enhancing student engagement with and within the institution as a means of minimising withdrawals and maximising retention.'

In contrast to the US and Australia, the Danish focus is less on retention as this does not vary greatly by social origin. Focus is instead on differentials in attainment. Here, there are differences by social class, 'gender (boys lacking behind)… and ethnicity, often in combination with gender (ethnic minority girls faring better than ethnic minority boys)'.

Progression into postgraduate study is not a key Danish public policy area as 'the vast majority of university students embarking on a bachelor's programme will progress into a Master's programme', although there are occasional debates about students 'getting overeducated' and that reducing Masters degrees 'would reduce costs in an already very expensive HE system'.

In Australia, 20% of students transition straight from their undergraduate to postgraduate study. Australian students who are admitted to a research degree do not currently pay any fees and 'there are also a reasonable number of cost-of-living scholarships' allocated by institutions. This may contribute to less focus on how postgraduate study relates to students' backgrounds.

Both Denmark and Australia are currently considering changing the fees and funding structure for postgraduate study with the proposals passing further costs to the students (albeit from rather different starting points). These proposals are met with opposition from academic and student unions.

Topics related to 'employment outcomes' are also salient in the US, Australia and Denmark while employability is specifically mentioned in the Australian and German reports. In the US, focus is on the dwindling or negative returns to education – 'there is a growing belief in the USA that has been amplified in the past few years that higher education does not only not pay, but leaves one indebted for life', a topic that is particularly salient 'given the increasing price of education in the US and the fact that most students attend university on either government or private loans'. There are also differential returns to the dwindling returns to education with minority students not achieving the same returns as their white counterparts: 'Given the media attention on this topic, universities with good completion and retention rates are now featuring this fact in their recruitment material and on their websites. In fact, this topic is becoming an important differentiator for institutions'. Finally, the US report notes that 'although undergraduate employment is important, there is a much greater focus in the USA to ensure post graduate employment for post graduate students', it appears that milkround type campus visits are targeted more at the postgraduate level in the US compared with targeting at the undergraduate level in England.

The US has also seen an unprecedented and unusual investment from a billionaire named Peter Thiel who 'offered to pay a group of students to drop out of university and set up their own businesses' thus fostering a 'general view that degree completion is not necessary for success'. This phenomenon has encouraged many US universities to step up their enterprise programmes.

In Denmark, the key employment discussion centres around graduate unemployment and in particular unemployment for graduates from different disciplines is debated. The equalities impact here is, however, in a perhaps unexpected direction as the degree programmes with the highest unemployment rates (arts and humanities) are disproportionately selected by white middle-class female students and not those traditionally thought of as disadvantaged. Nonetheless, there is some

concern in Denmark that while women outnumber men in HE, women do not have the same labour market returns as men for their degrees.

2.4 Defining patterns of difference

This section sets out the patterns of differential outcomes for different student groups, drawing on the most recent statistical reports relating to UK-domiciled students.[4] HEFCE's most recent reports on differential outcomes are a key source of information on the patterns between different groups, and in some cases further insight is provided by other studies. The HE outcomes used to compare performance are a) achieving a degree and b) achieving a first or upper second class degree, c) achieving a degree and continuing to employment or further study, and d) achieving a degree and continuing to graduate employment (as opposed to any employment) or further study. This section also considers the role of data in underpinning action on differential outcomes.

The findings of data analysis of outcomes for different characteristic-based student groups can be partly attributed to interaction effects. It may well be that effects associated with, for example belonging to an ethnic minority student group, will interact significantly with other personal characteristics that influence HE outcomes (HEFCE, 2013/15). Indeed, many of the possible key performance-enhancing explanatory variables (such as parents' experience of HE) are not captured in the available datasets, manifesting in the socio-demographic variables with which they are associated (Powdthavee and Vignoles, 2008).

Prior attainment has been shown to be the biggest factor in getting the highest outcomes (there is an increase in the percentage of the students who achieve better outcomes corresponding with an increase in their tariff scores on entry to HE), and HEFCE's approach has been to focus on different cohorts with similar characteristics (i.e. A level qualified). The modelling techniques used by HEFCE make allowance for differences in the performance of students in different HEIs (thus controlling for institutional effects). For simplicity we do not give details of the features of each analysis, which are available in the relevant original reports. When making comparisons, the difference in performance between student groups based on their socio-demographic characteristics could be explained by the HE profiles within those groups, and therefore a sector-adjusted average is used which takes account of the students' entry qualifications, subject area of study, sex and ethnicity to calculate the expected performance outcome (in a statistical sense) for the student profile within each group. Comparing the outcomes for different groups against the sector-adjusted averages can help to show the extent to which different student groups have performed once the institutional factors are taken into account. The approach helps to indicate whether other external factors are having an impact on performance, as well as the extent to which different groups are benefiting from their HE experience (although it needs to be recognised that not all the differences are statistically significant).

There are significant reasons for contextualising differential outcomes within an understanding of the stratification of HE. First, social stratification within education providers has long been established as increasing the disparity between pupils' outcomes without increasing overall attainment (Gorard, 2009). Second, there are positional advantages conferred by different HEIs in the sector. Some qualifications may carry less currency in the labour market; for example, ethnic minority students' degrees are disproportionately from new universities (Modood and Shiner, 1994).

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[4] The extent to which those issues are covered in our subsequent reports will depend on the data, available evidence from the grey literature search and meta-analysis of the literature.

Raffe and Croxford (2013), analysing data relating to 1996-2010, find: 'a remarkably stable hierarchy, especially in England… no evidence that the status distinctions associated with the former binary line, the Russell Group or the golden triangle have become less important; if anything, they have strengthened – especially at the top end of the hierarchy and towards the end of the period' (p.331). Associations are also found between the expansion of higher education and the positional advantages of education in the employment market (Bol, 2015). Taking account of stratification within the sector therefore is important for understanding the nature of the inequalities at play and points to sector-wide causal factors that are not visible in smaller-scale institutional studies of differential outcomes.

2.4.1 Students from low socio-economic groups

The share of students from low socio-economic groups entering HE has been on an upward trajectory in recent years. Although there is increasing stratification of students from independent schools in the 'higher status' institutions, lower stratification has been noted in the hierarchy of institutions in relation to social class (Raffe and Croxford, 2013).

Analysis of HE outcomes for different student groups shows some consistent patterns, with the least-advantaged students (those from low socio-economic groups) having consistently lower attainment and progression outcomes even after controlling for other factors such as type of institution. HEFCE has shown these differences to be statistically significant with regard to attainment and employment outcomes (HEFCE, 2013/15, HEFCE, 2014/03).

POLAR (Participation of Local Areas) data is used as a proxy for socio-economic background since data on students' socio-economic class is self-reported and suffers from reliability issues. The analysis of POLAR suggests that the HE background of students is an associated factor in their differential outcomes. POLAR measures the extent of previous progression of young people to HE on a small area basis and is linked to a student's postcode rather than personal characteristics.[5] Using POLAR categorisations[6], 77% of students from areas of very low HE participation (fifth quintile) gain a degree, compared to 85% for the most advantaged students (first quintile); a difference of over 8 percentage points (HEFCE 2013/15). There is a similar pattern in the attainment of 'top' degrees with only 45% of the least advantaged gaining a first or upper second class degree, while 59% of those from the most advantaged quintile did so. Students from the lowest HE participation areas (POLAR3 quintile 1) are least likely to get a degree and go into a job. Only around two-fifths (41%) got a degree and went on to a graduate level job or further study.

Figure 1 shows the difference between the HE outcomes for students from different POLAR3 quintiles, compared to a 'sector-adjusted average' (i.e. the expected performance outcome, in a statistical sense, for the student profile within each group). The bottom two HE participation quintiles (with lowest historical progression to HE) have consistently much lower outcomes than might be expected across all four outcome measures. The greater the share of former HE graduates

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[5] The area-based measure of young participation rates in HE, used to classify students into one of five quintiles based on their home postcode prior to commencing their first degree studies. Quintile 1 areas are those where there is low participation in HE by young people, who are therefore less likely to go on to HE than those from a quintile 5 area.

[6] Based on POLAR3 which uses the HE participation rates of people who were aged 18 between 2005 and 2009 and entered a HE course in a UK HEI or English or Scottish further education college, aged 18 or 19, between academic years 2005-06 and 2010-11.

in a student's local community, the more likely they are to have improved outcomes. There are particularly big gaps in the graduate progression outcomes for the most disadvantaged groups.

Figure 1: HE outcomes by category of POLAR3 neighbourhood: difference between the actual and sector-adjusted average for the 2006-07 cohort

Sources and groups description: Young, UK-domiciled students starting a full-time first degree course at a UK HEI: (2006-7) cohort by POLAR3 quintile (HEFCE 2013/15).

POLAR measures educational disadvantage relating to participation in HE and is not necessarily an appropriate substitute for other measures of disadvantage (HEFCE 2014/01). Applying the Income Deprivation Affecting Children Index (IDACI), 77% of those from the most advantaged areas with ABB at A-level go on to gain a first or upper-second degree. This figure drops to 67% when ABB students from the most disadvantaged areas are considered (HEFCE 2014/03).

Students' responses to NSS suggest that students from higher POLAR3 quintiles are more satisfied with their programme of study but lower POLAR3 quintiles groups are more satisfied with

assessment and feedback. For Q11 (I have been able to contact staff when I needed to), responses have always been negative for Quintile 1 (between -0.5% and -1.1% below the sector average), Quintile 2 (0% to 0.9%) and Quintile 3 (0.6% to 1.0%). Responses are also generally lower for Q22 on overall satisfaction, falling to a low of -1.8% in 2011 for Quintile 1 and -0.9% in 2008 for Quintile 2. A positive effect is reported in every year for Quintile 1 and Quintile 2 respondents in terms of Q20 on communication skills and Q21 on tackling unfamiliar problems.

Type of school has also been used to demonstrate the differences between the HE experience of different student groups depending on their educational background. Looking at school type, when no adjustments to prior qualifications are made, the pattern which emerges is that independent school students achieve higher degree outcomes: 89% of the 2006-7 cohort from independent schools were degree qualified (65% with first or upper second class degrees) compared to 82% of state school students and 72% with unknown schooling (of which 53% and 43% respectively achieved first or upper second class degrees) (HEFCE 2014/03). However, the pattern changes when prior attainment is taken into account. In all levels of A-level achievement, state-schooled entrants to HE tend to do better in their degree studies than independently schooled counterparts with the same prior GCSE attainment. The gap is very small in those with the highest GCSEs: 73% of state school students with the equivalent of eight A grades at GCSE go on to gain a first or upper second in their degree studies; this proportion drops to 69 per cent for independent school students (a gap of 4 percentage points) with the same GCSE profile. The difference becomes significantly greater even in those with the equivalent of eight B grades at GCSE: 52% of state school students gain a first or upper second, compared with 43% of independent school students (a gap of 9 percentage points) (HEFCE 2014/03).

The sector-adjusted averages, like the raw data, show that a greater percentage of students from independent schools can be expected to achieve each of the four outcomes than those from state schools. HEFCE have suggested it is plausible that the difference between the HE achievement of state and independent school pupils is driven by the selectivity of the school. It appears that the A-level subject differences between state and independent school students (including 'facilitating subjects') do not explain the difference in HE achievement between students with the same A-level achievement (HEFCE 2014/03).

Crawford (2012) showed that controlling for attainment on entry to university substantially reduces social class differences in performance differences (although students from high socio-economic group backgrounds are still, on average, less likely to drop out, more likely to complete a degree and more likely to get first or upper second class degree than students from low socio-economic group backgrounds). However, the picture changes when considering outcomes by prior school performance: it is the students from the high-performing schools that are, on average, less likely to complete a degree and less likely to get first or upper second once we account for differences in attainment prior to university entry.

Independent school students achieve better employment outcomes than those from state schools (77% compared to 72% that achieved degrees and were employed after studying). The differences are particularly large in relation to progression to graduate level outcomes: 60% of independent school graduates got degrees and went into a graduate job or further study compared to 47% of state school students.

Studies that include a student survey element and are able to obtain a richer picture of student characteristics (albeit on a sample basis) have linked some factors associated with non-traditional groups of students (such as living at home whilst studying) with poorer attainment and employment outcomes. Purcell *et al.* (2012), as part of the 'Futuretrack' series, found that younger students, who lived at home while they studied, were least likely to have achieved a first or upper second class degree. Graduates from a routine and manual background, those who did not have a parent with a degree, female students and those from minority ethnic groups were all more likely to remain in their parental home while they were studying. This group were also found to be the most likely to be working in a non-graduate job, the most likely to be earning less than £15,000 per annum, to be least likely to say they were satisfied with their current job and less positive about their long-term career prospects. Comparison of graduates from a routine and manual background who remained in their parental home while they studied and those who left showed that those who left were less likely to be in non-graduate jobs.

Graduates from low socio-economic backgrounds are slightly underrepresented among those progressing to higher degrees and have slightly lower rates of progression than those from more advantaged backgrounds, particularly for research degrees (Wakeling and Hampden-Thompson, 2013).

2.4.2 Students from black and minority ethnic groups

Students from black and minority ethnic (BME) backgrounds represent an increasing share of UK-domiciled students: between 2010-11 and 2012-13 the numbers of BME students starting full-time first degree courses increased by 7% (those from white ethnic groups fell by 6%) (HEFCE 2014/08). This was largely driven by an increase in Black and Mixed/other ethnic origin students. Students from ethnic minority groups are over-represented in the post-1992 institutions (Connor *et al.*, 2004), and these types of HEIs have lower completion and continuation rates (National Audit Office, 2007). Levels of segmentation in HE by ethnic background are high especially for Asian and black students though relative levels of concentration of minority and majority ethnic groups seem to be narrowing in recent years with more entry from BME groups into higher status institutions (Raffe and Croxford, 2013).

White students are above or on sector-adjusted average for all the outcomes measured from HE captured by HEFCE, but minority ethnic groups mostly do not achieve as highly in terms of these outcomes: other factors appear to be affecting the outcomes for people in minority ethnic groups. Figure 2 shows the differences between the observed and 'expected' outcomes for students from different ethnic backgrounds, taking account of the HE provider attended but not the subjects studied. Those of black ethnic origin get lower outcomes on all four measures (although this graph does not adjust for subject choice, and therefore does not take account of differences across subjects). The differences between white and BME student groups are widest in relation to the achievement of first or upper second class degrees.

Black students are the lowest performing group in terms of degree outcomes. 'Other Asian' ethnic group students and those with other and unknown ethnic origin are also shown to do worse in relation to the proportion of degree attainment than Chinese, Indian and white students.

The proportion of students who achieve first or upper second class degrees is highest amongst white students compared to all other ethnic groups, including those with relatively high overall levels of

degree attainment. However, there are some significant trends that deviate from the frequent generalised references to 'gaps' in attainment between BME and white students. In addition, black African students are more likely to progress to research degrees; and Indian and Chinese students are more likely to progress to postgraduate study or employment.
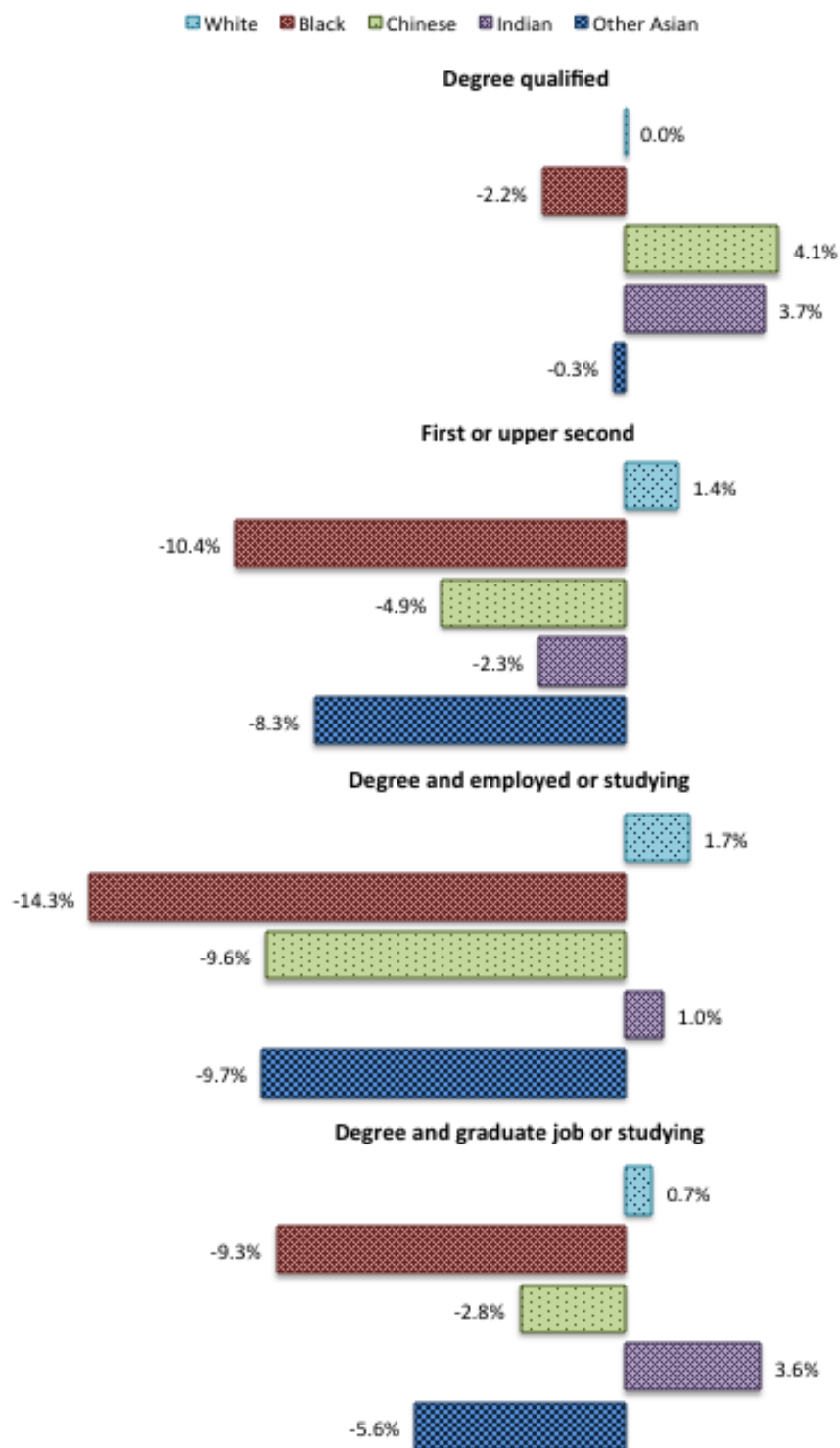
Prior qualification, although a key factor in degree outcomes, does not explain the differences between ethnic groups. Taking into account prior qualifications, BME students are less likely to gain a first or upper-second degree. For example, 72% of white students who entered HE with BBB at A level gained a first or upper second. This compares with 56% for Asian students, and 53% for black students entering with the same A-level grades (HEFCE 2014/03).

The patterns by ethnicity seem to hold regardless of age since there are similar patterns of differentials by ethnicity in attainment among mature students. Mature white finalists were more likely to qualify with a degree than mature students from other ethnic groups: 89 per cent of mature white final-year students completed first degrees, compared to 81 per cent of mature Indian, Chinese and other Asian finalists, and 75 per cent of mature black finalists (HEFCE 2010/13).

We can further explore student experiences by ethnicity with reference to NSS responses. In all nine years (2005-13), white students were more likely to respond positively to the headline Q22 question on overall satisfaction than the average for all ethnicities. Over the nine years, this gap has closed: in 2005, it was +1.2%; in 2013, it was +0.4%. White students have always responded more favourably to Q12 (Good advice was needed when I needed to make study choices) at a rate of between +0.7% and +1.0% every year. For Q10 (I have received sufficient advice and support in my studies), the differential has varied between +1.1% and +1.6%; and for Q11, between +0.6% and +1.2%. White students also more likely to agree that assessment is fair (Q6), that content is intellectually stimulating (Q4) and that staff are enthusiastic (Q3) and make the course interesting (Q2) By contrast, the ethnicity effect works in the opposite direction for Q7 on promptness of feedback, with white students always bringing down the sector average. Asian students' responses to Q2 (Staff have made the subject interesting) is a negative differential of between -6.4% and -12.4%, and Q10 (Received sufficient advice and support with my studies) is answered with a negative differential of between -4.0% and -7.9%. Black students answering Q2 (Staff have made the subject interesting) respond with a negative differential of between -5.5% and -7.8%, and Q10 (Received sufficient advice and support with my studies) is answered with a negative differential of between -4.1 and -8.5%. These differentials within the NSS responses suggest that white students seem to be better served by the HE curriculum and engage more positively with HE staff. The ethnicity gap is closing, on average, each year but remains persistent across many individual NSS questions.

White students are most likely to be employed or studying after graduation, however Chinese students and Indian students are most likely to be in graduate employment or study. 'Other Asian' students have relatively low employment outcomes.

Figure 2: HE outcomes by ethnicity: difference between the actual and sector-adjusted average the 2006-07 cohort

Source and groups description: Young, UK-domiciled students starting a full-time first degree course at a UK HEI (HEFCE 2013/15).

Purcell *et al.* (2012) as part of the 'Futuretrack' series found that ethnicity factors appear to be instrumental in increasing the likelihood that graduates will experience unemployment or go into non-graduate jobs: the strength of the observed associations was particularly noticeable for

graduates of Asian ethnic background who are less likely to have worked in non-graduate occupations than graduates from other ethnic backgrounds. Lalania *et al.* (2014) explored how local factors associated with place influence employment outcomes for people from ethnic minority groups, implying continuing labour market disadvantage for some people from ethnic minority groups.

Multivariate analysis of the post- graduation outcomes of undergraduates from Russell Group universities over the three academic years (2009-10 to 2011-12) six months after graduation (controlling for age, degree class, subject, HEI attended and year of graduation) showed that the educational characteristics are not sufficient to explain the ethnic group differences. Graduates from most ethnic minority groups have a higher chance of unemployment than white graduates. Bangladeshi and Pakistani groups (and Chinese men), for example, are the most likely to be unemployed once education is taken into account. The differences in the level of professional employment for BME and white students from Russell Group institutions were found to be small (and the difference in unemployment risk is linked to ethnic minority gradates being less likely to take up non-professional jobs (apart from Bangladeshi and black Caribbean groups). In terms of earnings, some BME group graduates – Indian and black African – do better than their white peers (especially male graduates). However, the higher rates of unemployment among ethnic minority Russell Group graduates is highlighted as a cause for concern (Runnymede Trust, 2014).

Rates of progression to post-graduate study differ across ethnic groups. For some groups, rates are very low, particularly for research degrees (Wakeling and Hampden-Thompson, 2013). Around 8% of white students progress to taught degrees and 2% to research degrees, whereas the corresponding figures for Black-Caribbean students are 5% and 0.3%. The proportions for black African students are 13.5% and 0.9%, and for Chinese students are 15% and 2.9%. Ethnic minority graduates from Russell Group universities tend to be more likely to pursue further studies (Runnymede Trust, 2014).

Results from the NSS suggest that differences in ethnic groups' experience of HE and their levels of satisfaction underpin the patterns of student outcomes. Crucially, analysis of NSS data for 2013 shows BME students are less likely than white students to be satisfied with their HE courses. However levels of satisfaction have increased for all groups since 2005. Whilst 86% of white UK-domiciled NSS students were satisfied with their HE courses (up 3%), only 83% of BME respondents were satisfied (up 8%). Black-Caribbean, black-African and mixed ethnic origin students have the lowest levels of satisfaction with HE courses.

2.4.3 Disabled students

The likelihood of students with disabilities getting their degree is linked to their characteristics in relation to receiving financial support. Students in receipt of Disabled Students Allowance (DSA)[7] have better HE outcomes than those who identify as having a disability but are not in receipt of DSA. Some 83% of those who are in receipt of DSA achieve a degree, slightly above the rate for non-disabled students (82%) and higher than those who identified as having a disability but not in receipt of DSA (79%) (HEFCE 2013/15).

Data on 119 HE providers made available to the study team as part of this project looking at the non-continuation between first and second year for 2011-12 UK domiciled full-time first degree entrants

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[7] Disabled Students' Allowance (DSA) is paid on top of other student finance and is non-repayable. The amount depends on individual needs (rather than household income).

to English HEIs[8] showed that the proportion of disabled students within each institutional cohort who did not progress from the first year of study ranged from 1.5% to up to 20.4% (with an average of 8.1% across the institutions compared to 6.3% non-continuation on average across these institutions for non-disabled students). Differences remain between institutions in their retention profile after entry qualifications subject and institutional types have been taken into account.

Figure 3 shows the HE outcomes by disability category against what might be expected given the HE profiles of students (taking account of students' entry qualifications, subject area of study, sex and ethnicity). Students in receipt of DSA perform significantly above the sector-adjusted average for the percentage of the cohort who achieved a degree. Disabled students in both categories (i.e. with or without DSA) are less likely to obtain a first or upper-second degree than students without a disability.

Figure 3: HE outcomes by disability status: difference between the actual and sector-adjusted average for the 2006-07 cohort

Source and groups description: Young, UK-domiciled students starting a full-time first degree course at a UK HEI (HEFCE 2013/15).

Drawing on NSS data we find that students with a declared disability are less satisfied with their courses in every year of the NSS, responding below the sector average of between -2.7% and -4.0%.

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[8] These data are consistent with 'Non continuation rates: Trends and profiles' (http://www.hefce.ac.uk/analysis/ncr/nc/)and HEFCE 2013/15) and 'HE and Beyond' (http://www.hefce.ac.uk/pubs/year/2013/201315/name,82005,en.html).

In addition, disabled students are less satisfied with course organisation and management than non-disabled students and this difference is not reducing over time: -5.2% and -6.2% below the sector average.

Non-disabled students have the best employment outcomes in terms of the raw data. However, the proportion that achieve a degree and continue to graduate employment or further study is significantly above the sector-adjusted average. Disabled students without DSA have the lowest progression into jobs and graduate level outcomes, below the sector-adjusted average.

2.5 International target groups for interventions

There are different groups targeted for interventions internationally as gathered from the four country reports. Debates in the US focus on race and ethnicity, income, and socio-economic status which 'are entwined'. In addition, 'debate on part-time, mature, low-income students often centres around community colleges who serve a very non-traditional group of students versus universities which have a more traditional student body'.

The focus in Australia is on students from socio-economically disadvantaged backgrounds; women (in respect of non-traditional courses and research degrees); those from non- English speaking backgrounds, people with disabilities; and rural and isolated people. The national Bradley report set out targets for these different groups for access, success, retention, and completion (Bradley 2008, pp. xxvi-xxvii). Recently, a new 'equity group' – to use the Australian terminology – is increasingly recognised. This is young people leaving out-of-home care. This group overlaps significantly with one of the existing groups, indigenous people, who are over-represented in the out-of-home care system.

In Denmark the focus has traditionally been on 'children of unskilled parents/working class parents', although now the agenda also encompasses gender and ethnic minorities and the interaction between gender and ethnicity as well as geographic and rural/urban divides in HE participation. Disability, religion, part-time or mature student status are not generally debated.

The German report notes how diversity is growing in terms of the number of international students as well as 'students from non-academic families, many of whom come from lower income backgrounds and who may be the first in their families to enter higher education'. There is also consideration for those who are first in family in HE, who do not speak German as a first language (migrants) as well as those with caring or family responsibility and disabilities. Another target group is those with vocational Masters degrees and supporting them in transferring to universities, with those holding vocational degrees coming disproportionately from manual backgrounds.

2.6 Use of data within institutions

Data collection and analysis has been central to institutional responses to address differential retention and achievement (Action on Access, 2010b), and institutional change may be 'kick-started' by identifying opportunities to raise the profile of the differential outcomes agenda (Berry and Loke, 2011). Recent developments in many institutions' information management and data systems have opened up new possibilities for reporting and presenting student level data discussion (including at programme level).

Much institutional resource has been concentrated in an exploratory phase of investigating causes of differential outcomes. This initial work usually begins by contextualising and refining the patterns found in national-level data. The datasets at institutional level are usually a richer source in terms of individual level factors than at the national level. Further statistical analysis is sometimes undertaken with a view to investigating underlying causes. This includes analysis of prior qualifications, modes of assessment, and student behaviours such as attendance, use of library facilities and other academic support services. An understanding of causes is also sought in responses to NSS questions and other institution-led surveys of students. This statistical work is sometimes followed up with qualitative enquiries, most frequently in relation to attainment.

Institutional statistical research has sought to refine differential outcomes in numerous ways. In relation to the outcomes of completion and attainment, there have been comparisons across organisational units such as schools or faculties; analysis of institutional patterns in relation to the sector as a whole or to comparable institutions; and unit or module analyses which track students' progress over time. With respect to postgraduate entry and employment outcomes, institutions have drawn on the Destinations of Leavers of Higher Education survey, and in one case sought to relate employment outcomes to attainment differentials (IR05 Doc6).

The grey literature review suggested that where unit or module analyses had been conducted (IR10 Doc7; IR13 Doc1) there has been a particular focus on analysing the relationship between ethnicity and attainment. The research at institutional level has uncovered interesting patterns underpinning the gaps in outcomes between groups. For example, (McManus and Mitchell, forthcoming) found gaps in attainment were small or non-existent in the early stages of undergraduate courses, and that gaps emerged in the later stages. Their analysis at unit level with respect to gender, ethnicity and disability within one business school found that BME students' achievement relative to white students was stable over three years; that disabled students' achievement increased in comparison to non-disabled students; and that male students' attainment deteriorated within academic years compared to female students. McManus and Mitchell found that these patterns persisted after controlling for prior attainment.

The starkest inequality is that between white students and black, Asian and minority ethnic students, though the degree of 'gap' varies among the latter groups. This differential is of the highest concern to institutions to the extent that many interpreted this project as being solely about this issue. It is worth noting that institutional statistical analysis in relation to attainment is often followed up with qualitative enquiry. Most frequently this takes the form of focus groups with BME students. There are limitations to this approach: namely, it assumes that all BME students achieve less well than their white counterparts; that the causes of differential attainment are capable of being perceived by BME students exclusively; and that BME students can readily articulate them in the midst of their study. In addition, their experiences are interpreted in the shadow of particular conceptualisations of the 'the student experience' that remain unquestioned. Institutions that included students of all backgrounds in their investigations and involved academic staff tended to arrive at more complex understandings of causal factors because they were able to identify mechanisms of advantage as well as disadvantage; and interrogate the assumptions of pedagogic and curricular rationales. This is in keeping with the published research literature relating to the retention and success of students and recognises that a range of structures (organisational, financial and cultural) influence students' progression and attainment outcomes (Richardson, 2008c; Berry and Loke, 2011, Singh, 2011).

Box 2: An overview of the use of data within institutions

The institutional fieldwork and grey literature review suggest that detailed data analysis in relation to differential outcomes has been a significant starting point for changes within institutions. A range of fine-grained institution-level analyses was evident in the grey literature. After this is conducted, often the limitations of quantitative data analysis and a wish to understand 'why' frequently lead to the formulation of qualitative research that investigates the underlying issues that face different student groups.

Getting 'underneath' the data
Fine-grained institutional-level analyses have pursued the following lines of inquiry:

- Unit- and module-level analyses, conducted either within particular departments/schools or across whole institutions.

- The interaction of race and social class (Rodgers, 2013).

- Longitudinal surveys of students at the course level that relate the performance of BME groups to levels of engagement in the learning process, in particular differences between the expectations of the students and actual time spent on self-directed study.

-The use of learning analytics alongside data relating to students' characteristics (see section 5.2 for a fuller discussion of learning analytics).

- The clustering of BME students by discipline (IR01), which reveals differences between groups by tariff points on entry (although these factors did not explain differential progression).

Qualitative research
Qualitative methodologies have presented opportunities for institutions to explore causality in ways that get closer to the complexity of students' experiences:

- Consensus Oriented Research Approach, (Cureton: DiSA briefing paper 8): This approach is highly participatory and involves 'thinking with' students, staff and stakeholders in a staged process that begins with introducing and exploring a research problem before analysing it and formulating solutions that are then reflected upon and evaluated.

- Discipline-specific exploration of students' experiences took place in a School of Social Sciences (IR08). Led by an external researcher, this project explored causality in relation to the degree attainment of minority ethnic groups and their white British counterparts. A combination of focus groups and interviews with 31 students were conducted. The report explored: student and staff diversity, academic support, experiences of feedback, and how diversity was addressed in course materials. Findings related university and school practices and processes and broader issues of engagement (for example pastoral/mental health support and 'unpreparedness' for study). Recommendations from the study have been considered and acted upon by individual departments and also at school level where BME attainment is now a standing agenda item on the Teaching and Learning Committee.

- Qualitative longitudinal research within particular disciplines is underway at another institution (IR10) where an external researcher interviews a sample of 50 students from a single cohort twice a year, their tutors once a year, and observes some teaching sessions. These qualitative data are reported annually both thematically and in the form of case studies and quotations that are used as a resource in developmental sessions with tutors designed to increase understanding of the causal mechanisms behind the disparity in students' attainment. This project samples students from majority and minority ethnic groups and attends to intersectionalities of ethnicity with gender, social background, disability, fee status, sexual orientation and age. The project aims to link institution-level statistical analysis with qualitative understandings of causes. Now in its third year, the project will also follow the cohort of students for a year after graduation.

> **_Avoiding 'distraction by data'_**
> Awareness of the issues among managers, academics and other professional staff is a foundation for institutional change. Our institutional fieldwork suggested that detailed analysis of an institution's own data is essential for prioritising actions that address differential outcomes. However, the complexity of the associations that are established, and the difficulties of establishing definitive conclusions, often in the absence of detailed multivariate analyses, sometimes result in a stalling of institutional progress. Without a strong policy push the debates about the meaning and usefulness of the data take precedence over action. In several institutional contexts it was noted that, ironically, an increased volume of discussion about differential outcomes did not correspond with sustained action to address them. There is a tendency to constantly extend the data inquiry to look at more variables with diminishing returns in terms of understanding. This finding resonates with Singh and Cousin's (2009) caution about an approach that over-emphasises the interrogation of data and diverts attention from the significance of individual experiences, and consideration of the institutional structures and pedagogical practices at play. Staff within two institutions we visited described how a new incumbent in a senior position had successfully overcome an institutional inertia by switching attention towards consideration of experimental solutions. A willingness to test new ideas for action was crucial.

2.7 Emerging conclusions

- The differential outcomes agenda is of increasing importance to HE sector bodies, individual institutions and a range of other stakeholders. Whilst ownership of the agenda rests at the level of the HE providers, since this is where the existence of differentials need to be addressed, there is also a call for strategic leadership on the agenda by HEFCE and other sector bodies.

- Internationally, the differential progression agenda is of varying importance and different aspects of progression can be focused on.

- The clustering of student groups within the HE hierarchy is a key element of the global disadvantage which some groups face. Moreover, low socio-economic groups and ethnic minority groups do worse when compared on a like for like basis. Prior attainment on entry to HE is the main driver of progression and performance at university, so gaps in performance may fall if attainment is boosted earlier in the education system. The possible future impact of recent improvements in school attainment in some major conurbations is worth noting in this regard (Baars *et al.,* 2014)

- Overall the analyses of national level student datasets suggest that differences in attainment and progression relate to issues of disadvantage, with the most disadvantaged groups of students doing the least well compared to those with similar entry grades to HE. Pattern in Polar differentials is consistent across the five levels – the higher the classification, the higher the likelihood of each outcome.

- There are striking differences in NSS responses. A complex picture emerges with regards to POLAR3 quintiles and student satisfaction. NSS responses also vary by ethnicity with white students reporting the highest overall satisfaction, although this gap has been closing over the last nine years. However, significant differences by ethnicity remain with regards to advice and support received and feeling that assessment was fair, staff engaging, and courses interesting, suggesting that the curriculum serves white students better than other ethnicities although minority students were more satisfied with the promptness of feedback. Finally, students with a declared disability are less satisfied with their course every year, especially with course organisation and management.

- The patterns are inconsistent and suggest that some disadvantages can be mitigated (for example through the receipt of financial support by disabled students). In relation to BME group students no ethnic group holds the highest percentage attainment and progression on all outcome measures (for example some groups perform well on rates of degree attainment but less well in relation to obtaining the highest grades of degree). The patterns suggest that other factors than belonging to a minority ethnic group *per se* have an impact on HE outcomes (Richardson, 2015). The relationship between ethnic background sub-category and socio-economic status has been highlighted as a key consideration tempering results for different ethnic groups in the literature (Berry and Loke, 2011, Espenshade and Radford, 2009).

- A similar pattern does not occur with respect to ethnicity where relative success in some outcomes is not necessarily associated with success in the others. For example, the graduate employment outcomes are strongest for Indian students. There are also differences within the categories of ethnic background used that can be disguised in the data (eg. the outcomes for black African students are not the same as those for Caribbean ethnic origin students).

- The complexity of the data and the multiplicity of the issues involved present key challenges in the endeavour to understand the causal factors of differential outcomes. Attempts to establish correlations between outcomes and student characteristics are particularly problematic, not least because of the need to control for a large number of characteristics and factors that would have an impact. This issue of data complexity has had important implications for policy makers in HE, and has meant that a lot of the effort is channelled into the ways in which differential outcomes can be considered (particularly in relation to interactions between student characteristics such as ethnicity and social class).

- The data challenges in turn imply difficulties in identifying the potential course of action which will best attempt to close the gaps in HE outcomes, especially in view of a concern amongst HE policy makers that failure to properly identify interactions between student characteristics may lead to erroneous conclusions. Fieldwork in institutions demonstrates how many are grappling with the data complexities, and in some instances have moved away from a purely data-driven approach towards different types of research (including qualitative as well as quantitative research) and in some cases to take an action-research approach to investigating the differences between students in context, and often at the level of course/subject cohorts.

- Internationally, there is substantial overlap in the equalities groups or protected characteristics that national debates focus on. The overlap concerns socio-economic status or first in family in HE and variations of race, migration status, and language. There is less international consensus on the focus around gender, mature students, and those with disabilities who feature in some but not all country reports.

3 Towards a typology of causation

3.1 Introduction

In this section we consider the range of possible causal factors that appear to underpin differences in students' HE outcomes. To explore the causes of differential outcomes we draw on a review of published and unpublished literature, and on fieldwork elements, which included interviews with stakeholders and nine institutional case studies.

Drawing on the work of Clarke *et al.* (2014), our starting point in assessing the evidence was the premise that evidence of causation must ideally be of two types:

- statistical correlations which demonstrate a strong association between the characteristic and the outcomes;
- qualitative research evidence and knowledge of causal mechanism that explain the correlations.

Both of these types of evidence should be subjected to critical assessment. With respect to the first it is important to recognise that the quality of the evidence base to establish correlations between causes and effects is variable and problematic. Ideally, longitudinal data with baseline information as well as outcome information would be used to establish causality but this is not always possible. With respect to the second we are mindful of the pitfalls of giving undue weight to psychologically compelling accounts of causation (Clarke *et al.,* 2014) which are not uncommon in a field of study that can be highly charged both because it relates to social justice and to the centrality of 'the student experience' in institutional and national policy (Sabri, 2011). Indeed, feedback from stakeholders and managers in the sector, as part of the research, suggested that views as to the causes of differences in progression are intrinsically linked to the responder's attitudes to the quality of data and evidence as well as their philosophical position on what they consider as valid evidence.

Box 3: Stakeholders' perspective on causation

Some stakeholders considered the evidence base – or at least the evidence-base for their specific context – insufficient to explain differences (SH 13). This might be because, for example, 'In terms of causal modelling, we have only done univariate analysis so far on BME, but now we are beginning to put this together with other factors – for example gender; when we are doing that the analysis becomes more complex – we have not done multivariate analyses yet' (SH 16). Even in cases where data and analysis exist there was also hesitation for some around using the term causation as 'we know that there are *associations* between BME, disability and attainment, but we do not know what *causes* these differences' (SH 17). Several respondents thus stated that their thoughts on causality, if voiced at all, were more 'speculation' (SH 16) or more 'hunches than evidence' (SH 11) or 'anecdotal evidence rather than striking evidence' (SH 17). The difficulties in establishing correlations are likely to be a long running theme, however, given the limitations in the data in capturing underlying individual characteristics.

In contrast, other respondents regarded causation as relating to the general context and differential life chances outside HE within the structure of society (SH 4, SH 9, SH 14, SH 15). This approach to causality raised key questions of how universities reproduced such inequalities or what they could do to counter them (SH 9). This view of causality did not necessarily require sophisticated multivariate statistical data. While all but one respondent found data useful or necessary for enhancing understanding and supporting policy development, the simple observation of differentials in progression itself was a sufficient 'cause' or mandate for requiring action and initiatives: 'Statistics

only say so much, the only evidence we need is the voices from the students'(SH 4).

Indeed, two of the stakeholders consulted for this project challenged whether asking about causes for difference missed the point: one respondent noted: 'the question of why they [differences in progression] exist is not an important one, but it is important to understand how and why the differences get reproduced in higher education…' (SH 9). Another respondent argued that a range of high profile Department for Education and Skills (DFES) and other reports had not pinpointed causality which his organisation interpreted as a mandate to focus 'more on initiatives to address issues and… solutions (SH 5)' rather than deconstructing causal processes.

Thinking about causality is also not a fixed state but can change as evidence emerges and as dialogue and conversations occur with others interested in differential attainment and progression. One respondent remarked how 'two years ago we [my organisation] was thinking differentials are about discrimination, but we can't confirm this consistently in [our research]' (SH 16). This respondent was beginning to see cultural differences and subtle, unconscious bias as a more plausible causal explanation for differences than direct discrimination.

It is also worth noting some of the narratives of causality have been questioned or superseded in recent years. For example, the limits of the explanatory power of prior educational attainment as a predictor of success are now widely recognised. For instance, in relation to BME attainment, Broecke and Nicholls (2007) and Richardson (2008b) have established that prior qualifications account for only a part of the attainment gap. The discussion has similarly moved beyond explanations that focus primarily on institutional racism (Turney *et al.*, 2002; Back, 2004) or ethnic bias (Broeke and Nicholls, 2007). In HE, alternative formulations which account for lower attainment in terms of 'student deficits' (academic weaknesses, lack of ability or other individual factors or circumstances) or 'wrong' choices in subject selection have also largely been superseded (Richardson, 2008c; Singh, 2011; Richardson, 2015), though the persistence of deficit models in staff conceptions of the attainment gap is noted by Stevenson (2012a), and Rodgers (2013) has argued for subject choice to be among the factors re-examined to explain high rates of BME student non-completion.

3.2 Causal mechanisms in higher education

3.2.1 Overall framework for understanding causes

For the purposes of this report we take causation to be not only contained in individuals but also in the social relations and structures that they form (Sayer, 1992). In order to take forward the work of establishing the possible causal factors we have drawn on a wide base of evidence. There are clear differences in the quality of evidence and the rigour of the research. However, it has been important to take account of many sources of insight, and this is widely recognised among stakeholders: 'causes are multi-faceted and complex' (SH 16) and '…it can be any one or a combination of factors' (SH 14). In this sphere as in others, recent reviews highlight the complex, interlinked and multi-dimensional nature of the factors involved. Stevenson (2012a), for example, emphasises the multiplicity of issues relating to ethnic minority attainment and the intricate interplay between them. For Singh (2011), 'the disparity in attainment is associated with a range of personal, cultural, institutional and structural factors… overlaid with instances of direct and indirect racism' (p.37).

As shown in Figure 4, our conceptual model of causes of differential outcomes is based on the premise that causation can be understood as operating on three main levels:

- First at a **macro level**, socio-historical and cultural structures such as those of race, ethnicity, culture, gender, and social background are embedded in the global environment in which HEIs, employers and students operate. Analyses of macro-patterns of statistical association are necessarily based on variables and are limited in taking account of more complex intersectional aspects of difference.
- Second, at a **meso level** of individual institutions (HEIs, employers and other agencies) which form the social contexts within which student outcomes are produced.
- Third, at the **micro level** in terms of the interaction of individual students and staff in the HE environment, and the micro-interactions on a day-to-day level within which institutional actors contribute to patterns of difference.

There is of course an inter-play between these levels; each is implicated in the other: micro-interactions reproduce patterns that are visible at meso and macro levels; and macro phenomena structure those at micro and meso levels.

Figure 4: Conceptual model of causes of differential outcomes

Figure 4: Conceptual model of causes of differential outcomes

Figure 5 is a visual illustration to show how the conceptualisation of the three distinct but interlinked macro, meso, and micro levels is related to the four outcomes studied in this report. The figure shows the context and description of individual experiences and outcomes pre-HE, during HE and post-HE within the three analytical levels. The visualisation already indicates the complexity of factors that impact on individual experiences. Indeed, a general caveat to statistical analyses is that they can predict what happens to a typical person with certain characteristics, experiences, and contextual factors. However, such predictions are probabilistic and not deterministic. There is individual agency and there are individual circumstances that result in some students succeeding – or indeed failing or under-performing – against the odds; that is, against the probability of success and failure an average person with their characteristics, context and opportunities would be predicted to have. Individual nuances, such as extenuating circumstances and enablers are not usually captured in statistical models attempting to generalise to populations. Statistical models hold on average but not for necessarily each individual case. Qualitative research is better equipped to enhance understanding of such individualised experiences. However, statistical models can highlight where the characteristics of certain groups – e.g. differentiated by ethnicity, school-type, financial support requirements, university assessment models, subject of study – is linked to differentials in outcomes.

Figure 5: Description of experiences at pre-HE, HE, and post-HE level

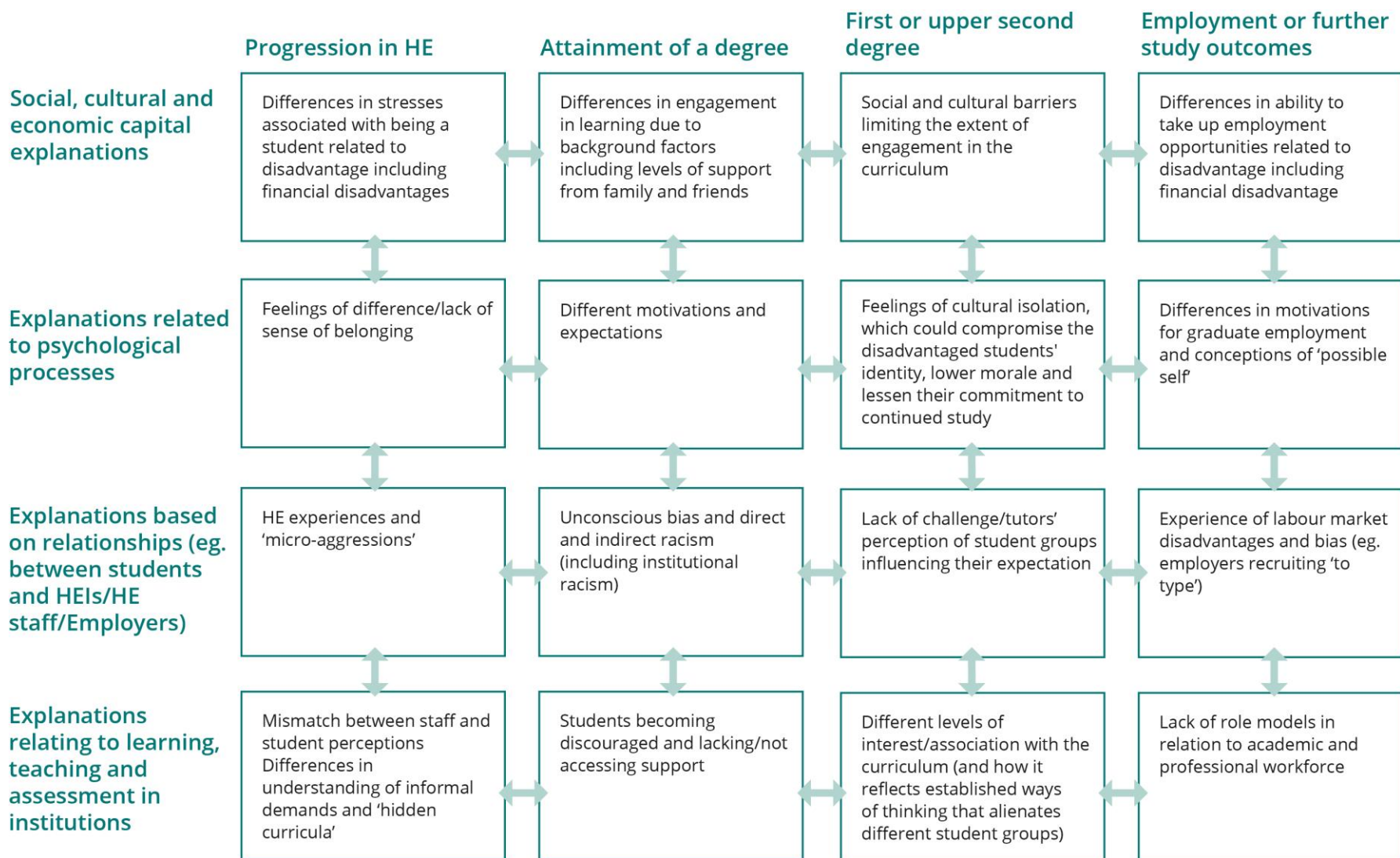| Level	Pre-HE experiences	HE experience, continuation and attainment	Post-HE outcomes – further study and (graduate) employment
Macro	Societal level experiences and expectations (including support and discrimination) Cultural group (Class, ethnicity) expectations and social and cultural capital	Context of HE (fees, purpose, expectations) Structure of HE (hierarchy of institutions) Relation between discipline and opportunities	Observed group differences in outcomes (e.g. by ethnicity, school type) Labour market and further study opportunities structured by the economy and policies
Meso	School-level culture, experiences, expectations, support, IAG Local opportunities and constraints Personal agency within meso and macro-structures	Institutional and disciplinary culture, extra-curricular opportunities, support (academic literacies, disability, mental health, financial) Curriculum, assessment, role-models Personal agency within meso and macro-structures	Context of employment or further study Structure of mentoring and support opportunities Personal agency within meso and macro-structures
Micro	Individual experience of affirmation, belonging and support or lack thereof Individual aspirations, expectations, economic, cultural and social capital, imagined self Dynamics of interaction with family, teachers and peers Individual attainment	Individual experience of affirmation, belonging and support or lack thereof Individual aspirations, expectations, economic, cultural and social capital, imagined self Dynamics of interaction with family, teachers and peers Individual attainment	Individual experience of affirmation, belonging and support or lack thereof Individual aspirations, expectations, economic, cultural and social capital, imagined self Dynamics of interaction with family, teachers and peers Individual attainment

As we move from mapping the context of this project and loci available for interventions to an analytic level, seeking to explain and unpack causation, we draw on four categories of causal explanation. These categories are derived from the work of the Disparities in Student Attainment (DiSA) project (Cousin and Cureton, 2012). Broadly, these categories are:

- **Students' experience** of their HE learning, teaching and assessment; the 'curriculum' in the broadest sense.
- The **relationships** that underpin students' experience of HE; that is, relationships amongst students and between students and their institutional environment and the staff that can either support or detract from the quality of the learning experience. In particular, if students do not have a good relationship with their institution and academics, this can lead to disengagement, dissatisfaction, lack of motivation, lack of productivity and possible withdrawal.
- **Psycho-social and identity factors**, which might generate limitations to learning and attainment, such as the expectations which academics have about students, and students have about themselves. These could be very individual although there is some evidence of 'group think' or folk pedagogies (Bruner, 1996) about particular student groups.
- **Cultural and social capital**: Factors affecting the learning experience of students and their engagement in learning which are related to their access to social and cultural capital including their familial contexts and material resources and students' possibilities for extra-curricular activities and support.

The causal categories do not replace, but instead intersect with, the macro-meso-micro framework: Each conceptual causal category has implications for the different levels. For example, social and cultural capital can be relevant at the macro level (e.g. how does the stratification and reputational hierarchy of HE impact upon students' conceptions of their study opportunities in HE?), as well as on the meso level (e.g. to what extent do different students have a sense of entitlement to access academic support sessions?) and the micro level (e.g. what enables a student to feel comfortable approaching a tutor with a question after class?). The macro-meso-micro framework is an analytic tool that helps us to understand intrinsically linked processes. The four explanatory factors above are not mutually exclusive but are linked and overlap in students' experience of and outcomes from HE at each stage of the student journey.

These factors have the potential to impact on students' experience of and outcomes from HE at each stage of the student journey. For illustration Figure 6 gives some brief ideas to illustrate how factors in each of these areas might manifest themselves to impact on the student journey. These domains are often inter-related.

Figure 6: Illustration of factors impacting on the student journey

	Progression in HE	Attainment of a degree	First or upper second degree	Employment or further study outcomes
Social, cultural and economic capital explanations	Differences in stresses associated with being a student related to disadvantage including financial disadvantages	Differences in engagement in learning due to background factors including levels of support from family and friends	Social and cultural barriers limiting the extent of engagement in the curriculum	Differences in ability to take up employment opportunities related to disadvantage including financial disadvantage
Explanations related to psychological processes	Feelings of difference/lack of sense of belonging	Different motivations and expectations	Feelings of cultural isolation, which could compromise the disadvantaged students' identity, lower morale and lessen their commitment to continued study	Differences in motivations for graduate employment and conceptions of 'possible self'
Explanations based on relationships (eg. between students and HEIs/HE staff/Employers)	HE experiences and 'micro-aggressions'	Unconscious bias and direct and indirect racism (including institutional racism)	Lack of challenge/tutors' perception of student groups influencing their expectation	Experience of labour market disadvantages and bias (eg. employers recruiting 'to type')
Explanations relating to learning, teaching and assessment in institutions	Mismatch between staff and student perceptions Differences in understanding of informal demands and 'hidden curricula'	Students becoming discouraged and lacking/not accessing support	Different levels of interest/association with the curriculum (and how it reflects established ways of thinking that alienates different student groups)	Lack of role models in relation to academic and professional workforce

3.3 Reviewing the evidence

3.3.1 Retention and attainment of undergraduate students

3.3.1.1 Curricula, learning, teaching and assessment

Impact of curriculum

Researching the curriculum seems to offer fruitful ways of understanding students' experiences and the inequalities that underlie differential attainment patterns. McLean *et al.* (2013) compare sociology-related curricula at four institutions and, applying a Bernsteinian[9] analysis, find that there are some clear differences between them: 'compared with the two lower-status universities, the two higher-status universities have more academics who teach what they research; more academics who have completed traditional research training; they are more selective of students; and they have less diverse student bodies'. However, their main conclusion is that 'mainstream ideas about 'good' and 'worse' universities are confounded' (p.16) insofar as they found no differences in academic standards and students' gains in terms of enhancement, inclusion and participation in the discipline. The study offers a useful starting point for tracing the impact of sector stratification on curricula, resources that support them and their potential impact on differentials in attainment within different disciplines.

With respect to the content of curricula, there is an argument that the shift in some parts of HE towards 'relevance' and employability, as opposed to theory and decontextualised knowledge exacerbates the inequalities between student experiences at different institutions and in different courses (Clegg, 2011). However, a consistent premise in the employability literature (relating to disadvantage) is that employability should be embedded in the curriculum (e.g. Thomas and Jones, 2007; Williams, 2007; Pegg and Carr, 2012).

The more frequently recurring argument with respect to the relationship between curricular content and differentials in attainment is that there needs to be greater acknowledgement that all curricula are historically, socially and culturally situated. This argument has been central to recent grass-roots activism among students exemplified by the University College London (UCL) students' video 'Why is my curriculum white?' and the associated National Union of Students (NUS) campaign. Our interviews with academics suggested that there was an awareness of these campaigns beyond the universities within which they had originated. In particular, academics who had initiated changes in their curricula – introducing new modules or modifying existing ones – observed a link between the engagement of students and their perceptions of relevance to their own experiences and identities. For example, in Law there was an awareness that hypothetical cases – including details of names and circumstances – could either draw students in or distance them from the subject matter under discussion (IR4-Int4).

Qualitative institutional research suggests that students' experience of feeling that curricular context does not reflect their identities (particularly within the humanities and social sciences) are prevalent, but that their articulation among students varies. This may be because such critiques of disciplinary

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[9] Primarily they use Bernstein's concept of 'code' which is the use of language in various ways (either opaque and shared within a restricted group or elaborated and comprehensible to a wider audience) to convey 'what it is possible to be and do' (McLean et al 2013, p.2).

knowledge require an intellectual distance and a degree of identity work that are very much in the making as part of many students' university experience (IR10 Doc 1, Doc 4). What is clear is that many curricula are designed and constructed in accordance with the social and cultural backgrounds of academics, and often drawing on their own experience of HE in a context that differs in important ways from that of today. Consequently, there are numerous accounts to this effect from students, as evidenced in the video cited above and in several institutional research documents (IR 07Doc 2; IR08 Doc1; IR10 Docs 1 and 2). As the section on interventions will illustrate, efforts to disrupt this pattern are underway though nascent.

Learning and teaching

Burke *et al*.'s (2013) research explores widening participation issues in the classroom and examines some of the complex relationships between gender, class and race, and pedagogical relations, experiences and practices. Their findings reveal uncertainties and anxieties amongst both students and academic staff. For students, anxiety 'is connected to the residual memory of shame from earlier educational experiences as well as ongoing fear of being shamed again' (Burke, 2014, in Runnymede, 2015, p.22). In particular this research highlights 'a disjuncture between the pedagogic intentions of academic staff and how students experience these pedagogies' (Burke *et al*., 2013, p.4). Moreover, it notes concern in relation to working-class students and students from ethnic minority groups failing to be engaged by, or being alienated by, some pedagogical practices. As one tutor remarks [IR-10 Doc 1] 'some students just don't sign up to the intellectual project that is the course'. This observation that many students come to comprehend the socio-cultural and historical context of their curricula is amply illustrated by the student campaigns mentioned above. What is also implied here is that the notion of 'signing up' is predicated on the assumption that the intellectual project is perceptible to all students.

Roberts' (2011) small-scale study stresses the role of pedagogy and the importance of acknowledging the different expectations and needs of 'non-traditional students'. Meanwhile, Singh (2011) highlights the possible contribution of current learning, teaching and assessment practices to maintaining the BME attainment gap. This view is endorsed in Richardson's (2015) recent summary of work on the under-attainment of ethnic minority students.

Assessment practices

The DiSA project found that blind marking did not impact on degree disparities (Cousin and Cureton, 2012). A synthesis of evidence relating to doctors and medical students (Woolf *et al*., 2011) similarly demonstrates that ethnic differences are unlikely to be primarily caused by examiner bias or candidate communication skills because similar effects are found in machine and examiner marked assessments (p.9). However, the DiSA project also trialled strategies for reducing potential bias in Art and Design – an area in which Burke and McManus (2009) have shown that 'the recognition of potential or ability… is deeply tied in with the subjective judgements made by those with institutional authority to name, classify and assess' (in Runnymede Trust, 2015, p.22). Beattie *et al*.'s (2013) account of implicit ethnic bias in HE employment practices (especially when under time pressure) leaves open the possibility that this may also apply to some assessment regimes.

Learning strategies and engagement in learning

The HEA's 2012 BME attainment 'summit' talked of the importance of ensuring that 'students understand exactly what is expected of them – in relation to academic behaviours, participation and production of work' (Stevenson 2012a, p.18). This echoes the findings of a single institution study

(Rodgers and Thandi, 2010) which related the underperformance of BME students to low levels of engagement in the learning process, in particular different understandings of the work/effort expectations of the university and future prospective employers. Leese (2010) also highlights a gap in students' expectations and understanding of academic workloads and the notion of independent learning.

This line of inquiry has led some institutions to research student behaviours such as attendance and use of libraries. One institution (IR05 Doc4) found that there was an association between attainment and attendance. There were higher rates of non-attendance among certain groups including BME students, students from POLAR2[10] Quintiles 1 and 2, and male students but only in the discipline groups within Humanities and Social Sciences. Students from quintiles 1 and 2 and those of BME backgrounds attended more than students from quintiles 3, 4 and 5 and white students in the Sciences. The analysis was inconclusive and questioned whether attendance was a cause of differential attainment or a symptom of some other cause that had yet to be understood through qualitative investigation.

With respect to use of the library and numbers of book transactions, (IR05 Doc3) the findings of one institution are that higher borrowing rates are associated with better attainment in the humanities and social sciences, but that in the sciences higher borrowing is associated with lower attainment. However, BME, female and mature students have higher borrowing rates. Again, these are statistical associations that point to potential qualitative investigations of causal mechanisms.

Meanwhile Richardson (2008a) initially highlighted the importance of effective 'conceptions of learning', arguing, for example, that ethnic minority under-attainment in HE was mainly due to experiences in secondary education which endow a 'double legacy': relatively poor entrance qualifications and less appropriate and effective 'conceptions of learning' (p.19). This line of enquiry was pursued by several institutions who investigated differential outcomes among students with BTEC and Access qualifications, among whom BME students are over-represented (IR05Doc1; IR14 Doc 4). However, Richardson's most recent summary (2015) has discounted the impact of 'variations in… approaches to study or conceptions of learning' (for distance learning students) and suggested a renewed focus on 'teaching and assessment practices' (p.9).

Use of language and academic literacies

As Field and Morgan-Klein (2013) note, 'language and social class are closely related in Britain' (p. 169). Research into the use of language, literacy levels and academic writing has highlighted the critical role that these play in students' HE identities and experiences (Donohue and Erling, 2012). Advocates of an 'academic literacies' approach, however, argue for more attention to be paid to broader social practices, cultural identities, and the impact of power relations, and for the focus to be on language uses rather than written text (see, for example, Lillis and Scott, 2008; Scott *et al*., 2011). Preparation for successful higher level study is prominent in discussions of BME attainment. Stevenson (2012a), for example notes evidence that suggests that 'prejudiced attitudes associated with linguistic competence' may be a possible contributor to perpetuating the attainment gap (Stevenson, 2012a, p. 6).

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[10] POLAR2 is a classification of small area level young participation in HE, based on the HE participation rates of people who were aged 18 between 2000 and 2004 and entered a HE course in a UK higher education institution or English or Scottish or Welsh further education college, aged 18 or 19, between academic years 2000-01 and 2005-06.

Box 4: Stakeholders' perspectives on curriculum

Students' experience of teaching and learning was a key aspect of the explanations for differential outcomes revealed in the stakeholder element of this research, specifically the impact of 'the curriculum itself and [its] assumptions' on students' sense of belonging (SH 11, also SH 14).

Previous HEA work here had looked at differential attainment patterns for undergraduate students in different disciplines and found that, especially for black students, the risk of drop-out varied greatly across disciplines (SH 9).

One respondent described 'curricula that are white instead of being meaningful to all students' lives' (SH 9, also SH 4), another description was 'Euro-centric curricula… that did not reflect all students' (SH 5) while a third respondent noted 'White, Anglo-Saxon… very middle class' curricula (SH 2) as a cause for differences arguing a curriculum should be meaningful 'so that students can engage with it and experience it' (SH 9). Another stakeholder remarked how contributions from 'white men are considered more valid input… input from others is not constructed as similarly legitimate' (SH 4) and too many universities were too traditional in their teaching approaches (SH 2).

Underlying assumptions about pedagogy, assessment and the learning environment – virtual and physical – were important (SH 14). For example, assessment was mentioned as another reason 'why there is a BME attainment gap' (SH 9); universities should ask whether assessment 'privileges certain students?' (SH 5). For example, using seminar contributions as part of examinations could disadvantage groups with cultural norms that make them more 'reticent to put ideas forward' (SH 5). This could apply to different ethnic cultures but also confidence that varied by social class (SH 5). Furthermore, 'a lot of students find it very difficult to deconstruct the assessment and what it is actually asking them to do, this is a big stumbling block for a lot of students, and once you can get this right, this closes the attainment gap' (SH 9). Another respondent noted how at A-level boys do better than girls[11] in exams rather than in coursework and gendered learning styles might play a role in HE (SH 11). There were also question around the structure of the curriculum and whether employability was coming through sufficiently in the curriculum (SH 14) or whether outcomes relied on personal networks (SH 7).

In addition to the conceptual spaces of the curriculum, the physical spaces for teaching and learning were cited as another possible cause for differential progression and attainment. For example, some Asian students might state that they 'learn by discussing with each other' (SH 5) rather than using a library book for quiet reading at a desk thus highlighting the need to 'restructure space so that different groups can learn in their preferred style' (SH 5).

The tacit, implied, or hidden curriculum of HE emerged as another important cause. Examples here were a 'student not knowing until 3rd year what Two-Ones and Firsts are' and how this highlighted assumed rather than transparently transmitted knowledge that, for example, first generation HE students cannot easily access (SH 9). Tacit assumptions also play out in daily interactions where 'some students have no problem stopping a lecturer when they are walking down the corridor or going to their office hours, but others do' (SH 9). Differences in 'academic literacies' were thought to explain differentials in attainment for mature students who had to 'learn a new language' to navigate HE (SH 11).

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[11] Empirical data show that female students outperform male students in A* and A grades at A-levels but male students continue having the edge over female students when only considering A* grades (Joint Council for Qualifications 2014).

Student identities

Student identities, engagement and entitlement are recurring themes in the literature. Singh's 2011 review recognises the possible impact of psychological factors on academic attainment. He notes the significance of American studies 'which highlight the importance of strategies for addressing BME students' psychological well-being, sense of belonging, self-esteem and self-actualisation needs' (p.27). New lines of enquiry have included educational life histories and students' conceptions of their 'possible' and 'imagined' selves (Stuart *et al.*, 2011, 2012; Field and Morgan-Klein, 2012, 2013; Stevenson, 2012b). Such work, based on student accounts, adds to our understanding of the interplay between students' agency and institutional structures.

Stuart *et al.*'s (2011) educational life histories research suggests that ethnicity impacts in particular ways on students' vital sense of belonging and identity in HE. It interacts with and, in some instances, trumps other variables such as class, age and gender. They found that 'minority ethnic students no matter which class position they hold, described their engagement with HE differently from their white British counterparts' (p.506). They did not enjoy the same sense of ease (within the UK educational system) or entitlement as their white counterparts. It manifested itself in self-reliant, less collaborative approaches to study and greater reluctance to seek peer support. They displayed a lack of awareness of, or sense of entitlement to, additional support, struggled to learn the rules of the HE game and 'bore the risks of study entirely by themselves' (Stuart *et al.*, 2011, pp.504-6). An earlier investigation (Stuart *et al.*, 2009) also highlights different student experiences across ethnic groups, and notes that a sense of belonging can impact on both academic confidence and well-being. The broad thrust of these findings is supported by Meeuwisse *et al.*'s (2010) findings (from a sample of 523 students in four universities in the Netherlands) that 'the interrelationship between interaction, sense of belonging and study success are different for minority students compared to their majority counterparts' (p.543).

Diversity amongst HE staff

Whilst no direct causal link between staff diversity and student outcomes is suggested in the wider literature, the fieldwork elements for this project highlighted recognition that 'staff diversity and mentoring must be somewhere in that mix [of causes]' (SH11). Another respondent reported a student's reflection of how 'in four years of a degree, it would have been nice to see at least one person of colour among staff and be taught by one' (SH4). The 'lack of staff diversity in the academy' and the question 'why is my professor not black?' was then considered another cause for differential progression where students lacked role models (SH 4). A particular effect was noted on progression to postgraduate level since 'if you are in a university where there aren't any black professors – do you think postgraduate study is perhaps not for me?' (SH11). This role model function was perceived in an intersectional way: 'if women are disadvantaged, black women are twice disadvantaged' (SH 4) when there is a lack of both female and black role models in HE. Moreover, the challenge of BME underperformance at degree level has a knock-on effect on entry levels to postgraduate study which in turn reduces opportunity for progression into the academy (SH 1).

Singh (2011), like Dhanda (2010), notes the 'diversity deficit' (and the lack of role models) within the sector's academic and managerial workforce. Although acknowledged here and in other reviews (UCU, 2006; Leathwood *et al.*, 2009), this factor has not yet received comparable prominence to that it enjoys in the USA (Stevenson and Whelan, 2013). Beattie *et al.*'s 2013 study of implicit ethnic

biases in employment decision-making in UK HE suggests that this is overdue. As the Equality Challenge Unit (ECU) noted in 2010, the proportion of BME academic staff in UK universities is lower than that of the British working population for individuals with the appropriate qualifications for an academic post. A recent update (Loke, in Runnymede Trust, 2015) noted that 'some real improvements have been made', but that more needed to be done to eradicate long-standing racial inequalities.

Another suggested way in which academics – and other people in positions of power regarding student outcomes, such as employers – impact differentials is through unconscious bias: people 'selecting people like themselves' (SH 15) or 'rewarding in assessment people like themselves' (SH 9). Or, as noted elsewhere, 'what are employers looking for? They look to employ people who are like them' (SH 14). One stakeholder described this as the 'type of unconscious bias that can't even be measured, and that puts people at a disadvantage – like being a woman, or being part-time – this can be interpreted as being less committed and some might not see it worth putting in the effort for these groups' (SH 16). The role of institutions was then 'trying to mitigate' against such unconscious reproduction (SH 14). A related challenge was that it 'can be hard to swallow [for academics] that teaching practices need to change' (SH 5) and that it is important to 'professionalise inclusive practices' (SH 9).

Persistence and peers
Relationships across the student body and students' networks in HE are also pertinent to students' experience of HE, and may affect retention. A number of different researchers have highlighted the importance of 'friendship and peer support in relation to persistence and decisions to stay in HE (Foster *et al.*, 2011; Andrews and Clark, 2011; Morey and Robbins, 2011). A recent detailed single institution study of HE pedagogies similarly noted that 'friendships act as *'coping mechanisms'* and support structures and can help students feel that they *'belong'* at university' (Burke *et al.*, 2013, p.5). Friends from similar backgrounds and with common shared experiences were noted as being particularly important for the persistence of mature working-class students interviewed as part of Field and Morgan-Klein's Scottish study (2012). However, the study also notes that 'the role of social networks in student life is still relatively under-developed [as a field of enquiry], and little attention has been paid so far to the ways in which students' networks alter while they are in HE or to the extent to which student agency is a factor in reshaping such networks' (p.181).

Belonging
'Belonging' was mentioned by some stakeholders consulted for this research as a distinct dimension explaining differences. 'It is really important that students feel they belong' (SH 9) as a sense of engagement and belonging was the 'common core' of successful students (SH 14). University was described as a 'deeply middle class experience' (SH 11) in which 'culture has an effect' (SH 16). For example, BME students who have not lived in the UK for a long time might have had different experiences and may not share unspoken assumptions the way those who have lived in the UK all their lives do (SH 16).

Stevenson's (2012b) study, which explores the link between minority ethnic and white students' degree attainment and their views of their future 'possible selves', approaches similar issues from a different perspective. It found that white students, were 'most likely to draw on all forms of support', to spend more time talking to and working with their lecturers, and to be more purposeful and strategic in their approaches to seeking help (pp.108-9). Black, Asian and Chinese students had,

in contrast, devised strategies for 'getting by' without recourse to direct contact with lecturers. They sought to cope alone or through their peers. Thomas *et al.*'s (2011) single institution study of students undertaking placement learning on social work qualifying programmes highlights the importance of BME students accessing support systems.

The What Works? Student Retention and Success national programme located the prime site for nurturing engagement and a strong sense of belonging (the essential underpinning of student retention and success) in the academic domain (Thomas, 2012a). Moore *et al.*'s (2013) overview suggests that: 'the attitudes, approaches and methods of academic staff have a key role to play, as do developments in learning, teaching and assessment' (p.42). A recent summary of 'the under-attainment of ethnic minority students' in HE has argued that, since ethnic differences in academic attainment vary from one institution to another and from subject area to another, they may result in part from teaching and assessment practices (Richardson, 2015). Interestingly in a Dutch study of learning environments in four different universities (Meeuwisse *et al.*, 2010) a sense of belonging only appeared to influence the study progress of ethnic majority and not ethnic minority students.

3.3.1.3 Social, cultural, and economic capital

Bourdieu's theories of cultural capital, habitus and field provide a theoretical framework for several studies, highlighting the complex relationships between socio-cultural background and life-world experiences of students and the potential impacts on how they view HE and their experience of HE. Feinstein (2000) concludes parental attitudes are much more important than raw indices of social class for the explanation of educational attainment. There are studies researching how socio-cultural factors are related to group and individuals. For example, Bok (2010) draws on Appadurai's notion of the 'capacity to aspire', which reframes aspiration as a cultural category rather than an individual motivational trait. It discusses the proposition that students from low socio-economic groups do have substantive aspirations, but may have less developed capacities to realise them.

Modood (2011) uses cultural-social capital or 'ethnic capital' to refer to the transmission of aspirations and attitudes and enforcement of norms of behaviour. His focus is on the experiences of students from South Asian communities in the UK. Others have focused on resource/'capital' factors. Resources include: economic, academic/intellectual capital, community capital (Yosso, 2005), personal capital (Brown, Lauder and Ashton, 2011) meaning both 'hard' (credentials) and 'soft' (personal qualities). Recent research has focused on different types of capital as currency that can be used in the labour market to get the best jobs (Tchibozo, 2007). Tomlinson (2008) found first generation students need both tacit and explicit know-how of how to 'package' their experiences, opportunities, and attributes into valuable 'personal capital'. Greenbank's (2009) single institution study highlighted the disadvantages that students from a working-class background faced in career decision-making because of their lack of social capital.

The message emerging from the stakeholders consulted for this research was that students' experiences within HE 'in one sense reflects broader inequalities and processes in society – a student who is in university has more things on their plate when there are… financial issues, they are obviously in a different position from someone who does not have this to deal with' (SH 9). Another respondent remarked how drop-out was related to, for example, the status of being 'part-time students, a lot of the time it is work related, like pressures of work, demands at work – this causes them to not spend enough time on their studies. Also in the current climate, students have lost their jobs, then they haven't got the finances to continue' (SH 8). This respondent noted, however, how

causality could not be reduced to 'one answer' such as financial considerations as often other reasons – 'personal, family, and work' – as well as the challenge of 'academic rigour' could play a factor in drop-out for the institutions she represented (SH 8). Another stakeholder observed how 'differences in confidence' were gendered and could relate to differential outcomes (SH 4).

Beyond these more obvious instrumental influences on outcomes may lay more opaque factors linked to the distinctive environment and culture of HE. These include a 'hidden curriculum', which one study sees as the informal demands and often unspoken assumptions of many universities (Gibney *et al.*, 2011). Borrowing a concept from the history of nationalisms, Field and Morgan-Klein (2012) have investigated the ways in which non-traditional Scottish students feel themselves to be legitimate members of the 'imagined community' of HE. Clayton *et al.* (2009) talk of working-class students dealing with 'risky and often alien educational environments' (p.157); whilst, tellingly, students at both DiSA project universities reported that they and their parents were uncertain about the degree classification system (Cousin and Cureton, 2012).

Few studies have fully unpacked the cultural dimension of HE study, what Stuart *et al.* (2011a) call the 'set of taken-for-granted practices which… interact with individual students differently depending on their own backgrounds' (p.493). However a number have noted its impact. BME students interviewed by Stevenson (2012a), for example, commented on the failure of teaching staff to help them to understand the social mores of the institution…' (p.14). The notion that students' conceptions of their relationships with HE are out of step with that of their institution also informs some recent work on student engagement (Leese, 2010; Brown, 2011; Jackson, 2012).

Crozier and Reay (2008) highlight student identity as being a particularly important issue in relation to working class students. They note how students' learner identities are influenced by previous experiences at school, their current university experience and their social circumstances' (p.1). They contrast the strong sense of entitlement and the self-assuredness about themselves as successful learners that middle-class students expressed against the lack of self-confidence and the more fragile learner identity displayed by some of the working-class students. This theme also appears in Stuart *et al.'s* (2011) exploration of the impact of life experiences on perceptions of participation in higher-level study. Stuart *et al*.'s (2012) parallel study similarly notes how student lifestyle 'choices' which can impact on outcomes both in terms of grades and future job prospects, are 'shaped by their social position, education, familial and social experiences and their economic conditions' (p 141).

Conversely, prior educational experiences, 'insider knowledge' and accumulated cultural and social capital enabled the white, UK middle-class students to enjoy fully the social and academic benefits of their university education. They displayed a clear sense of entitlement, greater knowledge of and willingness to use HE support systems, stronger peer networks and a more collaborative approach to learning. The study concludes that 'this stark contrast [between white and minority ethnic students] in perception of entitlement and sense of belonging may provide some clues as to the distinction between different groups of HE students' degree outcomes' (Stuart *et al.*, 2011, pp.506).

In a recent single institution study of high BME non-completion rates, Rodgers (2013) argues that the possibly unique propensity for UK working-class ethnic minority students to enter HE in greater proportional numbers than their white peers may partly explain the study's conclusion that class rather than ethnicity is at the heart of the issue. It suggests re-visiting hard-to-quantify variables such as 'un-met expectations about the higher education experience, the 'wrong' choice of course,

financial difficulties, poor teaching quality and the feeling of isolation or hostility in academic culture' (pp.547-8).

Material resources

Perhaps surprisingly, financial aspects were not dominant in the review of the published and grey literature or the institutional or stakeholder interviews for this project. One stakeholder noted how lack of funding – in this case for a further professional qualification – was 'relatively easy one to fix' and that a greater challenge was 'to think holistically that if we change the demographic of our workforce, what else needs to change' (SH 15). Such welcome shifts to holistic understandings may sometimes have entailed shifting focus away from collating evidence and enhancing understanding regarding the direct influence differential access to economic resources has not only on decisions to continue in education but also on the ability to continue and engage successfully.

Indeed, OFFA access agreements for 2015-16 show that expenditure directed at financial support totalled £440.9 million, or over 60 per cent of all access agreement expenditure (OFFA, 2015). Despite such sums at stake and an imperative to use the resources effectively, the ongoing research into how such funds can support poor and disadvantaged students stay on and succeed across HE is not comprehensively understood. Highly selective institutions with fewer low-income students tend to offer the more generous bursary offers, and the literature highlights concerns about the development of a 'market' in financial support which would not meet the needs of many low income students (Chester and Bekhradnia, 2008; McCaig and Adnett, 2009, OFFA 2014/2).

A significant amount of work has taken place to understand the impact of the introduction of fees and financial support on offer in the pre-university stage of education and especially the decision where to apply and enrol. There has been little sweeping evidence linking financial support to progression into HE and into particular HEIs (e.g. Callender, Wilkinson and Hopkin, 2009; OFFA 2010; Harrison and Hatt, 2012; Nursaw Associates 2015). The complexities of institutional support schemes often result in potential applicants not trying or succeeding in gaining a clear picture of financial cost and benefits of HE before deciding whether or where to enrol (Carasso et al., 2012; Esson and Ertl, 2014): many institutions exceeded the mandatory minimum bursaries in place between 2006-2011, and, in addition, there can be targeted scholarships for e.g. mature or disabled students and those applying to particular subjects or from particular schools or are awarded post-enrolment as is the case for the National Scholarship Programme (NSP) scholarships. This picture contrasts with the financial support market and competing packages in e.g. the United States or a universal nationwide approach to financial support in e.g. Denmark.

There is, however, nuanced evidence that financial support or the lack thereof does make a difference to continuation. The drop in student numbers for part-time and mature students following increases to fees has been attributed to the lack of financial support (McVitty and Morris, 2012; González-Arnal and Kilkey, 2009; Davies *et al*, 2010) – although mature student numbers have since recovered. There is also evidence linking financial support explanations to continuation within HE. Some studies suggest that financial support is associated with better student retention and success amongst non-traditional groups; however, causation is hard to establish (students receiving financial support may be better prepared for HE and have behaviour associated with successful outcomes) (West *et al.*, 2008). The benefits of financial support included reduced anxiety about HE study, better integration into university life, less need to combine work and study and the ability to buy high-cost items related to study (eg. to cover books or travel-related costs). Some authors have

suggested the psychological benefits of financial support are particularly important for students with no HE background in their family (Sumner *et al.*, 2006).

Where fees have not deterred students from HE, they may have changed their behaviour within HE. Some minority ethnic students or religious groups are less tolerant of debt and thus less likely to take out loans and more likely to have increased their working during term time than their white peers (UUK, 2005). Indeed, the need for part-time work and, conversely, enabling students to fully focus on their academic studies, affects academic performance (Moreau and Leathwood 2006b; Harrison *et al.,* 2007; Stevenson and Clegg, 2011 a and b). Other groups experiencing significant financial pressures are student carers and student parents. Loans, bursaries or subsidised childcare, can have a positive impact on their retention and wider experiences (Moreau and Kerner, 2012, 2015; Moreau, 2014; NUS, 2009). Moreover, despite the lack of a clear pattern linking financial support and student progression at the national level, there is some institutional evidence showing 'that students in receipt of financial support report that it has enabled them to stay on course and that they consider withdrawing less than their peers' (Nursaw Associates 2015, p.4).

Overall, the research into the impact of financial considerations on students' decisions within HE and the impact of interventions offering financial support for students in HE is not yet fully understood. Under the current HE framework the cost of HE is mainly being met by students themselves and usually drawing on family and other support (backed up by guaranteed loans). The arrangements imply a problematic shift not just because of the wide differences in ability to pay, but also relating to perceptions of the returns from HE across the social spectrum. There is a need for institutions and discipline areas to be mindful of seeking to understand the impact of financial barriers and support within their institutional and disciplinary context. This would allow for an evidence-base for this agenda to move into the stage of sharing of best practice in this field.

Family networks

The key place of family and friends in students' emerging identity and success as an HE learner is alluded to in some of the literature. Clayton *et al*. (2009) speak of the importance for some working-class students of 'the familiar', in terms of maintaining familial, social and cultural affiliations to mitigate discontinuities and displacement. A mixed methods institutional research project on students' attainment (IR10 Doc1) analysed students' accounts of familial support and its implications for material and other resources that they are able to draw upon. It found that 'familial support seems to structure students' frame of mind as they set out on their first year and can have a cumulative influence and material impact as they progress'. The study goes on to situate familial support in the context of the history of participation in of different ethnic groups in different disciplines. Within our own institutional case studies there was evidence that institutions sometimes assumed, or implied that they assumed, a level of familial support and attendant material resources was equally available for all students.

> *'I was talking to one of my tutors; he was telling me that I should take more risks in my work but that involves buying materials, buying things which I don't necessarily have the money for and I feel like the compassion levels, it's like he kind of looked down on me, like oh well I can't help you then, kind of thing.' [IR1-FG]*

A recent quantitative study in the Netherlands (Meeuwisse *et al.*, 2014) examined the family-study interface as a possible explanation for the poorer study results of ethnic minority students compared to those of majority students. Using a model for family-study conflict and facilitation the research

demonstrated the complex interplay of family factors that might explain study success. Levels of experienced family social support were equal for both sets of students. However, ethnic minority students participated more in family activities and were more involved with their family. Moreover, greater participation in family activities seems to lead to higher levels of family-study facilitation, but also to higher levels of conflict. The authors note that 'student families seem to contribute to achieving study success, but those families at the same time also prevent students from achieving study success' (p.410). The complex roles of family ties within the diverse but dynamic experiences of mature working-class students in three Scottish HEIs is also highlighted in Field and Morgan-Klein's (2013) qualitative study.

Informal academic support (friends, family, peers)

Other research reveals an unexpectedly significant role for friends and family in advising and supporting students on a range of academic as well as personal matters (McCary *et al.*, 2011). Similarly Harding and Thompson (2011) identify 'guidance in learning from family and social networks' as a significant component in 'dispositions to stay and to succeed' in HE. Meanwhile Field and Morgan-Klein's (2012) study has noted the importance of social support structures in aiding the retention and success of 'non-traditional students' in HE.

The implication that friends, family and peers are an underestimated resource and play an important supporting role in the academic as well as the social domain is largely untested in relation to attainment, rather than to decisions to remain in HE and overcome doubts. However, given the evidence from the schools sector of the proven causal link between the use of interventions that focus on parental involvement in children's education and improvement in attainment outcomes (Carter-Wall *et al.*, 2012) this seems an area that merits further investigation. Some institutional research [IR10-Doc2] reports a wide disparity between the academic support that is offered to students with examples ranging from white middle class students who will email essays to parents to proof-read and regularly Skype to share work, through to first generation working class students who have no such resources on which to draw.

Extra-curricular activities: what counts?

Stuart *et al.* (2008b) identified differences in levels of participation in a range of extra-curricular activities , with working class students less likely to be involved in clubs/societies, councils/committees, volunteering and other hobbies. Other research (Purcell *et al.*, 2012; Pennington *et al.*, 2013) has similarly established that under-represented groups are less likely to participate in extra-curricular activities, leaving them in a weakened position when entering the labour market because employers value such engagement. However, it is worth noting that Holdsworth and Quinn's (2010) research indicates that when a wider range of extra-curricular activities are 'counted' as valid (particularly non-university activities and non-paid caring roles) middle class domination of participation disappears. Clegg *et al.*'s (2010) study of staff perceptions of curricular and extra-curricular activities similarly argues that 'recognition of [cultural] capital from within diverse communities and derived from activities which have not been traditionally conceptualised as extra-curricular activities might contribute to graduate outcomes' (p.615). One stakeholder was specifically seeking to develop an intervention that would increase the outward mobility of students from non-traditional backgrounds in study abroad schemes (SH 6).

Work-life-study balance

A final cluster of factors that may repay further attention relates to students' lives beyond the

course and classroom, and as workers, carers or parents. A number of earlier studies investigated aspects of students' work-life-study balance and the extent to which this impacts on attainment and progression. For example, Yorke and Longden (2004) indicated how family responsibilities and paid work contributed significantly to non-completion for many widening participation students. Stuart *et al.* (2008b) found that students from low socio-economic groups spend more time in paid employment and were more likely to report that other commitments and activities had a negative impact on their academic performance.

The need for a more holistic approach to understanding the real lives of many students is supported by widespread evidence of key changes in work-life-study balance: for example, a clear majority of students undertaking substantial paid part-time work at the same time as studying (Leese, 2010; NASES/NUS, 2012; Pennington *et al.*, 2013); an increase in home based, commuting students (Jackson, 2012); and an increasingly fluid dividing line between full and part-time study (McDonald, 2010).

3.3.1.4 Psycho-social processes

Rollock (2012) uses the phrase 'racial micro-aggressions' to describe students' day-to-day experiences which convey negative messages to minority student groups, seeing these as 'subtle and insidious, often leaving the victim confused, distressed and frustrated and the perpetrator oblivious of the offense they have caused' (p. 517). A research question posed as part of the DiSA programme was whether academics make students classified as BME into lower second class students through a set of expectations about them (Cousin and Cureton, 2012). Interviews with institutional contacts confirmed the view that these negative experiences of interactions between students and staff would undoubtedly affect student's experience and performance in HE. Although such 'micro-inequities' have been written about since 1973 (Rowe, 2008) these issues are only just starting to be systematically researched.

Stereotyping and bias
The stakeholders consulted for the research were blunt about the potential for stereotyping. One stakeholder cited as a key cause of differential progression 'generations' worth here of evidence of sexism and misogyny' and that universities are structurally built 'to the success of white middle class, straight men' with institutional barriers in place that prevent certain students from attaining (SH 4). A cause of differential progression then is students' experiences of stereotyping and direct racism as well as experiences of casual racism and micro-aggressions as 'no-body necessarily comes from a neutral point'(SH 4). This viewpoint echoes the findings of the Harvard University's Voices of Diversity project's account of the impact of psychologically damaging racism and sexism on graduation rates in four American universities (Caplan and Ford, 2014).

Some aspects of different student groups' experience of HE and the implications for under-achievement in HE are emergent and under-researched. For example, the potential link between Islamophobia and the confidence/outcomes of Pakistani students.

Staff attitudes and understanding
Stevenson (2012a) outlined the varying levels of staff understanding of the BME attainment gap and the mismatch between staff and student perceptions of the reasons for this. Berry and Loke's 2011 survey, for its part, noted that more needs to be known about staff attitudes and approaches and their understanding of BME underperformance, including the extent of deficit models (p.46). One such study concluded that 'some teachers appear to operate with deficit models of explanations for

degree attainment gaps' (Cousin and Cureton, 2012, p.14). This finding was expressed, by a student, in a first-hand account during our institutional level research.

> *'I think the thing is… black people want to succeed, we want to do well in university, we want to be at the top, we want to prove that we take education as seriously as other cultural groups… when we're in these institutions it's how other people relate to us and their understanding of us as a people and our culture and certain needs and views that we have. And I think sometimes we aren't understood… for people to take the time to understand our culture and maybe how we're different... I think… that plays a big part of it. And it [affects] motivation as well because if you feel like people have a lower expectation of you and what you can achieve because of your colour then it can be demotivating, or for some it can make you want to work harder to prove that you can just be as good. But I think it's just about how people relate to you… how you're treated, what people expect of you really.' [IR1-FG]*

The same phenomenon is viewed from the perspective of a senior manager who had first joined his institution as an academic.

> *'…not all of the staff, but [some]… had almost a deficit mentality towards the students. So they looked at the students coming from lower income backgrounds, and often, having not achieved very much in terms of results or marks in their secondary education. And, consequently… and some of it was not necessarily bad, but it was that deficit thinking, so… it didn't mean that they were bad to the students, but almost not aspirational enough for the students… lots of different ways that people were processing it, but as an institution we were not processing it all together… some staff took a very nurturing… 'you poor student', sort of approach. And then there were others who took this really distant disaffected approach, 'I don't want to overinvest here because these students aren't going to do very well at all'. And then there were staff who were in denial that they were dealing with a different demographic. So they had a set way in which we engage in a university, or they believe that you engage in a university and they just got on with that way. […] In conversation they would be saying 'the students here are, a different demographic'. But they weren't actually doing anything different… there wasn't really any institutional approach to, 'well, what are we actually going to do differently then to ensure their outcomes?.' [IR6-Int1]*

The quotation above identifies a range of causal mechanisms that explain the often-reported experience of students that academic staff can have low expectations of them. There is here an unexamined assumption that achievements in secondary education exclusively predetermine achievement and limit potential at HE level. We do know that prior attainment is a significant predictor of HE attainment (Crawford, 2014; Richardson, 2015) but it is not the sole factor. Student accounts such as that expressed in the quote above open up the possibility that (some) staff's low expectations of students have the effect of exacerbating previous educational disadvantage such that its impact continues to accumulate during HE. The second causal mechanism that is implied in the quotation above is that academic staff may well observe changing demographics in their student cohort but are largely continuing to teach as though these changes have not occurred; and the senior manager above locates the responsibility for those changes both with the individual academic and the institution.

The presence of low expectations among academics surfaced in several institutions. Some believed of minority ethnic students that their lower levels of attainment were 'perhaps not so important to them'. Another suggested that given an increase in participation from BME students, perhaps it was too much to also expect that their attainment would be on par with their white peers.

3.3.2 Entry to postgraduate study

The impact of social and cultural capital issues at the undergraduate level may persist beyond the attainment of an initial degree. Studies by Zimdars (2007), The Sutton Trust (2010) and Wakeling and Hampden-Thompson (2013) show how inequalities that exist at undergraduate level (often related to choices made post-16) continue and in some instances are exacerbated at postgraduate level. Wakeling (2009) notes, in relation to the representation of ethnic minority groups in postgraduate study, that: 'Choice of undergraduate degree subject and institution reflect both the academic credentials they possess and their cultural milieu. The latter includes the advice available to them, role models and judgements about suitably desirable and attainable aspirations and locations. These in turn condition the range of graduate outcomes available and the disposition of the graduate to pursue them' (pp.106-7). Moore *et al*.'s (2013) summary describes this process as 'the progressive narrow funnelling of opportunities to access postgraduate study' (p.102). The importance of attainment at undergraduate level in facilitating progression to postgraduate study means that certain minority ethnic groups may 'fall at the first hurdle' (Wakeling and Kyriacou, 2010, p.41).

Overall, there is much less research on postgraduates than on undergraduate students and within this still partly unchartered territory, more is known about post-graduate taught than about post-graduate research students. New research into progression into postgraduate education has focused on the impact of financial concerns (rising, but variable institutionally-determined fee levels allied to student fears of ever-increasing accumulated debt) and uneven provision of information, advice and guidance about postgraduate opportunities (see, Wales, 2013; Tobbell and O'Donnell, 2013; i-graduate, 2013, CRAC, 2014).

Stakeholders consulted for the research tended to identify lack of progression in HE with issues of social and cultural capital. Students' contexts and 'deep-seated cultural capital around postgraduate transitions, anxieties around affordability and lack of information, advice and guidance' (SH 11) were cited as reasons why some students did not choose to transition into postgraduate studies whereas continuing in education was 'pretty normal' for other students (SH 11). Social capital was also cited as a reason why some students converted their degrees into higher paid labour market outcomes than others (SH 14).

The relationships between students and institutions may impact on access to higher degrees. The assumption that the transition to postgraduate study is easy and automatic (simply 'more of the same') is increasingly challenged. O'Donnell *et al*. (2009), for example, highlight the importance of 'communities' within HE and how postgraduate students must learn and adapt to these. Meanwhile Scott *et al*. (2011) emphasise the importance of institutional cultures and practices in developing a sense of postgraduate identity thereby aiding the transition process from undergraduate study.

Issues related to academic processes and students' understanding of expectations in HE are also pertinent to progression in the sector. Scott *et al*.'s (2011) work on transitions to employment and masters-level study highlights the importance of improving formative assessment and feedback processes. Its focus on writing as a method of inquiry and learning, rather than simply a 'skill' deficit to be addressed, echoes research on undergraduate retention and success. It also argues that 'participatory pedagogical approaches help to support the processes of developing a sense of postgraduate identity and fitting in and belonging to a shared community of learning' (p.5). However, it worth noting that Mirza's study of the barriers to recruitment, retention and progression for BME students on a postgraduate teacher education course at a university with a

'diverse' student make-up, found that 'tutors were not confident about issues to do with multiculturism, bilingualism, inclusive pedagogy and practice' (in Runnymede Trust, 2015, p.28).

One stakeholder respondent wondered about the implicit assumptions some students might make about academia as a workplace and, in particular, whether BME students 'go to university because they want to enter employment or have they considered academia as employment?' (SH 5). All these considerations point to a lack of visible staff diversity and role models and a leaking pipeline in the route of becoming an academic as perceived causes of differential progression.

A stakeholder respondent also noted how there are disciplinary differences in progression to postgraduate study and that the uneven representation of different ethnic groups in various academic disciplines could account for perceived progression gaps into postgraduate study (SH 5). This observation again related to ideas about what different students and groups 'see as the purpose of HE' and its relationship to employability (SH 5). Students in vocational subjects – in which BME and migrant students are over-represented – may only consider their chosen profession as the valid endpoint of HE and not consider staying on for postgraduate study or an academic career as an outcome of HE (SH 5). A lack of funding for postgraduate study exacerbates this situation and 'dissuades people to go into further study' (SH 5).

At an institutional level, attention was drawn to the significance of students' prior relationships with academics as they start to consider (or not) the possibility of postgraduate progression, as one academic observed.

> 'When you get to PhD level departments replicate themselves, right. So if you've got people that do work in particular areas, so now in [this university] it's more likely you're going to get BME students to do work on [a particular subject and topic] because that's what I work on; whereas other departments that are slightly less diverse they're going to be… PhD supervision tends to kind of by default replicate itself, I think, in some ways. Or in some ways it should, because otherwise there's no point in taking up people who know nothing about their area of research.' [IR08-Int1]

Thus postgraduate research is often predicated on shared interests between prospective students and potential supervisors, and students' capacity to both identify these interests and correctly pitch their applications becomes crucial. In addition, it was argued that funding structures militate against 'taking a risk' on 'a great project' if students do not bear what are perceived to be 'hallmarks' of potential and success.

> 'There is a tendency, coming back to the cultural capital debate, for places to look at, say, well, this person has their first degree from a good university, either they've got a first… So and I think with those kinds of funding structures, it's become harder to take risks on people that are not necessarily… there have been increasing pressures from institutions to take those kinds of externally stronger students. …it's harder to take risks on people that you think maybe didn't do quite so well, or didn't come from such a good university, but you think had a great project.' [IR08-Int1]

In addition, to revealing the enduring power of what constitutes 'a good university', the quote above raises the question of what constitutes 'risk' and how risk is perceived by potential supervisors who do not share the social, cultural or racial milieu of prospective students.

3.3.3 Employment outcomes

As noted earlier, the opportunities for students from under-represented groups to access employment opportunities (and particularly graduate jobs) may be impacted by a combination of on- and off-campus factors: ranging from employer recruitment practices to fewer opportunities to engage in 'valued' types of work experience and extra-curricular activities and less access to the networks that offer internships.

Explanations linked to the impact of social and cultural capital issues on employment outcomes have mainly related to differences between students in their access to networks and careers resources. Referring to the Paired Peers Project (e.g. Bradley and Ingram, 2013), another stakeholder noted how 'there is something there about social capital at university, what the students have done outside their degree programmes and how practical circumstances affect a lack of knowledge about what is on offer in institution' (SH 14). Differences in being able to draw on family and friends for tacit information and simple exposure and expectations were seen to affect what different students 'can or can't take advantage of' (SH 14).

Financial disadvantage is likely to be important here: some students might already be working and cannot afford to give up paid work for unpaid internships or volunteering in order to get experience of the kind valued by employers. Some may be less flexible in the choices post degree (for example limited by geographical mobility or family and caring responsibilities).

Purcell *et al*. (2012), as part of the 'Futuretrack' series, conclude that the impact of disadvantage is clear in relation to access to careers advice, particularly when looking at the access of students from disadvantaged backgrounds to advice from their friends and family. The Futuretrack evidence has shown that students from less traditional backgrounds are often limited in the extent to which they are engaged in networking with other students and in particular with those who have higher levels of social and cultural capital. Groups of more socio-economically disadvantaged students are most likely to become excluded graduates (i.e. going on to work in non-graduate employment and not realising the social and economic benefits of HE). Graduates who did not take part in extra-curricular activities, and who remained in their parental home when they studied, are more likely to be disadvantaged in the labour market.

A summary of recent widening participation (WP) research has noted that: 'Employers are looking for graduates who can show strong involvement in extra-curricular activities and citizenship, but some graduates from widening participation backgrounds may be less able to demonstrate participation in these types of activities' (Moore *et al*., 2013, p.108). A series of recent studies and research overviews have confirmed that work experience (in the form of placements and internships) is an enabler of success in the graduate labour market (Bennett *et al*., 2008; Edge and SCRE, 2011; Pennington *et al*., 2013; Moore *et al*., 2013). Although disabled graduates have relatively good employment outcomes, Piggott and Houghton (2007) found that disabled young people were disadvantaged due to lack of work experience. More generally, whilst it is known that access to work placements and internships is not evenly distributed, there is little research to indicate the take-up of such opportunities by under-represented groups of learners and the impact on their employability.

At the same time, the stakeholder research undertaken for this project suggests that employers viewed social background and context as tools for thinking about talent that could be further

developed and had not peaked. If disadvantaged students had achieved particularly highly within the context of opportunities available to them, this was considered to show great potential (SH 15).

Related to these issues, explanations linked to psycho-social processes are related to different students' conceptions of their 'possible self'. Greenbank and Hepworth (2008) report that the focus of their sample of working class students on their academic success delayed their engagement in vital career planning. Later work by Stevenson and Clegg (2011b) on extra-curricular activities, using the 'possible selves' construct, echoes this finding of a more restricted future orientation. It reports that some students (predominantly from working class family backgrounds) were 'trapped in the present as 'onlookers' by force of circumstance'. They note that a smaller number of others in similar situations had elaborated a future-orientated narrative for themselves, and their findings emphasise the importance of 'agency and meaning-making among different students from similar backgrounds' (p. 243).

Studies of employment outcomes have highlighted how underrepresented groups are potentially disadvantaged by employer recruitment practices that valorise certain types of universities and particular conceptions of 'graduate-ness'. Morley and Aynsley (2007) concluded that 'The hierarchy of opportunity within the labour market often appeared to correspond to a highly stratified higher education sector' (p.229). This was demonstrated in our fieldwork at an institutional level where the structuring power of sector stratification was all too frequently experienced by staff involved in students' employability and enterprise. For example, it was reported by a university staff member that one law firm excluded all students with less than 300 UCAS points and this staff member questioned the commitment of this law firm to diversify its intake given their insistence on what seemed an arbitrary focus on student attainment prior to HE.

> *'I said look, actually the problem is that if you come from a disadvantaged postcode and you go to a bad school, the chances are you're not going to get good A levels, you know, so and I live in a place where there's bad schools, very bad schools, and they don't get good A levels and they barely get good GCSEs, so actually if they cut off and they have even got to university and then they've got a first because they're doing... actually there is an inequality there, so what we're looking at is trying to work with organisations that are doing that kind of stuff and saying how do we put [the students] in there in a different way.' [R07-Int2]*

Employers, according to one stakeholder, find that when they review their own student intake, those with 'a non-relevant degree outperform those who have done a degree in the relevant subject' highlighting the fact that the sort of talent employers are looking for might reside outside the academic discipline aligned to their field (SH 13). One explanation is that those with non-relevant degrees approach their professional training with a 'more open mind… but if they have a relevant-degree, they might think they know it all or find it too easy' (SH 13). A factor to consider for graduate employability then is 'thinking ability, attitudes, ability to solve problems' (SH 13). This argument recalls that made by Clegg (2011), quoted in the section on curricula above, of the potential for a narrow focus on 'relevance' and employability to exacerbate inequalities in the job market.

3.4 International thinking on causation and evidence

3.4.1 Causation

The international reports also commented on the causes for differential progression and achievement. Responses varied, but the potential for the UK's HE sector to learn from the overseas sector is clear. For example, the US report notes how, traditionally, the causal paradigm had drawn on the 'acculturation/assimilation perspective' based on Vincent Tinto (1975, and 1993) 'which argues that it is essential that social and academic integration takes place for student retention'. Other explanations relate to 'social inequities or cultural traits (deficit model) and differences such as poor motivation, academic deficiencies, family circumstances, socio-economic factors'. This contrasts with the UK context where deficit model approaches are seen as outdated. The US report also notes, however, how some of these explanations, in particular the notion of assimilation but also using deficit models has been challenged in recent years. Focus is shifting towards valuing minority students' 'bicultural environments'. There is also increasing critical questioning of the mainstream literature 'assuming a traditional student profile for examining retention'.

There are also more action-research based findings. For example, US research indicates 'that the more the student devotes to learning and the more intensely they engage in their own education, the greater the achievement and satisfaction'. Other contributors to success are 'personalised relationships with academics and deep project based learning along with internships'. Peer support and the institutional community are also recognised as important. Financial circumstances also matter – for example Nora et. al. (1996) find that minority students who need to work off campus for financial reasons are 36% more likely to drop out or that female students who are required to leave campus immediately after class to help care for family members are 83% more likely to quit.

The notion of what success means is also questioned in the US; for example, one study used a well-being index as a substitute for employment after six months from graduating from college as a better indication of success (Gallup-Purdue University, *Good Jobs, Good Lives* (2014)).

The causes identified in the Australian report are 'cultural capital, financial constraints and aspiration. Taken together these operate to reproduce existing social patterns'. The report also notes how 'multiple disadvantages operate and impact in particular on people from an Indigenous background in remote communities'.

The financial constraints highlighted in the Australian and in the US report contrasts with the Danish context. In Denmark the financial costs of HE are covered by the state and substantial support is provided during HE. This means that the direct impact of financial considerations in explaining differences in progression into higher education is eliminated.

Any remaining differences in progression in Denmark are then attributed to family context and 'learning cultures' in school for example 'when minority groups create counter-cultures that act against their chances of progression' and the 'growing share of segregated private schools' used by the middle classes. It is noted how HE might enforce those trends through the academic culture and curricula.

A large-scale German study concluded that causes are found in pre-HE streaming in the schooling system and that generally more 'student monitoring and documentation of student development' is required to understand students in HE.

3.4.2 Evidence

Research cultures

The country reports highlighted differences in the research culture and capacity in their contexts. In the US 'there is a very strong research culture around this topic. Most studies are funded through grants (private and public) and focus on quantitative methods for coming up with conclusions. There are a number of institutional projects, but many are not necessarily underpinned by research methods, but reflect a sharing of good practice in the sector. There are also a number of third sector research projects around the use of IT solutions that has taken off at an exponential rate in the USA.'

In Australia national leadership on evaluations is provided by the National Centre for Student Equity in Higher Education (NCSEHE). Australia has made a key investment into 'a central resource and repository for a wide range of reports and publications reporting on student equity data and its analysis in the NCSEHE'. This centre also produces its own reports and analyses. Materials are distributed across seven categories: disability, first in family, indigenous, international, low SES, regional, and general. The centre also publishes regular briefing notes. In addition, there are also evaluations of individual institutions' initiatives.

In contrast to the US and Australia there is 'very little research within the field of sociology of higher education in Denmark' and the HE research community is small in Germany. 'HE research overall is not as well supported in Germany as it is in other countries' and because of a lack of central investment in research in this area, third sector organisations have started to fill the gaps (e.g. the Bertelsmann Foundation)[12]. The third sector is also very active in Australia and the US in providing surveys and evidence in education.

Some Danish institutions monitor attrition rates through their statistics departments and in Germany the 'actual monitoring [of] student cohorts… is usually left to the individual faculties' and not shared widely because of data protection. However, some institutions publish information regarding what happens to students after graduation. There are no institutional research units the way they exist in the US although Germany also has a national centre for researching HE. Perhaps because of the lack of data on German HE students, the German research appears a little less detailed compared with other countries.

Evidence and lack of evidence

The international evidence that exists derives from quantitative and qualitative sources. In the US, information comes from national statistics and the census where analysis is broken down by gender, race and foreign born origin. The German Federal Statistics Office maintains records on student success (completed degree programmes) and publishes figures on the total number of graduates in any given year, for example, with a breakdown of how many women completed, and how many students completed their degrees from other countries and, more recently, drop-outs.

Danish research draws on statistical studies showing e.g. 'how parental education affects HE attainment' and 'historical analysis' that, for example, 'shows a reduction in inequality in access to HE'. The Australian report also draws on a range of statistical sources and studies, using both cross-sectional and longitudinal data. For example, there is a correlation between 'institutional student attrition, percentage of low-socio-economic students, and staff student ratios' and historical

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[12] See the English Bertelsmann website for further details https://www.bertelsmann-stiftung.de/en/our-projects/ Accessed 12.01.2015

analyses can show how there has been progress in participation in equity groups but not as a proportion of total enrolments – indeed, analyses show that regional participation has remained static and students from remote areas saw a decline in participation.

There is also evidence from student surveys and sometimes tracking surveys that link student experiences and employment, with the US and Australia leading the way and a recent graduate survey and interview project in Germany. The surveys vary to the extent to which they contain and focus on equalities groups; for example, the German survey is mainly about learning gains and employability and may not allow inferences about different equality groups.

There is also evidence from institutional learner analytics and campus IT systems. These systems are highly developed in the US and are currently being piloted in Germany. As the German report notes: 'HEIs who are at present piloting HIS [a commercial learner analytics system], can add variables which they regard as necessary. Until these systems are functioning in German HE overall, it will remain unclear which data over and above that gained at matriculation and that gained during any given degree programme (e.g. records of passed examinations/term accomplished) will be gathered'.

The US learner analytics systems are more sophisticated and plentiful: 'Universities in the USA use a number of IT solutions to monitor, alter and engage students about their performance'. However, even then there is a perhaps surprising lack of coherent insights generated from those IT and learner analytics systems. As the US report observes: 'Given the number of organisations and products now available in the USA, a number of universities are taking a step back to decide what is actually generating value for money'.

One electronic system that does seem to have produced results is that of a private company not connected to universities as the US report notes: 'We have already witnessed the release by LinkedIn of the ability to use its data base to tell students what is the best place for them to go to university based on where others went who work and live where the prospective student wants to live and the type of job they want to have'. This may indicate that more creative thinking about where data and information comes from could benefit the HE research community and students and those who support them in HE.

Overall, more striking than the evidence for establishing patterns and finding causes for progression, attainment, and outcomes, is the shared concern about a lack of evidence in the country reports. This can be evidence in specific areas of interest as well as lacking evidence on macro-patterns.

For example, 'there is little empirical evidence yet on transitions into postgraduate and research degrees.' (Australia). The German report notes concern about the right data not being available and even when it is, the analytical person-power not being in place. There is also a desire to link up quantitative and qualitative information as noted in the US report: 'In spite of the large body of literature in the USA, there is a strong need to have more research on this topic particularly in regards to a less quantitative approach that is discourse oriented, cultural based and context based… There is also a need to ensure that students themselves are being engaged in how programmes are being structured'.

The US report also notes that 'the challenge is that none of these programmes operate in isolation so narrowing down the cause and effect relationship is difficult. There is also a lack of systemic methodology for tracking programmes across institutions. There is also the issue of not putting in

the methodology at the start of the programme and then trying to add it at the end. The other issue that comes up is that tracking students can be difficult particularly in a system where students have such a long time to complete. Tracking students into the labour market is even more challenging'.

The Germany report mainly notes a lack of evidence with typical institutional data systems only registering 'name, gender, date of birth, country and place of birth, nationality' and not even including prior attainment. Universities and students are now seeking to change this at institutional level; however, 'German HEIs largely remain uncoordinated in terms of the depth of information they wish to raise and secondly explore'. The country report then states how it would be desirable to have a 'national student database' which 'would finally provide certainty on student demographics, student movement and ultimately student success rates' and facilitate institutional and departmental level analysis. But the report also highlights that such improvements in data systems need to be accompanied by having staff with the right skills in posts: 'Although staff throughout HEIs conduct evaluations, many of which are processed automatically using software programmes such as *evasys*, far fewer HE staff are capable of deep level statistical analysis or can analyse information gained from university data bases together with information gained from qualitative evaluations'.

The reports also note a range of data challenges. There is an overall desire for more sophisticated student tracking systems. Some systems are necessary to address particular challenges regarding evidence in different national contexts. In the absence of a unique student number, the German and the US system have particular challenges in tracking students. There is also 'much more transferring between institutions in the USA then in the UK'. Just as we know that some postgraduate students in England switch to more prestigious institutions when they can (Wakeling and Hampden-Thompson, 2013), there is 'a very big phenomenon of students trying to 'trade up' in terms of institutions in their second year' of their undergraduate study which might inflate recorded drop-out rates. Other US students have to 'trade down' from a four-year university to a community college. Student mobility during their degrees might inflate the drop-out statistics and there is a need for more reliable data. In Germany, the challenge is somewhat different: there is some evidence that because the HE system is largely free and based on open matriculation rather than an enrolment system, universities enrol higher numbers of students in the first year than they can manage; 'staff raise the bar in an attempt to achieve manageable student numbers by making the first modules more difficult' and thus creating drop-out. Transfers between universities also create tracking challenges.

3.5 How causes play out in practice

Heterogeneity of higher education

A common theme in many reviews is the need to recognise the diversity of the student body and the different ways that individuals now engage with and benefit from an increasingly differentiated HE 'offer'. The 'terms of trade' between students and HE providers have changed and 'the student experience' is now far from a uniform one. The findings of several studies emphasise the multiplicity of experiences in HE (noting the heterogeneity of students within and between demographic groups). Some recent studies have taken an approach of tracing and directly comparing the lived experiences of different groups of students over time across different aspects of student life, a main

example being the Paired Peers Project.[13] Differences are highlighted across various aspects of their HE experience: courses and study, friendships and socializing, budgeting and expenditure, accommodation, term-time and holiday working, placements and internships, relationship with the city, ambitions and prospects.

Students as individuals

Clayton *et al.* (2009) concluded that the experiences of working-class students that they studied differed to other students 'on the basis of social class but are also related to personal history, individual circumstance, gendered identity… and ethnicity, as well as geographic origins and the type of university attended' (p.170). Research into language use demonstrates how students' HE identities are constructed through their engagement in the social context of disciplines (Donohue and Erling, 2012). Some causal factors may apply more strongly, or exclusively, to the experiences of one group. Furthermore, the causes of differential outcomes in relation to employment and progression to further study opportunities, and the strategies proposed to tackle them, may not coincide with those relating to attainment. However, it is notable that a number of factors recur for several progression outcomes and for different equality groups. Moreover, causes are often connected and mutually reinforcing.

A number of researchers have sought to counter deficit approaches by investigating personal qualities and institutional factors that enable students to succeed. Byfield (2008), for example, has looked at factors that appeared to facilitate the success of black male students (in the USA and UK); while a synthesis of US research cites Harper (2012) as identifying how key 'insights from the experiences of successful BME students can be used inform and develop strategies to enhance BME student success' (Stevenson and Whelan, 2013, p.27). Similarly, Museus (2011) identifies and analyses institutional factors that contribute to racial and ethnic minority student retention and success at three high performing predominantly white colleges. Such counter-deficit models still focus on individual attributes as the most significant causes.

Multiple disadvantages and intersectionality

A number of recent studies have highlighted the importance of intersectionality – the insights provided by looking at the interplay between gender, ethnicity, and social background (e.g. Burke *et al*., 2013). Stevenson and Whelan (2013) note the use of intersectionality in the US to explore examples of dual or multiple marginalisation (see also, Field and Morgan-Klein, 2013). Keels' (2013) recent extensive quantitative study of whether and how gender, race or ethnicity and SES combine to affect US college outcomes shows how, in the different American context, the significance of gender depends on race and SES.

However, in acknowledging the importance of these interconnections it is vital not to lose sight of the big picture. Just as Singh and Cousin (2009), in relation to the problematic issue of ethnic categories, warn against being distracted by data, so it is important not to overstate the utility of intersectionality. As Field and Morgan-Klein (2013) note, 'the concept has yet to deliver any new analytical insights, though it does remind us to attend to the multiplicity of forces at work in people's lives' (Singh and Cousin, 2009, p.171).

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[13] This collaborative project between the University of Bristol and the University of the West of England, funded by the Leverhulme Trust (to 2013) considers how students' class backgrounds impacted on their experiences and achievements.

Effects across the student life cycle

Potential causes of differential outcomes, like notions of 'social capital', manifest in entry, on-course experiences and progression in the labour market. A recent review of the widening participation literature (Moore *et al.*, 2013) talked about looking beyond the student life cycle to a more holistic view of students in their environments over a longer period of time. A more holistic 'lifecourse' approach recognises individuals' multiple identities, roles and experiences, beyond simply 'being a student'. This is reflected in new lines of research focusing on the impact of working or caring responsibilities, extra-curricular activities (Stuart *et al.*, 2008b; Holdsworth and Quinn, 2010; Purcell *et al.*, 2012; Pennington *et al.*, 2013) and religious affiliation (Stevenson, 2012c).

3.6 Emerging conclusions

The review of causes shows that there is some consensus on causes as well as gaps that still need to be researched. Key things we have learnt in this section are:

- There is agreement that prior education only explains some of the differences between groups.
- Belonging emerged a key cause of differential progression. The hidden curriculum of HE and a lack of social and cultural capital to navigate the system and to network also matter.
- Academic role models are perceived as key in supporting attainment and progression. However, there is a lack of empirical evidence in this area.
- More granular understanding is needed of intersectionalities and subject-level differences in differential progression. However, ultimately the causes of differential outcomes may be highly personalised and individual.
- The review of the international literature confirms that key issues around culture, preparedness and finances are shared, perhaps with the Danish exceptionalism regarding student funding. There were no surprises in the international literature regarding causes that the report does not already consider.
- Although the specific context of HE differs greatly by country, the creation of evidence faces shared issues regarding data quality, tracking, achieving longitudinal studies, having embedded data systems and joining up quantitative and qualitative work. In addition, there are particular data challenges unique to individual HE contexts.

With regards to remaining gaps in our knowledge, it has emerged that:

- The intersectionalities of different characteristics and their impact on attainment and progression requires further analysis, deconstruction and understanding.
- It would be desirable to have more subject-level knowledge of patterns of differences and explanations.
- Some explanatory factors are related to all four outcomes researched in this report while other factors have only been found to have an impact on some but not all of these outcomes.

4 Approaches and interventions to address differential outcomes

4.1 Introduction

This section focuses on the approaches implemented by HEIs to address differential outcomes. It aims to highlight some overarching principles associated with current thinking as well as some specific types of interventions 'on the ground' that are being tested by institutions. A set of assumptions about causality necessarily underlie all interventions and these have been explored in the previous section. However, in practice, the adoption of an intervention is not always explicitly linked to a causal analysis and the relationship is left implicit rather than explicit (Gorard, 2002 p.61).

The section starts with some general remarks about how innovations in institutions' practices have been taken forward (in terms of targeted or universal approaches, involvement of staff and students, and the shift towards 'whole-institution' rather than intervention specific approaches). Section 4.3 then provides examples of different types of interventions that underlie the approaches, focusing on those that have been identified as offering some benefits to help to improve outcomes for particular student groups. These types of interventions (often at the level of individual programmes or courses) should be seen as offering promising directions of travel but should not be seen as 'silver bullets'. Indeed, given the multi-faceted and individualistic nature of the factors underpinning differential outcomes, whole-institution approaches which combine a diversity of different 'bottom-up' interventions are likely to have more impact than one individual approach or policy. Moreover, the aim of providing inclusive HE provision seems to be fundamental to addressing the outcomes gaps.

In general the research suggests that changes to the curriculum in its broadest sense and pedagogy driven approaches are an appropriate way forward, although policy-level changes have an important legitimising function. Having a policy framework at the institutional level which rewards staff for innovating is particularly important. Without a conducive policy environment individual staff members may risk discrimination and conflict with their organisations or feel vulnerable and disempowered. Institutions with policy frameworks that reward HE staff for taking forward pedagogic innovations would seem to be essential, as without this any beneficial changes in pedagogy may remain risky or difficult to embed.

Increasing staff diversity in institutions is widely perceived to be part of the development of an inclusive HE, and is an issue that institutions need to grasp as part of a serious attempt to address attainment gaps. However, staff diversity in the HE workforce and in senior roles, as a worthwhile end in itself, is not specifically dealt with here, since the focus of the research is on students' outcomes. The aim of recruiting a more diverse HE academic workforce features in many recent UK reports and recommendations (eg UCU, 2006; Willott and Stevenson, 2007; Dhanda, 2010; Singh 2011), but according to Beattie *et al.* (2013) appears to be a distant prospect. The creation of more culturally proficient institutions, as recommended in relation to a study of BME access to and success within Nurse Education (Johnson *et al.*, 2013), may be more widely applicable in the sector and more readily attainable in the short term.

4.2 Overview of approaches to address differential outcomes and areas for development

4.2.1 Phases of work

Some common phases were identified in the development of institutional work to address differential outcomes, with local and national evidence being used to inform action at various points. These phases, which were not mutually exclusive, were:

- Confirming. This involved statistical analysis of differentials within an institution and in comparison with national differentials or with a comparator group of institutions. Development of the evidence base on the existence of differential outcomes was seen as an 'enabling factor' and possible lever for change within institutions.

- Exploratory: hypothesising causes. This phase typically comprised more nuanced statistical analysis, drawing on unit level data or other student behaviours and/or qualitative research with staff and students. Some institutions have commissioned or carried out in-house qualitative research to investigate causal mechanisms.

- Awareness-raising and communication among academics, other professional staff and students. Institutional committees and structures play an important initial role in the dissemination of information and generating awareness. Some institutions have appointed project officers with a remit to work across academic departments. Others have identified 'champions' within existing academic staff teams. The extent of consistency and effectiveness in awareness-raising and communication among academics and professional staff who do not participate in committees can be limited.

- Testing of strategies and interventions. Some of the institutions we visited had identified 'quick wins' when initiating a programme of activity – for example, drawing on existing practices or pockets of activity within their institutions which had been shown to work. Some institutions had set out to test out a range of approaches within an experimental research framework. These can lead to interventions that are undertaken with a medium to long-term impact in mind.

- Review. Whilst most institutions do wish to evaluate or at least observe the impact of interventions, this stage is particularly problematic (as discussed in section 5).

> *'I think we got to a point with the data where we thought, we've done enough now. You can continually look at that, and we just had to start the project.' [IR05-Int1]*
>
> *'We're awash with data… '[IR08-Int 2]*

The process of formulating and locating interventions appears to be driven from the 'bottom-up' in the light of the need to maintain flexibility and an awareness of the conditions within different disciplines.

> *'We do not know yet what is the magic bullet. And I don't think we ever will get that position, because we're too big a university. I think in any one area, so, for example, what might work in economics, I don't think will work in drama necessarily, or in engineering. So I think it's quite dangerous if we say there's only one strategy we're going to employ to tackle where there is a difference in attainment.' [IR08-Int2]*

Institutions that relied on one or two personally committed individuals tended not to have the capacity to engage effectively in the third (awareness-raising), fourth (testing) and fifth (review) phases in particular. However, these later phases seemed to present the most difficult challenges, even for well-resourced longer-term projects.

Areas for development

Raising the awareness of differential student outcomes in a consistent way across institutions is challenging. Among the limitations of some institutional approaches – especially in larger institutions – is that there is wide scope for variability at a local level in the way in which policy is implemented, even though it may be implemented in name. The quote below illustrates this point and the issue of engaging staff is explored further in 4.2.4 and 4.2.5.

> *'…every term or so we have a meeting with all the other equality and diversity champions and it's quite noticeable how in some parts of the university it's a senior professor who is the champion and there's a lot of clout behind what they're trying to do and then other parts of the university it's been given to a very junior member of staff, no support… a volunteer, you know, being told this is your job, no particular resources being behind it so I think that it's been quite piecemeal how it's been implemented across the university where I think it's fair to say that most parts of the university are taking it seriously but I wouldn't say that all parts of the university are.' [IR02-Int9]*

4.2.2 Targeted, indirectly targeted and universal interventions

Some interventions are targeted at particular groups. The two 'effective practice' compendia complied as part of the What Works? Retention and Success project, for example, detail a number of initiatives targeted at specific or broad WP groups (Andrews *et al.*, 2012; Clark *et al.*, 2013). Interventions relating to attainment have sometimes been aimed at BME students. The rationale here is that resources have been unequally distributed historically and that there is therefore justification for targeting resources in the present at those disadvantaged groups. There are direct and indirect ways of targeting student groups: for example, universities that have adopted interventions aimed at commuter students and others who live at home have identified that BME students and mature students are disproportionately represented among them.

At the other end of the spectrum institutions adopt interventions that are aimed at all students, with the expectations that they might benefit disadvantaged students more. For example, the DiSA project was formulated on the basis that 'as curriculum strategies for closing the attainment gap are likely to support excellent teaching and learning in general an overarching purpose of this project was to provide resources of benefit to all' (Cousin and Cureton, 2012, p.9). The recommendations of the What works? project are predicated on the notion that 'universal' interventions are more effective. Some universal interventions, though provided to all, can have the effect of particularly benefitting disadvantaged students: for example, an enhancement in formative assessment may improve engagement with assessment criteria for all students, but it may also neutralise the advantage that some students already have in their access to what amounts to formative assessment support through conversation with knowledgeable others in their familial and social networks.

There is some caution about targeted interventions among some in the sector for fear that they may reinforce a model of student deficit. The notion of a 'post-racial' pedagogy was supported by some of the institutions we visited. The basis of this approach is to avoid labelling people (acknowledging

that notions of diversity should not be restricted to particular issues such as ethnicity, faith or immigration status). A post-racial approach acknowledges a broad meaning of diversity and positively values all students' social and cultural capital, rather than requiring them to adapt to a dominant ideal. Overall, a positive trend was observed in the research of a move from approaches that aim at 'integration' of non-traditional students towards a broader concept of 'inclusive' HE.

The tensions between universal and targeted approaches are summarised by Burke in the recent Runnymede Trust publication, *Aiming Higher* (2015): 'we must be accountable for ensuring that scarce resources are targeted towards those social groups who have experienced social disadvantage and structural inequality' whilst simultaneously interrogating the way in which such categorisations 'become mechanisms to homogenise, standardise and pathologise' (Runnymede Trust, 2015, pp.22-23). The 2014 National strategy on access and success also notes that 'the issue of whether to use mainstream or targeted interventions is complex' (BIS, 2014, p.59). Drawing on international research it concludes that 'overall, evidence suggests that the most effective approach appears to be combining universal and targeted support'. This involves 'initially taking a universal approach and then using targeted approaches once students' behaviour or performance indicate a greater risk of underachieving or withdrawing' (BIS, 2014, p.59). However, it is also possible conceive of targeted interventions as focusing on instances of outstanding success, such as in 'Tell us About It', a project that explores the experiences of high-achieving art and design students from a wide diversity of backgrounds (Finnegan, 2009).

There was support for both targeted and universal initiatives among the stakeholders, and sometimes a combination of both for different challenges or contexts (Box 5). Targeting appears to be most often deployed to meet individual needs of particular students, rather than at the group level because of the perceived risk of stereotyping or stigmatising.

Box 5: Stakeholders' perspectives on universal and targeted interventions

Universal support and culture change initiatives
Universities have a 'mandate to reduce barriers' (SH 6) and should strive to reduce inequality across staff in HE (SH 6) and to promote equality and diversity across the student lifecycle (SH 6, SH 14). One stakeholder therefore wished to 'create an environment that shares the risk of innovation and gives time to try something new… providing the evidence and analysis that promotes this [reducing differential progression] as a strategic aim' (SH 14). Another respondent noted that universal 'post-racial' approaches for addressing differential progression were preferable not least because students often felt that this was the best way forward (SH 1). Institutions were also sometimes concerned that 'non-targeted students may suffer… or that the secular identity of the university might be compromised' by e.g. perceived concessions toward religion (SH 1).

Another stakeholder put the universal approach into a positive, affirmative light stating that single interventions were never the answer to what was 'inherently an issue of embedded practice'. She found it 'very difficult to pinpoint one thing that helps us to help students, it is about support from pre-enrolment into employment – we have a whole 'wrap around' support, if you took one thing away, it would take away a lot, it all scaffolds together' (SH 8). However, 'keep-warm activities, summer schools, pre-enrolled engagement, and personal learning coaches' were perceived to be a high priority (SH 8).

Targeted support to meet individual needs
Regarding targeted support, there was a desire to enhance understanding of 'what this [intervention] means for particular groups… and what interventions make a difference' (SH 14). This could lead to targeted support for different groups of students, 'different policies for different equality groups' such as mental health (SH 5, SH 6) and physical impairment (SH 5) and LGBT (SH 1).

> Another stakeholder noted how targeting 'was necessary' (SH 2).
>
> SH 5 also noted that some interventions could and should be individualised – with individual adjustment in the case of disability cited as an example – whereas other changes need to be universal and widespread because they are about 'enacting cultural change' and changing 'cultural practices' (SH 5).

4.2.3 Involvement of students

The involvement of students in general and student representatives in particular is widely perceived to be crucial to addressing differential outcomes. In practice, however, institutions involved students in their exploration of causes and identification of interventions to different extents and in many different ways. Students' unions vary in the extent to which they are aware of differential student outcomes and prioritised them within their campaign agendas and other activities. In some instances there was evidence of longstanding productive collaboration between student representatives and university staff in formulating and implementing interventions such as mentoring schemes and student ambassador initiatives (see the case study example 1 below). In other instances there was an instinct for extreme caution in both making differential outcomes known to students or in revealing these as the drivers behind interventions designed to ameliorate them. The rationale for this caution varied: first there was an argument that it was the university's responsibility to address inequalities and that students should not be burdened with it; second there were fears of a 'self-fulfilling prophecy' effect where BME student in particular might feel disempowered; and third, there was a fear that institutions' reputations would be damaged.

Having student representatives on committees that have a diversity remit is a recognised way of bringing the student voice into institutional discourses on equal opportunities. In one institution (IR08-Int1) the university had established a regular panel of around 50 students drawn from a range of student backgrounds who were consulted and asked for in-depth feedback as the institution's work on differential outcomes progressed (this group was not composed of student representatives who were already consulted through other means). One institution has gone beyond 'consultation' with students towards a model that is designed to shift embedded structural relationships within the institution (case study example 1).

> CASE STUDY EXAMPLE 1: INVOLVING STUDENTS
>
> ***Students as partners***
> At the University of Birmingham black students take an active part in new initiatives by sharing their HE experiences, and making suggestions about implementation. The Black Ambassador Scheme evolved in recognition of the need to change embedded relationships across the institution, which led some students to feel marginalised. Discussions about the ethnicity attainment gap were contextualised within a wider context of positive developments and success. The focus of the work was not specifically on narrowing the ethnicity attainment gap but on supporting BME student success, celebrating and developing BME student talent. There was a deliberate shift away from seeing students as 'needing support' and being 'othered' and towards identifying institutional barriers to success.
>
> At the same time an intellectual and institutional space has been created by and for BME students to engender a better sense of belonging, equality and entitlement at university. In addition to the student-led BEMA (Black and Ethnic Minority Association), students engage in 'new spaces where dominant social relations, ideologies and practices are able to be questioned' (Giroux 1993 p.178). Students have been free to come together and talk through their experiences in an empathic

environment, allowing for the conscious affirmation of 'blackness'.

Ambassadors, who are paid to undertake this role, undergo a day training course which equips them with an awareness of the national context for BME students, and the skills to meet the demands of their role which include engaging other BME students, creating safe spaces for discussion, and engaging with academic staff. There are also regular meetings to feed back to the Students' Equality and Diversity Adviser and to exchange ideas and support with fellow ambassadors. A toolkit was developed by the National Union of Student's Black Students' Officer and the university's Equality and Diversity Adviser in 2014. The toolkit is used as a training resource for staff and students wishing to improve the representation, performance and inclusivity of BME students. The toolkit includes student perspectives on being BME at the university, ethnicity attainment gap data, guidance on being an ambassador and how to effect change, tools for engaging with BME students in their School and with staff/academics, and sources of support/contacts. It provides a practical resource to enable students to lead discussion of the changes implemented to address differential outcomes. Ambassadors also have a link to BEMA within the Students' Union, which has further strengthened the BME Student community. Most crucially, these developments in the capacities of BME students to act as change agents have generated a productive dialogue among academics as well. The scheme aims to engage BME students across every school and department in dialogue with their faculty and staff about the curriculum, course content and methods. At course level the approach has meant a range of specific innovations are taking place. These include: changes to include more diverse viewpoints in sources covered in aspects of the modern languages curriculum; the introduction of a new module into the political science curriculum bringing in critical race theory; and a student-led project to identify BME mathematicians which will create new resources (posters/video/narratives) designed to inspire students through presenting a broader view of the history and current practice of mathematics.[14]

Areas for development

There should be some recognition that many students who take part in student engagement initiatives are already be reasonably engaged and often high-achieving. Reaching groups who are less confident and comfortable with their HE experiences may be a harder task and there is a danger that some people might find it hard to vocalise their experiences for fear of negative repercussions. Our fieldwork highlighted the importance of resourcing this area of work. Paying the students (for expenses and time) who get involved, for example as student ambassadors or in other roles, is seen to be important; as is having a flexible approach that allows the students themselves to determine the direction of the work (and any intervention). This involves a facilitative rather than a direct approach that puts trust in the students, whilst ensuring mutually supportive relationships.

Across the institutions we visited relationships with students' unions varied in quality. Some had achieved a high degree of co-operation, but conflictual relationships were apparent in other cases. It was not possible within this project to explore why co-operation was possible in some instances and less so in others, but this is an area that we would identify as worthy of more attention in any future HEFCE initiatives.

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[14] For further information see: Bouattia, M. (2015), Beyond the Gap: Dismantling Institutional Racism, Decolonising Education in Runnymede Trust (2015) Aiming Higher: Race, Inequality and Diversity in the Academy. London: Runnymede Trust; and Bouattia, M. and Tope, J. (2014) Ambassador Toolkit available at: https://intranet.birmingham.ac.uk/collaboration/equality/documents/students/bme-ambassador-toolkit.pdf

4.2.4 Involvement of academics

Those who led projects relating to differential outcomes in the fieldwork institutions were in agreement that the involvement of academics was central to their success.

> *'I don't think it's a matter of just going 'right, let's just come up with a policy from the top down, and if we all do this everything will be fine'. No, because it's not necessarily to do with outright or latent racism. I think it's to do with unconscious sets of cultural and institutional and knowledge practices that we have, and it is going to take… If you really want those to change, I think you've got to give ownership to it, to the people who are ultimately going to implement the change.' [IR08-Int1]*

Several strategies are employed to bring about the involvement of academics, with the purpose of consultation, awareness raising and in order to formulate interventions to address differential outcomes. These strategies usually begin with approaching heads of schools/faculties or departments. Sometimes, individual academics are asked to take the role of 'diversity champions' and other times, programme leaders or course leaders are approached directly asked to lead an initiative within their context. Such approaches are often based part of a central project and draw on annual monitoring data. There were some reports that these early conversations can take their emotional toll on specialist equality and diversity staff members who initiate them: for example they may be perceived as accusing individuals of 'being racist' or, conversely, be met with some shock and upset from lecturers who are previously unaware of the most stark differentials in student outcome, particularly those that relate to BME students.

> *'The way to engage people is to say, here's a set of data about BME attainment within your programme, which is not looking terribly good; here's some thoughts about what you can do about it; have a look through and see what you think might be useful to you… and people are more likely to engage with something like that, than if we go either: your BME attainment is awful, go away, do something about it – and then they're at sea because they don't know what to do – or: you must do this, you must do that. You know, so working with people in that way has probably helped.' [IR04-Int1]*

At the same time evidence from our institutional visits showed that levels of awareness of differential outcomes among academics varied dramatically within and between institutions. For example, in more than one institution there was a wide divergence between academics from different departments despite a systematic attempt from the university centrally to communicate about and raise awareness of differential outcomes across the whole university. Within one institution an academic claimed to be completely unaware that differential attainment was on his institution's agenda, despite a project being in place for several years. In contrast, academics within the same institution in a different department were implementing curricular interventions and working on systematising their interventions [IR08- Int1 and Int4]. The finding on variability of levels of awareness of differential outcomes echoes the findings from Stevenson's (2012a) survey.

It is worth noting that where academics are being active the degree of support they get from central resources varies greatly. In some institutions, interventions seemed to be initiated and sustained independently by academics, while in others central project leads were credited with the regular provision of data, and often also a substantial input of ideas about possible interventions which could be adapted and adopted. Project leads also often act as purveyors of knowledge between departments: so for example, a social science department was spurred into curricular innovation on being informed that English were now having 'weeks on black writers' [IR02-Int9]. It is also worth

noting that there were examples of course- or discipline-specific initiatives that academics had themselves initiated which predated their institution's interest in differential outcomes, but which later became part of the institution's narrative about its strategy to address differential outcomes.

In some instances members of staff who wished to implement certain initiatives or who wished to communicate more widely with academic staff and students about differential outcomes were sometimes blocked by senior managers. One was threatened with 'not being promoted', another reported being moved away from any work on differential outcomes, and a third reported experiencing a persistent reluctance among senior managers to be open with staff and students. Interviews with some senior managers suggested that they often had fears about the consequences of open or uncontrolled communication, especially in relation to differential attainment.

Most of the fieldwork institutions were working towards embedding ownership of the agenda to address differential outcomes with consistency across their departments and staff groups. There was recognition that academics and others who support learning would have the most direct impact on the student experience. Leadership of the agenda on differential outcomes was often determined by the priorities of a particular senior manager, and his or her capacity to mobilise a wider institutional investment that sometimes drew on related agendas, and existing specialist professional and academics staff. Embedded approaches that went beyond the work of a dedicated equality and diversity function were more likely to command attention within academic departments. Even then, disparities in openness and engagement from different parts of institutions limited the prospects of innovations being implemented consistently and widely.

Areas for development
Existing institutional dynamics inevitably shape how differential outcomes are situated and addressed. A degree of awareness and expertise among one or more senior managers is seen as a prerequisite to support institution-wide actions to address differential student outcomes. Linking the agenda to wider institutional priorities can act as a catalyst both to obtain resources and heighten awareness. At an operational level, embedding the work into institutional decision-making mechanisms (such as committees and other fora) and processes (such as quality assessments, course validation and monitoring at departmental, programme or course levels) helps to sustain attention to the need to address differential outcomes.

Box 6: Engaging staff

Senior managers
Initiatives that sought to address differential student outcomes were typically led at the level of deputy-vice-chancellors or pro-vice-chancellors. Where leadership at this level was possible, projects could utilise the expertise of different specialist professional staff groups together: for example equality and diversity advisers, human resources, learning and teaching developers, data analysts from planning units, and academics with relevant research interests, from sociology, psychology and educational studies for example. Prioritisation at this level of seniority seemed to be a necessary (though on its own insufficient) condition for putting in place a sustained attempt to address differential outcomes. An investment of resources together with the monitoring of progress through committees or advisory groups were also factors that provided a foundation for a wider engagement of staff across an institution.

Using existing mechanisms to raise awareness
Discussion papers and presentations to committees formed an important part of strategies to engage staff. Senior management teams, executive boards, learning and teaching committees, and college/school/faculty committees were often asked to engage with the agenda to take forward

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work in this area. Occasionally, the issue of differential outcomes, typically in relation to retention or attainment, could become a standing item for some of them.

Introducing one-off thematic opportunities to engage staff

One day conferences or learning and teaching days were sometimes focused on an aspect of differential student outcomes. These events were attended by staff and sometimes also by students and provided a forum for diverse voices to be heard and for in-depth engagement away from the pressures of day-to-day interactions. Such events also provided opportunities for networking and problem-solving to occur across discipline and departmental and role boundaries. As well as presenting institution-wide analysis on differential outcomes such events also show-cased existing interventions or initiatives.

External funding was secured by one university [IR01] to establish 'Diversity Champions', as part of the development of new approaches to improve the attainment of BME students. This project brought together academics across different disciplines to develop understanding and awareness. Training was considered to be particularly beneficial for staff members without any sociological grounding and previous exposure to theories of racial difference. Although the diversity champions project was not sustained over time, its residual effects were visible in an increased level of awareness and adoption of interventions in learning and teaching which aimed to address the causes of differential outcomes.

Staff training and professional development

Staff training and professional development ranged widely in terms of which staff groups it was aimed at and the degree to which it was optional or mandatory. For example, with respect to postgraduate qualifications in academic practice that tend to be mandatory for new academic staff the diversity and equality component could be an optional module or a core part of the curriculum. One university (IR-21) had revalidated its course for new staff with a view to integrating diversity issues into every module. Another case study HEI [IR02] has a commitment to providing all staff with equality training and aims to embed this in new staff members' induction. Training on unconscious bias is undertaken by all members of its senior management team. Another university [IR04] has initiated training on unconscious bias that has involved non-academic staff in some student-facing roles.

With respect to existing academic staff there was a tendency to provide generic professional development sessions for which those who were interested could sign up. Less common was a 'bespoke' approach (IR7-Int1) that provided course teams or departmental groups with in-depth tailored professional development that drew on data related to their own context and led to actions that they would collectively undertake.

Changing conceptions and initiating action

At three of our fieldwork institutions equality and diversity specialists had established methodologies for challenging staff perceptions in relation to differential student outcomes. One facilitated discussions between academic staff and BME students about their experiences (see case study 1); a second methodology is to take a combination of statistical analysis and information about possible interventions to course teams (see case study 5); and the third is to initiate longer term investigation and intervention initiatives led by newly appointed embedded staff members (see case study 2) with a remit to conduct action research, raise awareness, and initiate and evaluate interventions.

In many instances the aim was to identify taken-for-granted assumptions about what we 'know' about the student experience, and to explore afresh how institutional and departmental practices could better serve increasingly diverse student cohorts. In some institutions there was an emphasis on supporting small discrete course-level initiatives and in others a move towards whole-institution change and actions at a strategic and policy level to facilitate more inclusive practice.

The availability and use of data in engaging staff

Institutions vary widely in the extent to which they make available to staff, students and the wider public data relating to differences in student outcomes. For the purpose of engaging staff, accessible, easy-to-comprehend representations of the data are of central importance. This data was most widely shared among senior managers and committees, and more sporadically with academics and other professional staff groups. Some institutions publish annual monitoring data publicly, and others on a password protected basis. In conversations and presentations statistical data play a crucial role – both in raising awareness and challenging misconceptions: for example that disparities in attainment could be explained by prior attainment alone.

4.2.5 Sustainability and whole-institution approaches

The scale and resourcing of projects that aimed to address differential outcomes varied considerably among institutions. In some cases, it appeared that a great deal of progress hinged on the personal commitment, interests and skills of one or two individuals. Moreover, often such individuals did not have a formal role that was centred on this work but did it in addition to a pre-existing role which they had managed to adapt. In such instances, it was difficult to see how the work could be sustained when such individuals happened to leave their institution or were absent for other reasons. At the other end of the spectrum there were a few institutions that had set in train projects that were firmly embedded in the institution at all stages [IR05 and IR07].

There were signs that drivers for action on differential outcomes are becoming embedded in institutional practices. For example, at several institutions data on the ethnicity attainment gap at course level is included in the institution's Annual Course Review process [IR04]. Disparities in attainment are highlighted systematically with course leaders, in context, and on an on-going basis. The discussion between a senior manager and course leads take place as part of the process can be used to agree action, and to identify best practice resources which could be used.

Areas for development
A central challenge for many institutions is to go beyond 'piecemeal' and time-constrained projects and interventions which benefit specific student cohorts (sometimes dependent on external funding) towards the achievement of widespread cultural change which extends across institutions, and is embedded at the strategic level and as well as in the day-to-day provision of HE.

CASE STUDY EXAMPLE 2: WHOLE INSTITUTION APPROACH

The Student Success Project at the University of Kent was initiated in response to an awareness of local and national patterns of attainment, particularly but not exclusively, in relation to BME students. The project was founded on the instigation of the University's OFFA planning group and is overseen by a project steering group which is chaired by the Senior Deputy Vice-Chancellor and a Research and Development group chaired by the Dean of Social Sciences. The project lead undertook extensive analysis of student data to confirm the extent of differentials at academic school level and exploration of data intersections. Even at this early stage, this data analysis work was informed by consultation with staff within schools and shared with them. The data analysis on differentials in attainment was taken to faculty meetings so that senior academic staff became aware of it.

As a result of that early work in both data-analysis and systematic communication, a comprehensive project was designed. Schools were asked to bid for resources that would enable them to further explore causality, including discipline-specific issues, and put in place interventions and evaluate them. This crucial resource included new members of staff, Student Success Officers (SSO), employed initially for two years and based within each of the nine pilot schools. SSO have taken up

their posts within the last six months.

An important binding element of the project is that it also has a central qualitative research element. Building on the early data-gathering, a new research fellow, working with another university academic conducts cross-institutional analysis which both informs and is informed by the work of the SSO. Some of what the SSO do is centrally initiated: for example, all were asked to review arrangements for students' 'Welcome Week' within their school and consider the extent to which it helped to 'acculturate' students from all backgrounds, including those who commute to the university rather than live on campus. Other aspects of the SSO remit are highly tailored to the particular developments within their school: for example one SSO tracked the experiences of black African students who had recently risen in number within one particular course. Their methodologies took full advantage of their location within academic departments and were often ethnographically-informed: for example 'hanging out' in common-rooms getting to know students and understanding patterns of interaction among them. They were also in a position to have informal conversations with departmental administrative and academic staff as well as students.

There are certain conditions that enable the work of the SSO: the existence of at least one academic who takes a strong interest or collaborates with the SSO and acts as an advocate in the wider departmental community; the existence of opportunities for the SSO to ask wide-ranging questions, and capacity to challenge, in an evidenced way, existing assumptions that might prevail about the educational benefit of particular features of the curriculum for all groups of students. They are supported by the project lead and by regularly sharing practice with each other.

The project has an initial lifespan and funding for two years. Its leaders are conscious that changes and their impacts will inevitably take longer and one of the challenges the project faces is in formulating how its continuation will be resourced and managed. Project evaluation is central to this process, and assessing the impact of the work in the nine pilot schools will inform decisions about the sustainability and further expansion of the project across the University.

4.2.6 Relationship between national and institutional interventions

National bodies such as the ECU, HEA, and HEFCE have commissioned reports and brought institutions together to exchange expertise and experiences about interventions to address differential outcomes. Their reports have ranged in content and purpose. Several literature reviews have informed thinking within the sector (including, Willott and Stevenson, 2007; Singh, 2011; Wakeling and Hampden-Thompson, 2013). The What Works? Project Final Report endorses a whole system approach (a new integrated approach to retention and success) rather than particular initiatives. The role of institutional culture and 'the need for institutional transformation' are both highlighted (Thomas, 2012a, p.72). Willott and Stevenson (2007) advocate an integrated whole student cycle approach to race equality policies. Other reports have advocated particular principles for organisational change: for example, HEA/ECU (2008) identifies the importance of infrastructural issues and management policies and practices.

In relation to the attainment of ethnic minority groups, the summary report of the HEA's BME degree attainment learning and teaching summit urges the creation of a comprehensive 'ecology of success' (Stevenson, 2012a). Singh's literature review of BME retention and success (2011) recommends a range of institutional changes that might facilitate more equal outcomes. Meanwhile

Museus' (2011) study of three Generating Ethnic Minority Success (GEMS) US colleges highlights four common characteristics of institutional culture: 'strong networking values, a commitment to targeted support, a belief in humanising the educational experience, and an ethos characterized by an institutional responsibility for student success' (Museus, 2011, p.154).

The relationship between national initiatives and institutional initiatives has largely taken the form of advice and exchange, as opposed to co-ordination or representation. Within institutions, the impact of these national initiatives is difficult to quantify but it is possible to identify a range of engagement. All of the institutions that submitted documentation were aware of the literature reviews and often referenced these in their internal deliberations. It was also evident that some institutions had made contact through the developmental activities of the HEA which were sustained beyond the HEA's involvement and resulted in some fruitful sharing of expertise. However, this element of inter-institutional collaboration seems to have rarely gone beyond those institutions that had been directly involved. Institutions who have participated in national projects appear to rely on the personal contacts of individual staff involved in this work.

A key conclusion on retention of students is that HEFCE WP resources have played a role in achieving improvements, and that the most effective activities are integrated across aspects of the learning experience, and with the direct involvement of the academic departments. The report to HEFCE by CFE Consultants and Edge Hill University (2013) shows that institutions have used HEFCE WP allocations to develop strategies that have been designed to respond to local demographics and the subject profile of their institution. Retention activities tend to be embedded into the wider curriculum and support services, although some institutions balance targeted (standalone) support with delivering an inclusive offer to provide equal treatment irrespective of individual needs or circumstances (CFE Consultants and Edge Hill University, 2013, p.3). HEFCE funding appears to mainly support infrastructure developments, staff appointments, curriculum development and student support (in addition to wider WP outreach). Activities commonly undertaken and perceived to be relatively effective include on-programme academic and pastoral support; pre-entry support; and the provision of a dedicated disability support unit. Strategies that incorporate access and retention and which are sustained over the entire student lifecycle are considered most effective. ECU (2013) also concludes that bringing together work on WP and equality and diversity into a coordinated strategy can increase the impact of the work, improve outcomes for students and result in a better use of resources.

Use of external initiatives can occur in different ways. For some institutions, an external initiative such as DiSA came at the 'right time' when there was already a building internal momentum to address disparities in attainment. In such instances, the external initiative acted as an important catalyst. For others, external initiatives are an outlet where a committed but largely unheard minority within an institution can find support. This does not necessarily result in the internal momentum that is needed to kick-start systematic communication and formulation of interventions. Thus it is important to note that it is not enough for external HE agencies to confer short-term credibility to the cause of addressing differential outcomes; and that a longer-term approach that requires reporting of impact may be more effective in binding in institutional leaders' commitment to systematic interventions and evaluation.
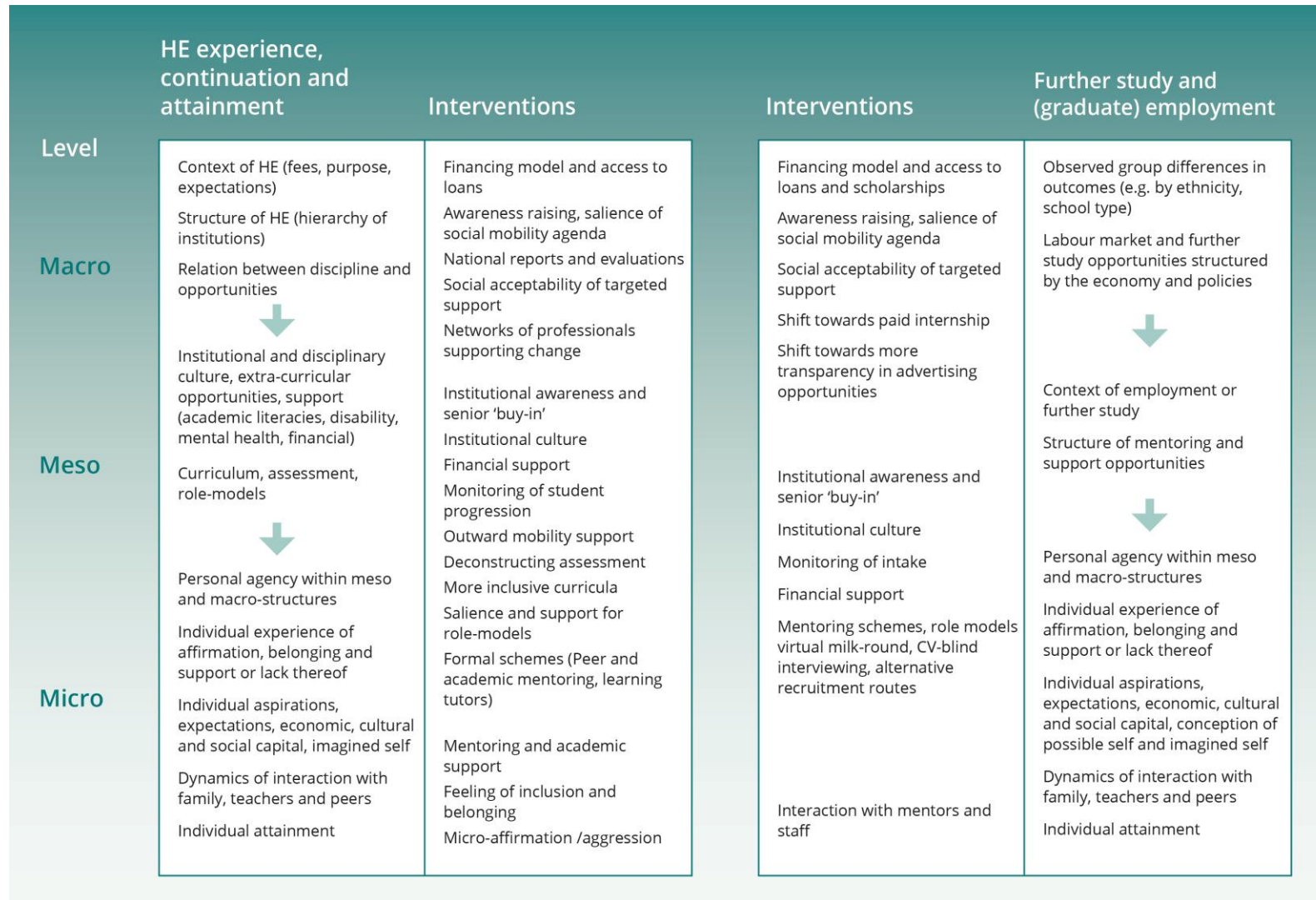
Areas for development
Within institutions there was a perception that national HE bodies could play a greater role in

providing a context for institutions' engagement. In one instance (IR07-Int 5), there was a perception that the absence of a public narrative about differential outcomes impeded open internal communication: there was a fear that drawing too much attention to differential outcomes (particularly with respect to attainment) was risky for individual institutions but that the risk could be ameliorated through a more open sector-wide discussion.
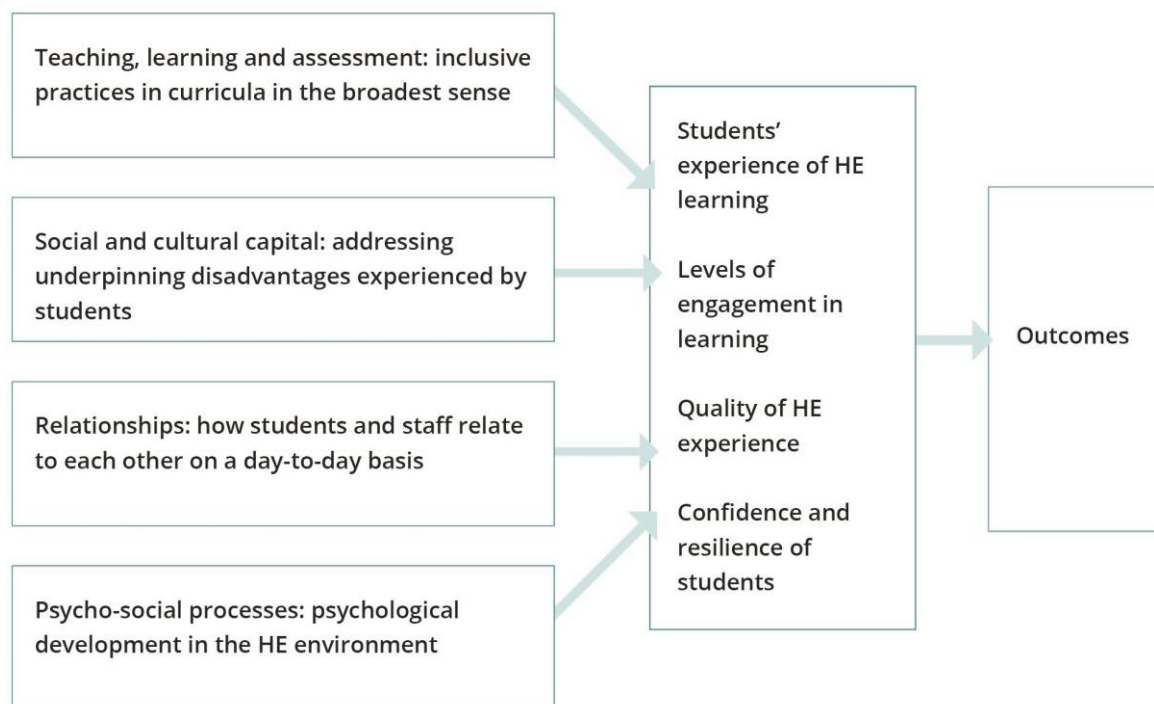
4.3 Elements of an inclusive approach

A range of possible different types of interventions are available to target differential progression and outcomes. Figure 7 visualises possible loci of interventions during HE and regarding the transition from HE into post-HE outcomes. As such, this figure maps the intervention landscape on a descriptive level. This presentation reminds us that interventions to tackle differential outcomes are located within a broader macro context and that the general systems and structures of support in HE are pertinent to these issues, as well as factors relating to the broader social and economic context. However, the discussion that follows concentrates on 'meso' and 'micro' level interventions which are seen as being within the an institutional remit in relation to tackling the differences.

Figure 7: Description of interventions at HE and post-HE levels (pre-HE is excluded as outreach and access are not part of this project)

Level	HE experience, continuation and attainment	Interventions	Interventions	Further study and (graduate) employment
Macro	Context of HE (fees, purpose, expectations) Structure of HE (hierarchy of institutions) Relation between discipline and opportunities	Financing model and access to loans Awareness raising, salience of social mobility agenda National reports and evaluations Social acceptability of targeted support Networks of professionals supporting change	Financing model and access to loans and scholarships Awareness raising, salience of social mobility agenda Social acceptability of targeted support Shift towards paid internship Shift towards more transparency in advertising opportunities	Observed group differences in outcomes (e.g. by ethnicity, school type) Labour market and further study opportunities structured by the economy and policies
Meso	Institutional and disciplinary culture, extra-curricular opportunities, support (academic literacies, disability, mental health, financial) Curriculum, assessment, role-models	Institutional awareness and senior 'buy-in' Institutional culture Financial support Monitoring of student progression Outward mobility support Deconstructing assessment More inclusive curricula Salience and support for role-models Formal schemes (Peer and academic mentoring, learning tutors)	Institutional awareness and senior 'buy-in' Institutional culture Monitoring of intake Financial support Mentoring schemes, role models virtual milk-round, CV-blind interviewing, alternative recruitment routes	Context of employment or further study Structure of mentoring and support opportunities
Micro	Personal agency within meso and macro-structures Individual experience of affirmation, belonging and support or lack thereof Individual aspirations, expectations, economic, cultural and social capital, imagined self Dynamics of interaction with family, teachers and peers Individual attainment	Mentoring and academic support Feeling of inclusion and belonging Micro-affirmation /aggression	Interaction with mentors and staff	Personal agency within meso and macro-structures Individual experience of affirmation, belonging and support or lack thereof Individual aspirations, expectations, economic, cultural and social capital, conception of possible self and imagined self Dynamics of interaction with family, teachers and peers Individual attainment

The stakeholder interviews, institutional case studies, grey literature review and outputs from recent national initiatives testify to the number of interventions that the sector has established in order to address issues of student engagement, retention, attainment and progression. Following the typology used above, the remainder of this section discusses examples of interventions that are underway in terms of teaching, learning and assessment approaches; approaches to build capital; approaches to improve relationships amongst the student body and between students and staff; and approaches to support beneficial psycho-social processes. As above, the categories used are a construction to help to locate the range of interventions against a conceptual framework which links to the underpinning cause of under-achievement and low levels of progression identified in the literature (Figure 8). We recognise there is a high degree of inter-connectedness between these. Key features of the approaches are that they are designed to reduce gaps in student outcomes through improving students' experience of HE learning, boosting students' engagement in learning and the overall quality of the HE experience, and raising students' confidence and resilience levels.

Figure 8: Mechanism to address differential outcomes

4.3.1 Curricula, learning, teaching and assessment

The role of an inclusive curriculum features prominently in accounts of engagement (Hockings, 2010) and recommendations to promote the attainment of ethnic minority groups (HEA/ECU, 2008; Singh, 2011). It involves not just the content of what is taught, but also questions of how it is designed, taught and assessed (Hockings, 2010).

Singh (2011) highlights the central role of an inclusive curriculum supporting the retention and success of BME students (pp.40-1), whilst Stevenson (2012a) notes the distance between a general commitment to inclusive learning, teaching and assessment practices and specific actions on the ground. Very practical strategies were in evidence at a case study university [IR04] where the range

of interventions is shared widely, some of which focus on making curricula inclusive. For example, one intervention requires students to re-write assessment criteria in their own words. The rationale here is that all students may experience the difficulties imposed by opaque assessment criteria or unclear briefs – those barriers add value to the advantages that some students possess such as a social readiness to ask for help, and social networks that can be mobilised to help unpack such opaqueness. Where this barrier is removed, it benefits all students, but may disproportionately benefit those students who do not feel entitled to ask for clarification or who do not have the advantage of knowledgeable social networks.

Responding to a question about the causes of differential outcomes, one social science academic quoted below argues that the most fundamental practice of HE – the constitution of knowledge – lies at the core of the changes that need to take place. This argument is supported by a wide consensus that curricula, learning, teaching and assessment practices impact significantly on student engagement and experiences (Crozier *et al*., 2008; David *et al*., 2009; Roberts, 2011; Burke *et al*., 2013) and ultimately outcomes.

The second *Compendium of effective practice in higher education* emanating from the What Works? project, for example, includes 13 mini case studies of interventions (mostly UK based) relating to learning and teaching (Clark *et al.,* 2013).

> *'The curricula are definitely central. Curricula and the idea of what constitutes knowledge and therefore how you design your degree programme right down to the unit level, that includes then not only what's on the reading list, but what skills you think we're developing; how then you're setting an assessment in order to work out whether or not people are achieving those intended learning outcomes, and I think feedback'. [IR08-Int 1]*

Developing the curriculum

As noted in one institutional report (IR13 Doc 1) efforts to develop curricula tend to coalesce around two policy themes: widening participation and internationalisation and these agendas are sometimes pursued as though independent of each other. However, in one institution that recently conducted an inclusive curriculum audit (IR07 Doc1] it was clear that these agendas can be considered together. This audit identified examples of good practice from the point of view of staff as well as student perspectives through a survey. The HE curriculum's relationship with social equality and exclusion is addressed in the literature in terms of inclusive processes of learning and teaching, and in terms of curricular content. This was reflected in the aforementioned audit which identified the need for flexibility in the way that teaching was organised, the anticipation of prior knowledge, accessible language and clarity in documentation such as assignment briefs, the induction of students into unfamiliar pedagogies, and incorporating student involvement in curricular design. There were also examples at this institution of sensitivity to social and cultural diversity; for example there were efforts to make apparent and situate staff members' own social and cultural identities in relation to their research interests in order to promote dialogue about these issues with and among students. Such practices were acknowledged to be patchy, and were perhaps reliant on the presence of individual members of staff who were already sensitised to such issues.

There were instances where substantial revisions had been made to curricula in an effort to improve their relevance and centrality to an increasingly diverse student intake. Examples seemed to surface most often in the social sciences where academics already had an interest in race, gender, social

class and issues of inequality and social justice. These kinds of interventions were of a different order to one-off sessions within largely unchanged curricula: for example within a predominantly Eurocentric course, one week was devoted to the study of Edward Said [IR10 Doc2] which interested students of BME backgrounds but they also lamented the brevity and rarity of this event. Where more substantial changes were introduced academics reported greater student engagement evidenced in higher attendance and intrinsic interest in the subject which shaped later module choices and dissertation topics.

CASE STUDY EXAMPLE 3: EXPLORING RACE AND ETHNICITY IN THE CURRICULUM

'It's been hard but good. It's the first time I've actually had to think about whiteness.' [Student taking module on researching race and ethnicity]

Taking Race Live
At Kingston University, London, Sonya Sharma, Lecturer in Sociology, has introduced a new module on researching race and ethnicity. Importantly the module explored non-white literatures, whiteness and other ethnicities, and was conceived as a critical project for all students rather than of particular relevance to BME students. This new module, which has proved popular with students, became the basis for a collaborative co-curricular initiative between Sociology and Drama students. Sharma and Jacqueline Smart from Drama came together for the project, Taking Race Live. The project involves a series of field trips, which culminate in an evening festival and final-year symposium organised by the students. The field trips include, for example, a visit to the National Portrait Gallery where they are asked to reflect on a portrait that related, or perhaps did not relate, to their own racial and ethnic subjectivities. They visit other topical exhibitions, such as 'Re-Imagine Black Women in Britain' at the Black Cultural Archives or performances, such as 'Multitudes', a play at the Tricycle Theatre. Finally, in small groups, with each group comprising students from both disciplines, they draw on their own experiences and sociological and dramaturgical or literary concepts to explore race in society. The festival and symposium are well-attended by staff and students and stimulate discussion and awareness well beyond the confines of the interaction between Sharma and Smart and their students. The final-year symposium showcases the collaboration between Sociology and Drama students, bringing together research and performance to explore stories of race, faith and culture.

As Sharma puts it, 'Taking Race Live allows students to think critically about their own position in the world, to try to think intersectionally about their identities and social structures, and how those interact in their everyday lives'. Students from Sociology and Drama had to apply to be part of the organising committee for the events. Employability skills were integrated into the initiative. This process was treated formally and they were asked to submit a CV, a cover letter and to undergo a formal interview. Those who were offered a place on the committee were given an honorarium. Students gained skills such as learning how to organise events and the challenges that can occur when doing this. They also met new friends, learned from each other's disciplinary backgrounds and gained a sense of confidence from all they achieved together. Others, who formed part of a larger penumbra of participants, gained experience of producing and being part of a performance, new knowledge on critical race theory, and the excitement and sense of accomplishment for having their work recognised beyond traditional learning and teaching formats.

There are plans to extend the project further by introducing new cross-curricular collaborations, for example between Sociology and Music. The aspect of the initiative that Sharma and Smart see as an area to develop is the co- and cross-curricular aspect of Taking Race Live that incorporates the arts with sociology to address issues of race and ethnicity. In order to do this, aspects of the project have been extra-curricular. Consequently, for some students the timing and demands on their time proved difficult to manage alongside their commitment to the project.

The What Works? Project Final Report stresses that 'high quality, student-centred learning and teaching is at the heart of improving the retention and success of all students' (Thomas, 2012a, p.31). In particular, it emphasises the importance of curricular contents and related opportunities; learning and teaching styles and experiences; assessment and feedback; and personal tutoring. HEA (2008) urges revised learning, teaching and assessment practices, including how feedback and support are provided to students. This meso-level recipe for retention and success is echoed at the micro-level in the DiSA project's finding that high achieving students often reported the impact of at least one motivating teacher (Cousin and Cureton, 2012). More broadly, Hockings *et al.*, 2008, argue that sensitivity to the complexities of diversity and student-centeredness must be at the heart of 'inclusive classrooms' and pedagogies.

HEA/ECU's (2008) recommendations to promote the attainment of ethnic minority groups urged revised learning, teaching and assessment practices, including how feedback and support are provided to students. Such micro-adjustments appear to be important. The DiSA project, for example, reported that good assignment briefs reduce student anxiety, raise their confidence in their ability to achieve and, crucially, impact on attainment (Cousin and Cureton, 2012). A small study quoted in the first Compendium of effective practice in higher education retention and success similarly noted the significant impact of relatively minor amendments to assessment practice on a law course (Andrews *et al.*, 2012, pp.67-68).

In relation to supporting employability a recent synthesis reports efforts to better valorise and even provide academic credit for learning derived from students' part-time and voluntary work and recommends conveying clear and early messages about the value of extra-curricular activities and work experience. However it acknowledges that 'there is little empirical evidence of what works' (Moore *et al.*, 2013, p.108). More generally, What Works? highlights the importance of an HE experience that is relevant to interests and future goals (Thomas, 2012a). A review of the literature on employability argues that since 'under-represented groups may well be least likely to engage in extra-curricular activities... these students may well benefit most from embedding employability within teaching and learning practices' (Moore *et al*, 2013, p.121).

Initiatives across the case studies included embedding new practices into existing curricula, and in a few cases the development of new courses or modules. The types of innovations made are highly course specific, but based on the key principle of encouraging association and engagement of a wider range of students in the learning. The research at a case study HEI [IR02] revealed how staff-student dialogue through focus groups and meetings had identified issues of particular concern to BME students to inform curriculum change. In one example a complaint from a BME student had led to a course tutor widening the sources used in-group discussion of how key issues are dealt with. Being able to draw on cross-institutional expertise and the ongoing work to empower networks of BME students had played an important role in the process of identifying what changes could be made.

CASE STUDY EXAMPLE 4: SUPPORTING ACADEMIC ACHIEVEMENT

Initiatives at the course/programme level to change the learning experience were a significant feature of the approach taken to address differential outcomes, particularly gaps in attainment, at the case study institutions. New College Durham offers a wide range of support that is well embedded in college processes. The college intake contains a high proportion of students from low socio-economic groups, with many students in employment before and during their course (most progressing through Foundation Degrees to a full degree programme). A central aim is to support

learners in their transition to higher levels of learning, and the support provided therefore needs to be seen within the wider context of a mixed economy institution. The college has a range of initiatives to support the attainment of all students and these are usually tried and tested at FE level and then expanded to HE level, if appropriate. Since many students have taken FE courses at the college there is a feedback loop, i.e. curriculum support and transition support can be modified at pre HE level to increase their chances of success at HE level. The support is embedded in college processes and where necessary into the day-to-day working of curriculum areas, as exemplified by their personal learning coaches (PLC).

The PLC model has been in use for over 10 years across the college. Teams of coaches are allocated to each of the six schools within the institution and these are supplemented with a dedicated HE PLC. The HE PLC works in partnership with the Academic Support Tutor to ensure student support needs are met. Coaches work with a case load of students that either self-refer or are referred by academic or other support staff. Their role is to provide one-to-one personalised support to enable learners to succeed on programme, for example study support skills, time management, motivation etc. Support is usually provided on a weekly basis at a time and place to suit the student and awareness of the PLC service is raised during college induction processes. Coaches are based within curriculum teams and this helps foster positive working relationships with academic staff, however the team offer confidential and independent support and management of the service sits within student support services. PLCs are available to all students at any point in their learner journey. The college has invested significant funding to sustain and expand the model; engagement with a PLC by students is viewed as an everyday part of college life and it has become part of the culture of the college. Staff at the college see the PLCs as a key strategy for enabling each student to achieve their potential and student retention and achievement has increased across the college with staff clear that the PLC model is a significant contributory factor to the college's current levels of success. The college has a strong learner engagement strategy and feedback from students using the PLC service is routinely gathered. Engagement with PLCs is a key element of programme monitoring and reporting and routinely features in annual quality and enhancement plans produced for all HE programmes within the institution.

Supporting academics as change agents

At national level, stakeholders recognise the importance of supporting staff to become agents of change in the curriculum, conceived in the wide sense of involving not just what is taught but general learning, teaching and assessment practices. National resources on supporting inclusion are available e.g. in the form of HEA videos showing how to build inclusivity into the classroom, subject guides to inclusive curricula and commissioned reports, as well as ECU resources on unconscious bias.

Furthermore, there are also national-level networking and knowledge exchange opportunities in this field. For example, the ECU and the HEA in April 2015 hosted their second annual joint conference entitled 'Developing Diversity Competence'. The list of speakers, workshop facilitators and delegates encompassed senior managers, academics with a philosophical interest in questions about voice and curricula, academics in staff development roles seeking to embed diversity in the teaching on HEA accredited programmes, academics from across disciplines with an interest and commitment in the topic and NUS representatives. The Society for Research into Higher Education also recently (March 2015) hosted a workshop on 'Researching and Evaluating Widening Participation – Learning, teaching and curriculum in higher education' as part of their Access and Widening Participation Network.

There are also institution and academic-led practical resources and initiatives. The Open University hosts a bi-annual conference on inclusive curricula and widening participation, the Pedagogic Research Institute and Observatory at the University of Plymouth (PedRIO) launched their applied

resource for inclusion for academics in April 2015, and there are academic-led initiatives (Richards, 2012) and a range of publications in this field (e.g. Burke and Crozier, 2012; University College London, 2014; Mountford-Zimdars, 2015).

Finally, at international level, the Global Access to Post-secondary Education (GAPS) initiative is creating a global alliance of the committed to enhance student support at the stage of access and within higher education[15] and the universal design for learning website, hosted in the US, offers practical information and ideas.[16]

These initiatives show the increasing interest from individual academics as well as sector and international organisations to supporting inclusive curricula with many initiatives taking the form of staff-student partnerships in raising awareness and facilitating and enacting change.

Areas for development

Whist there is debate around institutions addressing the differential outcomes agenda as separate from, or as an integral part of, addressing the needs of an increasingly diverse student body, a common theme is the importance of principles of inclusive curriculum design (see Hockings, 2010 for a review of the research literature). There seems to be agreement that the development of cross-institution, inclusive teaching and learning policies and practices designed to help all students to achieve, irrespective of background or ethnicity, is an important underpinning for a whole-system culture of success. Further sharing of resources and practices to support academics (rather than 'reinventing the wheel') was identified as an area for development. Useful practices are being generated at institutional level and by the sector bodies (for example, The Race Equality Toolkit published by Universities Scotland focuses on learning and teaching issues for racially diverse institutions).

CASE STUDY EXAMPLE 5: SUPPORTING ACADEMICS AS CHANGE AGENTS

The University of Derby's Student Attainment Project which addresses differences in the degree attainment of BME students and students from lower socio-economic groups has concentrated on the development of tools and resources that academics can adapt and apply to their teaching contexts alongside new approaches to student communications and transition pedagogies.[17]

Having rich data on the BME attainment gap at course and module level focused attention on the need to develop interventions that could narrow inequalities in attainment between student groups. The starting point of the approach at Derby was to collect existing examples of practices and practical tools that can be applied within teaching and learning. The project draws on research and experiences from across the sector concerning disparities in attainment, including consultation with other universities. The methodology is based on the view that the most successful initiatives work incrementally and need to encompass a range of different interventions, each of which targets a particular hurdle for some students.

The learning and teaching interventions are collated into an 'easy to digest' format which is widely communicated across the institution via the staff intranet, internal events, and as part of the annual course review process. The current suite of materials is in the form of 'recipe cards' designed as a resource pack for tutors to use with students. It is a 'pick and mix' selection of activities, with 'recipes' currently on digital literacy; assignment checklists; inclusive pedagogy; information literacy; a guide for students on plagiarism; professional behaviour in the classroom; professional behaviour for placement students; study skills; tips for academic writing; tips for providing feedback;

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[15] http://www.gaps-education.org/
[16] http://www.udlcenter.org/
[17] https://www.uodpress.wordpress.com

unconscious bias; understanding students; and activity for understanding assignments. Academics can download and adapt these interventions to suit their own course and for their students.

The range of initiatives to address under-performance in the Student Attainment Project is designed to benefit all students, with the expectation that some will benefit more (especially BME students and those students who may be first in their family to enter HE). The approach seeks to avoid the marginalisation of particular student groups. This commitment to inclusivity helps to ensure that in addressing the attainment gap, negative expectations about performance that may reinforce disadvantage are avoided. The 'Fit to Submit: Assignment checklist' resource has proved most popular, and is readily transferrable between subjects. The benefits are in giving academic staff open access to some practical tools that can be adapted and used easily.

The programme of work to collate and develop the good practices is led on a part-time basis by a project officer within the student experience team, which means that the institution has to divert relatively small internal resources into the project, but which creates some concerns about sustainability, at least until the ethos of the approach becomes fully embedded in the institution.

Overall, the share of BME (including international) students who achieve a First or Upper Second qualification has increased by 20 percentage points (from 32% in 2010-11 to 52% in 2013-14). The gap between BME and non-BME students has reduced by more than ten percentage points (from 25.8% in 2010-11 to 14.4% in 2013-14). However, it is not entirely clear the extent to which changing practices in the institution as a result of the Student Attainment Project has played a part in this. It was originally intended that the effectiveness of different resources would be tested systematically on a case by case basis, however it has proved difficult to evaluate in this way in practice. Word of mouth evidence suggests that academics are recording good success: for example, one academic reported a marked improvement in the average grades achieved (and much reduced numbers of referrals) as a result of introducing clear guidance on what is required in assignments.

4.3.2 Improving relationships

The recommendations arising from the TLRP and the 'What Works?' programmes highlight the importance of good relationships and meaningful interactions between staff and students (TLRP, no date, Thomas, 2012a). What Works? in particular, stresses the importance of building early and good social relationships with other students and staff (Thomas, 2012a). The DiSA project similarly notes that 'quality relationships are central to alleviating the attainment gap' and concluded that 'students appreciate teachers who manifestly treat them as individuals rather than anonymous members of a group' (Cousin and Cureton, 2012, pp.14-15).

Understanding of factors that help students stay and succeed in HE can help to inform interventions that prevent future students leaving or under-achieving. For example, Murphy (2009) drew on quantitative and qualitative data to identify characteristics specific to the institution and to individual students that promote (as bridges) progression and achievement, and explores the dualistic role of the social relationship between the institution and the individual in enabling academic achievement (in this example, strategies contributing to 'success' include being a 'fish in water' (i.e. academic and social integration; 'knowing the game'); time, focus and persistence; and having meaningful goals and an imagined future).

Support for learning

BME students who achieved good degrees at the two universities covered in the DiSA project suggested that some of this success was due to having an 'interlocutor' (usually a lecturer) 'who helped them negotiate some of the new concepts that they encountered' (Cousin and Cureton, 2012, p.17). Support from parents and teachers also figure prominently in Byfield's (2008) account

of key factor in the success of black male students; whilst for Sewell (2009) caring and reliable support crucially underpins pedagogical strategies education that stimulates and challenges young black men. More generally, the creation of 'more supportive college environments' is emphasised in a recent US study of gaps in college grades and graduation outcomes (Keels, 2013).

Staff-student relationships

The importance of staff-student relationships and the positive impact of meaningful interactions feature prominently in The What Works? project findings (Thomas, 2012a). Field and Morgan-Klein's Scottish study similarly notes that 'relationships with staff were highly significant in students' narratives', (p.186) providing both practical support and symbolic value and fostering not just intellectual development but also a sense of belonging in the imagined community of HE. These findings echo Clegg and Rowland's (2010) study of third-year UK social science students in endorsing the importance of 'kind' relationships (based in the affective domain) in encouraging persistence and resilience; and Frumkin and Koutsoubou's (2013) study of BME FE students which found that teaching staff who are knowledgeable about the student's culture increase feelings of inclusion.

Earlier work on the experience and outcomes of disabled students in HE similarly noted the importance of developing effective relationships with academic and support staff (Fuller, 2008). BME students who achieved good degrees interviewed at the two DiSA project universities suggested that some of this success was due to having an 'interlocutor' (usually a lecturer) 'who helped them negotiate some of the new concepts that they encountered' (Cousin and Cureton, 2012, p.17). Meanwhile a Dutch study (Meeuwisse *et al.*, 2010) noted that ethnic minority students appeared to feel at home in their educational programme if they had a good relationship with their teachers and fellow students. However, this sense of belonging did not translate into positive academic outcomes.

Areas for development

Given the centrality of teaching and learning relationships in many of the research findings, it is no surprise that staff development and continuing professional development (CPD), for example in relation to diversity awareness, relationship building and proactive personal tutoring, figure prominently in related recommendations (eg, Singh, 2011; Berry and Loke, 2011; Thomas, 2012a; Stevenson, 2012a). 'Cultural proficiency' for staff is at the heart of Johnson *et al.*'s (2013) recommendations for Nursing schools. Burke *et al.* (2013) argue that it is imperative to provide more resources and support to lecturers in understanding the ways in which pedagogical relations are profoundly shaped by inequalities of gender, race and class.

The overarching need appears to be for staff development initiatives on diversity to address issues of unconscious bias. There may also be other aspects of teaching and learning practice that may help to support between relationships amongst students and academics. For example, the issue of how to manage 'classroom dynamics' came up in the interviews with academic staff (i.e. how to achieve better interactions between student groups where there is a tendency towards working with socially similar students and lack of mixing between students in some institutions).

4.3.3 Psycho-social processes

A key part of the 'post racial' approach to address differential outcomes (in this case for minority ethnic background students) is to avoid the damaging psychological effects that can appear from stereotyping, particularly the negative effects on students' self-confidence which could transfer if HE staff hold negative views about students' innate ability to achieve. Following the lead of the schools

sector, tutor attitudes and expectations have started to feature more prominently as a possible area for attention for HE (Dhanda, 2010; Stevenson, 2012a). Issues of expectations and intellectual challenge, in relation to BME students in particular, have been highlighted in a number of recommendations emanating from research overviews (Berry and Loke, 2011; Singh 2011). They have been the subject of recent research and staff development activity in the Open University (Sanders and Rose-Adams, 2014), leading to the creation of a staff development programme that emphasises the importance of positive messages and micro-affirmations. The DiSA project also emphasised the importance of communicating high expectations and concluded that stretching students intellectually influences aspiration and engagement positively (Cousin and Cureton, 2012, p.14).

One BME academic was unequivocal about the importance of staff expectations on students' self-confidence in their own capacities, which he saw as of fundamental importance.

> *'If there is a silver bullet – it's confidence. Cultural stereotype suggests Indians are intellectual and Pakistanis and Bangladeshi students are not. Cultural and national stereotypes have a big impact on performance…. With students you must never make them feel that their cultural or racial identity puts a limit on their potential. Post-racial is about trying to avoid the damaging psychological effects of cultural stereotypes.' [IR1-Int3]*

The potential impact of building students' self-belief and aspiration on their subsequent performance in achieving degrees was the basis for some of the approaches taken as part of the HEA/ECU summit programme (Berry and Loke, 2011). The significance of communicating positive expectations was confirmed in one academic's focus group discussion with students who suggested that the university display inspirational examples of success in the discipline to ensure that diversity is associated with achievement and success. This person identified barriers to implementing action on this due to time and resource constraints. However, another example was found of an academic securing external funding for a student-led project to develop these types of resources to showcase diversity.

> *'…should display photographs of inspirational BME people in the profession or the discipline across the corridors. Not just BME, actually but maybe women as well, disabled people, just have that positive reinforcement walking down the corridor, you see these sort of things. Just photographs and a little blurb about what they've done, which I thought would be a great idea, and it means getting in touch with people to get permission for the photographs to be used, write up the blurb, probably get in touch with a designer and there would be all those sorts of things, so yes, again, the will is there, the idea is there, it's just not having the time to do it.' [IR02-Int 8]*

Role models in higher education

Some of the stakeholders consulted for this research described the people teaching in HE as 'the missing bit in policy discussions for the last five years' (SH 12). Whilst no direct causal link between staff diversity and student outcomes is suggested in the wider literature, a number of studies have recommended the use of academic staff as role models and mentors (HEA/ECU, 2008; Dhanda, 2010; NUS, 2011; Frumkin and Koutsoubou, 2013).

It is worth noting that the social class dimension of the HE academic workforce is under-researched. An Australian study (Brook and Mitchell, 2012) suggests that ignoring the voice and experience of first generation academics is a significant omission in any institutional WP 'audit'. Closer to home, research into access to postgraduate study has highlighted the implications for the vitality and

diversity of the UK's academic workforce of perpetuating existing inequalities in this key recruitment area (Moore *et al*., 2013).

Areas for development
The interactions between aspiration and attainment are complex. A Joseph Rowntree Foundation report suggested that aspirations may be higher among low socio-economic groups than is generally believed (Cummings *et al.,* 2012). Whilst the authors did not find any evidence that attitudes (particularly aspirations) influence the level of attainment, the report does assert that a focus on changing behaviour and actions might have an impact on attainment. Indeed, this study highlights the importance of keeping students' aspirations on track over time, and ensuring that they remain realistic. Importantly, there is a need to ensure that relevant information, advice and guidance is delivered at appropriate times, helping learners to understand the pathways to achieving their ambitions. More generally, the DiSA project concludes that more research is needed on the psychological contract that students have within their learning relationships and with the HEI as a whole and how this impacts on engagement, retention, progression and attainment (Cousin and Cureton, 2012, p.7).

4.3.4 Building social and cultural capital
Interventions to build students' contacts and networks were mainly based on the view that these approaches could address some of the social and cultural capital issues that underpin differential outcomes. Some stakeholders described networks interchangeably as social or cultural capital or both and the idea of networks could also be extended to encompass aspects of feeling of belonging in HE and access to information.

Peer mentoring
The What Works? programme is notable for advocating holistic approaches rather than specific interventions. However, peer mentoring (the theme of one of the programme's research strands) continues to figure prominently in the literature and on the ground in HEIs. Peer mentoring and other peer support schemes frequently feature in universities' WP strategies (Action on Access, 2011), and Clark and Andrews (2011) identified 340 mentoring programmes in operation across 159 UK HEIs in 2010. Although not endorsed explicitly, mentoring schemes are highlighted in some of the case studies that the recently published National strategy for access and student success in higher education (BIS, 2014) used to illustrate current retention and success activities.

Different forms of mentoring and the use of role models are also noted as a 'common strategy for improving BME attainment and success' across the sector (Singh, 2011, citing Dhanda, 2010 and NUS, 2011). Staff interviewed in advance of the BME degree attainment learning and teaching summit were in favour of 'targeted peer mentoring schemes' (Stevenson, 2012a, p.12). Also there is a largely discrete literature about mentoring for personal and professional development and progress to employment (often drawing on alumni and employer links).

Family and friends
Recommendations and strategies relating to 'external' influencers on student attainment and progression are rare. However, wider acknowledgement of students' 'other lives' and the development of a lifecourse perspective may require HEIs to engage with individuals, families and communities in new and different ways in order to be better placed to support their students and enable them to succeed. Byfield's UK/USA study (2008) noted the impact of engaging parents in the

educational experience and developing links between universities and the wider communities, including the church (see also, Singh, 2011). It is notable that one of the practical outputs of the DiSA project was the creation of a family website on supporting students (Cousin and Cureton, 2012).

Networks

Many stakeholders described how 'networks and access to information are absolutely critical – if you don't have social and cultural networks, that is a barrier' (SH 6). Several respondents noted how they considered it key that networks were 'meaningful' to participants, such that can be achieved through small, intense – and often resource-intensive – interactions (SH 3, SH 4, SH 15).

Providing networking opportunities and exposure was described as being about 'breaking down barriers… and perception' (SH 3) of particular universities (SH 3) or professions (SH 16). There was increasing recognition that pre-employment or pre-university networking or mentoring opportunities might require 'some level of continuity' into university or employment respectively as WP students, for example, might 'not have the same level of cultural capital to cope with university' as other students (SH 3, see also SH 16).

Employer interventions

Employer interventions took two key forms: adding networks, social and cultural capital and information, and removing information. Through shadowing, mentoring, internships, and mini-internships, employers can provide undergraduate and school students who may otherwise not know anyone in certain employment with knowledge about opportunities and a taste for the actual employment opportunity students might consider. Several private and public sector organisations are currently exploring the use of contextual data in graduate recruitment. This approach entails adding more information about potential applicants and a plug-in is in development that employers can link to their application data bases. The second approach might appear to do the opposite: information is removed to prevent unconscious bias and selectors potentially selecting in their own image. Potential future employees are given a chance to emphasise the characteristics, skills and experience they wish. Employers might use adding and removing information approaches simultaneously.

One stakeholder was working towards enhancing outward mobility (study abroad) opportunities specifically for WP students (SH 6). Another stakeholder was keen to support a culture shift towards paid employment at universities for students to enhance their skills as well as their sense of belonging to the institution (SH 3).

CASE STUDY EXAMPLE 6: EMPLOYER RECRUITMENT PRACTICES (from stakeholder interviews)

This oversubscribed employer's policies, which aimed at 'looking for the best' and avoiding 'missing out on those with potential', involved both adding and removing information.

Extra information was given through social media channels, including providing more information about how to apply for opportunities. Existing employees were also matched with potential applicants with the aim of providing more information about the employer. Information was also increasingly added at the application stage. Here, the employer was exploring the use of contextual data for their graduate recruitment scheme applicants. In the past, such information had included use of the ACORN geodemographic classification, and Educational Maintenance Allowance (EMA) data (when it still existed), but the shift was to using more valid and relevant data such as household income. This employer wished that there was an easy way not only to contextualise attainment in secondary education but also attainment at university as their key objective of adding information was finding those who had done particularly well in the context of opportunities they had been

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given. Adding information helped with this endeavour for the shortlisting process.

However, among shortlisted applicants, removing of information occurred at the interview stage. Here, selectors were not given the applicants' CV to avoid them making assumptions about the university applicants were attending – although applicants were still able to mention this in their interviews. 'Blind selection' has previously been shown to be effective in increasing the representation of women in conservatoires (although the benefits of blind section are contested). This employer also had a scheme where interested students could submit an essay, and based on this essay alone they could achieve a place on the graduate recruitment programme. This approach allowed a greater diversity of skills and talents to be represented among new recruits.

Evaluative research of the CV blind interviewing process suggested that it had led to a two-fold increase in the number of HEIs from which new recruits for the graduate entry scheme were drawn. In several years, it will be possible to tell how well different recruits fare within the organisation they have joined.

On the HEI side, the most frequent intervention adopted to promote students' employment outcomes was mentoring. At one HEI [IR06-Int 1 and Int 4] this took the form of targeted programmes aimed at BME students who were paired with doctoral candidates. As was typical of many mentoring schemes, institutions anticipated that the benefits to students would accrue in relation to attainment as well as further study and employment. One scheme at the same institution included networking events and mentoring with alumni.

Another university was investing year-on-year in two programmes which placed students with prospective employers and paid a minimum wage for a 12-week placement. This was targeted particularly at students working in highly competitive fields where unpaid internships were the norm [IR07-02] and where students were highly unlikely to be able to afford to undertake them.

Areas for development

The efficacy of mentoring as an intervention to address differential student outcomes is an area which merits further investigation. Given the ubiquity of peer mentoring schemes in HE and their relative longevity, it is surprising that few, if any, large-scale evaluations of their efficacy and impact have been conducted in the UK. The evidence gathered by the Peer Mentoring Works! project is impressive but only suggestive (Clark and Andrews, 2011). As the final report acknowledges the low attrition rates of the case study universities 'cannot be attributed solely to the impact of peer mentoring, as there are many other issues which impact on the student experience' (p.82). This conclusion also highlights the fact that, to date, peer mentoring in HE is primarily seen as a strategy to enhance retention and prevent attrition rather than an intervention to boost attainment. Mentoring schemes are hard to manage and sustain in practice because they require significant resources (sometimes relying on external sources of funding which may be time constrained). Also mentoring tends to be underpinned by a targeted approach that risks problematising students.

4.4 International Interventions

The interventions described in this section are drawn from the international contributors to this report.

4.4.1 National level

Australia

The National Centre for Student Equity in Higher Education was established at the University of South Australia in 2008, moving to Curtin University in 2013. The Centre is funded directly by the Federal Government and conducts research, identifies innovative approaches to equity and encourages their uptake, and offers project funding 'in order to improve higher education participation and success for marginalised and disadvantaged people'.[18] NCSEHE has compiled a compendium of 39 short case studies that include case studies of 'support once the students commence, improving the retention and completion rates of those students' (NCSEHE p. 3). The case studies include performance measures and give a sense of the wide range of activities being undertaken across Australia.

The Australian Higher Education Participation and Partnerships Programme (HEPPP) provides funding to Australian universities to 'improve access to undergraduate courses for people from low SES backgrounds, as well as improving the retention and completion rates of those students.' The program does this by providing funds to universities on the basis of the socio-economic make-up of their student body, by funding partnerships between universities and schools and the Vocational Education and training (VET) (further education) sector, and through individual projects which address national objectives. Illustrative of the cross-cutting nature of the issue in Australia, in 2013, '$18.1 million of HEPPP Partnerships funding was allocated to nine priority projects of national significance which meet HEPPP objectives and are directed to recommendations in the *Review of Higher Education Access and Outcomes for Aboriginal and Torres Strait Island People* (Australian Government 2013).*'

The Group of 8 research-intensive universities commissioned a 2011 report entitled *Selection and Participation in Higher Education* in which aimed to bring to the attention of more selective universities the issues involved in selection and admission at a time when they are seeking to foster diversity of participation and student success. Quite unusually, this report explicitly addresses the issue of access to postgraduate degrees (Palmer *et al.* 2011)'

Germany

Germany has a key initiative called 'Quality Pact for Teaching' (*Qualitätspakt Lehre*) funded by the BMBF[19] funded with two billion euros between 2011 and 2020. The project data base shows a mix of projects by individual HEIs and collaborations, some are 'aimed either implicitly or explicitly at improving student retention figures' or target 'specific student bodies (in particular international students, or first-years)'. The projects addressed under the scheme are diverse and include 'further qualification of teaching staff, improvement of student advice and introduction of teaching methods…. [One institution] established a Diversity Charter and developed a rich source of

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[18] https://www.ncsehe.edu.au/about/

[19] For English information on the federally-funded 'Quality Pact for Teaching' see http://www.bmbf.de/de/15375.php and http://www.qualitaetspakt-lehre.de/en/index.php. Accessed 20.12.2014

information on diversity. Evaluation of these programmes is a funding requirement but 'whether the projects within the pact actually lead to HE improvement, in particular with regard to improving student retention or attainment, remains open until further analysis has been carried out'. The evaluation techniques used include many of the usual qualitative and quantitative methods.

Germany also has an initiative started in the third sector to help schoolchildren from non-academic backgrounds who were thinking about entering HE. Government funding was released in 2009 to support the website,[20] and it now supports 70 centres throughout the country and employs 5,000 voluntary mentors who act as guides to this particular group of incoming students.

Denmark
Denmark has seen a national level working group report on educational mobility in HE and a task force on 'inheritance in access to HE'. There are no national level affirmative action programmes. However, some competitive courses have reserved a quota for applicants not having the upper secondary grade point average needed to gain entry, a policy targeted at those first in family to go into HE. This has traditionally been seen as an access way privileging disadvantaged students, but its effects remain modest to non-existing (Thomsen, 2015). A very recent initiative requires universities to sign a mission contract with the ministry of HE stating how to address 'the low attendance rate of disadvantaged children'. Findings from this initiative are not yet known.

United States
In the USA, 'one example at a national level would be the use of affirmative action which allows us to treat various groups differently in an effort to treat them fairly and in order to provide them with equal opportunities. Universities in the USA are much more proactive about ensuring academic staff represent their student population. There is great effort put into ensuring adequate recruitment and retention of academic staff from various backgrounds. Universities openly look to hire women and minorities which is very important for our students. Giving students role models of individuals from backgrounds that are the same as theirs is critical, particularly in an age where certain groups within society face numerous stereotypes that are reinforced by the internet, television and gaming.'

4.4.2 International institutional level interventions
One intervention at the institutional level is to have entire institutions building 'their brand around creating programmes that are designed for mature, part-time students'. An example here is the University of Southern New Hampshire whereas 'Arizona State University has been written about extensively for its use of adaptive learning technology. Recently, it was in the news for offering Starbucks employees free on-line education'.

Within institutions, initiatives often take the form of structured support. For example, in the US: 'there are staff deployed within universities with specialist roles to help key groups along with special programmes' regarding attainment and achievement. Furthermore, 'there are early warning systems, counselling services, tutoring services, peer to peer mentoring, learning centres, summer bridging programmes, pre-sessional programmes, compulsory remedial programmes, training academic advisers, common first year seminars, and student engagement that focuses on the 'whole' student.' Australian Universities 'have student equity officers in place and many also have equity scholarships. Many universities have staff dedicated to enhancing student retention, and all have staff engaged in supporting students through their programs of study'. Funding for those

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[20] www.arbeiterkind.de

initiatives came top-down from the HEPPP. HEPPP funding also supports individual initiatives at institutions.

Other US interventions are IT based – 'There are also personal learning plans and platforms for students to track their activities in order to develop a portfolio based approach. However, the real breakthroughs will be in tools that help students identify and connect with mentors, global credentials and terms on the web that will help people find jobs worldwide. These platforms will be outgrowths of many of the platforms that now exist in institutional learning communities, but will connect students to companies and facilitate job searches.'

Further IT solutions in the US include: text alerts to students, a software sending Facebook messages to students who do not attend, modelling software predicting drop-out and inbuilt analytics in Virtual Learning Environment.

Universities also use 'coaching companies and other consultancy groups to enhance retention and progression. Most of this work is done through private sector companies in the USA'.

There are also academic-led teaching and learning initiatives in the US where 'there is an appetite to change the way academics engage students in HE away from the historical teaching model of content delivery to one much more focused on student-centred pedagogy…. There are universities that have special first year seminars that are less about content and more about matriculating the student into the university community through student centred techniques in the lectures and seminar discussions. There is a strong movement around ensuring that teaching is given its critical space. What is interesting in the US versus the UK is that you see this very much driven by the academics themselves and not as much by managers or professional staff. Many of the best universities in the USA are now putting large sums of money into encouraging their academic staff to proffer teaching innovations. Recently, Harvard University announced a $40 million scheme for academics to apply for funding for teaching and learning projects. There is a visible shift in the USA away from the silo thinking around disciplines to a much more joined up interdisciplinary thinking around teaching effectiveness and student success'.

Germany has 'subject student advisors (*Fachstudienberater*) and general student advisors' to assist students in their academic progression. This is not targeted support but a service open to all students. There are however, women equity officers (*Frauenbeauftragte*) in place throughout HEIs to support females in HE, both at departmental and university level. There is now some understanding that that gender patterns in participation favour women but there is no current strategic review of those positions. In addition, there are student services addressing 'psychological needs, student advice, disability and/or chronic illness, child support, and international offices.' Some universities run Teaching Days which highlight best teaching practice and this can include inclusive teaching.

Danish universities have started doing something akin to the more established outreach activities in the English speaking world 'bridge-building events targeting the progression from upper secondary to HE, some may experiment with mentors'. However, 'generally, interventions are few and rare… this has not been seen as necessary in a Scandinavian welfare regime, with high redistribution, no tuition fees, and generous universal government grants'. There was one example of the University of Aarhus running an initiative to decrease drop-out rates by improving the social and academic integration at their programmes. This intervention used a universal rather than targeted approach and was aimed and succeeded at decreasing overall drop-out rates.

4.5 Emerging conclusions

- Institutions favour universal approaches to addressing the differential progression agenda, these often seem more palatable to a range of interested parties than targeted interventions.
- Approaches to addressing differential outcomes need to be based on the core involvement of staff and students.
- Piecemeal approaches that do not sustain over time are a key issue and there needs to be shift towards 'whole-institution' frameworks of intervention that support and reward innovations in practice.
- Approaches that have been identified as offering some benefits to help to improve outcomes for particular student groups have often been situated at the level of individual programmes or courses. These should be seen as offering promising directions of travel but should not be seen as 'silver bullets'. Whole institution approaches which combine a diversity of different 'bottom-up' interventions are likely to have more impact than one individual approach or policy.
- Key features of intervention approaches are that they are designed to reduce gaps in student outcomes through making improvements in the students' experience of HE learning, boosting students' engagement in learning, and the overall quality of the HE experience, and raising students' confidence and resilience levels.
- The aim of providing inclusive HE provision seems to be fundamental to addressing the outcomes gaps.
- Some initiatives can be undertaken without significant financial investment but they rely on committed staff and students. Other initiatives are resource-intensive, and there is some evidence here that the most resource-intensive interventions (summer school, one-to-one mentoring) are particularly effective. There is mixed evidence on removing information. Blind assessment has not been found to reduce attainment gaps. However techniques such as blind recruitment (e.g. with regards to university attended or in auditions) have been shown to increase diversity of successful outcomes.

5 Evaluation of interventions: limitations and possibilities

5.1 Introduction

This section reviews limitations in the current evaluation of differential student outcomes and associated interventions identified during the research, and makes some suggestions for the types of research which might be appropriate, in particular in relation to the development of any future pilot activities and their subsequent evaluation.

Stakeholders agreed that the sector 'needs evidence to underpin policy developments' (SH 12) and that the evidence should indicate 'how to support young people using the best research available' (SH 3) and inform guidance and policy development in the sector (SH 11, SH 14). Evidence and 'understanding what makes a difference' was also cited as the foundation for 'meeting the public sector equality duty' (SH 16). The lack of evidence on the role of specific approaches to support students is great concern and also potentially costly. One stakeholder noted 'institutions spend 56 per cent of their OFFA money on financial support for students, however, the effects are under-investigated and there is a question around how this funding is properly linked to student progression and how this funding is used to engage with students more effectively' (SH 11).

Assessing the impact of innovations in practices on students, and the outcomes they achieve, is a key consideration. At the same time, given that the most successful approaches are likely to be those that are embedded and achieve cultural change, the impact of approaches on the institution and the staff are also a key focus for any evaluation of success. In the short term success may be based on the capacity of institutions to adopt more inclusive curriculum practice.

5.2 Current evaluation practice

A key conclusion of the research is that relatively few of the interventions that have been initiated have been evaluated systematically. Many institutions have concentrated their resources in an exploratory phase of confirming the existence of differential outcomes within their own context, and then in understanding the causes of differential outcomes. Consequently, interventions are recent or just about to be initiated. So in the main the impact in terms of students' outcomes has yet to be seen.

Nevertheless, institutions do aspire to measure their progress in terms of reducing differential outcomes. There is a challenge in making causal links between particular initiatives and trends in students' outcomes. In the meantime, institutions are taking note of observable impact such as: increased intrinsic motivation of students, increased attendance, and an increase in the institutional capacity to discuss sensitive issues of equality and discrimination.

Moreover, the possibilities for evaluation, in relation to the initiatives uncovered by this research to address differential outcomes, appear limited: not least because of the mismatch between the longitudinal nature of the evaluation required and the generally short-term focus of (often time-limited funded) initiatives. In many institutions the available data are cross-sectional and they are

awaiting a longitudinal element to arrive at evaluative conclusions – 'it will still take time to measure impact' (SH 15).

Even without the timescales involved there are difficulties in attributing causality in the context of single institution or single activity case-studies which can make few claims to generalisation or prediction. Brock's (2010) comment in relation to the USA that 'there is very little research that demonstrates the efficacy of most higher education interventions' (p.126) applies equally to the UK context. The sheer number of interventions, allied to institutional and staff preferences for universal opt-out type schemes which avoid the 'problematising' dangers of targeting (Moore *et al*. 2013, p.59; Stevenson 2012a), mean that the precise impact on different groups is often difficult to measure. The comparative benefits of different activities are often hard to assess: some studies show the results of different initiatives in parallel but there do not appear to be attempts to compare across different initiatives in terms of relative effectiveness. For example, different measures could be perceived as having equal results in different circumstances; Glassey *et al*. (2012) report on two strands of activity: the first during the induction process in one academic school, and secondly the formation of academic teams who worked together throughout the year in another academic school. The results of the evaluation of the two initiatives show they both led to an increased number of students progressing to Year 2 in the two intervention years.

Much of the existing extensive and robust research on retention and success has had a strong focus on retention (or persistence) and on-programme success rather than attainment and progression outcomes. Historically, the main emphasis of research activity has been on the early part of the student life cycle. For example the 'research deficit' (Wales, 2013) in relation to progression to postgraduate education has only recently begun to be addressed and there is relatively little evidence about strategies that work.

Even when useful data – usually quantitative – is available for analysis, such data might not be in the required format or collated to capture information on e.g. a range of programmes or institutions providing a particular type of training. One stakeholder remarked how, as an umbrella organisation, they 'don't really have data on different progression, this information rests with institutions, they access standard data sets through HEFCE and HESA' (SH 12). Another umbrella organisation had recently conducted a survey to find out whether their member institutions had information available to facilitate potential future data analysis (SH 13). This particular survey showed that 20% of member institutions had some information on social background, receipt of Free School Meals (FSM), history of HE and the school individuals went to, and there was some thinking about how this information might be used in the future. Another stakeholder was also in the process of collating existing data from members with the intention to then commission analysis of this data (SH 16).

Operationalising this aim of drawing on good and useful evidence faces a range of challenges as discussed in Box 7. This highlights how the existence of data does not equal the analysis and use of such data.

> Box 7: Weaknesses in evidence base from stakeholders' perspective
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> **Availability of data on factors**
>
> Evidence might not cover all the factors and questions one would wish to include in building a sophisticated statistical model or might not 'measure what matters' (SH 14). An example of limitations to data analysis was shared with this employer representative who had examined 'differences in attainment in postgraduate [professional] examinations' and had found 'huge differences in attainment in relation to a number of protected characteristics' (SH 16). However, for

example, for the non-white group, the analysis had not yet looked into detail into the composition of the BME group. Thus, the questions her organisation wished to investigate in the future included breaking down the BME group by UK and non-UK nationality. In addition, this stakeholder desired a more granular analysis regarding whether UK BME students were first, second or third generation as this could indicate culture as a potential explanation for the observed differences (SH 16). However, such granular information was not available from standard records and qualitative research was considered as a possible way of deconstructing such more granular aspects.

The concept one wishes to measure is often not directly measurable. Social mobility is an example of a multifaceted phenomenon that stakeholders thought could not be simply measured by asking one question about gender, ethnicity, or history of HE at one moment in time (SH 13). Learning gains ('distance travelled') and student experiences were other multifaceted concepts cited by stakeholders (SH 14).

Opportunities for rigorous research

The rigour and standard of research in differentials in student progressions does not usually reach the 'gold standard' of evidence expected in other fields of enquiry. Thus, 'randomised controlled trials are not available, instead, there are lots of anecdotes, and sometimes not much quantitative research' (SH 3).

The number of observations might be too small to drill down to granular levels and capture nuances in the data. For example, one stakeholder had commissioned work on graduate earnings but found that there were data challenges in drilling down to granular and intersectional aspects of gender and race (SH 6). Another stakeholder noted how 'some protected characteristics are more complex to consider than others' and thus difficult to capture in statistical models (SH 16). An example here was transgender status which affected relatively few people. Another stakeholder noted how their research was trying to 'cut data in a number of ways to cover all protected characteristics as far as possible given the limitation of the data' (SH 14). Data availability often led to a focus on full-time rather than part-time students and there could be little information on different modes of study (SH 14).

The analytical model chosen does not necessarily lead to valid data capture. For example, some statistical models make certain assumptions about the data, such as it being normally or bell-curve distributed, whereas some hypotheses about the data and the students they represent might suggest a different distribution. One stakeholder explained how 'our hypothesis is that there is a bimodal distribution in who goes into [this professional field]' with white, established middle class students on the one hand and, BME students from less advantaged background on the other hand (SH 16).

Resources issues

Costs of data access and analysis. Institutions may simply not 'have the manpower' or specific expertise to analyse data (SH 12) or may not prioritise funding and commissioning detailed work. One respondent noted how a range of information – in this case regarding future graduate employees – was available but how he 'can't really say what difference it makes' and also 'can't think of any [employers] that are measuring this difference' (SH 13). Another respondent noted how they had 'lots of data' and were open to researchers putting in specific requests to analyse this (SH 16). Another stakeholder noted how some analysis initiatives or tools like HEFCE's Higher Education Access Tracker (HEAT) raised the question of 'whether users should be paying for it, there is a question around affordability for smaller users' (SH 12) and also for FE colleges (SH 8) who might find it more difficult to pay for such a service than large HE providers.

Interpretation issues

There were also challenges in interpreting findings once analysis had been undertaken. One

stakeholder reported how his organisation had statistically modelled ethnic differences 'controlling for income, previous history of HE in family and entry scores' but how they had not been able to 'pinpoint causation of ethnic differences' and had therefore concluded that 'systemic, unconscious bias' caused these differences (SH 5). Another example is deciding what factors are considered part of the predictors or part of what is being explained in a model. An example here is that different providers of e.g. a professional qualification have different outcomes for their graduates (SH 16). Providers could be used as part of the modelling of e.g. predicting ethnic differences in attainment or the relationship of ethnicity and concentration in different providers could itself be viewed as requiring explanation and deconstruction.

Ethical issues

Another challenge noted by several stakeholders concerned the ethics of using information. Specifically, if an institution had developed sufficiently sophisticated systems to know which students might perform less well in their degree programmes, what were the ethics of sharing or not sharing this information with students and staff? (SH 14, SH 17)

Use of learner analytics

Learner analytics, which is the process of measuring and reporting data about learners and their contexts for the purposes of optimising learning, is an area of growing interest in HE, primarily driven by the need to improve retention and success, and the learner experience. A recent review undertaken by Jisc suggests that learner analytics is valuable in a range of institutional contexts, especially in relation to understanding the implications of different approaches to teaching and learning for different student cohorts, or for systems to track student performance to assist effective management of staff-student interactions (for example through providing targeted support or feedback). Some institutions are starting to use learning analytics as a way to identify 'at risk' students, although providing all students with better information on their progress is also identified as an important driver (Sclater, 2014).

Improvements to management information systems mean that the potential for contextualising students is becoming increasingly sophisticated given more fine-grained data on student characteristics and the engagement factors underpinning HE achievement. Many institutions see learner analytics as useful for people at every level of the organisation, from individual students and their tutors, to unit heads and senior managers. Sclater (2014) found examples of institutions using data 'dashboards' to track student engagement factors (such as library attendance), as well as other metrics such as assessment, graduation and drop-out rates, and at the level of modules and schools. However, in general the use of learning analytics remains fragmented at the level of departments or projects and is not yet consolidated across institutions, and evaluations of its use are only in the early stages (Sclater, 2014).

Learner analytics tools have been used in the USA for many years, usually including students' profiles, attendance records and performance data. The research referred to in the country report indicates that the more effort the student devotes to learning and the more intensely they engage in their own education, the greater the achievement and satisfaction. Universities in the USA use a number of IT solutions to monitor, alert and engage students about their performance. There are early warning systems and various companies offer analyses or modelling of student success including which instructional approaches work best for which students. There is a market focused on IT solutions for assisting universities in identifying and addressing opportunities for students who

need extra support in succeeding in university.[21] There are also personal learning plans and platforms for students to track their activities in a portfolio. Future applications are also in the pipeline (such as new IT solutions that will be focused on using what has been done around student success to feed into employment and further study, as is already starting to be seen with the release by LinkedIn of the ability to use its database to tell students what is the best place for them to go to university based on the experience of others).

There is also a lot of use of IT solutions in USA for not only interacting with students, but for generating data driven evaluations; however, with the variety of techniques and interventions being used, many questions remain around whether these programmes are working. The challenge is that none of these programmes operate in isolation so narrowing down the cause and effect relationship is difficult. There is also a lack of systemic methodology for tracking programmes across institutions, and lack of longitudinal methodology and tracking. In spite of the large body of literature in the USA, there is a strong need to have more research on this topic particularly in regards to a less quantitative approach that is discourse oriented, cultural based and context based. Recently, with financial pressures in universities and community colleges, there have been calls for more outcome driven and evidence based approaches, and to ensure that students themselves are being engaged in how programmes are being structured.

With the rise of learner analytics, some see a danger that there will be a reductionist approach to making every intervention an IT solution. Traditionally in the USA there was a strong emphasis on getting the student to integrate or assimilate into the college or university environment for maximizing success, which goes against a view that institutions hold the main responsibility for ensuring involvement. More recently there is a big push in general to offer more support services, and commonly there are counselling services, tutoring services, peer to peer mentoring, learning centres, summer bridging programmes, pre-sessional programmes, compulsory remedial programmes, training academic advisers, common first year seminars, and student engagement that focuses on the 'whole' student (and universities with good completion and retention rates are now featuring this fact in their recruitment material and on their websites). Most recently there is an appetite to change the way academics engage students in HE away from the historical teaching model of content delivery to one much more focused on student-centred pedagogy. Funding is now flowing into measures to encourage academic staff to proffer teaching innovations. The general view appears to be that institutions with the best outcomes are those who take on the issue of attainment and progression as part of an overall strategy with strong support from top leadership within the institution.

There is further scope for the use of learner analytics within the differential outcomes agenda, particularly in relation to the evaluation of the impact of different interventions, as well as informing understanding of the factors associated with success, and the identification of students with different needs. Importantly, learner analytics has the potential to bring stakeholders across an HEI together to work together effectively towards a common goal of tackling differential outcomes. Use of student data for these purposes has raised some ethical and data security issues, although most

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[21] Most of these tools are purchased by the institution where the student is studying. They include for example, apps that send text alerts, and systems to send Facebook messages to students who do not attend). There are also universities using coaching companies and other consultancy groups to enhance retention and progression.

institutions report having productive arrangements and have used existing or developed new data use policies to cover the use of learner analytics in conjunction with student associations, underpinned by training for tutors on the use of sensitive and personal information.

CASE STUDY EXAMPLE 7: USE OF LEARNER ANALYTICS

The implications of changes in teaching and learning as a result of new pedagogical choices for seven second year and final year modules within the department of computing at the University of Derby were confirmed through the use of leaner analytics. Most of the learner analytics data was collected during the assessment process. The data was used to evaluate changes in teaching involving a switch away from a didactic approach of delivering facts and answers, towards a Socratic approach of clarifying concepts and questions. Criteria for assessment have an employability focus, and there is a high level formative assessment and feedback. In this model student contact time is mainly used for formative discussion and feedback, and marking is undertaken on a face-to-face basis. Average marks have shown an upward trend, and the deficit between BME and international students has dramatically reduced. The evidence demonstrated significantly improved academic achievement over time by students on these modules, including a large reduction in the BME achievement gap, compared to some other modules at the institution. Levels of student satisfaction also increased. The experience here confirms the value of learner analytics as an important part of academic practice, assisting professional reflection and supporting continuous improvement. There are plans to apply learning analytics to all modules in Computing, including retrospectively to identify patterns, to link with student application data, and to develop predictive analytics tools.

More generally, learner analytics has been used within University of Derby, building on a Jisc project, Student Experience Traffic Lighting (SETL), which began in 2010-11. A list of 29 metrics has been identified for monitoring student engagement which encompasses understanding of factors which are important from the student perspective (including issues such as participation in extra-curricular activities, satisfaction with accommodation, use of university facilities), as well as understanding of factors associated with learning (submission of coursework, receipt and action of feedback, attendance and interaction in tutorials and seminars, grade profiles, performance in formative assessments, access to resources in the virtual learning environment) as well as contextual factors (entry qualifications and background, and outside commitments such as childcare, age profile and part-time/full-time status). University of Derby uses analytics to ensure that its decision making on supporting BME students is evidence-based.

5.3 International evidence on evaluations

The US country report noted that 'There is a real need for more research into what actually works rather than what might appear to work' and quoted Vincent Tinto, 2014 as saying: 'If a programme has a positive impact, does it justify the cost? If there's not positive impact, then why do we do it? How do we judge new programmes? What about those that have been in place for years? And how are we doing – and what can we do better?' Moreover, there is a strong appetite for knowing the value of different interventions and 'no longer is it acceptable to provide anecdotal evidence or case studies; government agencies and boards want cost-benefit analyses, system-wide definitions associated with measurable outcomes.' Embedded evaluation has become an integral requirement of the government distributing funding to intervention activities in institutions or collaborations in the case of Australia and Germany. Many US 'state governments are putting in place funding for HE that is contingent on being able to evidence retention and completion rates.'

However, despite this clear mandate and policy steer regarding the need for robust evaluations, the actual evidence-base lags behind. Some projects, like the German initiatives, are not yet due to produce their final reports so there are no evaluations available yet. The US report also notes that 'there are also lots of projects going on at universities and community colleges, but most are not grounded in any methodology so that it is hard to assess their value and whether they are meeting their outcome'. Specifically, questions are being asked about IT solutions and 'there are many questions around whether these programmes are working'. The Danish report notes how one of the longest-standing initiatives, quotas for first-in-family students 'has never been evaluated in terms of its ability to favour disadvantaged students' and that the few institutional level interventions that exist 'are not systematically evaluated if at all'.

What we seem to have learnt from these international interventions is the following. The Danish report argues that there is comparably lower inequality in Danish and Scandinavian HE, and lends support to the argument that eliminating the direct impact of financial resources goes a long way to alleviating differences in HE. The US report finds that 'the institutions with the best outcomes are those who take on the issue of attainment and progression as part of an overall strategy with strong support from top leadership within the institution'. But the report also notes how 'universities spend a significant amount of resources in the area of student recruitment and retention. However, in spite of all the funds used to retain students along with the various programmes, the value for money is quite low with the impact being measured at only 3%'.

5.4 Evaluation options

Evaluation of the impact of institutional strategies and interventions to tackle differential outcomes is an area which needs attention (including putting in place frameworks for the evaluation of any possible future HEFCE supported interventions). Data and indicators used in evaluation of interventions should be strategically aligned to what HEIs or other stakeholder organisations wish to achieve and measure. There were examples in the fieldwork and stakeholder interviews of data being collected or available but not measuring impact or progress, as well as examples of baseline data not being available or not followed up.

The following practices were identified as good practice in data use for monitoring purposes:

- Alignment of data collection and analysis to a strategic question that can be answered using quantitative data (e.g. what is the difference in degree attainment for different groups of students).
- Use of multiple ways to identify potentially disadvantaged students: this has been suggested as useful to address the complexity of educational disadvantage, however the use of multiple factors and intersectionalities adds complexity.
- Consideration for adding information to a baseline data set: institutions might, for example, use their HESA return or another learner analytics tool to monitor their students. It can be helpful to add external information to such data sets. For example, ACORN or other information can be added to existing administrative institutional data sets where ethically permissible.
- Checking of individual responses for self-declared information: for example, following up on care leavers and applicants has been reported to find some incorrect reporting in good faith. Disability can also be under-reported at the university application stage with several institutions finding that the number of those declaring disabilities increases once firm offers have been

made. Students may also only be diagnosed with a disability such as dyslexia while they are at university.

- Ethical considerations: institutional ethics policies and data handling guidance can help institutions not to inadvertently contravene data protection legislation.

The following practices were identified as good practice in data use for evaluation projects:

- Data collection and analysis should be an integral part of project designs and project planning. Many questions, in particular when evaluating an intervention, require some baseline data and a comparison over time. It can be difficult or even impossible to retrospectively create baseline data for cases where it was not collected at the beginning.
- Data should be relevant to target groups: for targeted interventions, in particular, information on the target group or the target phenomenon an intervention wishes to tackle needs to be included and needs to be valid and relevant.
- Randomised controlled trials are the gold standard for evidence in many disciplines, but they are often not feasible in HE settings. However, thought can be given to comparison groups to gauge the effect of an intervention.
- Sample size: some interventions target a relatively small number of students. Qualitative evaluations might be more valid than attempting quantitative analyses.

5.5 Emerging conclusions

- Lack of rigorous evaluation evidence is a key issue. Relatively few of the interventions that have been initiated have been evaluated systematically.
- Many institutions have concentrated their resources in an exploratory phase of confirming the existence of differential outcomes within their own context, and then in understanding the causes of differential outcomes. Consequently, interventions are recent or just about to be initiated. So in the main the impact in terms of students' outcomes has yet to be seen.
- Time-limited funding of initiatives has limited the possibility for evaluation of some previous interventions.
- The data issues are complex, requiring additional work by HE providers to obtain and analyse the most robust and useful data, and institutions need a policy or process to enable them to have an evidence-based approach towards their student support.
- Frameworks for evaluating interventions are needed, should be an integral part of project designs and project planning. Ideally future frameworks for evaluation should be developed in common to support a degree of comparative analysis of the effectiveness of different types of approaches.
- Institutions are moving from a narrow focus on the impact on interventions on student outcomes indicators to a broader conceptualisation of impact, which would include the impact of interventions on organisational cultures and the attitudes of staff.

6 Conclusions and recommendations

6.1 Introduction

This section summarises our main findings and provides recommendations for addressing differential outcomes among different student groups across the stages of the student life cycle. The recommendations are addressed to the HEFCE, HEIs, staff and students. They will also be of interest to the range of sector bodies that support innovation in HE.

The differential outcomes agenda is of increasing importance to the HE sector bodies, institutions and a range of other stakeholders. Whilst ownership of the agenda rests at the HEI level, all those consulted in this research valued a role in strategic leadership of the agenda by HEFCE and other sector bodies.

6.2 Findings

6.2.1 Context for addressing differential outcomes

- The concentration of students from different groups within a stratified HE system is an enduring source of disadvantage which some groups face. There are also differentials in student outcomes within the same types of institutions. Prior attainment on entry to HE is a main driver of progression into HE, into different types of HE and partially accounts for attainment differences within HEIs. Differences may be narrowed if attainment is boosted earlier in the education system.
- A complex picture emerges with regards to student satisfaction. There are significant differences between ethnic groups regarding advice and support received, assessment, and course content, with ethnic minority students being less satisfied. Students with a declared disability are less satisfied, especially with course organisation and management.
- Patterns of differential progression and attainment are complex and suggest that some disadvantages can be mitigated (for example, receipt of financial support by disabled students is associated with better outcomes than for disabled students without DSA). With regards to differentials in attainment at university by ethnicity, there were examples of institutions being able to close gaps again suggesting that disadvantages can be mitigated.
- Granular-level analysis and intersectional modelling is desirable: the intersectionality of different background characteristics, such as the interaction of the ethnic background sub-category and socio-economic status has been highlighted as a key consideration affecting results for different ethnic groups.
- There are differences within the categories of ethnic background used that that have hitherto received little attention (eg. the outcomes for black African students are not the same as those for Afro-Caribbean students).
- Discipline-specific practices and findings: it is desirable to have more subject- and course-level research to enhance understanding of how patterns of difference are generated.

6.2.2 Causes of differential outcomes

The outcomes that different student groups achieve from participation in HE are underpinned firstly by influences at the macro level, including the structure of the English HE system and the socio-historical and cultural structures such as those of race, ethnicity, culture, gender, and social background embedded in the general environment in which universities, employers and students operate. Second, by influences at the meso level of individual HE providers and related structures which form the social contexts within which student outcomes are created. Third, at the micro level in terms of the interaction of individual students and staff and among students in the HE environment, and the micro-interactions on a day-to-day level.

- Within the levels described, four types of explanatory factors have a role to play, which are
  - Curricular, learning, teaching and assessment practices. There are differences in feelings of entitlement to use services provided by the HEI, differences in abilities to deconstruct the curriculum and assessment.
  - Relationships between staff and students and amongst the student body. Students' sense of 'belonging' emerged as a key cause of differential progression.
  - Differences in social and cultural capital. The hidden curriculum of HE and a lack of social and cultural capital to navigate the system and to network and get external support also matter.
  - Psycho-social and identity factors which might generate limitations to learning and attainment. It matters whether students feel supported and encouraged or feel alienated in their daily interactions within their institutions, courses, and interactions.

With regards to remaining gaps in our knowledge, it has emerged that:

- The intersectionalities of different characteristics and their impact on attainment and progression require further analysis, deconstruction and understanding
- It would be desirable to have more knowledge regarding how differences and their explanations play out at the discipline and subject-level
- There is mixed evidence on removing information to promote more equal outcomes. Blind assessment has not been found to reduce attainment gaps. However techniques such as blind recruitment (e.g. with regards to university attended or in auditions) have been shown to increase the diversity of those recruited.
- There is little research that stands up to the gold standard of research in other disciplines and allows us to disentangle the relative impact of specific interventions.

6.2.3 Approaches and interventions to address differential outcomes

The research identified differences in the approaches taken to tackling differential outcomes for different student groups and across the case study institutions included in the project. The institutions were found to differ regarding the extent to which staff and students across the institution are aware of differences in progression; whether this was regularly monitored and the extent to which it was openly discussed. In relation to approaches to addressing differential outcomes the following conclusions emerged:

- Inclusive approaches: institutions favour universal approaches and, to an extent, interventions to address differential outcomes are part of a wider effort to take account of an increasingly diverse student body and modern conceptualisations of quality HE provision. Success in reducing

differentials has been linked to institutions' capacity to be more inclusive. However, in general inclusive teaching was not usually part of academic reward structures with sometimes limited development opportunities and support for staff to support diverse learners. This is despite there being academic-led as well as national resources available to support inclusive teaching. Supporting academics in inclusive practices in their teaching seems to be fundamental to addressing the outcomes gaps.

- Targeted and universal interventions: there were examples of both targeted and universal interventions in the fieldwork. Targeting was justified where it addressed past inequalities in the distribution of resources or where the interventions sought to address specific individual needs of students. Universal and indirectly targeted interventions were perceived to be more palatable to students and staff in HE.

- Institutional cultures: changing institutional cultures is central to embedding support for action on differential outcomes and this requires an investment from senior managers as well as commitment from staff.

- Involvement of staff and students: approaches to addressing differential outcomes that have involvement of both staff and students seem most successful.

- Whole institution approaches: piecemeal approaches that cannot be sustained over time are a barrier to progress. There needs to be a shift towards sustainable and embedded 'whole institution' frameworks of intervention that support and reward innovations in practice.

- 'Locally' situated action: approaches that have been identified as offering some benefits to help to improve outcomes for particular student groups have often been situated at the level of individual programmes or courses. These should be seen as offering promising directions of travel but not 'silver bullets'. Overall, whole institution approaches which combine a diversity of different 'bottom-up' interventions are likely to have more impact than one individual approach or policy.

- Improving the student experience: key features of the approaches are that they are designed to reduce gaps in student outcomes through making improvements in the students' experience of HE learning, boosting students' engagement in learning, and the overall quality of the HE experience, and raising students' confidence and resilience levels.

- Contextualising students: there is an increasing amount of work ongoing to improve the information that institutions have about their students and also regarding applicants for postgraduate study and employment. Many of these initiatives are in the early stages and are currently developing a longitudinal element.

- There is significant work ongoing with regards to student analytics and information systems about students. The ethical challenges this raises are still being discussed.

In relation to the types of interventions that have been tested the following conclusions emerged:

- Developments in curriculum, learning, teaching and assessment:
  - There are institutional differences regarding the extent to which teaching and learning practices, and, in particular, those practices relating to assessment, are subject to evaluation and review using an inclusion lens and a student partnership approach.
  - Support for academic preparedness and navigating the curriculum is a key area of interest: interventions here included support, e.g. through inductions and personal learning support or peer support and assessment initiatives.

- o Blind evaluations: there is mixed evidence on removing information. Blind assessment has not been found to reduce attainment gaps whereas blind recruitment (e.g. with regards to university attended or in auditions) increases diversity among successful recruits.
- Improving relationships:
  - o The creation of more inclusive and supportive environments is emphasised, especially the importance of supportive peer relations and meaningful interactions between students and staff.
  - o Role models: academics and others as role models and agents for change were often the 'missing piece' in debates. Role models and mentors are perceived as key in supporting attainment and progression. However, there is a lack of empirical evidence in this area.
- Psycho-social processes:
  - o Avoiding the damaging psychological effects that can appear from stereotyping is crucial, particularly the negative effects on students' self-confidence which could transfer if HE staff hold negative views about students' innate ability to achieve.
- Building social and cultural capital:
  - o Interventions to build students' contacts and networks were mainly based on the view that these approaches could address some of the social and cultural capital issues that underpin differential outcomes.
  - o Different forms of mentoring including peer-mentoring were a popular intervention and peer-led deconstruction of assessment and curricula were also used. The evidence base measuring the impact of such interventions is not always conclusive but students often feel that they make a difference.
  - o Recommendations and strategies relating to 'external' influencers (such a parents or families) on student attainment and progression are rare. However, wider acknowledgement of students' 'other lives' and the development of a lifecourse perspective may require HEIs to engage with individuals, families and communities in new and different ways in order to be better placed to support their students and enable them to succeed.
  - o Some employer interventions took the form of building networks, social and cultural capital and information.

6.2.4 Evaluation of interventions

Evaluation of interventions is important to building up the evidence base on 'what works' to address differential student outcomes. In relation to the monitoring and evaluation of interventions to address differential outcomes the following key conclusions emerged:

- Lack of rigorous evaluation: relatively few of the interventions that have been initiated have been evaluated systematically. Many institutions have concentrated their resources in an exploratory phase of confirming the existence of differential outcomes within their own context, and then in understanding the causes of differential outcomes. Consequently, interventions are recent or just about to be initiated. So in the main the impact in terms of students' outcomes has yet to be seen. Time-limited funding of initiatives has limited the possibility for evaluation and, in particular longitudinal evaluation, of some previous interventions.

- Data issues: the data are complex, requiring additional work by HE providers to obtain and analyse the most robust and useful data, and institutions need a policy or process to enable them to have an evidence-based approach towards their student support.
- Frameworks for evaluating interventions are needed: ideally future frameworks for evaluation should be developed in common to support a degree of comparative analysis of the effectiveness of different types of approaches, and should be an integral part of project designs and project planning. Institutions are moving from a narrow focus on the impact of interventions on student outcomes indicators to a broader conceptualisation of impact, which would include the impact of interventions on organisational cultures and the attitudes of staff. Thorough longitudinal evaluations of initiatives are still the exception and a method that many wished to see more of.
- Using learner analytics can support good practice for interventions by providing baseline data and monitoring and alerts when students appear at risk of e.g. dropping out by missing classes. The ethical issues regarding the use of learner analytics are currently being explored.

6.3 Recommendations

The following recommendations for HEFCE, HEIs, staff and students have emerged from the report. They are split into five key areas:

1. Enhancing the evidence base
2. Awareness raising and information sharing
3. Embedding the agenda
4. Staff as change agents
5. Students as change agents

6.3.1 Enhancing the evidence base

At national and international levels, several questions about the causes of differential outcomes remain under-researched. The sector remains 'data hungry' for more detailed information about the progression of some groups whose outcomes have not been mapped in detail. There is also appetite for more research understanding the intersectionality of different student characteristics and their link with progression and attainment outcomes.

Routinely used resources such as HESA returns are now complemented by resources such as the Higher Education Access Tracker (HEAT) which may make it possible to further research the experiences of different sub-sets such as Access students, care leavers, and carers. An impact assessment tool is currently under development. Different data sources and approaches can be combined to create an evidence-base, to monitor progression, and to evaluate initiatives. Some analyses can be more easily undertaken by national bodies (especially HEFCE), others can only be undertaken at institutional level, e.g. because of commercial sensitivity; yet other evaluations need to be at a more finely-grained level of analysis: within disciplines, courses, or modules to be meaningful. However, not all institutions have the resources or expertise to facilitate such analyses or indeed to subscribe to resources such as HEAT.

Recommendations:

Macro level:

- HEFCE should consider further analysis of the progression of some groups whose outcomes have not been mapped in detail, as well as more research to understand the intersectionality of different student characteristics and their link with progression and attainment outcomes.

- HEFCE should consider further work on the outcomes of HE that not only captures economic benefits but also broader individual and societal outcomes including indications of well-being, civic engagement and contributions to the common good. Mixed methods research frameworks should be considered for such work.

- HEFCE should consider facilitating the creation of more evidence in the form of systematic reviews and meta-studies on the impact of particular areas of interventions and disciplinary practices: for example, mentoring, assessment innovations, student partnerships and staff diversity. Reviews should consider quantitative as well as qualitative evidence and create academically robust scholarly reviews and summaries of the literature as well as practitioner-facing outputs such as quick guides or tool-kits of what works. A stronger evidence base would move educational interventions closer to the gold standard of evidence-base used in medical research[22] and would have benefits to HE research beyond the differential progression agenda.

- HEFCE should consider strategic investment into evidence creation and sharing by developing a centrally funded, independent resource. This would greatly enhance the salience, and academic rigour in this field as well as providing a nationally co-ordinated and potentially internationally networked resource. Such a central resource could also have a co-ordination function for other research.

- Consideration should be given to establishing a one stop online location for existing resources and literatures on causality, evidence, and interventions that work. This could be linked to the proposed central resource. This one-stop resource should include tools for the evaluation of initiatives addressing differential progression. A common evaluation framework would be particularly desirable. These tools could facilitate collaborations between subjects in different institutions or other joint evaluations and benefit HEIs without each project having to develop their own framework. Longer-term, such a resource would enhance the comparability of initiatives and therefore the evidence-base for what works within different contexts. HEFCE could provide strategic leadership and funding for the development and use of such a common evaluation resource.

- HEFCE should consider making robust, publicly shared, and accessible evaluation of interventions a key funding requirement for all further work in this area.

- Thought should be given to commissioning further national work, potentially drawing on internationally expertise, on how student analytics can support the sector, HEIs and students in making progress in the differential attainment agenda.

- HEFCE should consider making resources available for discipline-specific inquiry into the dynamics of differential outcomes as well as for the development of curricular and professional development resources that can support curricular innovation at course level, and events that focus attention on diversifying curricula and addressing differentials in attainment, postgraduate study and employment.

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[22] E.g. an equivalent resource to the Cochrane Collaboration (http://uk.cochrane.org/about-us).

Meso level:

- HEIs should consider using the wealth of existing data they have for refining the findings of national research for their context. This can be done by, for example, exploiting unit or module level data, comparing assessment modes, and supplementing the data provided by the Destinations of Leavers from Higher Education Survey (DLHE). Consideration should be given to linking previously unlinked internal data sources and quantitative and qualitative work.
- Institutions should consider differentials in outcome routinely and embed procedural and structural support for monitoring progression and identifying areas for action. Such processes are likely to include Diversity Committees and Equality and Diversity strategies as well as institutional and departmental Learning and Teaching and assessment strategies and meetings, programme reviews and module approval.
- Institutions should consider taking action even if this is on a small scale initially as part of an experimental approach. HEIs should avoid concentrating resources in an exploratory stage, and delaying the implementation and evaluation of interventions. Data collection, management, analysis and evaluation should be cohesively linked.
- Evaluation strategies and impact assessment should be part of the planning of any future initiatives and projects designed to reduce gaps in outcomes at the institutional or sector level.

Micro level:

- Qualitative methodologies, including action research, should be undertaken with a view to deepening understanding of student perspectives and the causal mechanisms that underlie differential outcomes, and in order to generate planning for change in institutional and pedagogic practices. Where HEIs commission micro-projects, evaluation and dissemination should be integral part of such commissioning.
- HEIs should consider engaging in research that identifies the full range of student involvement that currently exists with regards to learning and teaching development and enhancement. Research can involve students and staff and evaluate how student involvement impacts on student outcomes in general as well as mapping the impact on the skills development of the students involved in enhancement activities. This would allow for the sharing of good practice.
- There is a need to develop the evidence base on the effectiveness of mentoring as an intervention given its common adoption and use of resources. There is some suggestion that mentoring might be effective for enhancing the social and cultural capital of mentees and is found rewarding by mentors but more robust evaluation is necessary.

6.3.2 Awareness raising and information sharing

It is important for HEIs to look at relevant insights and evidence from other sectors, and this can be supported through initiatives to further disseminate useful practices that have been shown to have a role in addressing differential outcomes. There are insights to be gained from the school and FE sectors as well as the employment sector. Conversely, there is an appetite among employers and those linking students with employment to learn from initiatives and evaluations within HEIs.

Stakeholders and fieldwork institutions showed considerable interest in this project and expressed a wish to share information and best practice in this field. There are already sharing initiatives that involve employers and HEIs – for example, with regards to the use of contextual data. There are also useful existing sector-wide initiatives for sharing experiences and practice. For example, there is an

established Jisc list for the HE Race Action Group, and April 2015 saw the launch of the WP evaluation network list on Jisc as well as an ECU/HEA conference on developing diversity competency for HE staff.

There is thus a wealth of resources available for supporting work towards reducing progression and attainment gaps and initiatives linking different sectors, however, awareness of available resources and linking activities can be limited.

The present report has identified innovation in HE curricula as a crucial site of change in addressing differential outcomes. However, developments in this area are often localised, piecemeal and isolated. Sharing, dissemination and public exposure might raise the profile and interest in this agenda.

Recommendations:

Macro level:

- Consideration should be given to raising awareness of and promoting use of existing national resources (see 'Further resources' on pages 131-133).
- There should be consideration for supporting a well-advertised one-stop website linking the range of practical resources and tool-kits available in this field. This would greatly help institutions and individuals looking for further information and resources. The resources highlighted in this report could feed into this resource, but it would be key for such a resource to be flexible with regards to staying up to date and allowing users to add resources.
- Consideration should be given to creating new opportunities for a wide range of types of organisations (schools, FE colleges, employers as well as HEIs) to share good practice.

Meso level:

- HEIs should consider raising awareness among senior strategic staff, other staff and students. HEIs should consider supporting and encouraging their academic and professional service staff to participate in national knowledge exchange and networking opportunities in this field (e.g. through the HEA, Society for Research into Higher Education (SRHE), ECU, Jisc lists).
- HEIs should consider enhancing their existing internal networking opportunities and internal celebrations of achievement (e.g. teaching prizes) to strategically enhance the salience of this agenda.
- HEIs should undertake interventions which are contextualised and rooted in their own evidence of the issues facing their student groups.
- HEIs should consider actively supporting staff and encouraging applications to strategically increase the representation of those from under-represented groups to all professional and academic roles and, in particular, senior positions.

6.3.3 Embedding the agenda

The differentials attainment agenda is complex and there are factors potentially influencing differential outcomes that HEIs cannot directly or easily influence, for example, the wider structure of inequalities in society. However, HE providers can influence a range of factors that bring about differential outcomes: such as the HE experiences of their students, the ease with which students can access support, the inclusiveness and relevance of the curriculum and the fairness and transparency of assessment practices. HEIs can influence and embed the differential progression

agenda by working with staff and students to change attitudes and to develop the skills necessary for supporting progress in this area.

Recommendations:

Macro level:

- HEFCE should consider asking HEIs to report on student progression split by student characteristics with institutional progression mapped against expected adjusted benchmarks.
- HEFCE should consider supporting HEIs in transparently and publicly displaying a range of progression statistics for their students broken down by different student groups.
- HEFCE should consider whether developing a Diversity Charter Mark might support the agenda.

Meso level:

- HEIs should consider raising awareness amongst both students and staff to promote a shared ownership of the agenda. Raising awareness in itself can lead to changes in practice that have the potential to reduce differential outcomes.
- HEIs should consider how diversity training can be meaningfully embedded across their institutions and in particularly within disciplinary practices at institutional level and beyond.
- HEIs should consider embedding their commitment to reducing differentials in progression and attainment in their strategic policy frameworks (e.g. as part of their equality and diversity and learning and teaching strategies) and promote and support a shared understanding of this agenda among senior managers, academics and students. In doing so, HEIs should consider encouraging approaches that view staff, students, and managers as partners learning from each other to enhance outcomes for students.
- In addition to senior strategic embedding, HEIs should consider support for 'micro-adjustments' (lots of little things collectively). Such an approach can make a difference, especially if they are tied together in a strategic manner to facilitate embedded culture change. This is likely to generate better outcomes than isolated, small initiatives. Consideration should be given to universal as well as targeted interventions depending on the aim of initiatives.
- HEIs should consider promoting awareness and commitment of this agenda among employers that wish to interact with students. Specifically, HEIs should consider requiring transparent selection and pay-for internship schemes from employers wishing to connect with their students on visits or the virtual world. This is because unless internship schemes are accessible, transparent, and inclusive they can cumulatively further disadvantage already disadvantaged groups.
- HEIs should consider strategically linking the differential progression and WP agendas.

6.3.4 Staff as change agents

Given the importance of staff-student relationships, academics' ownership of the curriculum and academics' roles as personal tutors, as well as professional service staff's interactions with students, HE staff are central to addressing gaps in progression and attainment and fostering feelings of belonging. In enabling staff as change agents, it is crucial not to substitute one deficit model (of students) for another (of staff). The fieldwork and stakeholder interviews highlighted how many members of staff are dedicated to supporting their students but may lack resources and sometimes incentives when student support competes with other demands and expectations.

Recommendations:

Macro level:

- Consideration should be given as to how sector-wide early academic programmes could further embed diversity support, perhaps as part of their re-accreditation of how they meet descriptors V1, V2 and V5 of the UK Professional Standards Framework (HEA, 2011). This could be an opportunity to promote diversity thinking as a central aspect of curricular, learning, teaching and assessment practices. The framework can also be an opportunity for unconscious bias training.
- Consideration should be given to encouraging institutions to implement CPD activities that support the development of diversity competencies among more established staff.

Meso level:

- HEIs should consider broad discussions of curricula taking in not just what is taught but how and for what purpose. The notion of inclusive curricula should encompass learning, teaching and assessment practices.
- HEIs should consider valuing accomplishments in learning and teaching on a par with those in research. Annual reviews and promotion criteria should reflect this effort and celebrate staff who excel in teaching and student support at least on par with research accomplishments.
- HEIs should consider how best to promote active staff involvement in the agenda. Projects should include academic, professional service staff and usually student and be led by different groups of staff. For example, a programme of funded 'mini-projects' in an institution can be a way to increase awareness of and interest in the agenda amongst HE staff.
- HEIs should consider how they share resources and practice and celebrate successes in this field, examples here include staff networks, staff announcements, learning and teaching conferences and awards.

6.3.5 Students as change agents

Students and their formal organisations have the potential to address differential progression at the national, institutional, and micro levels. The nature and extent of student involvement in institutions' efforts to address differential outcomes varies considerably, as do levels of confidence about initiating efforts at all. There is little knowledge and many assumptions about the best ways of engaging students in helping to determine institutional development of approaches to addressing differential outcomes.

Recommendations:

Macro level:

- HEFCE should consider promoting and supporting new opportunities across the sector for students and staff to work in partnership towards meaningful solutions and initiatives which specifically address differential outcomes between student groups (i.e. apart from general consultative and students-as-partners approaches).
- HEFCE should consider encouraging institutions to engage with students, for example through their students' unions, to ensure that students are being voiced effectively in initiatives to make curricula relevant to students' contexts and experiences.

- HEFCE should consider working with the sector in identifying what works in facilitating collaborative relationships between students and their representatives and support sharing best practice in this field.

Meso level:

- HEIs should consider encouraging students as partners to be involved in finding barriers and enablers for inclusive classrooms and student experiences. Institutions can create a climate where students feel safe to address potentially sensitive issues and feel empowered to have a dialogue with others in the institution about their experiences and to challenge practices that they experience as exclusive or perpetuating inequality.
- HEIs should consider funded 'mini-projects' led by students – funded student mini-projects can be a way to increase awareness of and interest in the agenda and empower students as change agents in the process of institutional change.
- HEIs should consider the extent to which they value diversity among their student body and how best to create a climate where students can maintain diverse individual identities.
- HEIs should consider how they recognise the significant roles of family and friends of students in HE and consider opportunities for HEIs to engage with wider networks and communities.
- HEIs should consider how they support peer-support among students and student networks.

Micro level:

- Students, their representative bodies and sabbatical officers should consider using their positions to push for the importance of this agenda in a range of fora at national, institutional and departmental, course or classroom levels.
- Student representatives within institutions and courses should consider seeking information about the monitoring of differential outcomes and raise concerns about differentials in relation to particular groups routinely.
- Student unions should consider supporting representatives through their induction to understand the issues of differential outcomes such that they are able to raise concerns and contribute to discussion among staff and fellow students.
- Individual students should consider leading funded mini-projects themselves or in partnership with institutions.

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Further resources

This section provides an overview of some key resources for sector-level organisations, HEIs, and individuals interested in addressing the differential progression agenda. This list may not be exhaustive. Indeed, one recommendation from this project is to create a meta online resource that would compile all the resources and information available in this field. Such a resource should ideally be flexible for users to contribute additional resources and update existing ones as applicable.

Sector level resources: programme reports and evaluations

Name of resource (Organisation)	Description	Link
What works? Student retention and success change programme (Higher Education Academy and Action on Access)	Change programme focusing on identifying and implementing whole-institutional approaches to improving student retention and success. Currently in second phase (2012-15) funded by the Paul Hamlyn Foundation.	https://www.heacademy.ac.uk/workstreams-research/themes/retention-and-success/what-works-student-retention-and-success-change (Accessed 26.06.2015)
Widening Access, Student Retention and Success resources (Higher Education Academy)	Searchable archive of materials which includes resources developed to support student retention and success.	https://www.heacademy.ac.uk/workstreams-research/themes/retention-and-success/widening-access-programmes-archive (Accessed 26.06.2015)
Guidance on provision for disabled students (HEFCE)	Guidelines on base-level provision for disabled students and support for enhancing provision for disabled students.	http://www.hefce.ac.uk/sas/previous/ied/ (Accessed 26.06.2015)
Race for Equality (NUS)	Report into barriers facing black students in FE and HE, which are affecting satisfaction and attainment.	http://www.nus.org.uk/en/news/race-for-equality/ (Accessed 26.06.2015)
Embedding Equality and Diversity in the Curriculum (EEDC) discipline-specific practitioner guides (Higher Education Academy)	Discipline-specific practitioner guides aiming to support academics in creating learning and teaching experiences and environments that enable all students to reach their potential, to feel included in their learning journeys and to become diversity competent.	https://www.heacademy.ac.uk/node/11103 (Accessed 26.06.2015)
Improving the degree attainment of BME students (Equality Challenge Unit/Higher Education Academy)	'Think piece' to support HEIs with ideas and examples of initiatives on how to support BME students to achieve and better their degree attainment.	http://www.ecu.ac.uk/wp-content/uploads/external/improving-degree-attainment-bme.pdf (Accessed 26.06.2015)
Unconscious bias in colleges and higher education: training pack (Equality	A training toolkit on the impact of unconscious bias in universities and colleges, and how to reduce that impact. Training based on these	http://www.ecu.ac.uk/publications/unconscious-bias-colleges-he-training-pack/ (Accessed 26.06.2015)

Challenge Unit)	materials is aimed to help staff involved in recruitment and selection decisions to identify and mitigate against unconscious bias, however, stakeholders mentioned this as a useful resource for interacting with students as well.	
Learning Analytics report (Jisc)	Review of current state of play in UK HE and FE, including case studies.	http://repository.jisc.ac.uk/5657/1/Learning_analytics_report.pdf (Accessed 26.06.2015)
Universal Design for Learning	This North-American resource provides practical guidance and support for making HE classrooms more inclusive and accessible.	http://www.udlcenter.org/ (Accessed 26.06.2015)
Exploring the retention and attainment of black and minority ethic (BME) students on Social Policy pathways in higher education (Higher Education Academy)	Explores the problem of retention and attainment of BME students on Social Policy programmes in the UK.	https://www.heacademy.ac.uk/resources/detail/disciplines/hsc/Social-Work-and-Social-Policy/retention-and-attainment-senior (Accessed 26.06.2015)
Disability equality (Higher Education Academy)	Activities to support change and development in universities and colleges, as well as to broker the dissemination of research evidence and learning among HE providers.	https://www.heacademy.ac.uk/workstreams-research/themes/retention-and-success/inclusive-learning-and-teaching/disability (Accessed 26.06.2015)

Institutional level resources

Name of resource (Organisation)	Description	Link
Disparities in Student Attainment (DiSA) project (University of Wolverhampton & Coventry University)	Joint study between the University of Wolverhampton and Coventry University, which explored the gap between the attainment of BME and white students across the two universities.	http://www.wlv.ac.uk/about-us/internal-departments/centre-for-academic-practice/wolverhampton-learning-and-teaching-projects/disparities-in-student-attainment-disa/ (Accessed 26.06.2015)
PReSS (Practical Recipes for Student Success) (University of Derby)	'Recipe book' for tutors to use with students giving activities that are designed to have a positive impact on student attainment (first-in-family HE and BME).	https://uodpress.wordpress.com (Accessed 26.06.2015)
BME Ambassador toolkit (University of Birmingham)	Toolkit resource which includes student perspectives on being BME at the university, ethnicity attainment gap data, guidance on being an	https://intranet.birmingham.ac.uk/collaboration/equality/documents/students/bme-ambassador-toolkit.pdf

	ambassador and how to effect change, tools for engaging with BME students in your school and staff/academics, sources of support/contacts.	(Accessed 26.06.2015)
PedRio inclusive learning and teaching resource centre	This is a resource aimed at teachers in HE with practical guides for inclusive teaching and learning.	https://www.plymouth.ac.uk/your-university/teaching-and-learning/inclusivity/inclusivity-research (Accessed 26.06.2015)

Organisations and Networks

Name of resource (Organisation)	Description	Link
Cochrane UK	UK branch supporting the global work of Cochrane - a global independent network of researchers, professionals, patients, carers and people interested in health.	http://uk.cochrane.org/about-us (Accessed 29.06.2015)
Equality Challenge Unit	Works to further and support equality and diversity for staff and students in HEIs, funded through the UK HE funding bodies and representative organisations. Provides a central resource of advice and guidance for the sector, and supports universities and colleges to build an inclusive culture.	http://www.ecu.ac.uk (Accessed 26.06.2015)
Higher Education Race Action group (HERAG) (Equality Challenge Unit)	HE group looking into race in HE, staff and students.	http://www.ecu.ac.uk/get-involved/equality-networks/higher-education-race-action-group-herag/ (Accessed 26.06.2015)
RAISE Network	Academics, practitioners, advisors and students drawn from the HE sector who are interested in researching and promoting student engagement.	http://raise-network.ning.com (Accessed 26.06.2015)
NUS Black students Campaign	Campaign focusing on equality in education, black representation, anti-racism and anti-fascism and international peace and justice.	http://www.nus.org.uk/en/who-we-are/how-we-work/black-students/ (Accessed 26.06.2015)
Society for Research into Higher Education, Widening Participation network	An academic and practitioner network offering dissemination and networking opportunities regarding widening access to and experiences within HE.	https://www.srhe.ac.uk/networks/access_and_widening_participation.asp (Accessed 26.06.2015)
Network for Evaluating & Researching University Participation Interventions	HE practitioners and academics interested in enhancing the evidence-base of interventions pre-and during university.	Email: NERUPI@jiscmail.ac.uk (no website resource)

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